

# GUN & SHELL FACTORY COSSIPORE KOLKATA-700 002

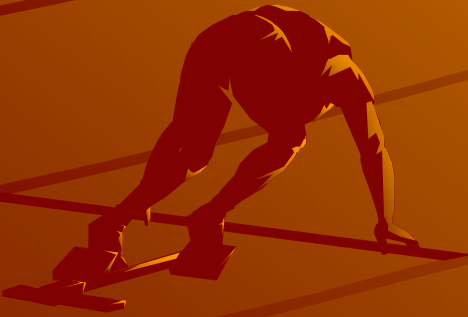


◆ THESE DRAWINGS ARE EXCLUSIVE PROPERTY OF THE GENERAL MANAGER GUN AND SHELL FACTORY

◆ NO PART OF IT SHOULD BE COPIED , TRANSMITTED OR REPRODUCED WITHOUT HIS PRIOR PERMISSION

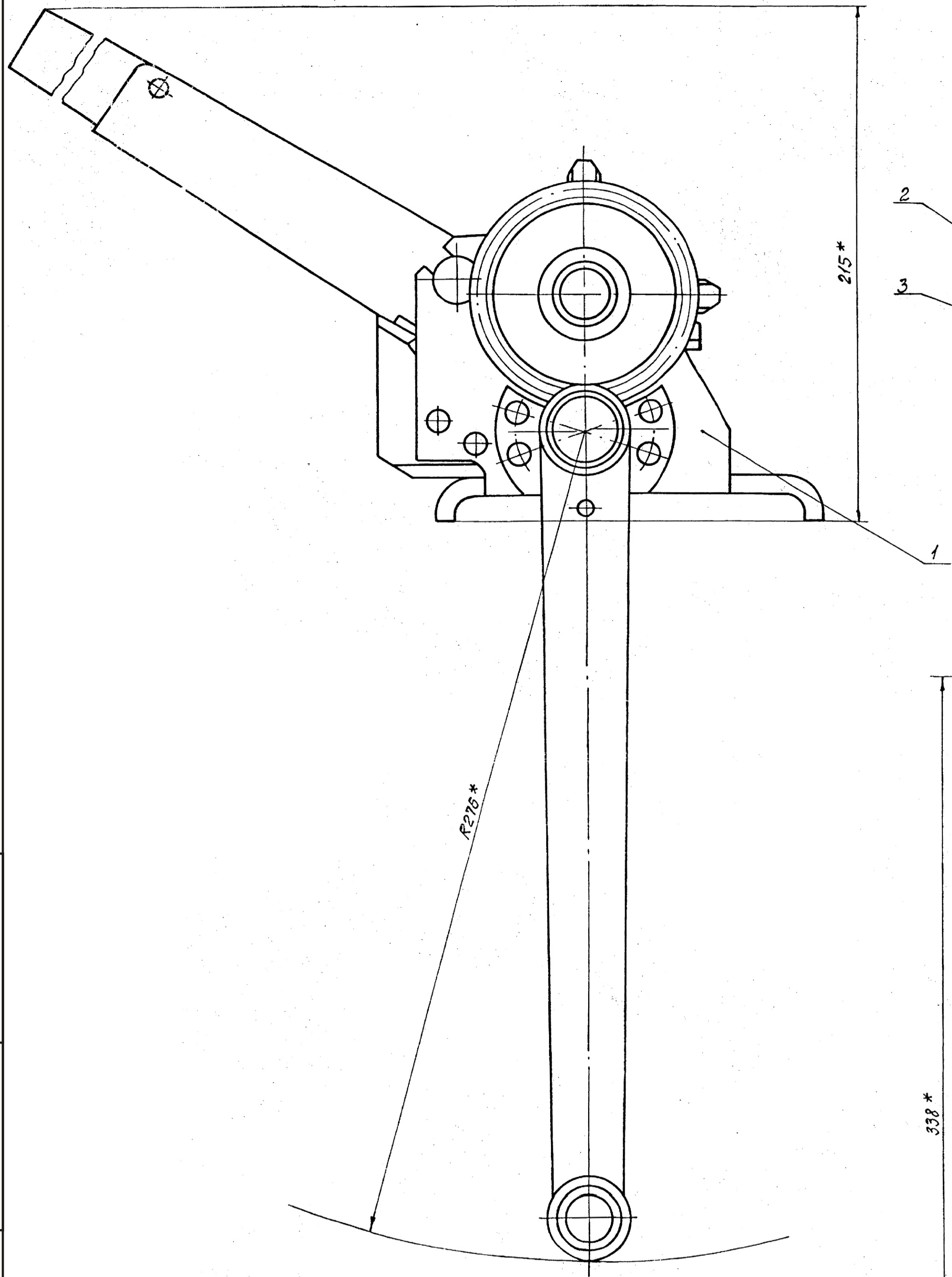
◆ THE CD SHOULD BE RETURNED TO THE GENERAL MANAGER GUN AND SHELL FACTORY AFTER USE

# BELT FILLING UNIT

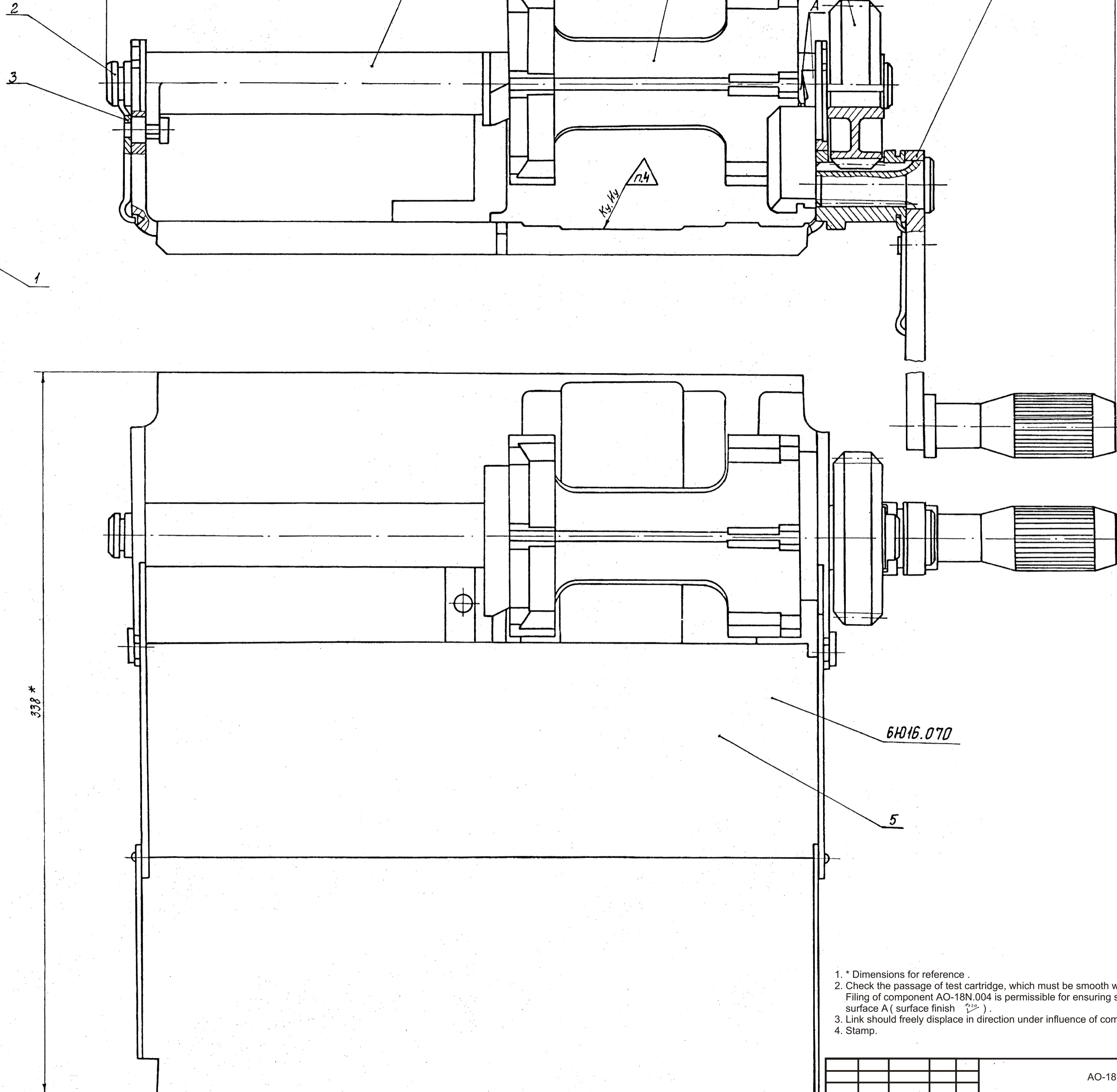


| Format                             | Zone | Position | Designation     | Nomenclature                      | Qty. | Remarks |        |
|------------------------------------|------|----------|-----------------|-----------------------------------|------|---------|--------|
|                                    |      |          |                 |                                   |      |         |        |
| First use                          |      |          |                 |                                   |      |         |        |
|                                    |      |          |                 |                                   |      |         |        |
|                                    |      |          |                 | <u>Documents</u>                  |      |         |        |
| A1                                 |      |          | AO-18N.000 SB   | Assembly drawing                  |      |         |        |
| Reference No.                      |      |          |                 |                                   |      |         |        |
| A4                                 |      |          | AO-18N.000 TU   | Specifications                    |      |         |        |
| A4                                 |      |          | AO-18N.000-01PS | Certificate                       |      |         |        |
|                                    |      |          |                 | <u>Assembly units</u>             |      |         |        |
| A4                                 |      | 1        | AO-18N.010      | Base plate                        | 1    |         |        |
| A4                                 |      | 2        | AO-18N.020      | Shaft                             | 1    |         |        |
| A4                                 |      | 3        | AO-18N.030      | Locator                           | 1    |         |        |
| A4                                 |      | 4        | AO-18N.040      | Handle                            | 1    |         |        |
| A4                                 |      | 5        | 6Yu16.070       | Tray                              | 1    |         |        |
|                                    |      |          |                 | <u>Components</u>                 |      |         |        |
| Sign and Date                      |      |          |                 |                                   |      |         |        |
| A3                                 |      | 6        | AO-18N.014      | Major pinion                      | 1    |         |        |
| A2                                 |      | 7        | AO-18N.015      | Sprocket                          | 1    |         |        |
| A3                                 |      | 8        | AO-18N.016      | Spacing sleeve                    | 1    |         |        |
| Dupl. Inv. No.                     |      |          |                 |                                   |      |         |        |
|                                    |      |          |                 | <u>Set of spare parts</u>         |      |         |        |
| A4                                 |      |          | AO-18N.007      | Key                               | 2    |         |        |
| <u>Set of tool and accessories</u> |      |          |                 |                                   |      |         |        |
| Alternate Inv. No.                 |      |          |                 |                                   |      |         |        |
|                                    |      |          |                 | Knock out 4x100                   | 1    |         |        |
|                                    |      |          |                 | GOST V18655-82                    |      |         |        |
| Sign and Date                      |      |          |                 |                                   |      |         |        |
| <b>AO-18N.000</b>                  |      |          |                 |                                   |      |         |        |
| Amend.                             |      | Sheet    | Doc. No.        | Sign                              | Date |         |        |
| Developed by                       |      |          |                 |                                   |      |         |        |
| Checked by                         |      |          |                 |                                   |      |         |        |
| Head of Q.C.D                      |      |          |                 |                                   |      |         |        |
| Approved by                        |      |          |                 |                                   |      |         |        |
| Orig. Inv. No.                     |      |          |                 | <b>Machine for charging belts</b> | Type | Sheet   | Sheets |
|                                    |      |          |                 |                                   | 02   | 1       | 2      |





Chute Pos. 5 is not indicated  
Лоток поз 5 не показан



1. \* Dimensions for reference .
2. Check the passage of test cartridge, which must be smooth without jam .  
Filing of component AO-18N.004 is permissible for ensuring smooth passage along the surface A ( surface finish  $R_{1.25}$  ) .
3. Link should freely displace in direction under influence of component pos. 7.
4. Stamp.

|                |       |          |      |      |               |          |       |
|----------------|-------|----------|------|------|---------------|----------|-------|
|                |       |          |      |      | AO-18N.000 SB |          |       |
| Amend          | Sheet | Doc. No. | Sign | Date | Type          | Weight   | Scale |
| Developed by   |       |          |      |      | O.            | 6.55     | 1:1   |
| Checked by     |       |          |      |      | Sheet         | Sheets 1 |       |
| Technician     |       |          |      |      |               |          |       |
| Head of bureau |       |          |      |      |               |          |       |
| Head of Q.C.D  |       |          |      |      |               |          |       |
| Approved by    |       |          |      |      |               |          |       |

Machine for loading of belt  
Assembly drawing

|          |             |                    |                    |             |           |               |
|----------|-------------|--------------------|--------------------|-------------|-----------|---------------|
| Inv. No. | Sign & Date | Alternate Inv. No. | Duplicate Inv. No. | Sign & Date | Refer No. | First remarks |
|          |             |                    |                    |             |           |               |

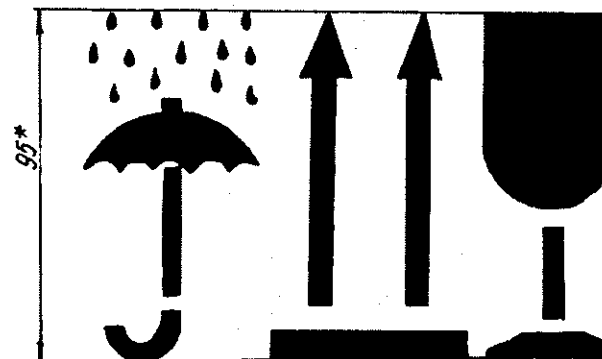


420\*

231,2\*

ЯЩИК №  
 СНАРЯЖАТЕЛЬНАЯ МАШИНКА  
 АО-18Н

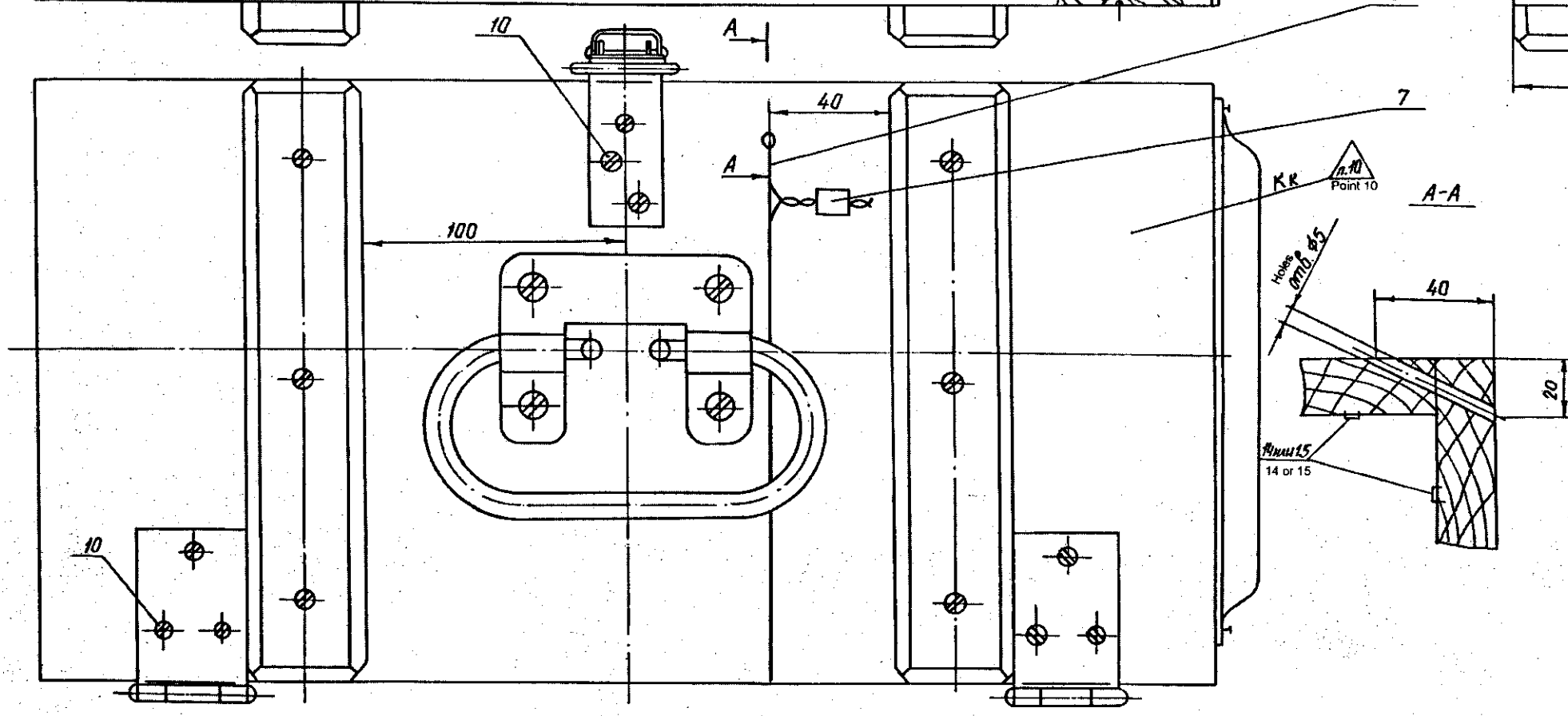
Box No.  
 Belt Filler AO - 18N



ЯЩИК №  
 АО-18Н №  
 КИЗД.

Box No.  
 AO - 18N №

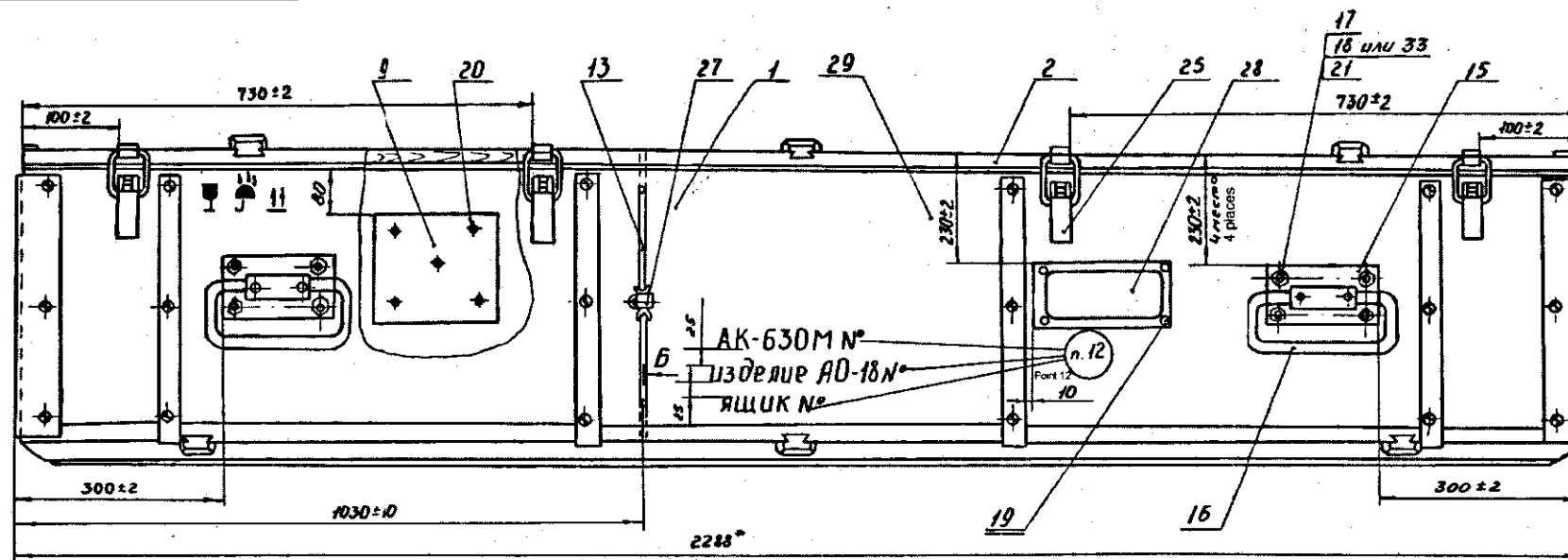
First remarks  
 No.  
 Sign & Date  
 Duplicate Inv. No.  
 Altermade Inv. No.  
 Inv. No.



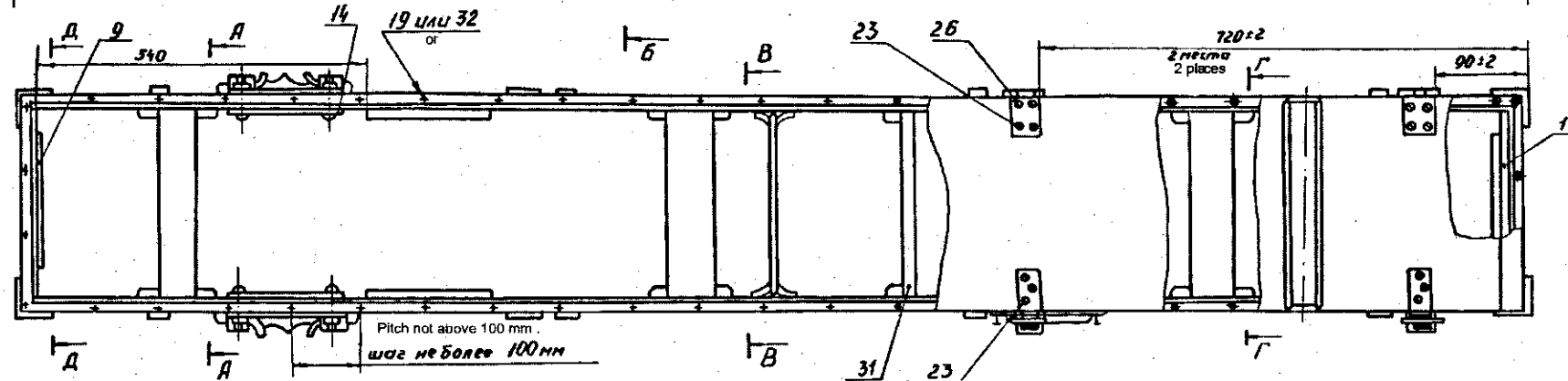
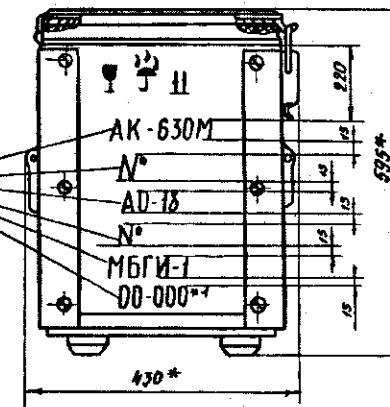
Refer sheets 2,3 for specifications.

|                      |       |          |      |                    |        |       |
|----------------------|-------|----------|------|--------------------|--------|-------|
| Ya - AO-18N.000 SB   |       |          |      | Type               | Weight | Scale |
| Amend                | Sheet | Doc. No. | Sign | Date               | 0,     | 5,600 |
| Box Assembly drawing |       |          |      | Sheet 1   Sheets 3 |        |       |
| Developed by         |       |          |      |                    |        |       |
| Checked by           |       |          |      |                    |        |       |
| Technician           |       |          |      |                    |        |       |
| Head of bureau       |       |          |      |                    |        |       |
| Head of G.C.D        |       |          |      |                    |        |       |
| Approved by          |       |          |      |                    |        |       |

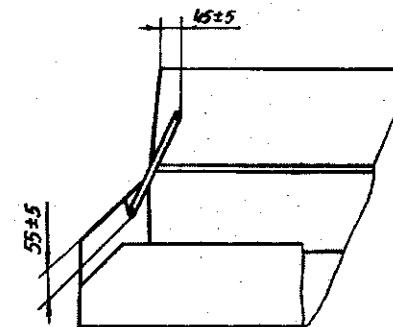




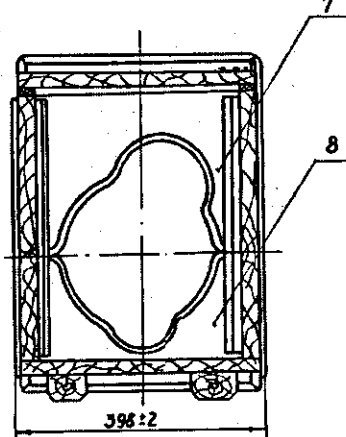
п.11  
Point 11



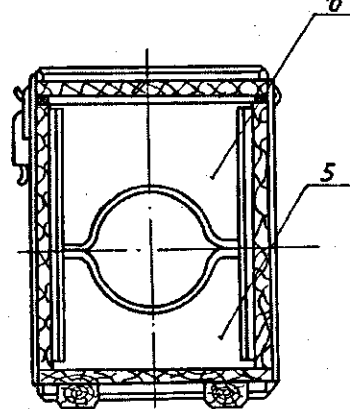
Sketch of belt tightening  
Схема крепления ремня



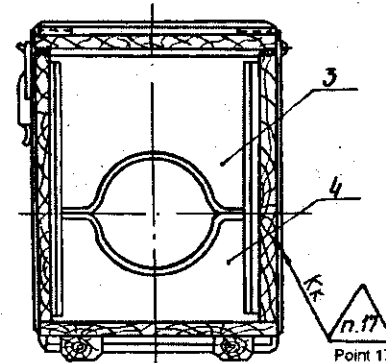
Тум  
A-A повернуто



Тум  
B-B повернуто

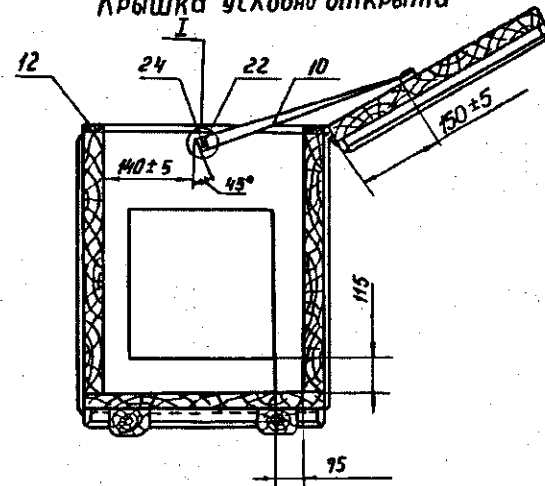


Тум  
Г-Г повернуто

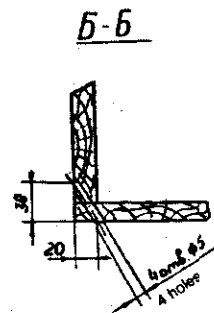
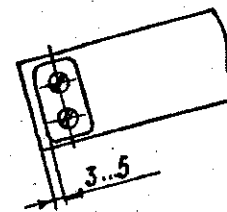


Д-Д повернуто  
Cover conventionally open.

Крышка условно открыта



Г  
М1:1



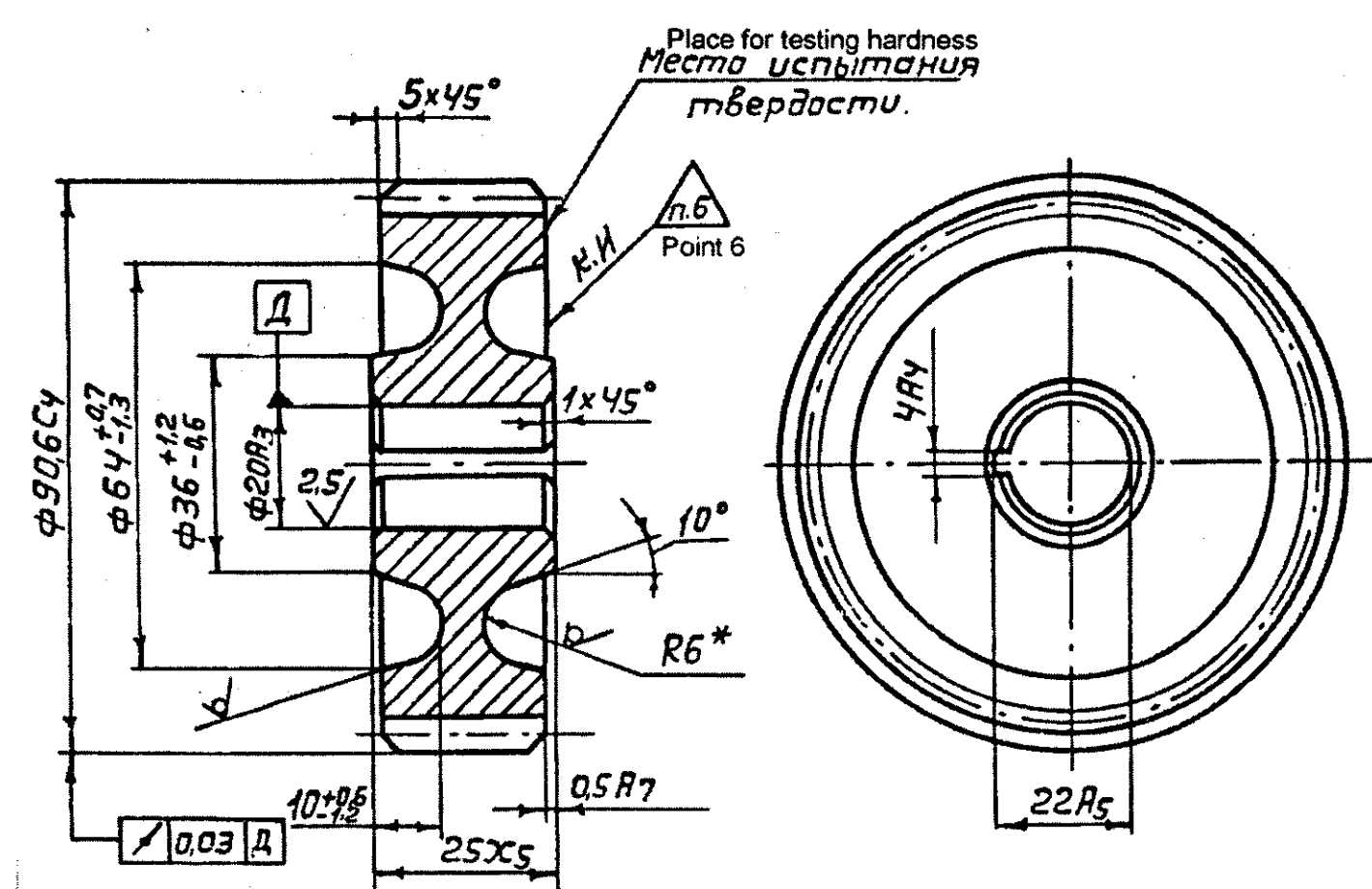
Refer sheets 2,3 for specification.

| YA - AO-18.000 SB            |       |          |      |      |          |
|------------------------------|-------|----------|------|------|----------|
| Amend                        | Sheet | Doc. No. | Sign | Date | Scale    |
|                              |       |          |      |      | 1:5      |
| Packing box Assembly drawing |       |          |      |      | Type     |
|                              |       |          |      |      | Weight   |
|                              |       |          |      |      | 86.0     |
|                              |       |          |      |      | Scale    |
|                              |       |          |      |      | 1:5      |
|                              |       |          |      |      | Sheet 1  |
|                              |       |          |      |      | Sheets 3 |

R<sub>z20</sub>  
 ✓ (✓)

First use

Reference No.



- 1.\* Dimension ensured by tool.
- 2. 38.5...45.5 HRC<sub>E</sub>.
- 3.Inner angles R~0.4 mm.
- 4.Blunt edges R~0.6 mm.
- 5.Coating: Chem.phos./impregnation with lacquer BT-987 black. GOST 6244-70, single layer VK<sub>4</sub>.
- 6.Stamp.

Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.

|   |   |   |
|---|---|---|
| Module                                    | m | 2   |
| No. of teeth                              | Z | 44  |
| Tangent basic rack                        | - | GOST 13755-68                               |
| Addendum modification coefficient         | X | 0.35  |
| Accuracy grade as per GOST 1643-81        | - | 8-V   |
| Base tangent length                       | W | 33.226 <sup>-0.1104</sup> <sub>-0.210</sub> |
| Tooth depth                               | h | 4.5   |
| Reference diameter                        | d | 88  |
| Designation of drawing of adjoining wheel | - | AO-18N.012                                  |

|               |       |         |      |      |                            |                |          |       |
|---------------|-------|---------|------|------|----------------------------|----------------|----------|-------|
|               |       |         |      |      | AO - 18N.014               |                |          |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Major Pinion               | Type           | Weight   | Scale |
| Developed by  |       |         |      |      |                            | O <sub>2</sub> | 0.8      | 1:1   |
| Checked by    |       |         |      |      |                            |                |          |       |
| Head of Q.C.D |       |         |      |      | Sheet                      |                | Sheets 1 |       |
| Approved by   |       |         |      |      | Steel 40Kh<br>GOST 4543-71 |                |          |       |

First use

Reference No.

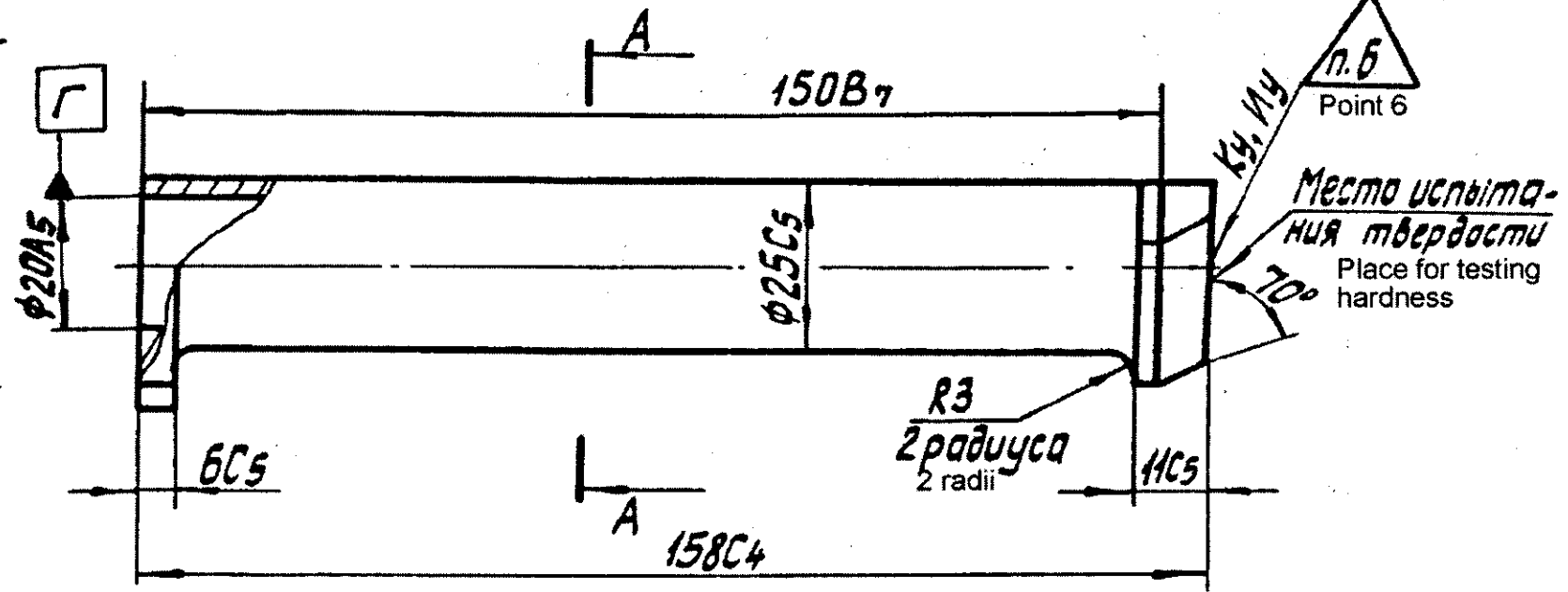
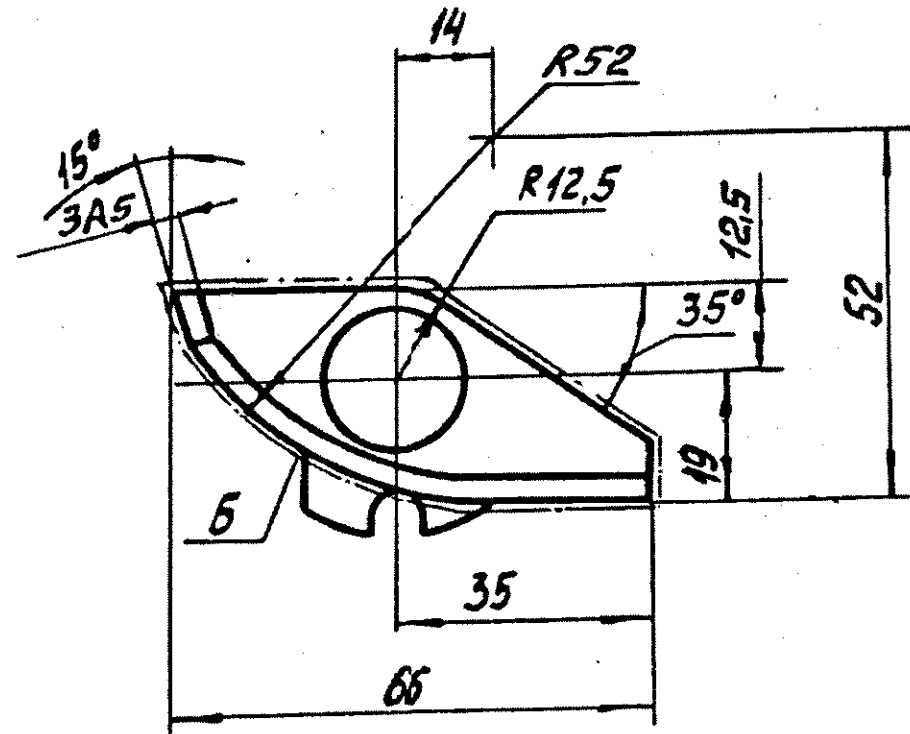
Sign and Date

Duplicate Inv. No

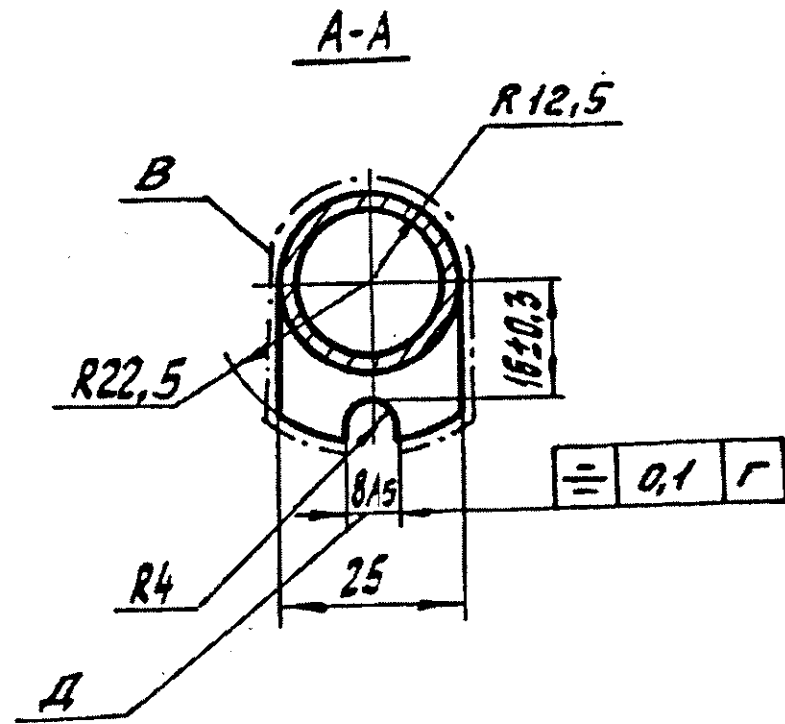
Alternate Inv. No

Sign and Date

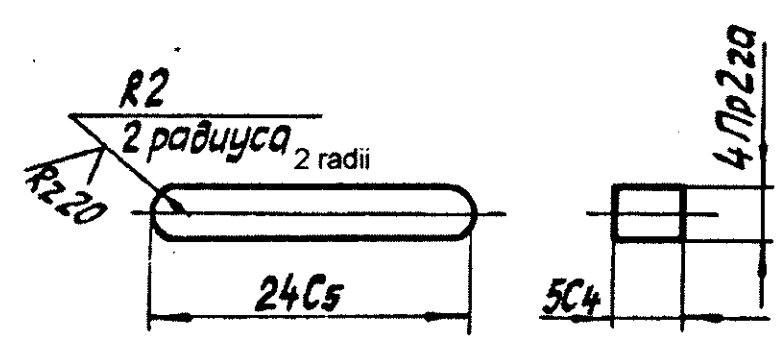
Orig. inv. no.



1. Substitute material: steel 50A GOST 5160-70.
2. HRC<sub>E</sub> 38.5..43.5.
3. Tolerance of contours Б, В not more than 0.3 with respect to surfaces Д and Г.
4. Blunt edges R~0.6 mm.
5. Chem.phos./impregnation with lacquer BT-987 black. GOST 6244-70, single layer VЖ<sub>4</sub>.
6. Stamp.



|               |       |         |      |      | AO - 18N.016              |       |                |          |
|---------------|-------|---------|------|------|---------------------------|-------|----------------|----------|
| Amend.        | Sheet | Doc.No. | Sign | Date | Spacer bush               | Type  | Weight         | Scale    |
|               |       |         |      |      |                           |       | O <sub>2</sub> | 0.28     |
| Developed by  |       |         |      |      | Steel 40X<br>GOST 4543-71 | Sheet |                | Sheets 1 |
| Checked by    |       |         |      |      |                           |       |                |          |
| Head of Q.C.D |       |         |      |      |                           |       |                |          |
| Approved by   |       |         |      |      |                           |       |                |          |

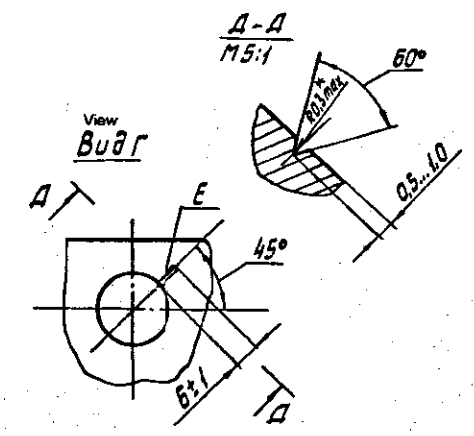
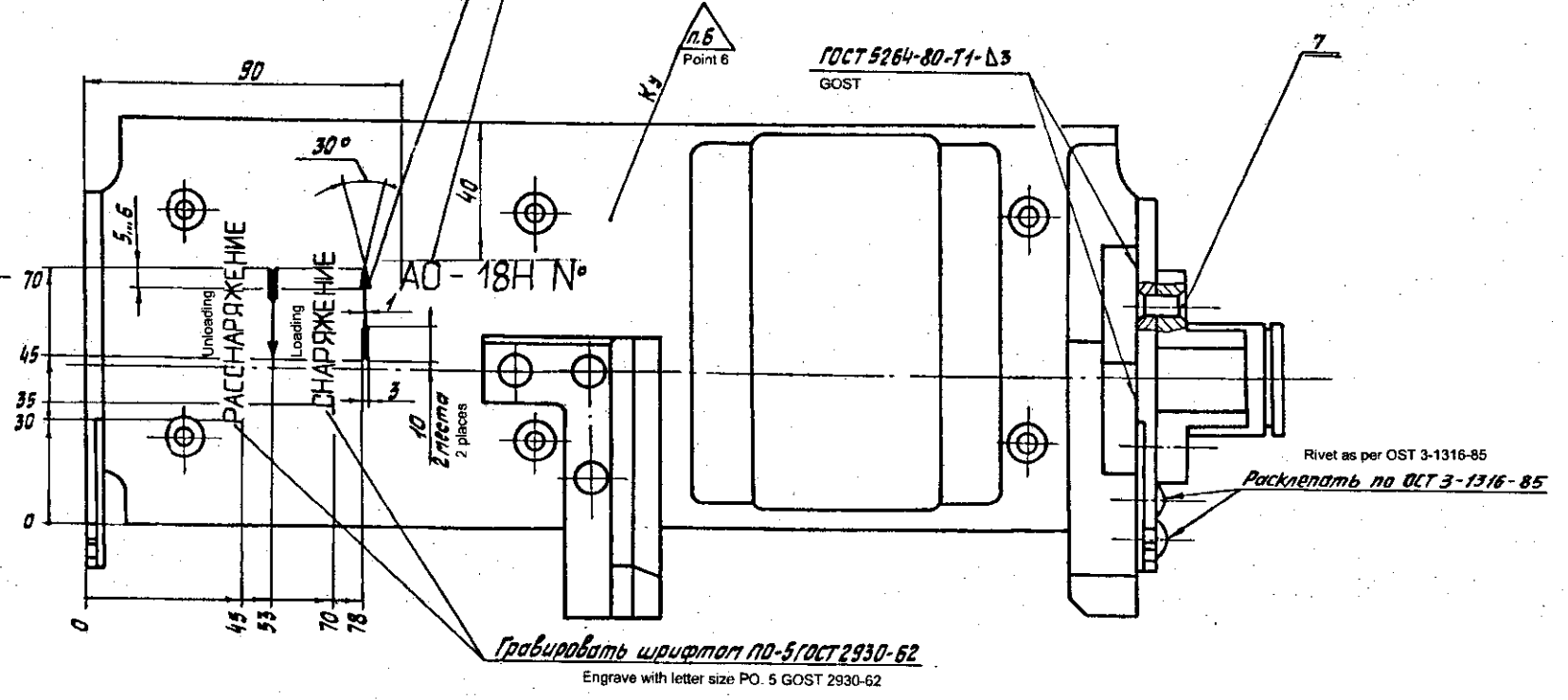
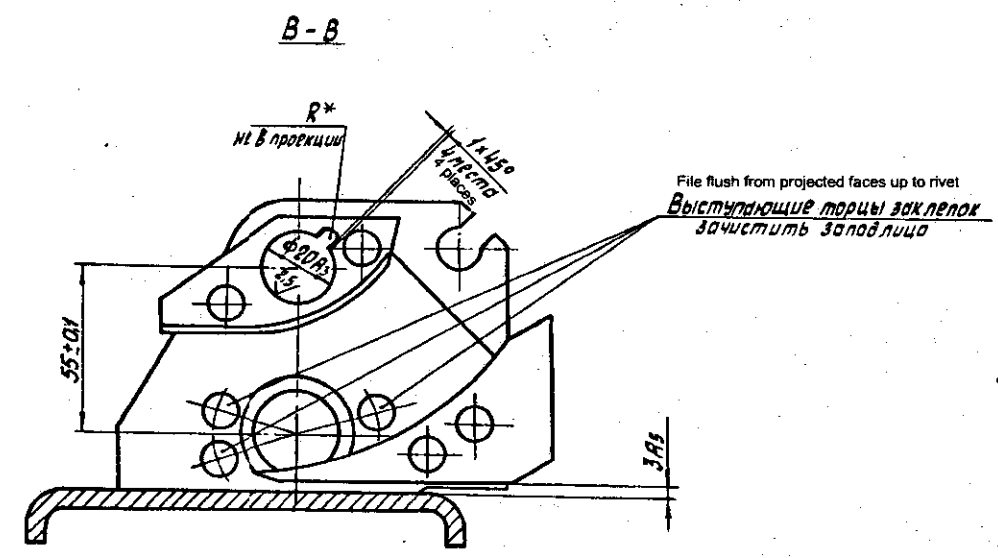
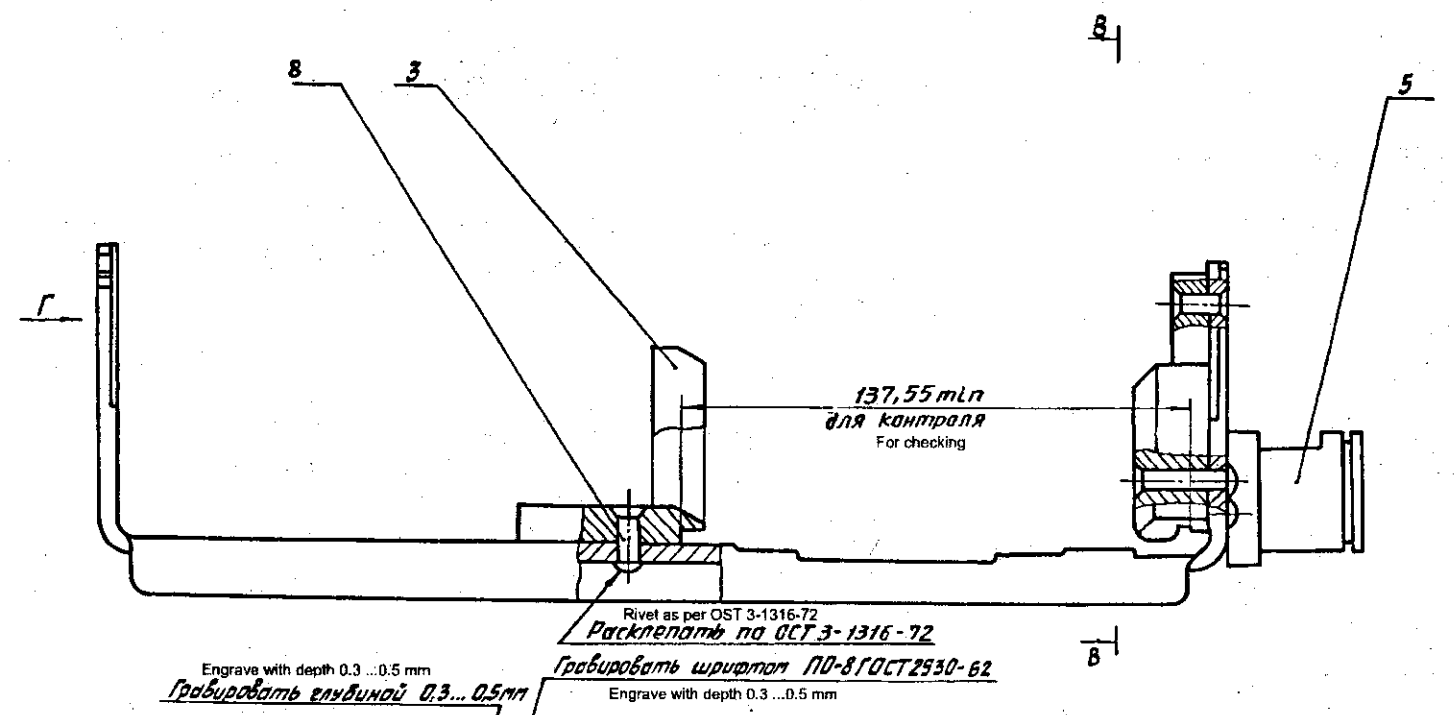
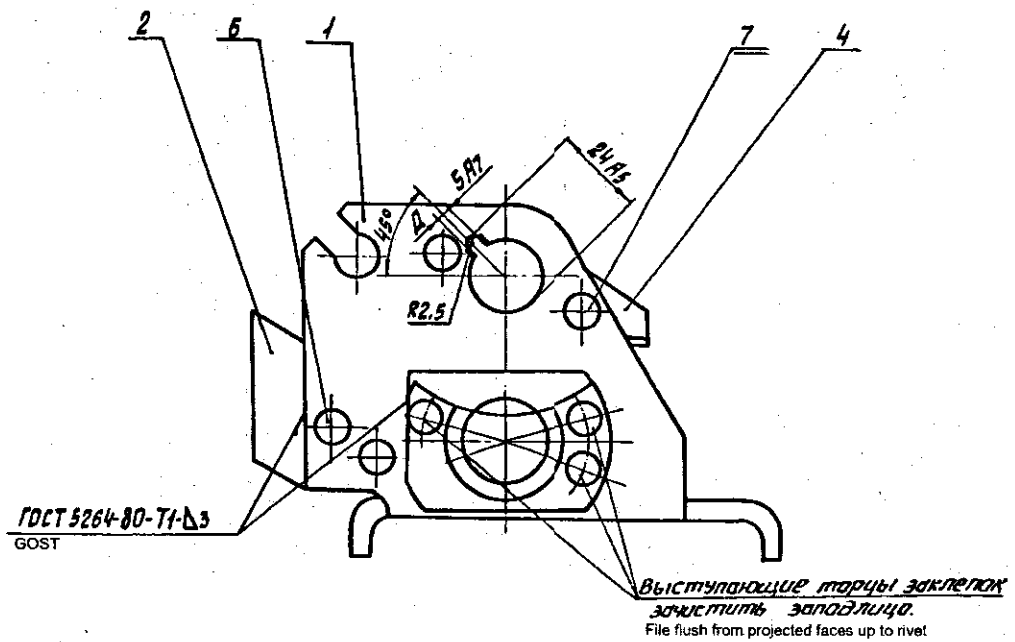
|  |                |                  |                    |               |                |
|--|----------------|------------------|--------------------|---------------|----------------|
| <b>AO-18N.007</b>  |                |                  |                    |               |                |
| Approved OGMet   | Orig. Inv. No. | Sign and Date    | Alternate Inv. No. | Approved Tosb | Dupl. Inv. No. |
| Approved KTONI   | Sign and Date  | Approved by shop | Reference No.      | First use     |                |
|    |                |                  |                    |               |                |
| <p>1.HRC<sub>E</sub> 43.5...51.5<br/>                 2.Check hardness on 3..5% of the batch, but not less than 3 nos.<br/>                 3.Blunt edges R~0.3 mm.<br/>                 4. Coating: Chem.phos./impregnation with lacquer BT-987 Black GOST 6244-70.Single coat.VЖ<sub>4</sub>.<br/>                 5. Stamp K, И on batch tag.</p> |                |                  |                    |               |                |
| <b>AO-18N.007</b>  |                |                  |                    |               |                |
|  |                |                  |                    |               | Type           |
|  |                |                  |                    |               | Weight         |
|  |                |                  |                    |               | Scale          |
| <b>Key</b>   |                |                  |                    |               | O <sub>2</sub> |
|  |                |                  |                    |               | <b>0.007</b>   |
|  |                |                  |                    |               | <b>2:1</b>     |
|  |                |                  |                    |               | Sheet          |
|  |                |                  |                    |               | Sheets 1       |
| Steel 30KhN2MFA<br>OST 3-98-80   |                |                  |                    |               |                |

1,25 ✓ (✓)

Copied by

Format A4

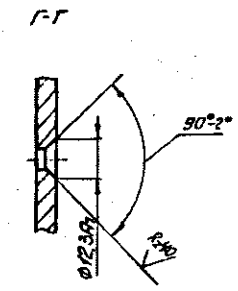
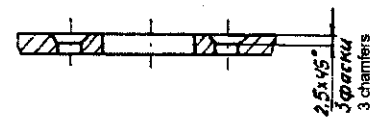
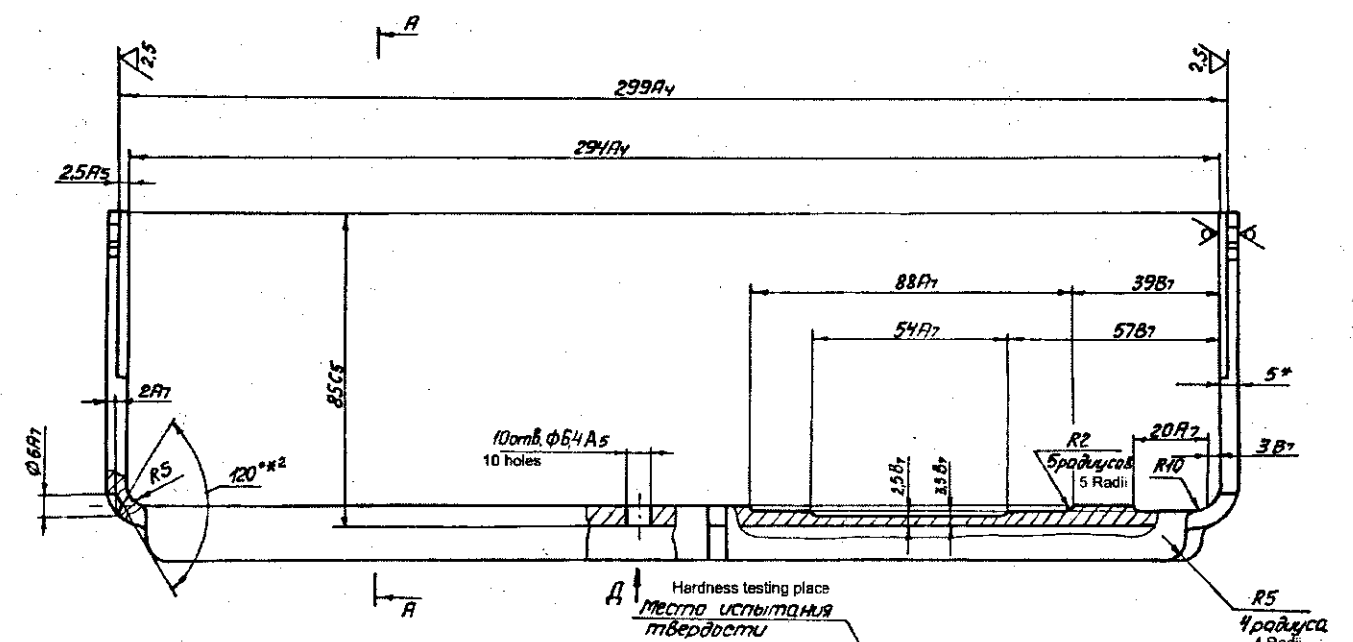
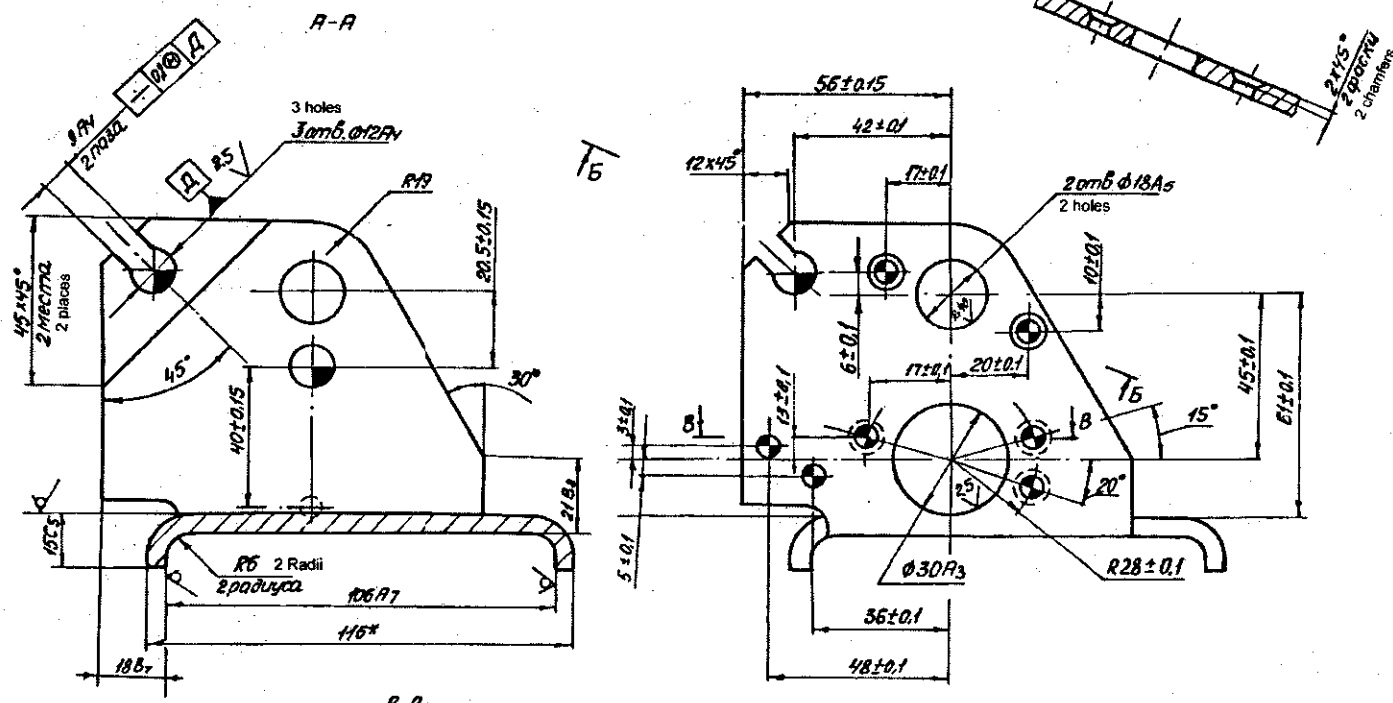
| First use          | Format       | Zone  | Position | Designation   | Nomenclature                               | Qty.              | Remarks |        |
|--------------------|--------------|-------|----------|---------------|--|-------------------|---------|--------|
|                    |              |       |          |               |  | <u>Documents</u>  |         |        |
|                    | A1           | /     |          | AO-18N.010 SB | Assembly drawing                           |                   |         |        |
| Reference No.      |              |       |          |               | <u>Components</u>                          |                   |         |        |
|                    | A1           | /     | 1        | AO-18N.001    | Base plate                                 | 1                 |         |        |
|                    | A3           | /     | 2        | AO-18N.002    | Rear stop                                  | 1                 |         |        |
|                    | A3           | /     | 3        | AO-18N.003    | Front stop                                 | 1                 |         |        |
|                    | A3           | /     | 4        | AO-18N.004    | Stopper                                    | 1                 |         |        |
|                    | A3           | /     | 5        | AO-18N.005    | Bush                                       | 1                 |         |        |
|                    |              |       |          |               | <u>Standard articles</u>                   |                   |         |        |
| Sign and Date      |              |       | 6        |               | Rivet                                      | 2                 |         |        |
|                    |              |       |          |               | 6x34.03.15.Chem.phos.Oil.<br>GOST 10300-80 |                   |         |        |
| Dupl. Inv. No.     |              |       | 7        |               | Rivet                                      | 5                 |         |        |
|                    |              |       |          |               | 6x22.03.15.Chem.phos.Oil.<br>GOST 10300-80 |                   |         |        |
| Alternate Inv. No. |              |       | 8        |               | Rivet                                      | 3                 |         |        |
|                    |              |       |          |               | 6x22.03.15.Chem.phos.Oil.<br>GOST 10300-80 |                   |         |        |
| Sign and Date      |              |       |          |               |  | <b>AO-18N.010</b> |         |        |
|                    | Amend.       | Sheet | Doc. No. | Sign          | Date                                       |                   |         |        |
| Orig. Inv. No.     | Developed by |       |          |               |  | Type              | Sheet   | Sheets |
|                    | Checked by   |       |          |               |  | 02                |         | 1      |
| Head of Q.C.D      |              |       |          |               | <b>Base plate</b>                          |                   |         |        |
| Approved by        |              |       |          |               |  |                   |         |        |



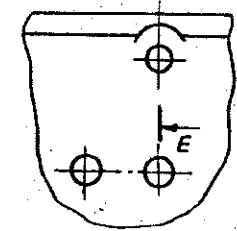
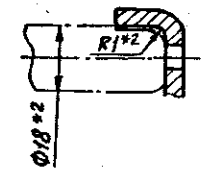
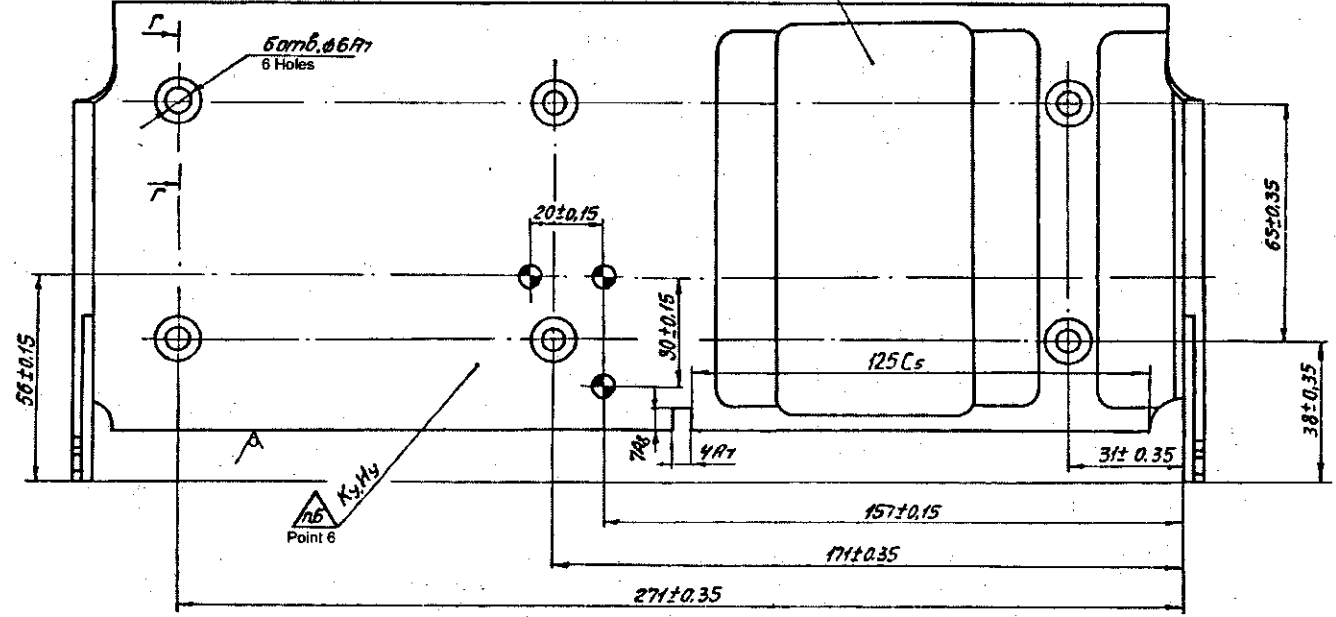
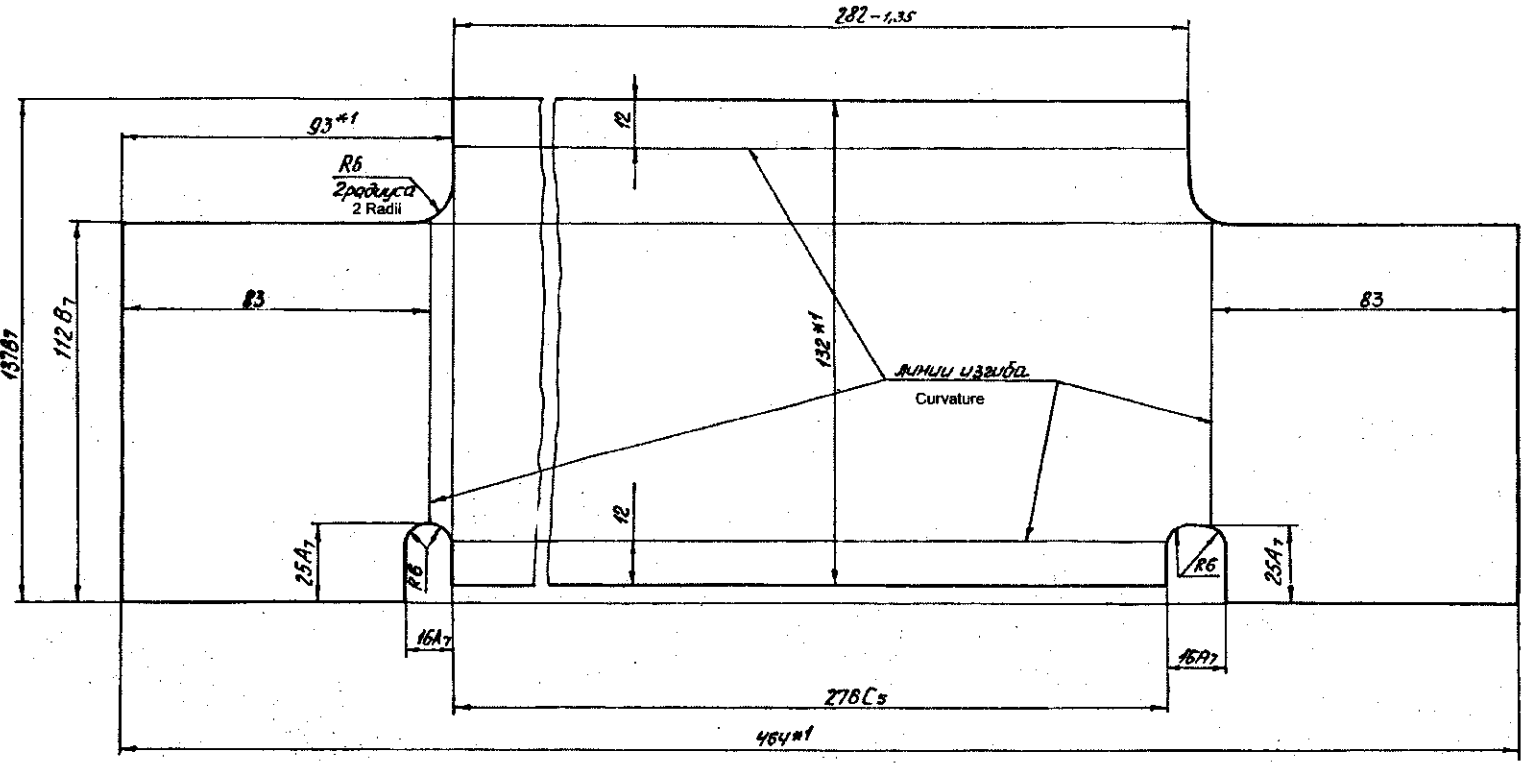
1. \* Dimensions are ensured by tool.
2. Carry out welding with electrode NIAT-5-20-2 GOST 9486-75.
3. Welding seams category II. Check the welding seams by visual inspections - 100% as per OST 3-4001-81.
4. Coating: Chem. Phos / Oil. Varnish BT-987, black GOST 6244-70, 1 layer VЖ4.
5. Fill inscription, arrow, mark E with enamel PF-115 white GOST 6465-76.
6. Stamp.

|                |          |      |      |                                |       |          |
|----------------|----------|------|------|--------------------------------|-------|----------|
|                |          |      |      | АО - 18N.010 SB                |       |          |
| Amend Sheet    | Doc. No. | Sign | Date | Base plate<br>Assembly drawing | Type  | Scale    |
| Developed by   |          |      |      |                                | 01    | 1:1      |
| Checked by     |          |      |      |                                | Sheet | Sheets 1 |
| Technician     |          |      |      |                                |       |          |
| Head of bureau |          |      |      |                                |       |          |
| Head of C.C.D  |          |      |      |                                |       |          |
| Approved by    |          |      |      |                                |       |          |

First remarks  
No.  
Sign & Date  
Duplicate Inv. No.  
Sign & Date  
Alternative Inv. No.  
Sign & Date  
Inv. No.



разработка Development



1. HRSe 34.40.5
2. \* Dimensions for reference.
3. \*\* Dimensions are given by considering the allowance for further machining.
4. \*\* Dimensions are ensured by tool.
5. Coating: Chem. Phos.
6. Stamp.

Inv. No. \_\_\_\_\_  
 Sign & Date \_\_\_\_\_  
 Alternate Inv. No. \_\_\_\_\_  
 Duplicate Inv. No. \_\_\_\_\_  
 Sign & Date \_\_\_\_\_  
 First remarks \_\_\_\_\_

|                |          |      |      |              |   |       |  |
|----------------|----------|------|------|--------------|---|-------|--|
|                |          |      |      | AO - 18N.001 |   |       |  |
| Amend Sheet    | Doc. No. | Sign | Date | Type         | Weight  | Scale |  |
| Developed by   |          |      |      |              | 1.62  | 1:1   |  |
| Checked by     |          |      |      |              |   |       |  |
| Technician     |          |      |      |              |   |       |  |
| Head of bureau |          |      |      |              |   |       |  |
| Head of O.C.D. |          |      |      |              |   |       |  |
| Approved by    |          |      |      | Sheet        | PN-5GOST 19903-74<br>30xGSA-3-a GOST 11268-76 |       |  |
|                |          |      |      | Sheet        | Sheets 1                                      |       |  |

First use

Reference No.

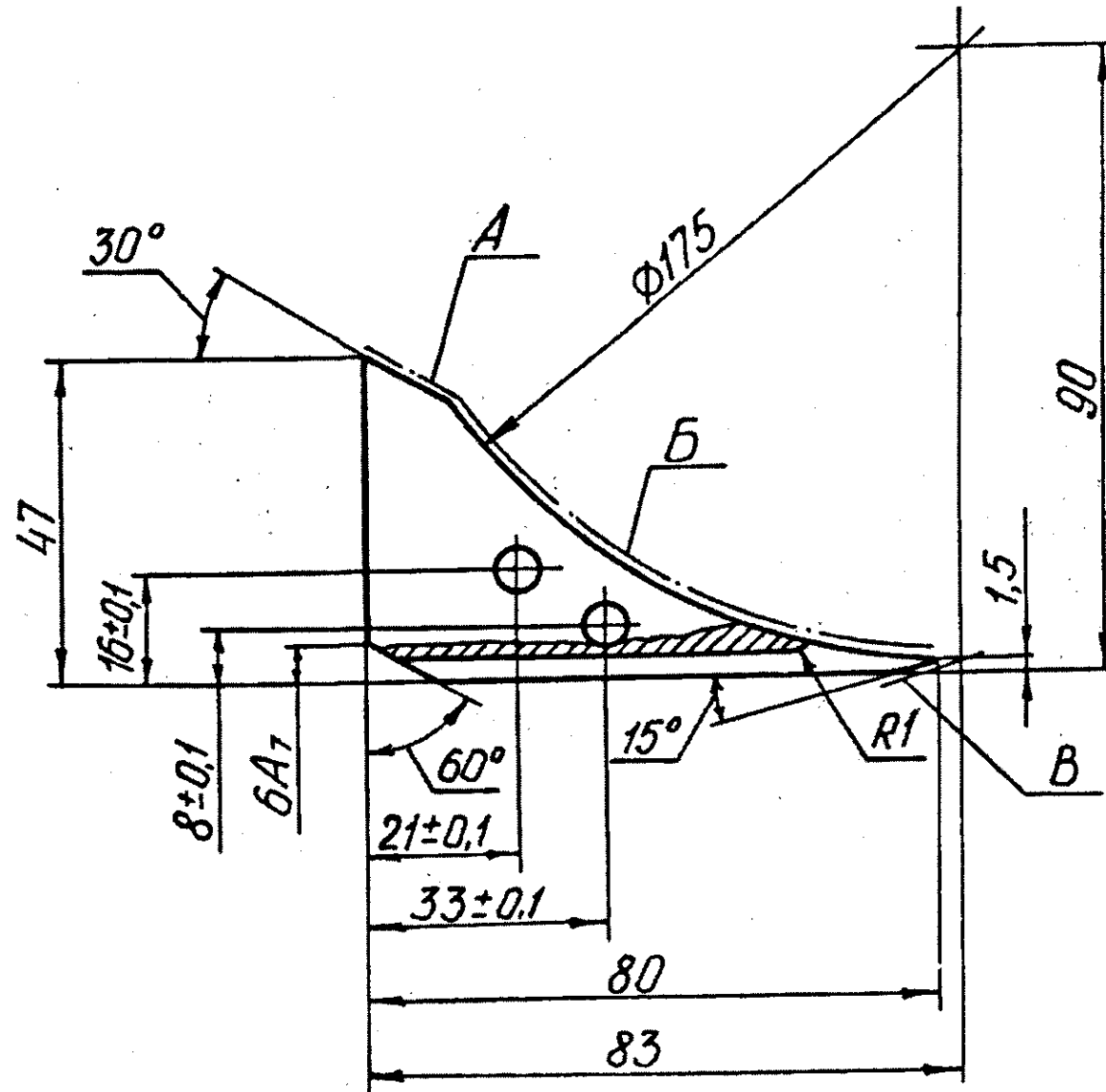
Sign and Date

Duplicate Inv. No.

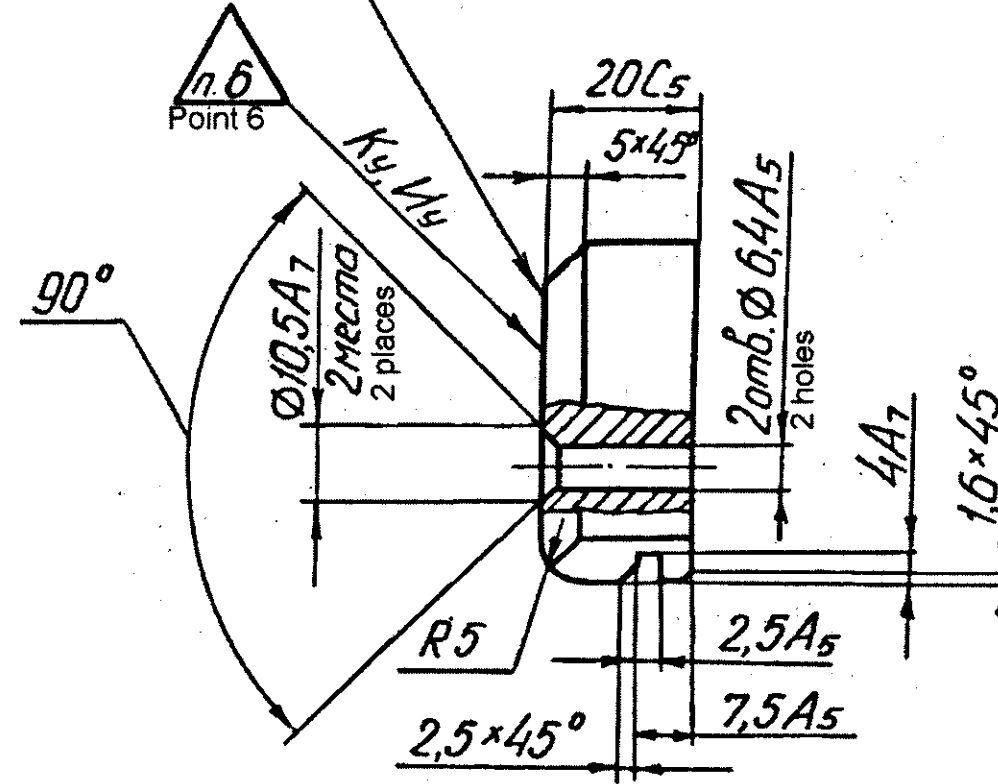
Alternate Inv. No.

Sign and Date

Orig. inv. no.



Place for testing hardness  
Место испытания  
твёрдости



Rz 20/

- 1.HRC<sub>E</sub> 38.5..43.5.
- 2.Blunt edges R~0.5 mm.
3. Tolerance on contour A -0.4 mm.
- 4.Tolerance on contours Б, B-0.2 mm.
- 5.Coating: chem..phos.
- 7.Stamp.

|               |       |         |      |      |                         |  |        |          |       |  |
|---------------|-------|---------|------|------|-------------------------|--|--------|----------|-------|--|
|               |       |         |      |      | AO - 18N.002            |  |        |          |       |  |
|               |       |         |      |      | Rear stop               |  |        |          |       |  |
|               |       |         |      |      | Type                    |  | Weight |          | Scale |  |
|               |       |         |      |      | O <sub>2</sub>          |  | 0.2    |          | 1:1   |  |
|               |       |         |      |      | Sheet                   |  |        | Sheets 1 |       |  |
|               |       |         |      |      | Steel 40Kh GOST 4543-71 |  |        |          |       |  |
| Amend.        | Sheet | Doc.No. | Sign | Date |                         |  |        |          |       |  |
| Developed by  |       |         |      |      |                         |  |        |          |       |  |
| Checked by    |       |         |      |      |                         |  |        |          |       |  |
| Head of Q.C.D |       |         |      |      |                         |  |        |          |       |  |
| Approved by   |       |         |      |      |                         |  |        |          |       |  |



First use

Reference No.

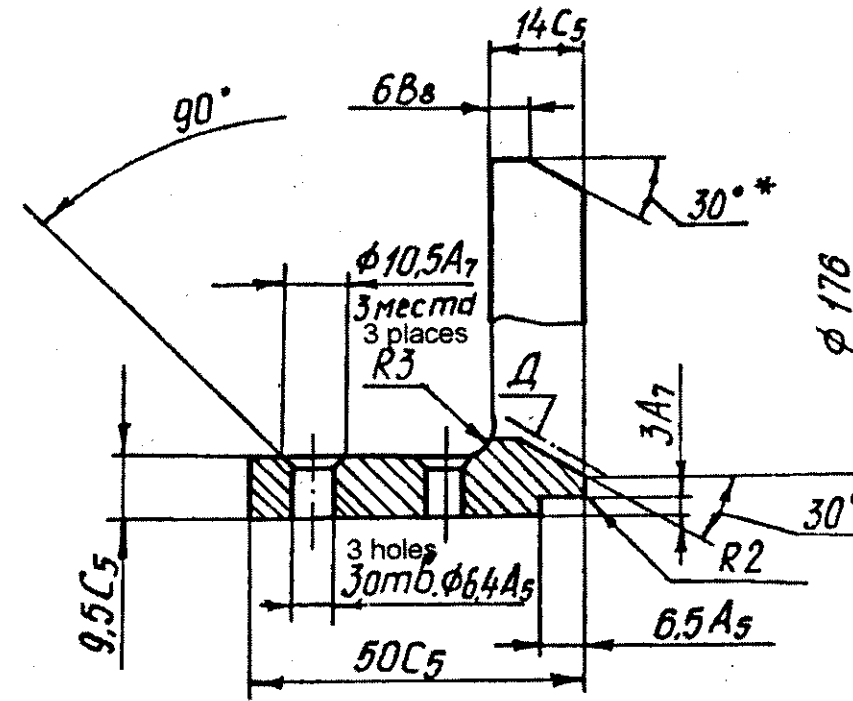
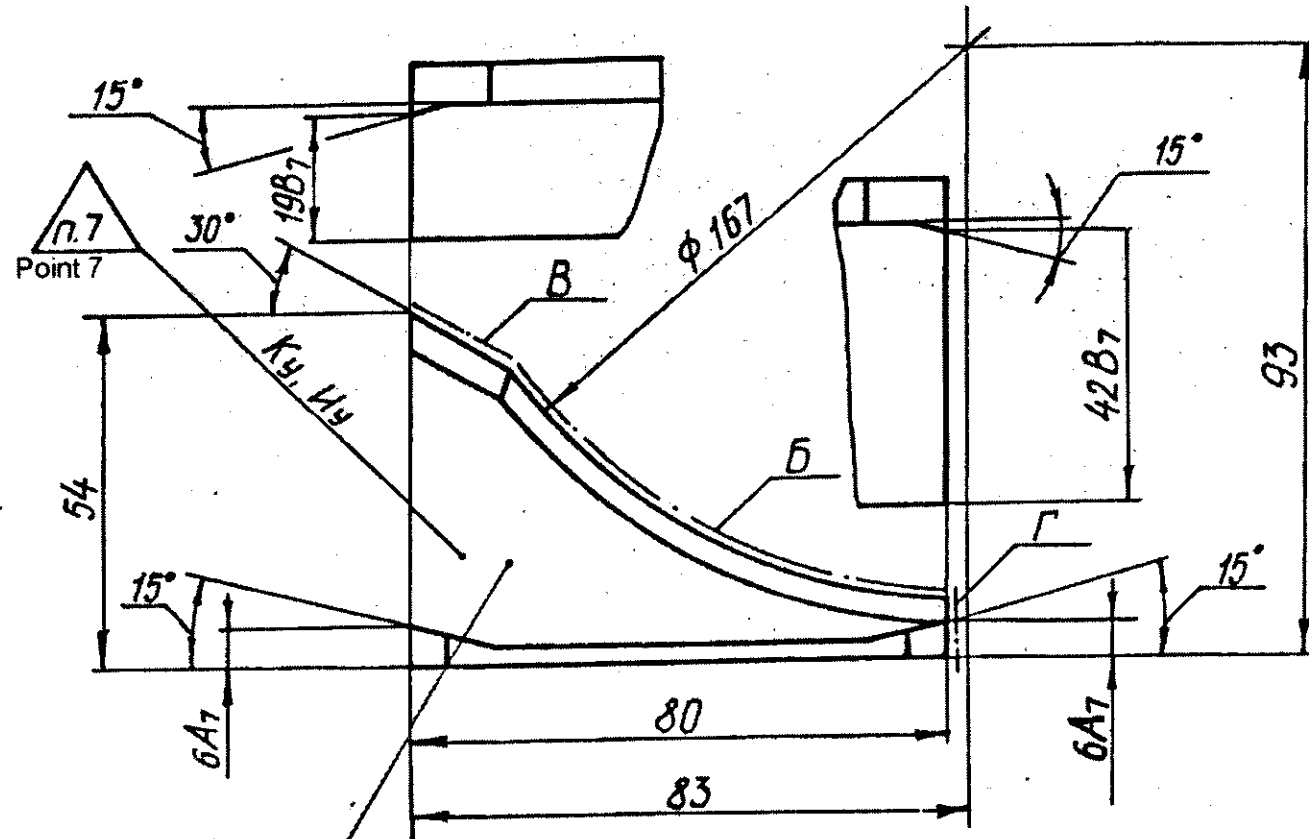
Sign and Date

Duplicate Inv. No

Alternate Inv. No

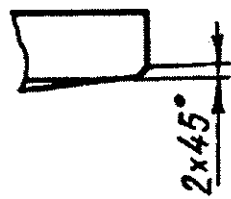
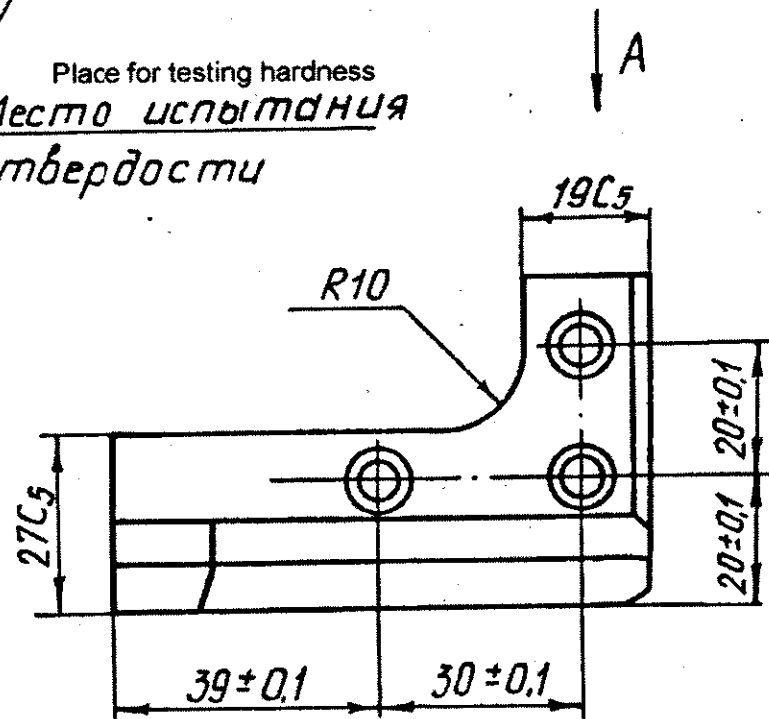
Sign and Date

Orig. inv. no.



Rz20

View A  
Вид А



1. HRC<sub>E</sub> 38.5...43.5.
- 2.\* Dimension not in projection.
3. Blunt edges R~0.6 mm.
4. Tolerance of contour B, Г, Д -0.4 mm.
5. Tolerance of contour B, Г, Д -0.4 mm.
6. Coating: Chem.phos.
7. Stamp.

|               |       |         |      |      |                           |                |          |       |
|---------------|-------|---------|------|------|---------------------------|----------------|----------|-------|
|               |       |         |      |      | AO - 18N.003              |                |          |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Front stop                | Type           | Weight   | Scale |
| Developed by  |       |         |      |      |                           | O <sub>2</sub> | 0.2      | 1:1   |
| Checked by    |       |         |      |      |                           | Sheet          | Sheets 1 |       |
| Head of Q.C.D |       |         |      |      | Steel 40Kh GOST 4543 - 71 |                |          |       |
| Approved by   |       |         |      |      |                           |                |          |       |

First use

Reference No.

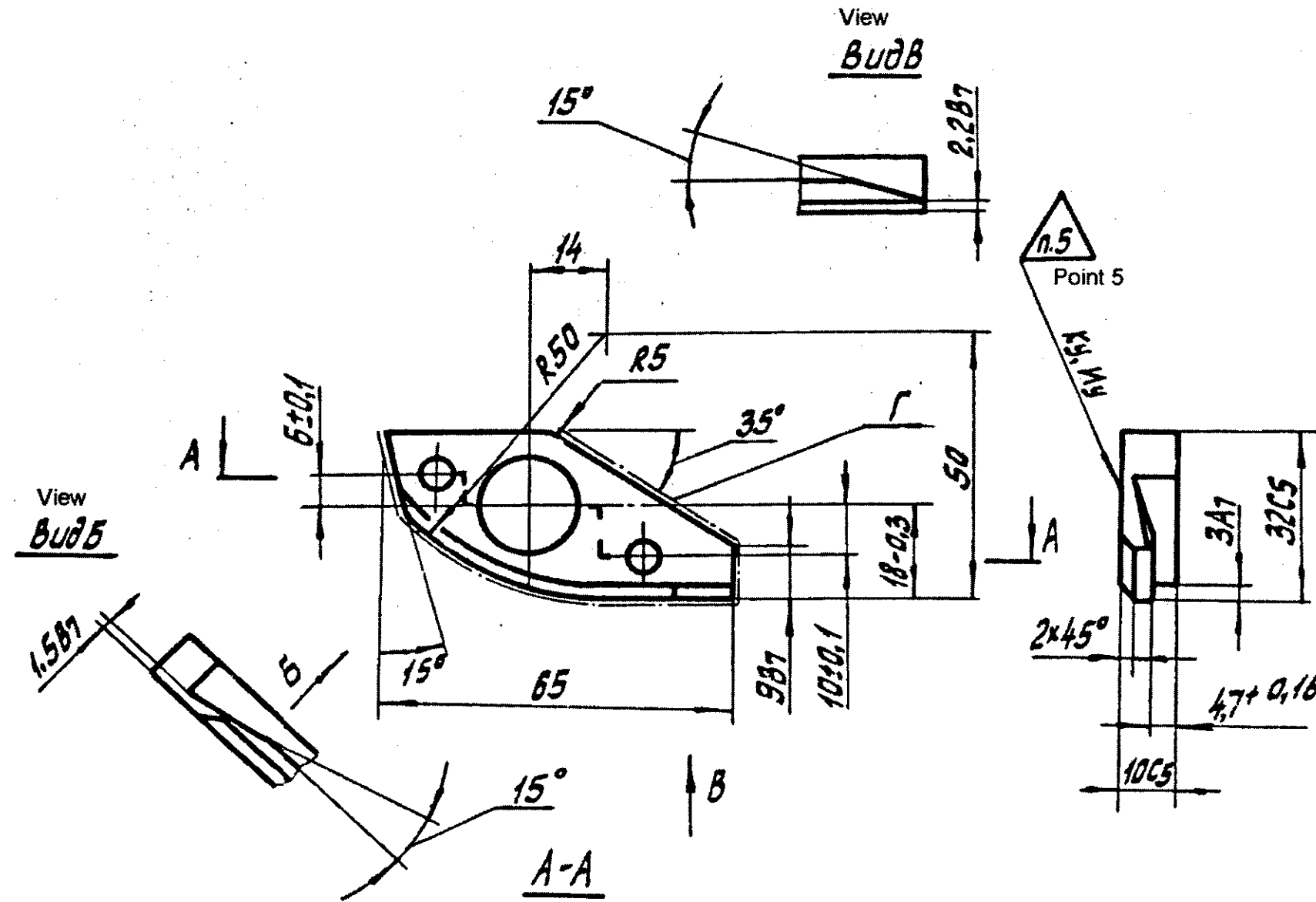
Sign and Date

Duplicate Inv. No

Alternate Inv. No

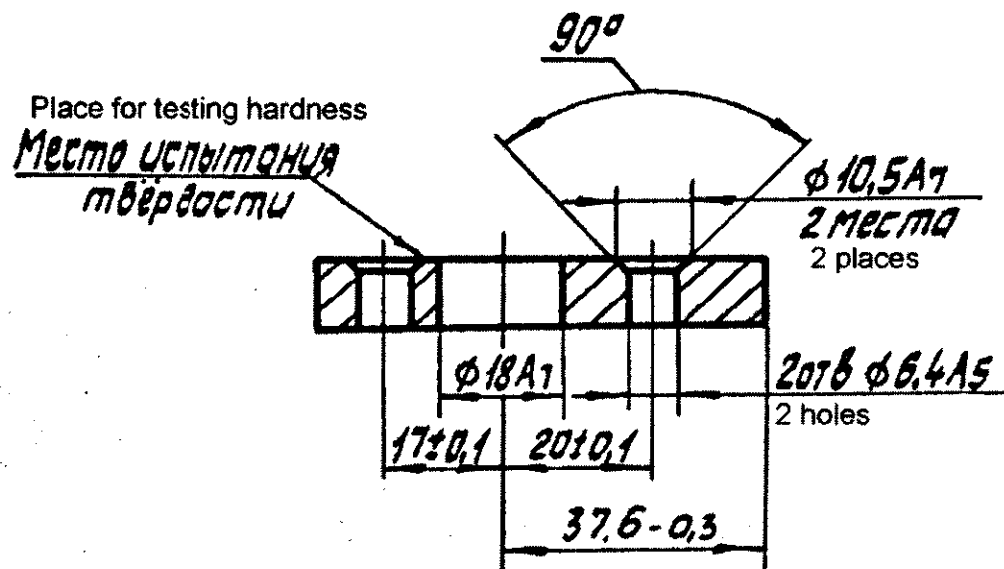
Sign and Date

Orig. inv. no.



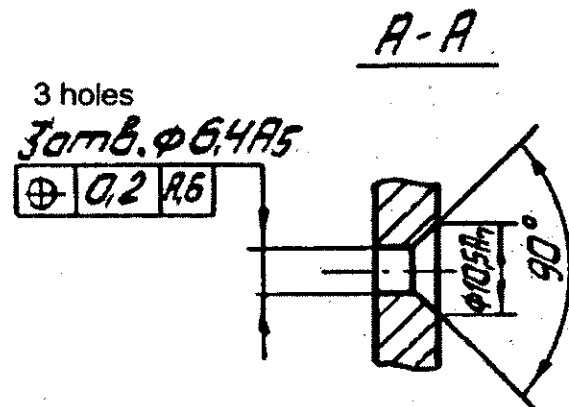
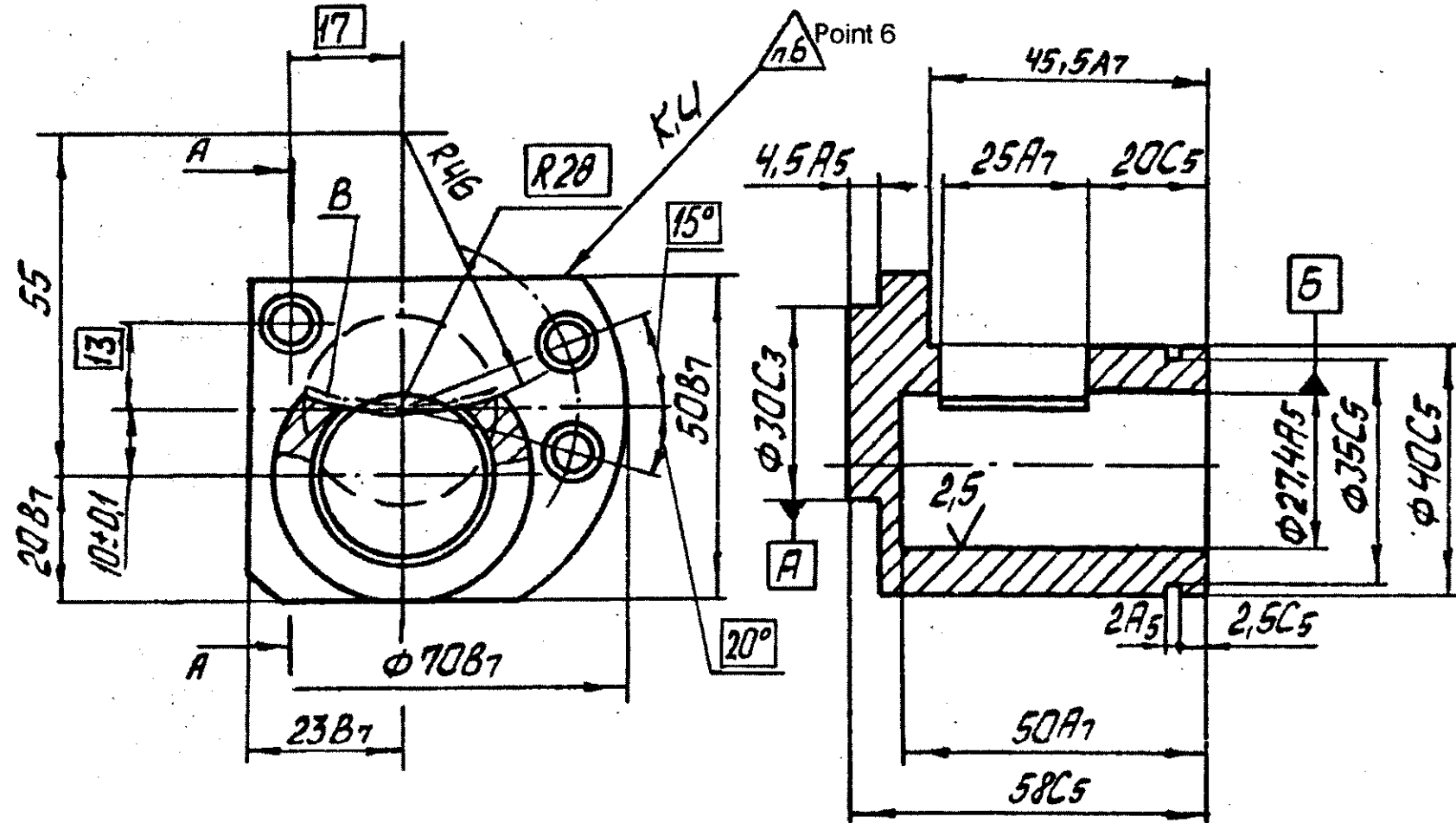
RZ 20

- 1.HRC<sub>E</sub> 38.5..45.5.
2. Blunt edges R~0.6 mm.
- 3.Tolerance of contour Γ-0.3 mm.
- 4.Coating Chem.phos.
- 5.Stamp.
- 6.Substitute material: steel 50A GOST 5160-70.



|               |       |         |      |      |                       |                |          |       |
|---------------|-------|---------|------|------|-----------------------|----------------|----------|-------|
|               |       |         |      |      | AO - 18N.004          |                |          |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Limiter               | Type           | Weight   | Scale |
| Developed by  |       |         |      |      |                       | O <sub>2</sub> | 0.070    | 1:1   |
| Checked by    |       |         |      |      |                       | Sheet          | Sheets 1 |       |
| Head of Q.C.D |       |         |      |      | Steel 50 GOST 1050-74 |                |          |       |
| Approved by   |       |         |      |      |                       |                |          |       |

Rz20 (✓)



1. HRC<sub>E</sub> 38.5..45.5.
2. Blunt edges R~0.6 mm.
3. Inner angles R~0.4 mm.
4. Tolerance of contour B-0.5 mm.
5. Coating Chem.phos.
6. Stamp.

|               |       |         |      |      |                          |                |          |       |
|---------------|-------|---------|------|------|--------------------------|----------------|----------|-------|
|               |       |         |      |      | AO - 18N.005             |                |          |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Bush                     | Type           | Weight   | Scale |
| Developed by  |       |         |      |      |                          | 0 <sub>2</sub> | 0.2      | 1:1   |
| Checked by    |       |         |      |      |                          | Sheet          | Sheets 1 |       |
| Head of Q.C.D |       |         |      |      | Steel 50<br>GOST 1050-74 |                |          |       |
| Approved by   |       |         |      |      |                          |                |          |       |

First use

Reference No.

Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

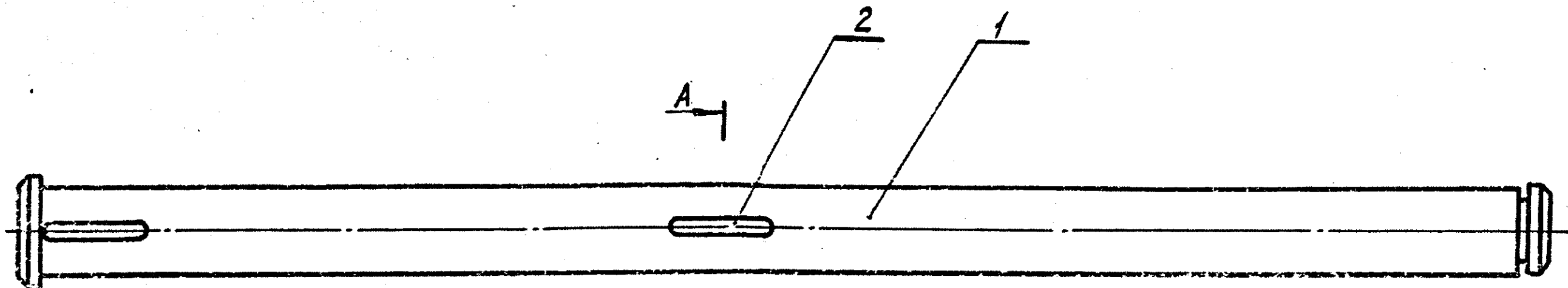
Orig. inv. no.

| Orig. Inv. No.    | Sign and Date | Alternate Inv. No. | Dupl. Inv. No. | Sign and Date | Format            | Zone | Position | Designation   | Nomenclature     | Qty. | Remarks |        |
|-------------------|---------------|--------------------|----------------|---------------|-------------------|------|----------|---------------|------------------|------|---------|--------|
|                   |               |                    |                |               |                   |      |          |               |                  |      |         | Amend. |
|                   |               |                    |                |               | <b>AO-18N.020</b> |      |          |               |                  |      |         |        |
|                   |               |                    |                |               | Developed by      |      |          | Type          |                  |      | Sheet   | Sheets |
|                   |               |                    |                |               | Checked by        |      |          | 02            |                  |      |         | 1      |
|                   |               |                    |                |               | Head of Q.C.D     |      |          | Shaft         |                  |      |         |        |
|                   |               |                    |                |               | Approved by       |      |          |               |                  |      |         |        |
| <b>Documents</b>  |               |                    |                |               |                   |      |          |               |                  |      |         |        |
|                   |               |                    |                |               | A3                |      |          | AO-18N.020 SB | Assembly drawing |      |         |        |
| <b>Components</b> |               |                    |                |               |                   |      |          |               |                  |      |         |        |
|                   |               |                    |                |               | A3                |      | 1        | AO-18N.006    | Shaft            | 1    |         |        |
|                   |               |                    |                |               | A4                |      | 2        | AO-18N.007    | Key              | 2    |         |        |

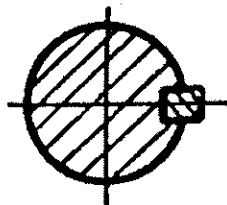
AO - 18N.020 SB

First use

Reference No.



A-A



A

Sign and Date

Duplicate Inv. No

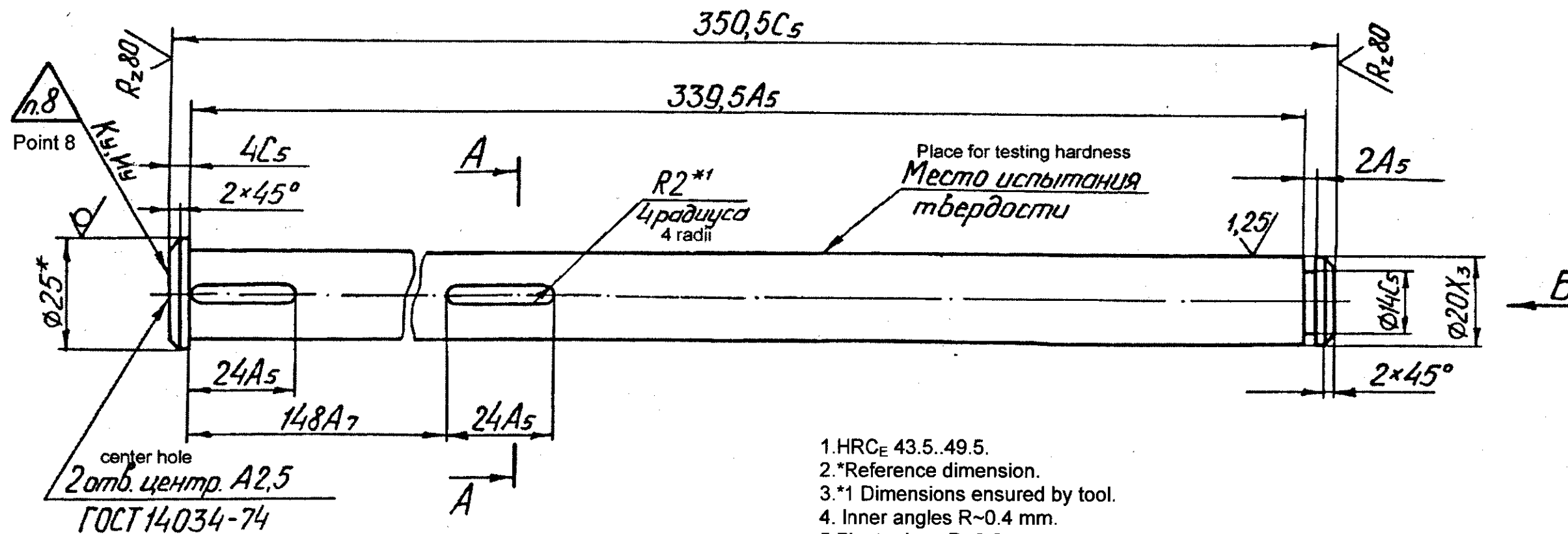
Alternate Inv. No

Sign and Date

Orig. inv. no.

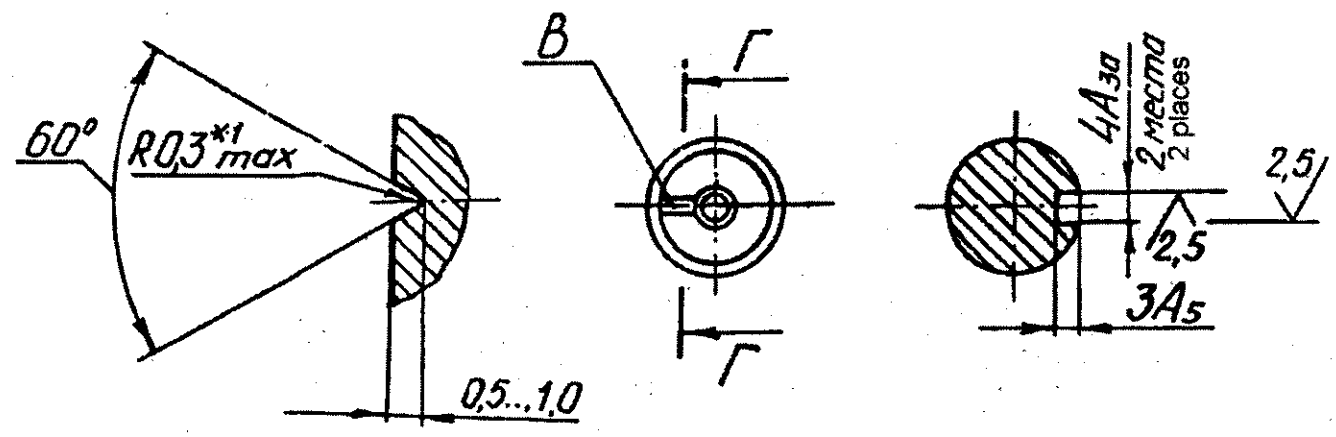
|               |       |         |      |      |                           |                |        |       |
|---------------|-------|---------|------|------|---------------------------|----------------|--------|-------|
|               |       |         |      |      | AO - 18N.020 SB           |                |        |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Shaft<br>Assembly drawing | Type           | Weight | Scale |
| Developed by  |       |         |      |      |                           | O <sub>2</sub> |        | 1:1   |
| Checked by    |       |         |      |      |                           | Sheet          | Sheets | 1     |
| Head of Q.C.D |       |         |      |      |                           |                |        |       |
| Approved by   |       |         |      |      |                           |                |        |       |

Rz 20 / (✓)



1. HRC<sub>E</sub> 43.5..49.5.
2. \*Reference dimension.
3. \*1 Dimensions ensured by tool.
4. Inner angles R~0.4 mm.
5. Blunt edges R~0.6 mm.
6. Coating: Chem.phos./ impregnation with lacquer GOST 6244-70, single coating, VЖ<sub>4</sub>.
7. Fill mark B with enamel PF-115 white GOST 6465-76.
8. Stamp.

View Вид Б А-А  
 Г-Г  
 M5:1



AO - 18N.006

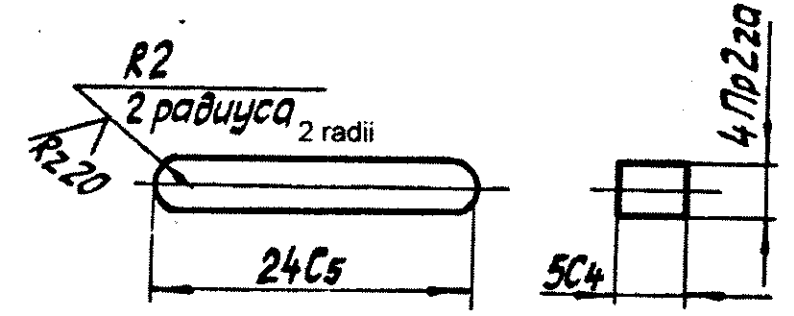
|               |       |         |      |      |              |   |          |       |
|---------------|-------|---------|------|------|--------------|---|----------|-------|
|               |       |         |      |      | AO - 18N.006 |   |          |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Shaft        | Type  | Weight   | Scale |
| Developed by  |       |         |      |      |              | O <sub>2</sub>  | 0.83     | 1:1   |
| Checked by    |       |         |      |      |              | Sheet   | Sheets 1 |       |
| Head of Q.C.D |       |         |      |      |              | Wheel <u>V - 25GOST2590 - 71</u><br><u>30KhrA - B - TOST3 - 98 - 80</u> |          |       |
| Approved by   |       |         |      |      |              |   |          |       |

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

AO-18N.007

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.

1,25 (✓)



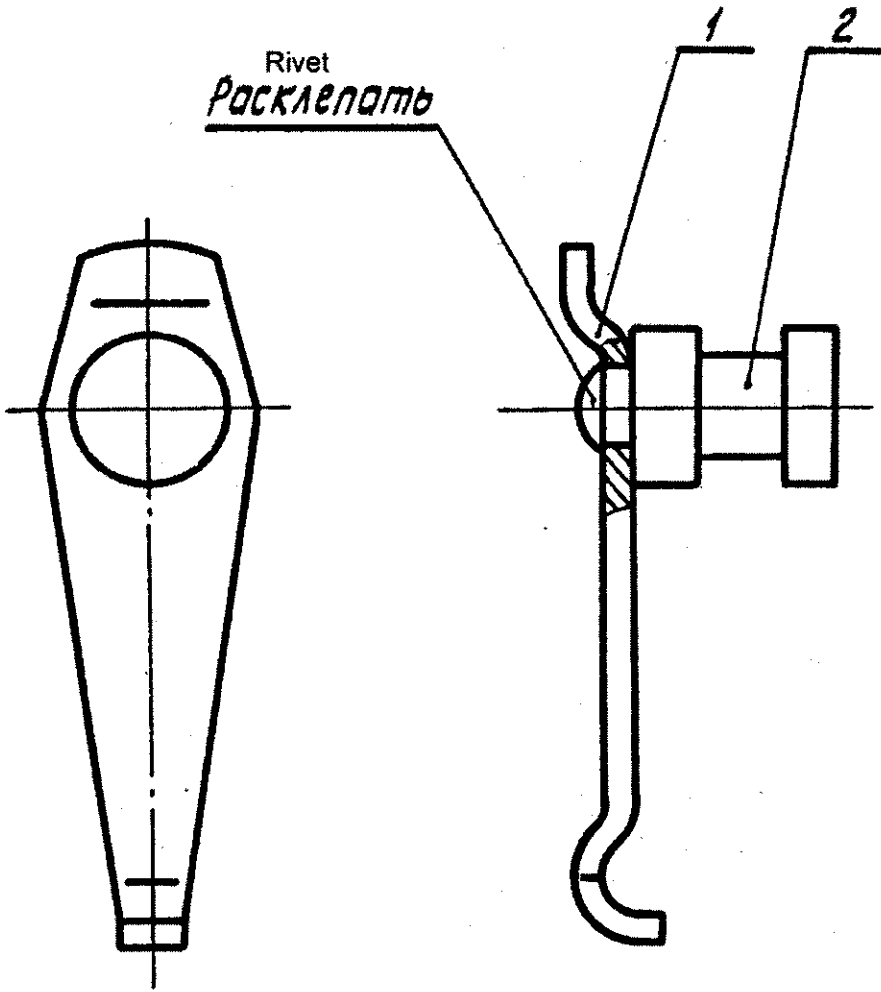
1. HRC<sub>E</sub> 43.5...51.5
2. Check hardness on 3..5% of the batch, but not less than 3 nos.
3. Blunt edges R~0.3 mm.
4. Coating: Chem.phos./impregnation with lacquer BT-987 Black GOST 6244-70. Single coat.VX<sub>4</sub>.
5. Stamp K, И on batch tag.

| Amend. | Sheet | Doc. No. | Sign | Date |
|--------|-------|----------|------|------|
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |

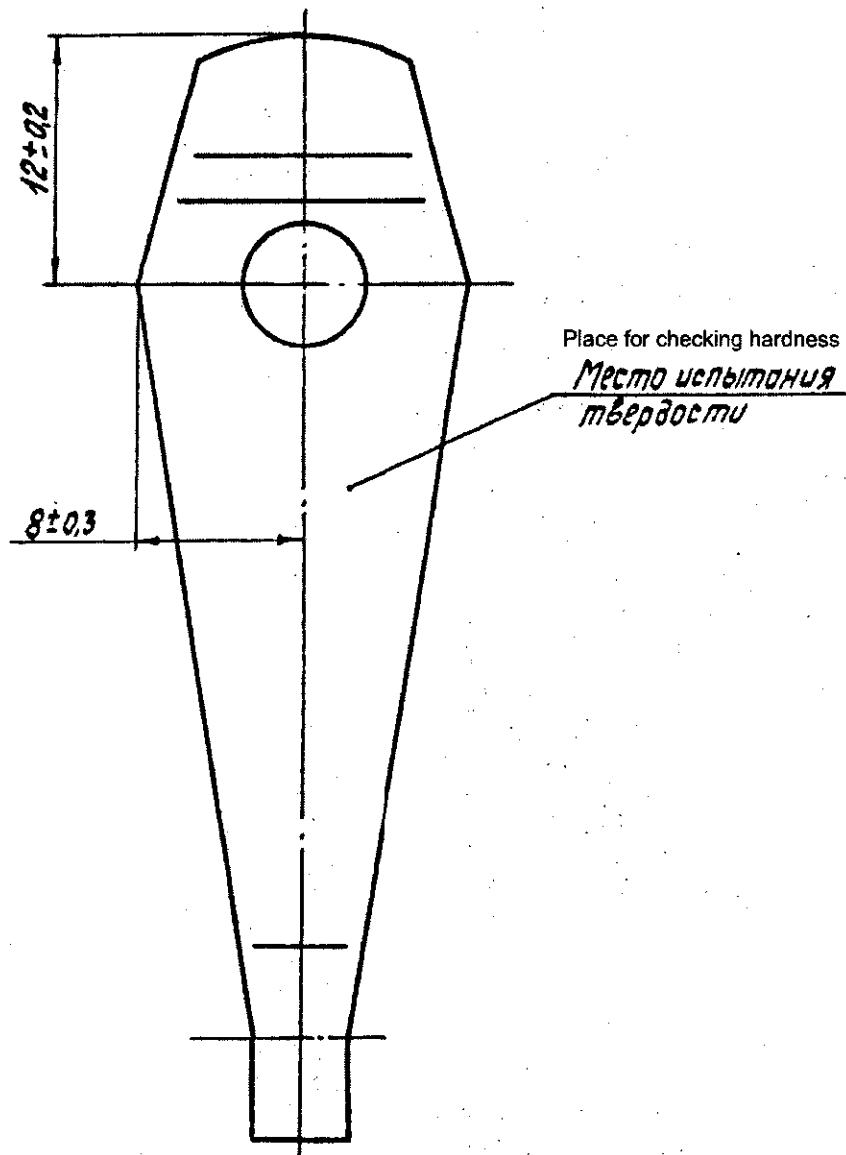
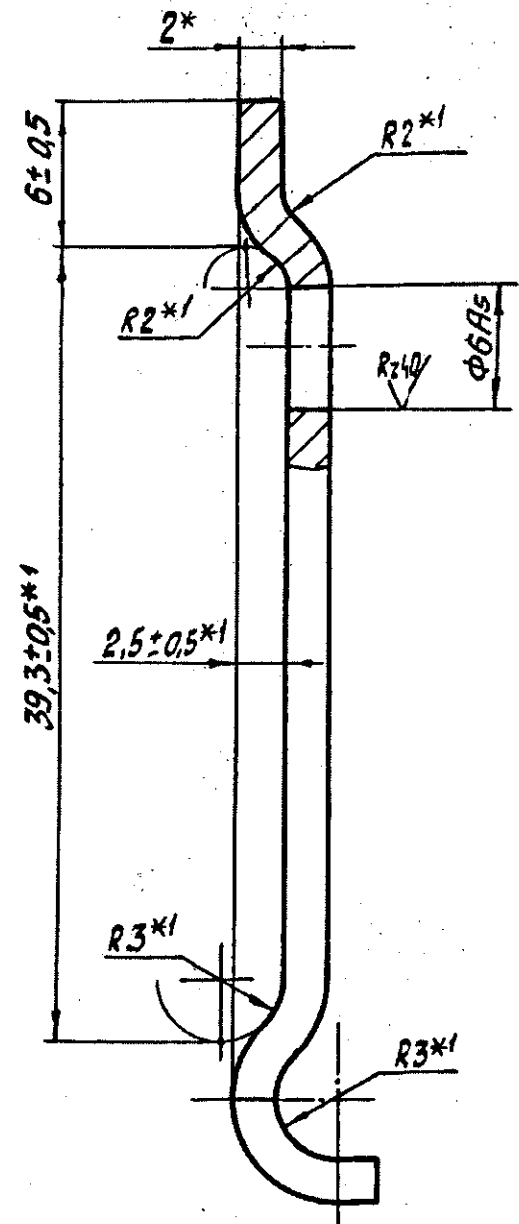
|                                |                |          |       |
|--------------------------------|----------------|----------|-------|
| AO-18N.007                     |                |          |       |
| Key                            | Type           | Weight   | Scale |
|                                | O <sub>2</sub> | 0.007    | 2:1   |
|                                | Sheet          | Sheets 1 |       |
| Steel 30KhN2MFA<br>OST 3-98-80 |                |          |       |



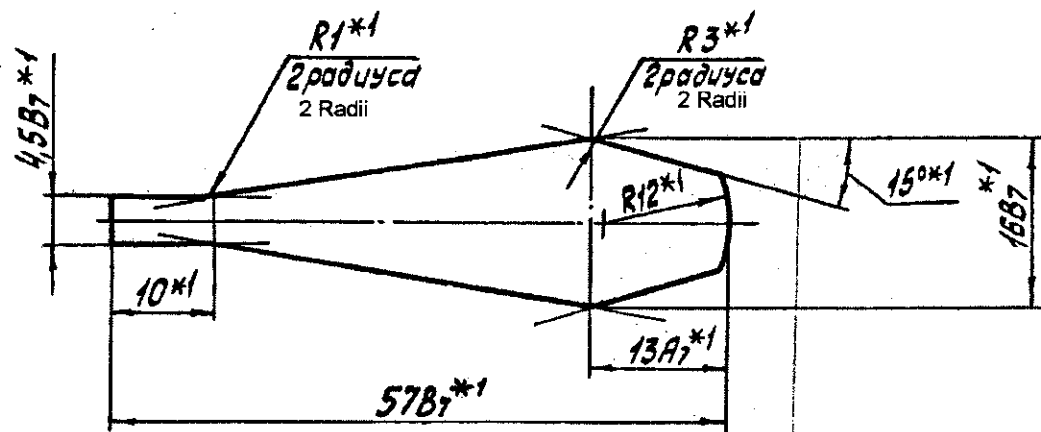


| AO-18N.030 SB               |                    |                |                  |   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|-----------------------------|--------------------|----------------|------------------|---|--|-----------------------------|-------|----------|-------|----------------|--|-----|-------|--|----------|--------------|--|--|--|--|------------|--|--|--|--|---------------|--|--|--|--|---------------------|--|--|--|--|---------------|--|--|--|--|-------------|--|--|--|--|
| Approved OGMet              | Approved TObb      | Approved KTONI | Approved by shop | First use   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
| Orig. Inv. No.              | Alternate Inv. No. | Dupl. Inv. No. | Reference No.    | Sign and Date   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             |                    |                |                  | <p>Coating: Chem.phos./impregnation with lacquer BT-987 black GOST 6244-70. single coat.V.K<sub>4</sub></p>   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             |                    |                |                  | AO-18N.030 SB   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             |                    |                |                  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Amend.</th> <th>Sheet</th> <th>Doc. No.</th> <th>Sign</th> <th>Date</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="2">Developed by</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="2">Checked by</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="2">Head of Q.C.D</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="2">Design bureau chief</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="2">Head of Q.C.D</td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td colspan="2">Approved by</td> <td> </td> <td> </td> <td> </td> </tr> </table> |  | 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 |  |  |  |  |
| 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                 |                    |                |                  |   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             |                    |                |                  | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;">Locator<br/>Assembly drawing</td> <td>Type</td> <td>Weight</td> <td>Scale</td> </tr> <tr> <td>O<sub>2</sub></td> <td> </td> <td style="text-align: center;">2:1</td> </tr> <tr> <td colspan="2">Sheet</td> <td>Sheets 1</td> </tr> </table>   |  | Locator<br>Assembly drawing | Type  | Weight   | Scale | O <sub>2</sub> |  | 2:1 | Sheet |  | Sheets 1 |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
| Locator<br>Assembly drawing | Type               | Weight         | Scale            |   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             | O <sub>2</sub>     |                | 2:1              |   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             | Sheet              |                | Sheets 1         |   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |
|                             |                    | Copied by      |                  | Format A4   |  |                             |       |          |       |                |  |     |       |  |          |              |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |               |  |  |  |  |             |  |  |  |  |

✓(✓)



Reamer  
Развёртка  
1:2



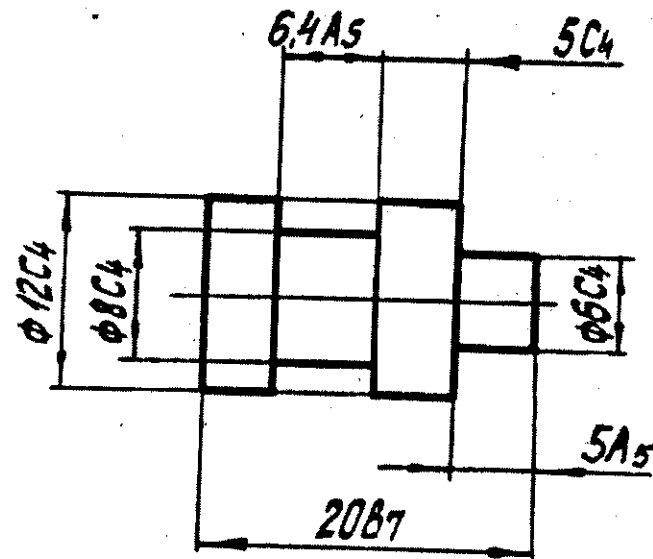
- 1.HRCe 45.5...49.5.
- 2.\*Reference dimensions.
- 3.\*Dimension is ensured by tool.
- 4.Blunt edge  $\approx 0.4$  mm.
- 5.Coating: Chem. phos.
- 6.Stamp K, И on tag of batch.

|          |               |                    |                    |               |         |
|----------|---------------|--------------------|--------------------|---------------|---------|
| Inv. No. | Sign and Date | Alternate Inv. No. | Duplicate Inv. No. | Sign and Date | Remarks |
|          |               |                    |                    |               |         |

|                                    |       |          |      |      |          |
|------------------------------------|-------|----------|------|------|----------|
| AO - 18N.008                       |       |          |      |      |          |
| Amend                              | Sheet | Doc. No. | Sign | Date | Locator  |
|                                    |       |          |      |      |          |
| Developed by                       |       |          |      |      | Type     |
| Checked by                         |       |          |      |      | Weight   |
| Technician                         |       |          |      |      | Scale    |
| Head of bureau                     |       |          |      |      | 0,       |
| Head of QCD                        |       |          |      |      | 0.008    |
| Approved by                        |       |          |      |      | 4:1      |
| Band 36S2BA-S-2-90<br>GOST 2283-79 |       |          |      |      | Sheet    |
|                                    |       |          |      |      | Sheets 1 |

AO-18N.009

Rz 20



1. Inner angles R~0.4 mm.
2. Blunt edges R~0.6 mm.
3. Coating: Chem. Phos.
4. 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.           |          |           |  |
| 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          |  |                    |  |                |  |                         |          |           |  |
| Copied by            |  |                    |  |                |  |                         |          |           |  |
| Format A4            |  |                    |  |                |  |                         |          |           |  |
| <b>AO-18N.009</b>    |  |                    |  |                |  |                         |          |           |  |
| <b>Special rivet</b> |  |                    |  |                |  | Type                    | Weight   | Scale     |  |
|                      |  |                    |  |                |  | O <sub>2</sub>          | 0.0065   | 2.5:1     |  |
|                      |  |                    |  |                |  | Sheet                   | Sheets 1 |           |  |
| Wheel                |  |                    |  |                |  | 14 - SGOST7417 - 75     |          |           |  |
|                      |  |                    |  |                |  | 50 - T - VGOST1051 - 73 |          |           |  |



First use

Reference No.

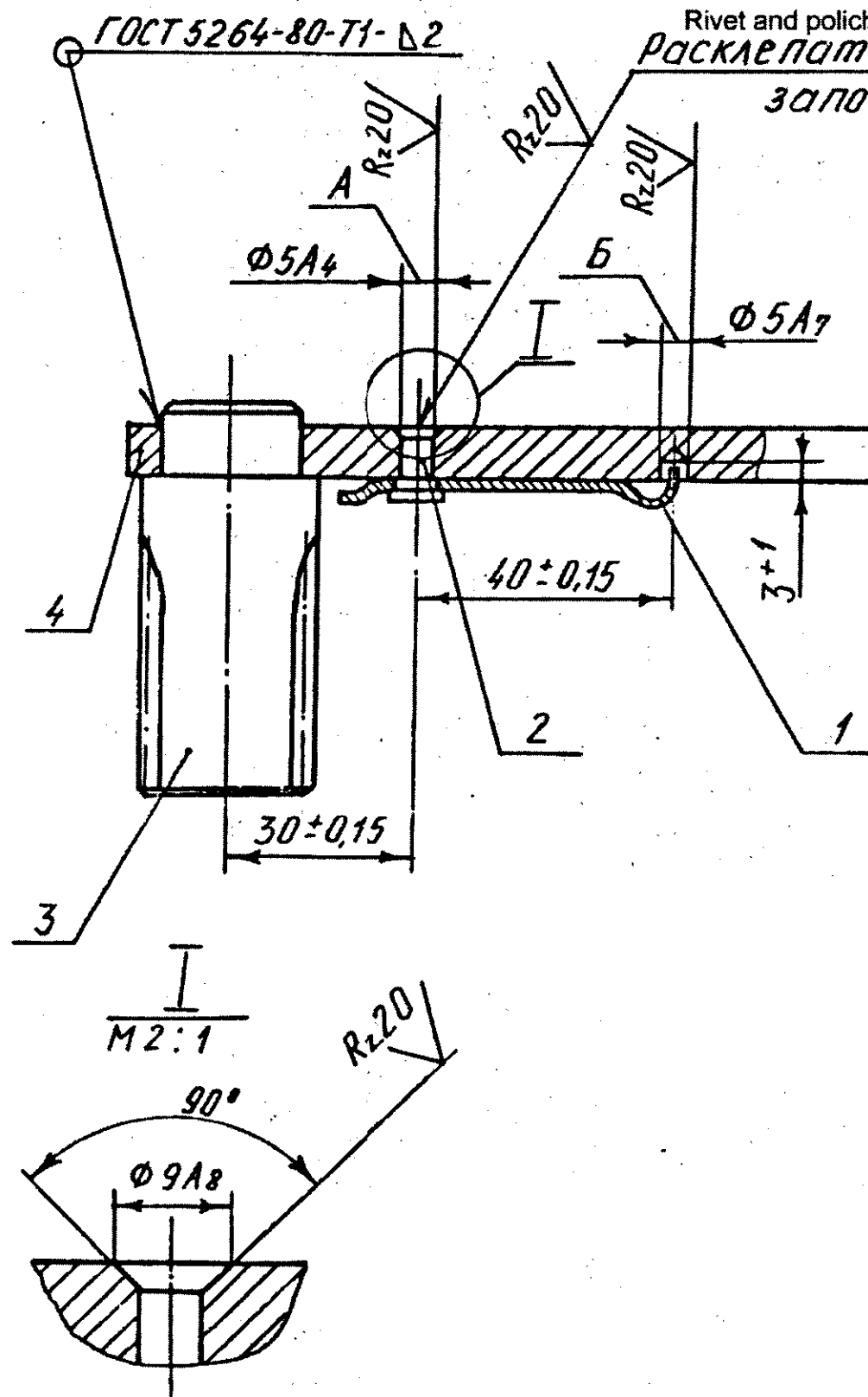
Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.



1. Carry out welding with welding rod NIAT -5-2.0-2GOST 9466-75.
2. Before welding in comp.pos.5 and pos.4, locally remove coating.
3. Welding joints- category 3. Check 100% welding joints visually for compliance to OST 3-4001-91.
4. Fusion of edges comp. pos.4 on radius is permissible.
5. Blunt edges R~0.6 mm.
6. After welding comp. pos.5 with comp.pos.4, apply lacquer BT-987, single coating at welding places.
7. it is permissible to make holes A and Б in comp. pos.4 (AO-18P2.018).
8. Coating: chem. phos./ impregnation with lacquer BT-987 black GOST 6244-70, single coating, VЖ<sub>4</sub> before mounting comp. pos.5 and 6.
9. Stamp.

| Amend. | Sheet | Doc.No. | Sign | Date |
|--------|-------|---------|------|------|
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |
|        |       |         |      |      |

AO - 18N.040 SB

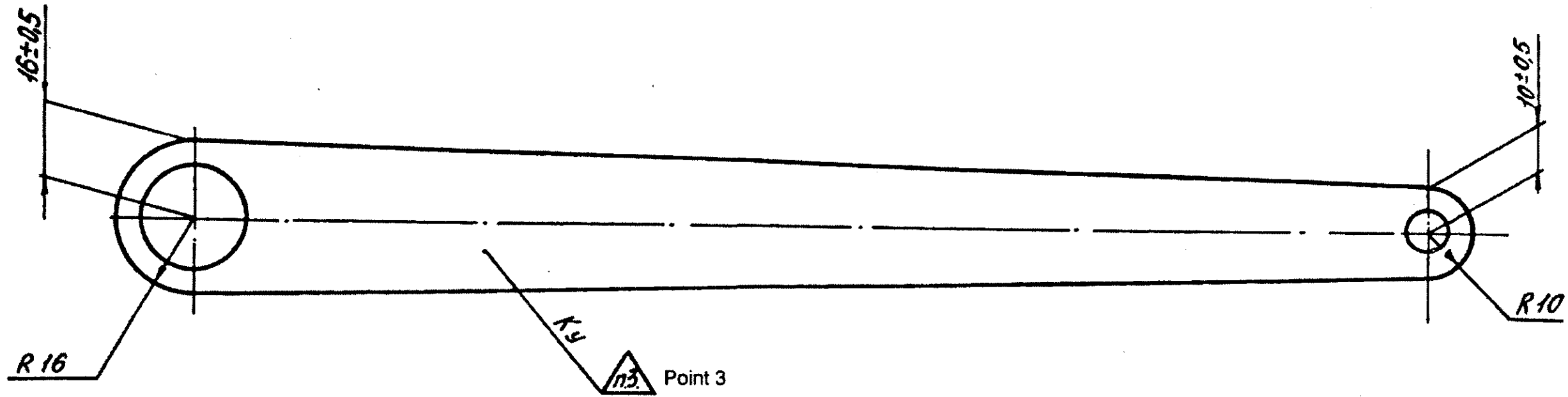
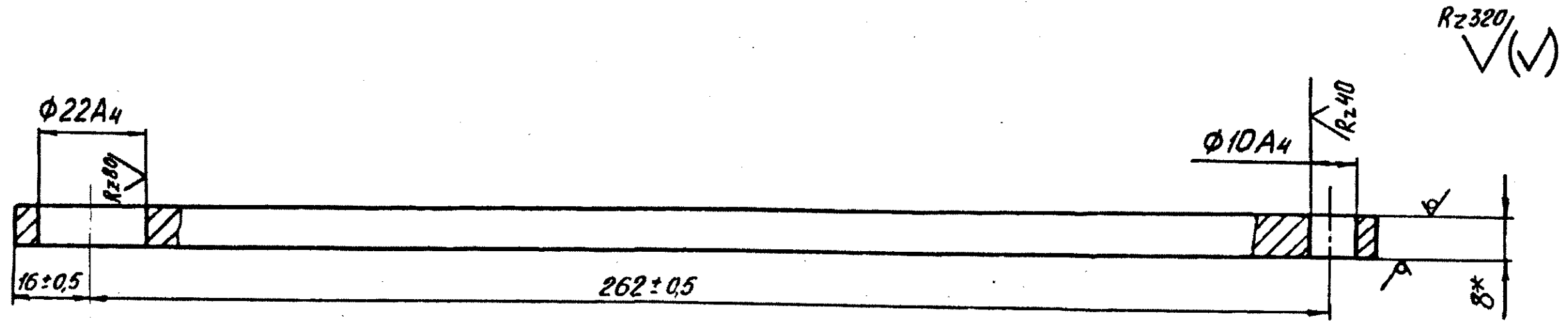
Handle  
Assembly drawing

| Type           | Weight | Scale |
|----------------|--------|-------|
| O <sub>2</sub> |        | 1:1   |
| Sheet          | Sheets | 1     |

AO - 18P2.018

First use

Reference No.



Sign and Date

Duplicate Inv. No

Alternate Inv. No

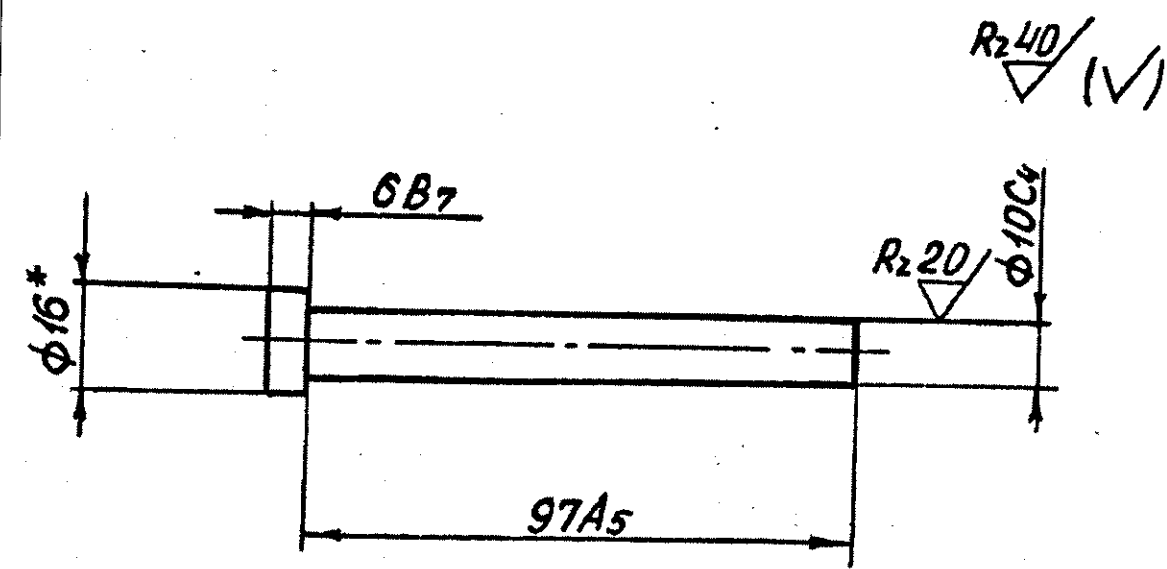
Sign and Date

Orig. inv. no.

- 1.\* Reference dimension.
- 2.Blunt edges R~0.6 mm.
- 3.Stamp.

|               |       |         |      |      |                                  |                |        |       |
|---------------|-------|---------|------|------|----------------------------------|----------------|--------|-------|
|               |       |         |      |      | AO - 18P2.018                    |                |        |       |
| Amend.        | Sheet | Doc.No. | Sign | Date | Lever                            | Type           | Weight | Scale |
| Developed by  |       |         |      |      |                                  | O <sub>2</sub> | 0.41   | 1:1   |
| Checked by    |       |         |      |      |                                  | Sheet          | Sheets | 1     |
| Head of Q.C.D |       |         |      |      | Sheet <i>B - 8GOST19903 - 74</i> |                |        |       |
| Approved by   |       |         |      |      | 25 - 2GOST1577 - 81              |                |        |       |

AO-18P2.021



1. \* Reference dimension.
2. Inner angles R~0.4 mm.
3. Blunt edges R~0.6 mm.
4. Coating: Chem.phos. /impregnation with lacquer BT-987 black GOST 6244-70, single layer, V Ж4.
5. Stamp K on batch tag.

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

| Amend. | Sheet | Doc. No. | Sign | Date |
|--------|-------|----------|------|------|
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |
|        |       |          |      |      |

|   |                |          |       |
|---|----------------|----------|-------|
| AO-18P2.021   |                |          |       |
| Handle pin  | Type           | Weight   | Scale |
|   | O <sub>2</sub> | 0.06     | 1:1   |
| Sheet   |                | Sheets 1 |       |
| Wheel $\frac{16 - 5GOST7417 - 75}{35 - T - VGOST1051 - 73}$ |                |          |       |

|                                     |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|
| 6Yu16.024                           |  |  |  |  |  |
| Approved by shop<br>Reference No.   |  |  |  |  |  |
| Approved KTONI                      |  |  |  |  |  |
| Approved TOSb<br>Alternate Inv. No. |  |  |  |  |  |
| Sign and Date                       |  |  |  |  |  |
| Dupl. Inv. No.                      |  |  |  |  |  |
| Sign and Date                       |  |  |  |  |  |
| Approved OGMet<br>Orig. Inv. No.    |  |  |  |  |  |

*R<sub>z</sub>20 / (✓) (✓)*

Technical drawing of a mechanical handle. The drawing shows a cross-section of a cylindrical handle with various diameters and lengths. Key dimensions include:
 

- Overall length: 92B<sub>7</sub>
- Length of the main body: 80B<sub>7</sub>
- Length of the handle grip: 85B<sub>7</sub>
- Length of the grip section: 5B<sub>7</sub>
- Length of the grip section: 25A<sub>7</sub>
- Length of the grip section: 35A<sub>7</sub>
- Outer diameter of the main body: φ30B<sub>7</sub>
- Inner diameter of the main body: φ20B<sub>7</sub>
- Outer diameter of the grip section: φ16A<sub>7</sub>
- Inner diameter of the grip section: φ102A<sub>7</sub>
- Angle of the grip section: 45°

1. Inner angles R~0.4 mm.
2. Blunt sharp edges R~0.6 mm.
3. Stamp K on tag.
4. Material substitute: press material DSV-4-0 GOST 17478-95.

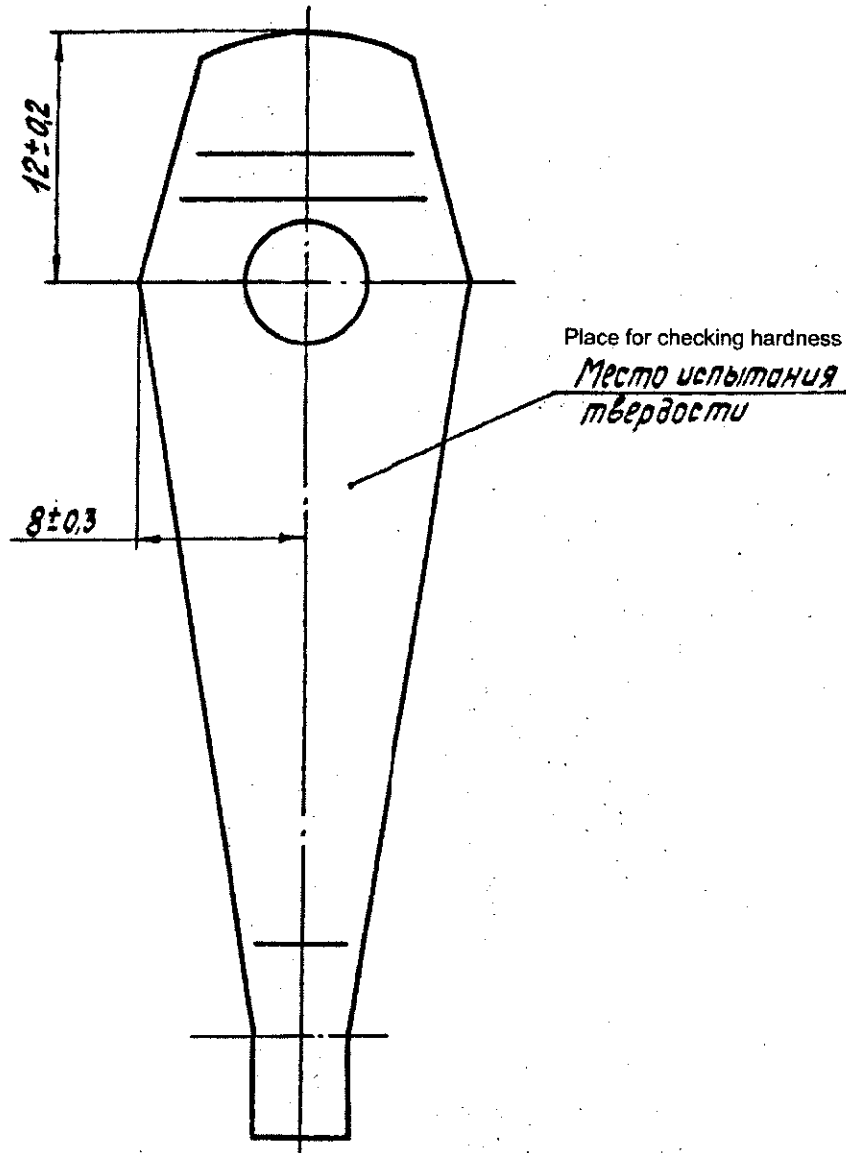
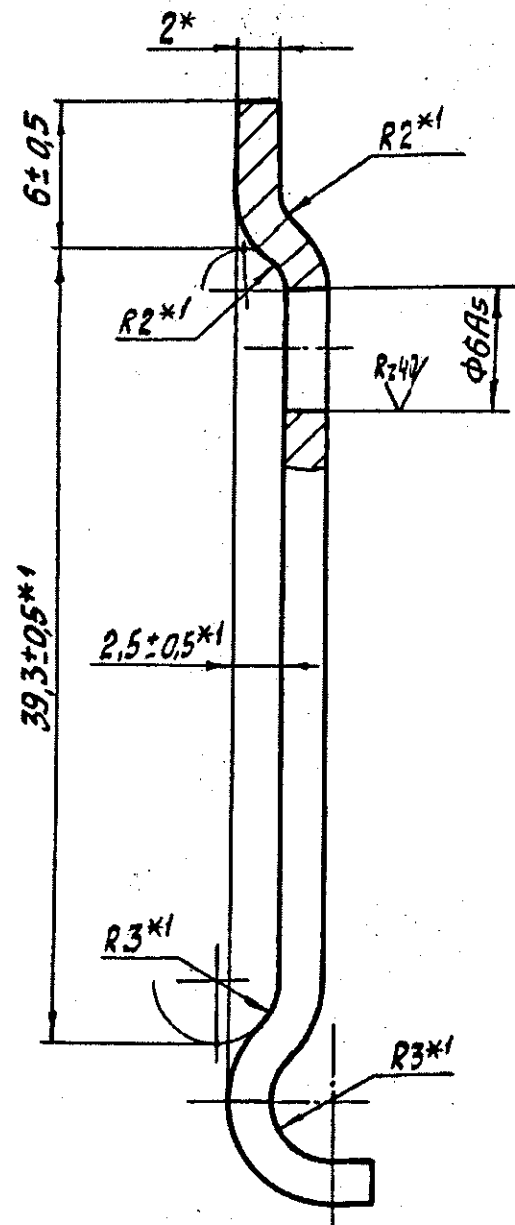
|                     |       |          |      |      |   |  |  |  |  |                |        |          |
|---------------------|-------|----------|------|------|---|--|--|--|--|----------------|--------|----------|
| 6Yu16.024           |       |          |      |      |   |  |  |  |  |                |        |          |
|                     |       |          |      |      |   |  |  |  |  |                |        |          |
| Amend.              | Sheet | Doc. No. | Sign | Date | Handle<br><br>Press-material DSV-2-0<br>GOST 17478-95 |  |  |  |  |                |        |          |
| Developed by        |       |          |      |      |   |  |  |  |  | Type           | Weight | Scale    |
| Checked by          |       |          |      |      |   |  |  |  |  | O <sub>2</sub> | 0.092  | 1:1      |
| Head of Q.C.D.      |       |          |      |      |   |  |  |  |  | Sheet          |        | Sheets 1 |
| Design bureau chief |       |          |      |      |   |  |  |  |  |                |        |          |
| Head of Q.C.D.      |       |          |      |      |   |  |  |  |  |                |        |          |
| Approved by         |       |          |      |      |   |  |  |  |  |                |        |          |

Copied by

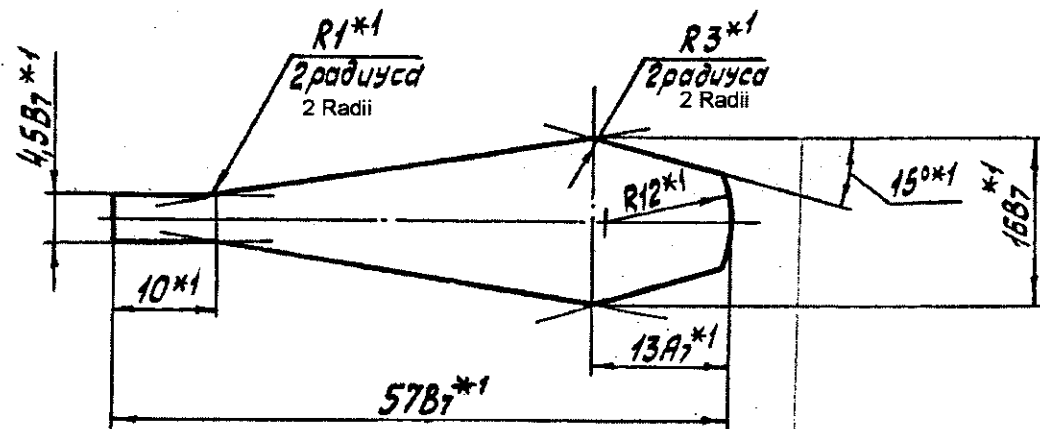
Format A4



✓(✓)



Reamer  
Развёртка  
M2:1



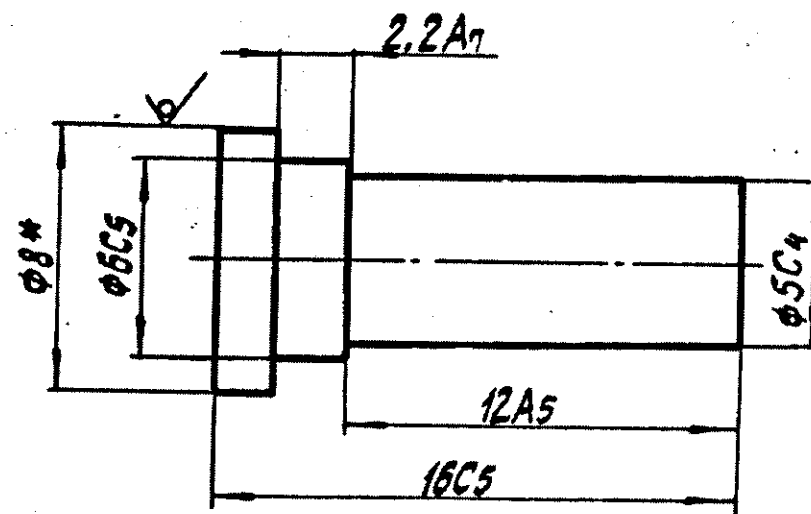
- 1.HRCe 45.5...49.5.
- 2.\*Reference dimensions.
- 3.\*Dimension is ensured by tool.
- 4.Blunt edge  $\approx 0.4$  mm.
- 5.Coating: Chem. phos.
- 6.Stamp K, И on tag of batch.

|          |               |                    |                    |           |         |
|----------|---------------|--------------------|--------------------|-----------|---------|
| Inv. No. | Sign and Date | Alternate Inv. No. | Duplicate Inv. No. | Sign ant. | Remarks |
|          |               |                    |                    |           |         |

|                |       |          |      |      |                    |       |              |       |
|----------------|-------|----------|------|------|--------------------|-------|--------------|-------|
|                |       |          |      |      | AO - 18N.008       |       |              |       |
| Amend          | Sheet | Doc. No. | Sign | Date | Locator            | Type  | Weight       | Scale |
|                |       |          |      |      |                    | 0,1   | 0.008        | 4:1   |
| Developed by   |       |          |      |      |                    | Sheet | Sheets       | 1     |
| Checked by     |       |          |      |      |                    |       |              |       |
| Technician     |       |          |      |      |                    |       |              |       |
| Head of bureau |       |          |      |      |                    |       |              |       |
| Head of QCD    |       |          |      |      |                    |       |              |       |
| Approved by    |       |          |      |      |                    |       |              |       |
|                |       |          |      |      | Band 36S2BA-S-2-90 |       | GOST 2283-79 |       |

AO-18N.011

Rz20/ (M)



- 1.\* Reference dimension.
- 2. Inner angles R~0.4 mm.
- 3. Blunt edges R~0.6 mm.
- 4.Coating:Chem.Phos.
- 5. Stamp K,И on batch tag.
- 6.Centre holes not permissible.

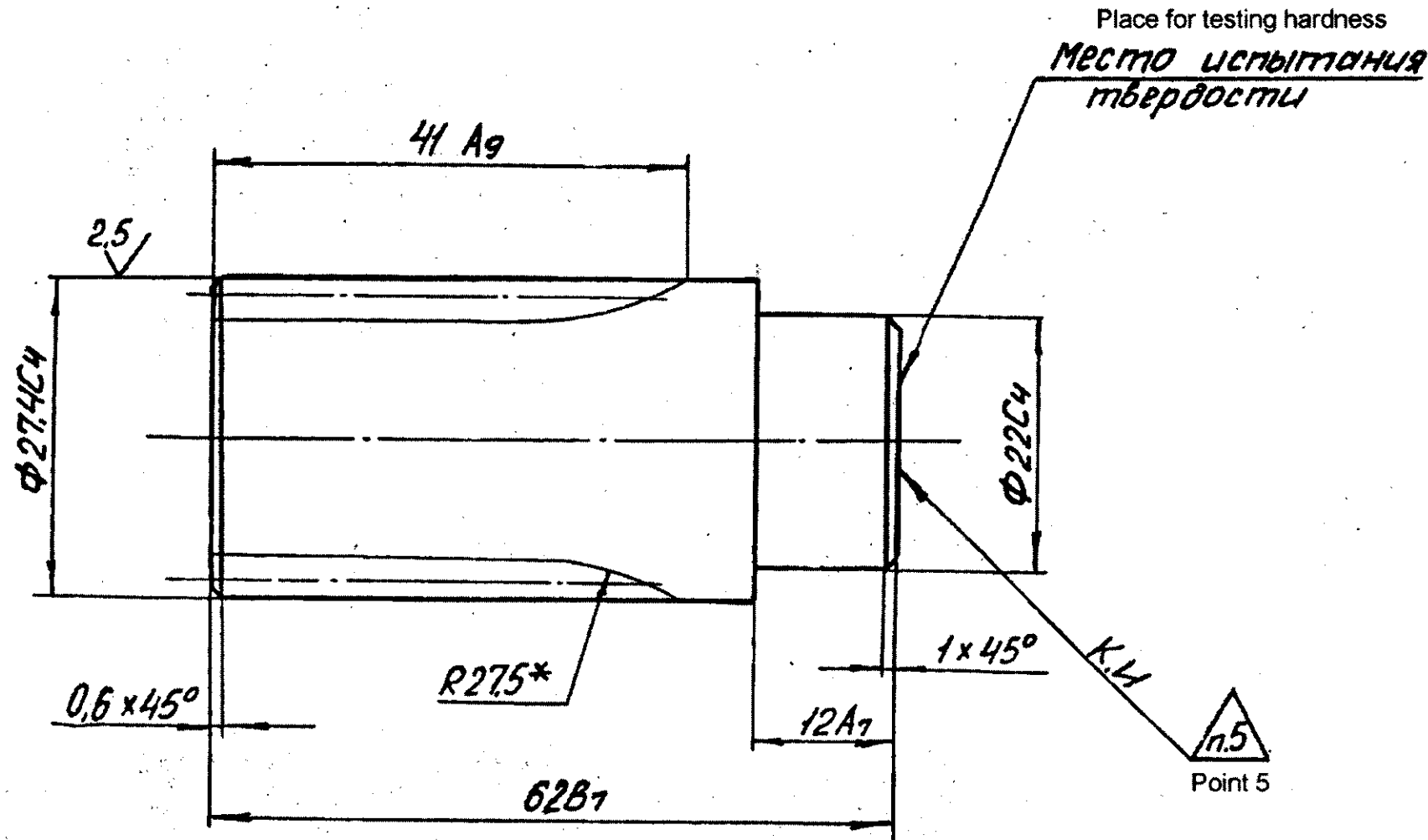
|                     |  |               |  |                    |  |                |  |                  |  |                         |  |
|---------------------|--|---------------|--|--------------------|--|----------------|--|------------------|--|-------------------------|--|
| Approved OGMet      |  | 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.    |  |                         |  |
| Amend.              |  | Sheet         |  | Doc. No.           |  | Sign           |  | Date             |  | AO-18N.011              |  |
| Developed by        |  |               |  |                    |  |                |  |                  |  | Type                    |  |
| Checked by          |  |               |  |                    |  |                |  |                  |  | Weight                  |  |
| Head of Q.C.D       |  |               |  |                    |  |                |  |                  |  | Scale                   |  |
| Design bureau chief |  |               |  |                    |  |                |  |                  |  | O <sub>2</sub>          |  |
| Head of Q.C.D       |  |               |  |                    |  |                |  |                  |  | 0.003                   |  |
| Approved by         |  |               |  |                    |  |                |  |                  |  | 5:1                     |  |
|                     |  |               |  |                    |  |                |  |                  |  | Sheet                   |  |
|                     |  |               |  |                    |  |                |  |                  |  | Sheets 1                |  |
|                     |  |               |  |                    |  |                |  |                  |  | Wheel                   |  |
|                     |  |               |  |                    |  |                |  |                  |  | 8 - 5GOST7417 - 75      |  |
|                     |  |               |  |                    |  |                |  |                  |  | 40 - T - VGOST1051 - 73 |  |

Copied by

Format A4

AO - 18N.012

Rz20/ (✓)



- 1. 43.5...49.5 HRC<sub>E</sub>.
- 2. \* Dimension ensured by tool.
- 3. Inner angles R~0.4 mm.
- 4. Blunt edges R~0.6 mm.
- 5. Stamp.

|   |   |  |
|---|---|--|
| Module                                    | m | 2  |
| No. of teeth                              | Z | 11   |
| Tangent basic rack                        | - | GOST 13755-68                              |
| Addendum modification coefficient         | X | 0.35                                       |
| Accuracy grade as per GOST 1643-81        | - | 7-V  |
| Base tangent length                       | W | 9.644 <sup>-0.0854</sup> <sub>-0.123</sub> |
| Tooth depth                               | h | 4.5  |
| Reference diameter                        | d | 22   |
| Designation of drawing of adjoining wheel | - | AO-18N.014                                 |

|               |       |         |      |      |                              |                |        |          |
|---------------|-------|---------|------|------|------------------------------|----------------|--------|----------|
|               |       |         |      |      | AO - 18N.012                 |                |        |          |
| Amend.        | Sheet | Doc.No. | Sign | Date | Minor Pinion                 | Type           | Weight | Scale    |
| Developed by  |       |         |      |      |                              | O <sub>2</sub> | 0.2    | 2:1      |
| Checked by    |       |         |      |      |                              | Sheet          |        | Sheets 1 |
| Head of Q.C.D |       |         |      |      | Steel 30KhRA<br>GOST 4543-71 |                |        |          |
| Approved by   |       |         |      |      |                              |                |        |          |

First use

Reference No.

Sign and Date

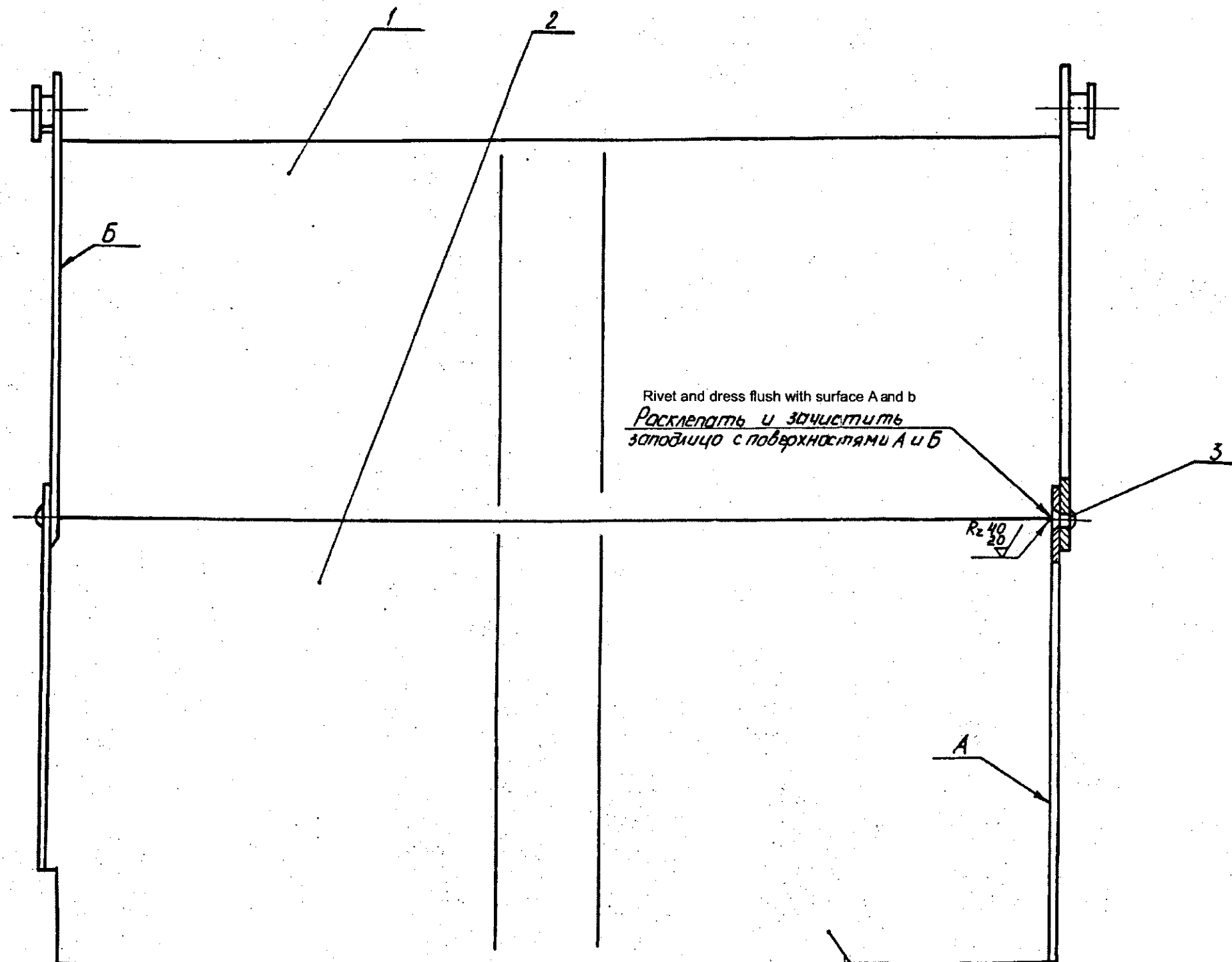
Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.

| First use          | Format        | Zone  | Position | Designation      | Nomenclature          | Qty.        | Remarks |               |
|--------------------|---------------|-------|----------|------------------|-----------------------|-------------|---------|---------------|
|                    |               |       |          |                  |                       |             |         | Reference No. |
|                    |               |       |          |                  | <u>Documents</u>      |             |         |               |
|                    | A2            |       |          | 6Yu16.070SB      | Assembly drawing      |             |         |               |
|                    |               |       |          |                  | <u>Assembly units</u> |             |         |               |
|                    | A4            |       | 1        | 6Yu16.060        | Tray                  | 1           |         |               |
|                    |               |       |          |                  | <u>Components</u>     |             |         |               |
|                    | A2            |       | 2        | 6Yu16.026        | Tray                  | 1           |         |               |
|                    | A4            |       | 3        | 6Yu16.032        | Rivet                 | 2           |         |               |
| Sign and Date      |               |       |          |                  |                       |             |         |               |
|                    |               |       |          |                  |                       |             |         |               |
| Dupl. Inv. No.     |               |       |          |                  |                       |             |         |               |
|                    |               |       |          |                  |                       |             |         |               |
| Alternate Inv. No. |               |       |          |                  |                       |             |         |               |
|                    |               |       |          |                  |                       |             |         |               |
| Orig. Inv. No.     |               |       |          |                  |                       |             |         |               |
|                    |               |       |          |                  |                       |             |         |               |
|                    |               |       |          | <b>6Yu16.070</b> |                       |             |         |               |
|                    | Amend.        | Sheet | Doc. No. | Sign             | Date                  |             |         |               |
|                    | Developed by  |       |          |                  |                       | Type        | Sheet   | Sheets        |
|                    | Checked by    |       |          |                  |                       | 02          |         | 1             |
|                    | Head of Q.C.D |       |          |                  |                       | <b>Tray</b> |         |               |
|                    | Approved by   |       |          |                  |                       |             |         |               |



Rivet and dress flush with surface A and b  
*Расклепать и зачистить*  
*заподлицо с поверхностями А и Б*

Rz 40 / 20

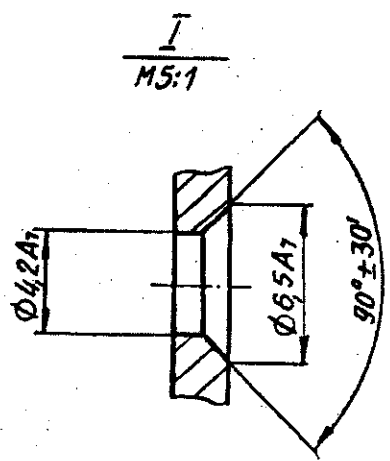
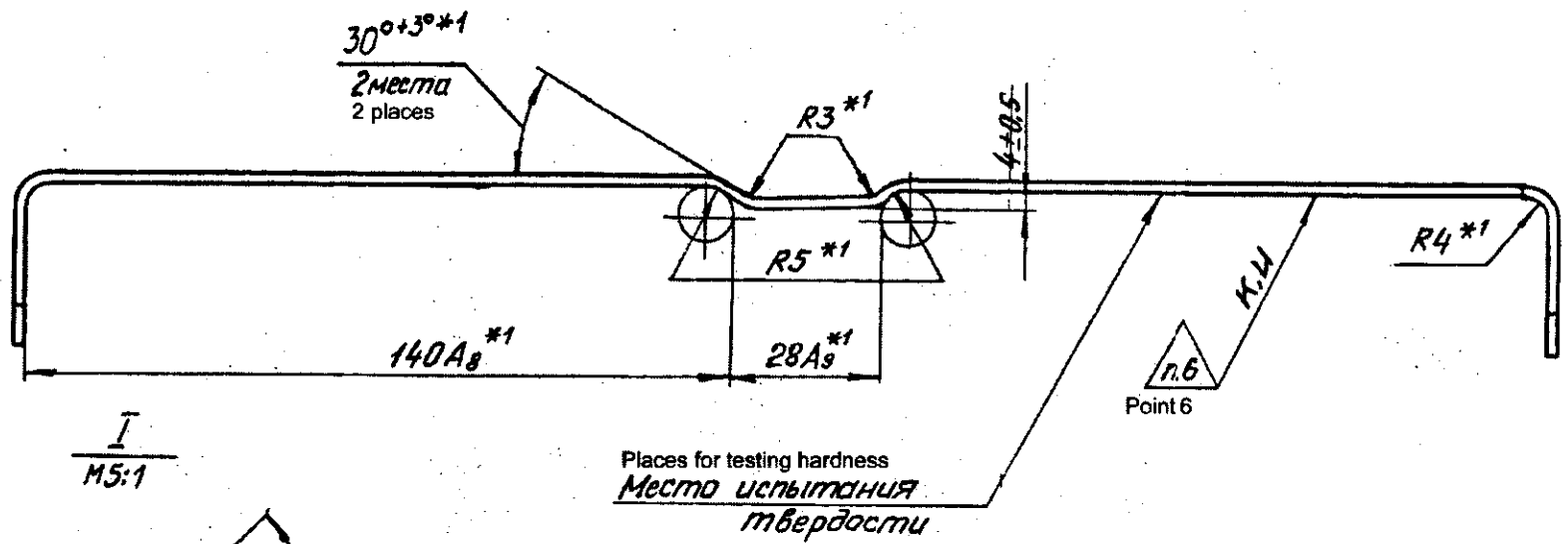
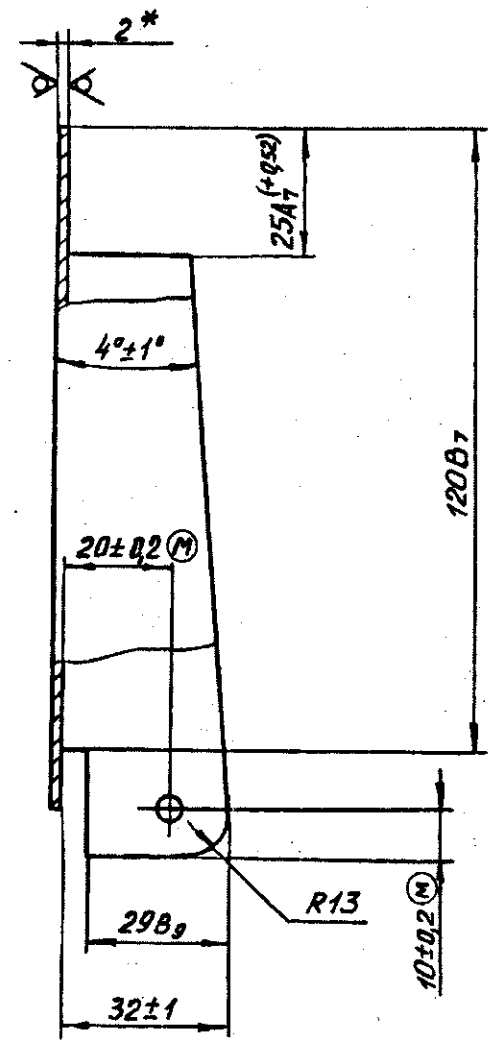
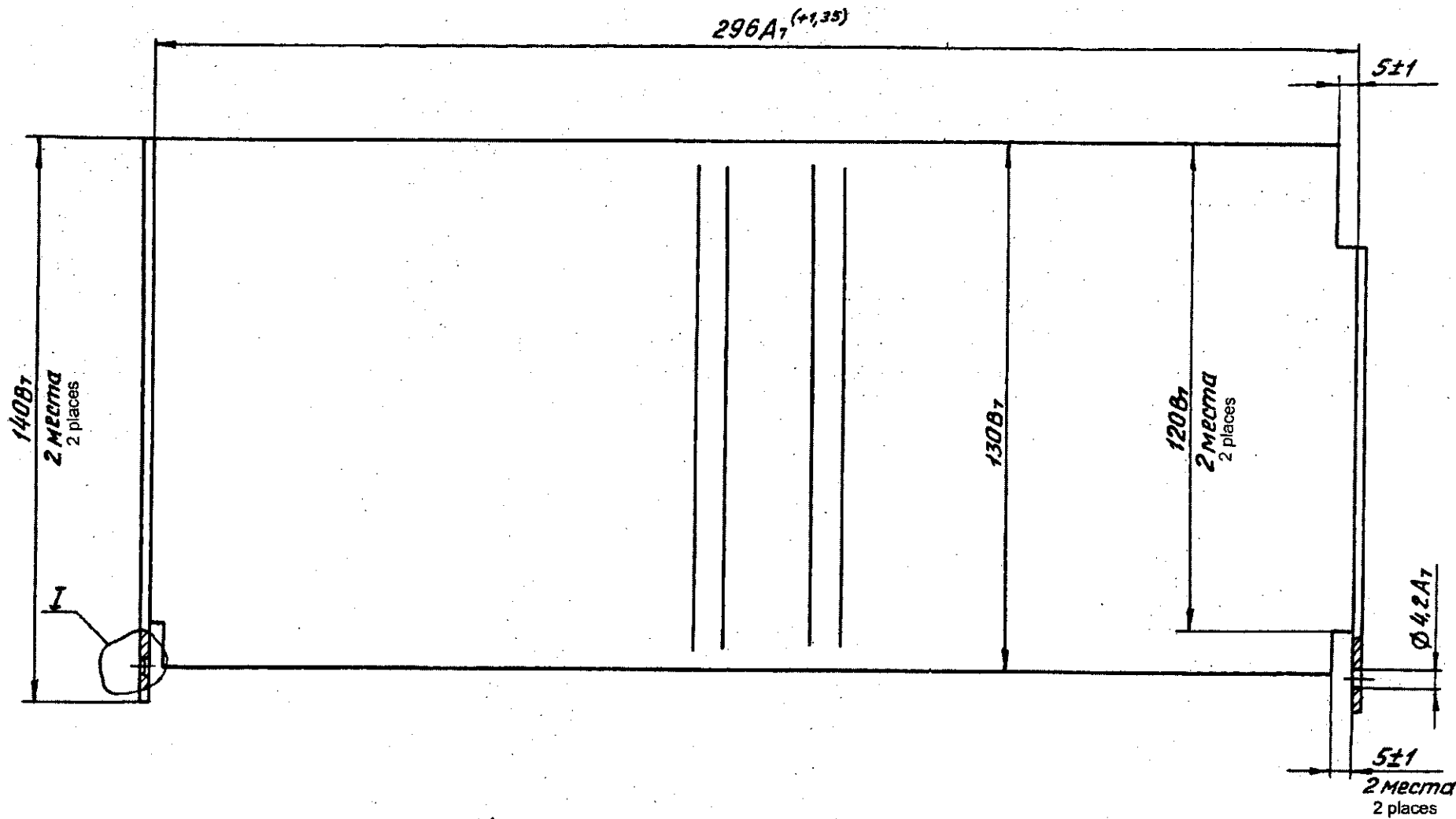
n.3  
Point 3

- 1.Coating Chem. phos. accelerat. chrome / impregn. adhesive BF 4 with nigrosine grade (1) UkhL 1. Adhesive BF 4 GOST 12172 74. Nigrosine grade A GOST 9307 78.
- 2.Pos. 1 , 2 should freely rotate in respect to each other along pos. 3 after assembly and coating.
- 3.Stamp K.

|          |               |                    |                    |               |            |       |
|----------|---------------|--------------------|--------------------|---------------|------------|-------|
| Inv. No. | Sign and Date | Alternate Inv. No. | Duplicate Inv. No. | Sign and Date | Refer. No. | Parts |
|          |               |                    |                    |               |            |       |

|          |               |                    |                    |               |
|----------|---------------|--------------------|--------------------|---------------|
| Inv. No. | Sign and Date | Alternate Inv. No. | Duplicate Inv. No. | Sign and Date |
|          |               |                    |                    |               |

|                |       |          |      |      |                           |                |        |       |
|----------------|-------|----------|------|------|---------------------------|----------------|--------|-------|
|                |       |          |      |      | 6Y016.070 SB              |                |        |       |
| Amend          | Sheet | Doc. No. | Sign | Date | Chute<br>Assembly drawing | Type           | Weight | Scale |
| Developed by   |       |          |      |      |                           | O <sub>2</sub> | 1.460  | 1:1   |
| Checked by     |       |          |      |      |                           | Sheet          | Sheets | 1     |
| Technician     |       |          |      |      |                           |                |        |       |
| Head of bureau |       |          |      |      |                           |                |        |       |
| Head of QCD    |       |          |      |      |                           |                |        |       |
| Approved by    |       |          |      |      |                           |                |        |       |



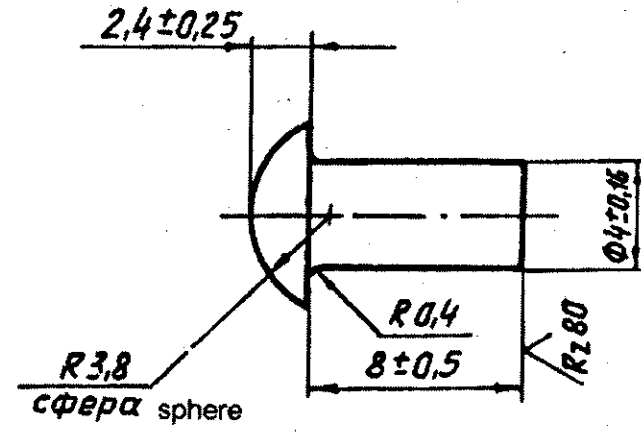
1. 26...34 HRCe.
2. \*Reference dimensions.
3. \*1Dimensions are ensured by tool.
4. Inner angle R » 0.2 mm.
5. Round off edge R » 0.2 mm.
6. Stamp.

|          |               |                    |                    |           |            |         |
|----------|---------------|--------------------|--------------------|-----------|------------|---------|
| Inv. No. | Sign and Date | Alternate Inv. No. | Duplicate Inv. No. | Sign ant. | Refer. No. | Remarks |
|          |               |                    |                    |           |            |         |

|                |          |      |      |                              |                |
|----------------|----------|------|------|------------------------------|----------------|
| 6Yo16.026      |          |      |      |                              |                |
| Amend Sheet    | Doc. No. | Sign | Date | Chute                        | Type           |
| Developed by   |          |      |      |                              | O <sub>2</sub> |
| Checked by     |          |      |      |                              | Weight         |
| Technician     |          |      |      |                              | 0.735          |
| Head of bureau |          |      |      |                              | Scale          |
| Head of QCD    |          |      |      |                              | 1:1            |
| Approved by    |          |      |      |                              | Sheet          |
|                |          |      |      |                              | Sheets 1       |
| Sheet          |          |      |      | B - PN - 0 - 2GOST19904 - 74 |                |
|                |          |      |      | 4 - III - 35GOST16523 - 70   |                |

6Yu16.032

Rz 40 / (✓)



- 1. Coating: Chem.Phos.Accel.Cr.
- 2. Stamp K on batch tag.

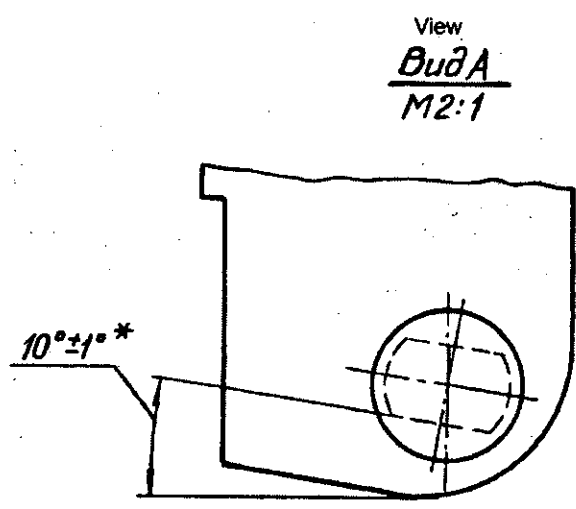
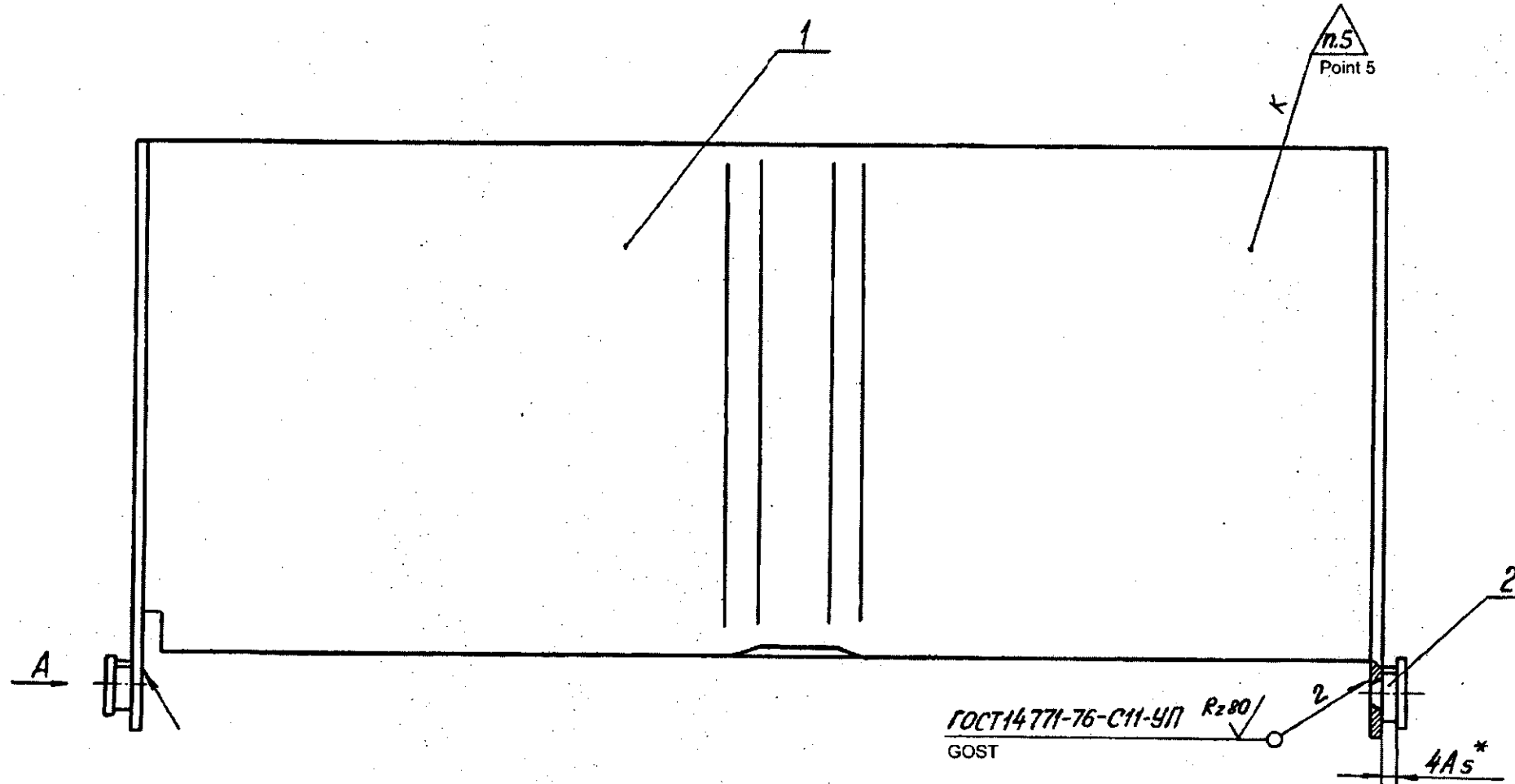
|                          |  |                    |  |                |                |                  |          |           |  |
|--------------------------|--|--------------------|--|----------------|----------------|------------------|----------|-----------|--|
| Approved OGMet           |  | Approved TOsb      |  | Approved KTONI |                | Approved by shop |          | First use |  |
| Orig. Inv. No.           |  | Alternate Inv. No. |  | Sign and Date  |                | Reference No.    |          |           |  |
| 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              |  |                    |  |                |                |                  |          |           |  |
| 6Yu16.032                |  |                    |  |                |                |                  |          |           |  |
| Rivet                    |  |                    |  |                | Type           | Weight           | Scale    |           |  |
|                          |  |                    |  |                | O <sub>2</sub> | 0.0012           | 4:1      |           |  |
|                          |  |                    |  |                | Sheet          |                  | Sheets 1 |           |  |
| Steel 40<br>GOST 1050-74 |  |                    |  |                |                |                  |          |           |  |

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| Format         | Zone          | Position           | Designation    | Nomenclature     | Qty.             | Remarks           |          |      |      |      |       |        |
|                |               |                    |                |                  |                  | <u>Documents</u>  |          |      |      |      |       |        |
| A2             | /             |                    | 6Yu16.060SB    | Assembly drawing |                  |                   |          |      |      |      |       |        |
|                |               |                    |                |                  |                  | <u>Components</u> |          |      |      |      |       |        |
| A2             | /             | 1                  | 6Yu16.025      | Tray             | 1                |                   |          |      |      |      |       |        |
| A4             | /             | 2                  | 6Yu16.027      | Stop             | 2                |                   |          |      |      |      |       |        |
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| Orig. Inv. No. | Sign and Date | Alternate Inv. No. | Dupl. Inv. No. | Sign and Date    | <b>6Yu16.060</b> |                   |          |      |      |      |       |        |
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|                |               |                    |                |                  | Head of Q.C.D    |                   |          |      |      |      |       |        |
|                |               |                    |                |                  | Approved by      |                   |          |      |      |      |       |        |



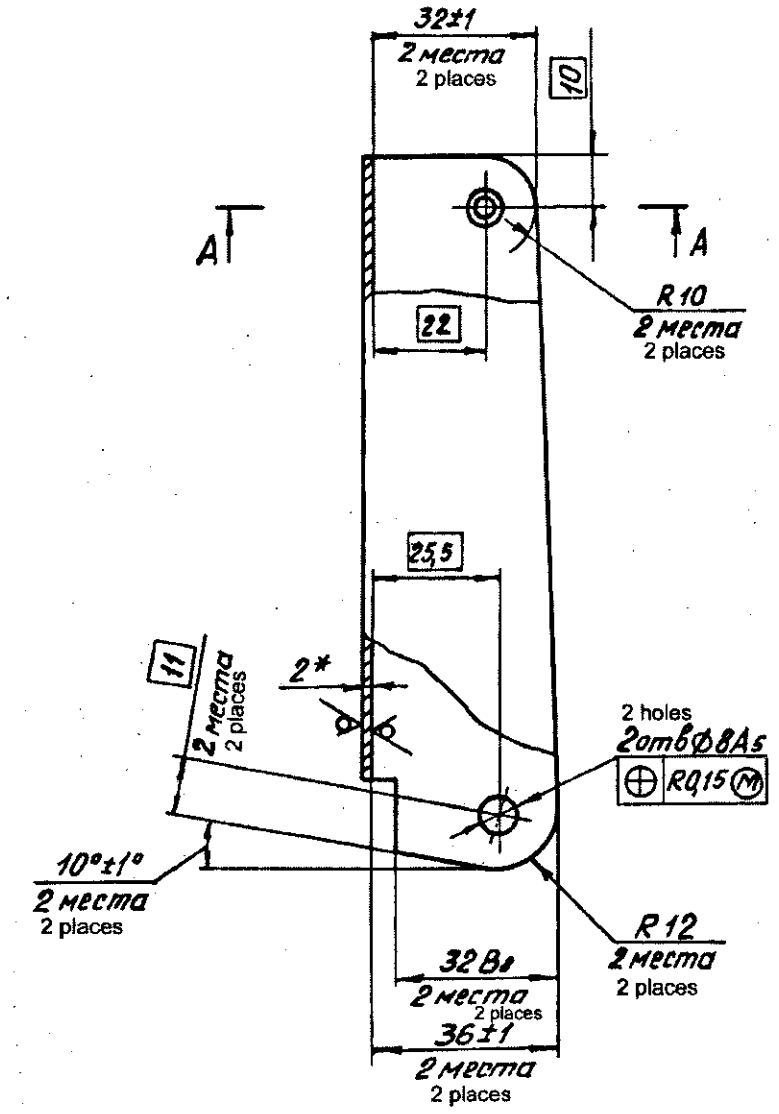
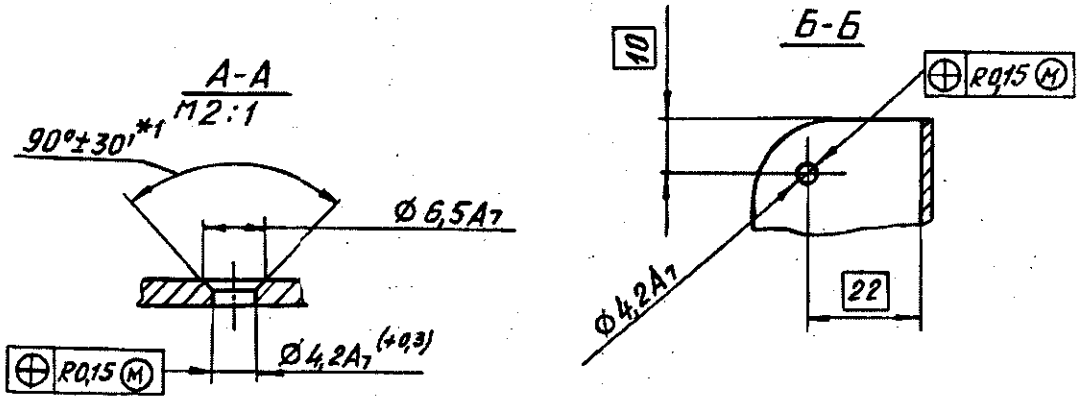
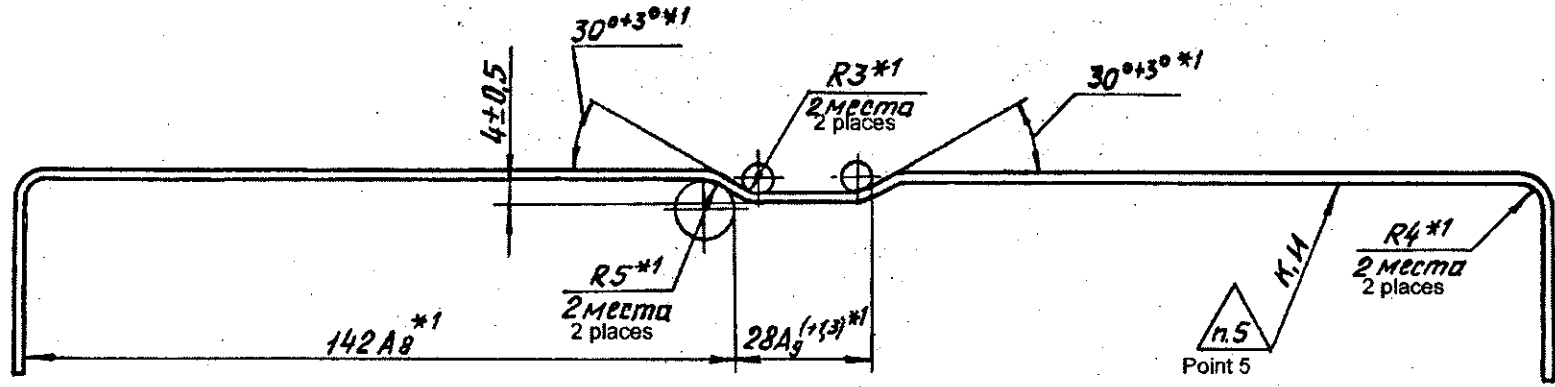
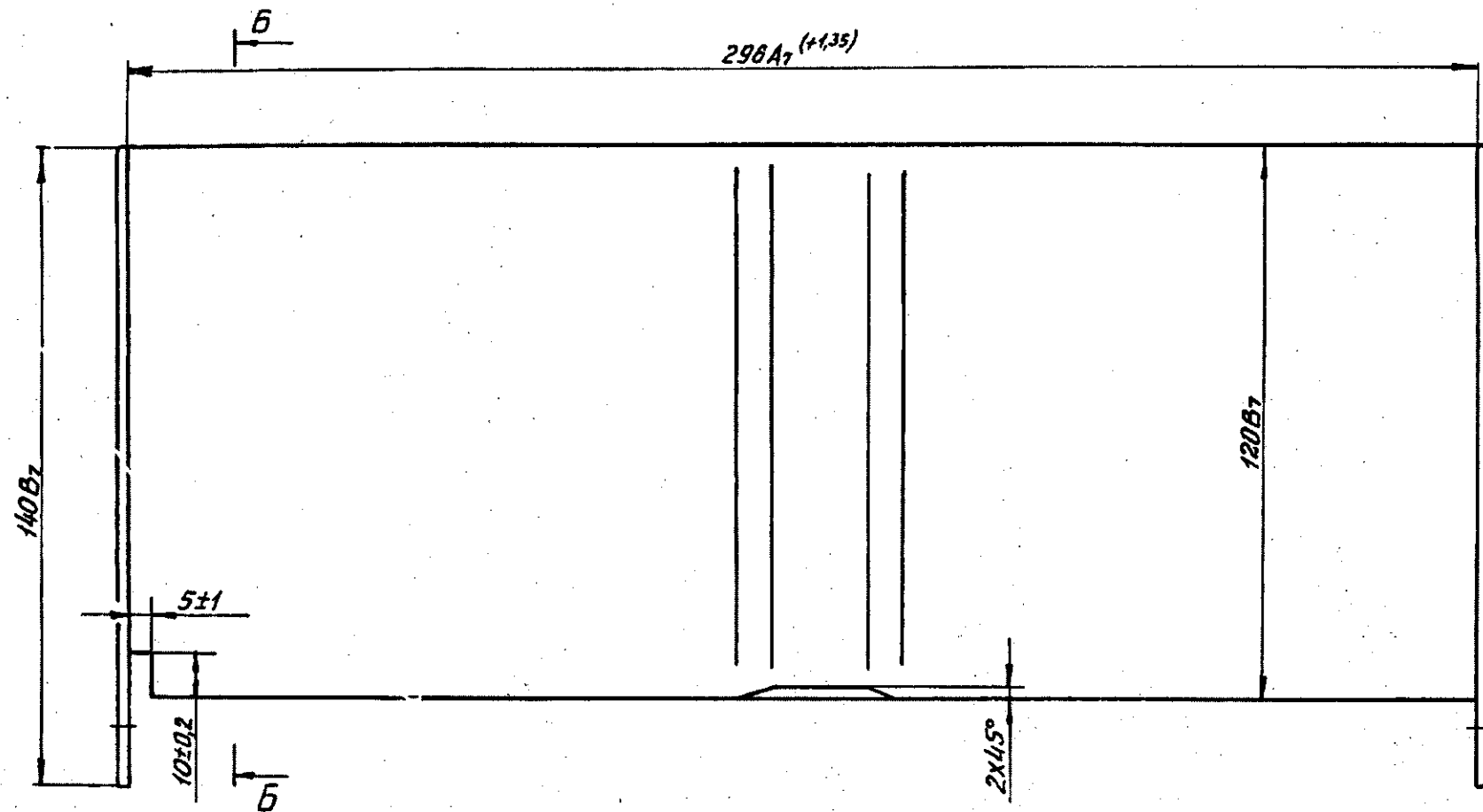


- 1. 26...34 HRCe. Test hardness as per test specimen pos. 1.
- 2. \*Dimensions for welding.
- 3. Carry out welding with wire Sv 08 G2S GOST 2246 70. Welding with electrode UONIИ 13 / 45 2.0 3 GOST 9466 - 75.
- 4. Coating Chem. phos. accelerat. chrome.
- 5. Stamp.

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| 6Y016.060 SB   |          |      |      |                           |
| Amend Sheet    | Doc. No. | Sign | Date | Chute<br>Assembly drawing |
| Developed by   |          |      |      |                           |
| Checked by     |          |      |      | Type                      |
| Technician     |          |      |      | Weight                    |
| Head of bureau |          |      |      | Scale                     |
| Head of QCD    |          |      |      | O <sub>2</sub>            |
| Approved by    |          |      |      | 0.725                     |
|                |          |      |      | 1:1                       |
|                |          |      |      | Sheet                     |
|                |          |      |      | Sheets 1                  |



- 1. \*Reference dimensions.
- 2. \*1Dimensions are ensured by tool.
- 3. Round off edge R ≈ 0.2 mm.
- 4. Coating Chem. phos. accelerat. chrome.
- 5. Stamp.

Inv. No. Sign and Date Alternate Inv. No. Duplicate Inv. No. Sign and Date Refer. No. at remarks

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| Amend        | Sheet      | Doc. No.   | Sign           | Date        | Chute                 | Type           | Weight | Scale |
| Developed by | Checked by | Technician | Head of bureau | Head of QCD |                       | O <sub>2</sub> | 0.685  | 1:1   |
| Approved by  |            |            |                |             | Sheet                 | Sheets 1       |        |       |
|              |            |            |                |             | B-2GOST19904-74       |                |        |       |
|              |            |            |                |             | 30KhGSA-3GOST11268-76 |                |        |       |

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|                       |                |                |               |                    | <b>6Yu16.027</b>   |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| R <sub>z</sub> 20<br> |                |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
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| Approved KTONI        | Sign and Date  |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Approved TOSb         | Dupl. Inv. No. | Inv. No.       | Sign and Date | Alternate Inv. No. | Inv. No.   | Sign and Date | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><math>\phi 8C5</math></p> <p><math>8C5</math></p> </div> <div style="text-align: center;"> <p><math>4A5</math></p> <p><math>\phi 16^*</math></p> <p><math>60^\circ</math></p> <p><math>\phi 6.5C5</math></p> <p><math>\phi 12C4</math></p> <p><math>2A5 (+0.12)</math></p> <p><math>8B7</math></p> </div> </div> <div style="text-align: center; margin-top: 10px;"> </div> <ol style="list-style-type: none"> <li>1. *Reference dimension.</li> <li>2. Inner angles R~0.4 mm.</li> <li>3. Blunt edges R~0.5 mm.</li> <li>4. Stamp K,И on batch tag.</li> </ol> |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Approved OGMet        | Orig. Inv. No. | Inv. No.       | Sign and Date | Alternate Inv. No. | Inv. No.   | Sign and Date |  |  |  |           |  | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="5"></td> <td colspan="3" style="text-align: center;"><b>6Yu16.027</b></td> </tr> <tr> <td style="width: 10%;">Amend.</td> <td style="width: 10%;">Sheet</td> <td style="width: 10%;">Doc. No.</td> <td style="width: 10%;">Sign</td> <td style="width: 10%;">Date</td> <td colspan="3" rowspan="4" style="text-align: center; vertical-align: middle;"> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; font-weight: bold;">Stop</td> <td style="width: 15%;">Type</td> <td style="width: 15%;">Weight</td> <td style="width: 15%;">Scale</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">O<sub>2</sub></td> <td style="text-align: center;">0.0068</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> </table> </td> </tr> <tr> <td colspan="5" style="text-align: center;">Developed by</td> <td colspan="3" rowspan="3" style="text-align: center; vertical-align: middle;">                 Wheel <math>V - 16GOST2590 - 71</math><br/> <math>30KhGSA - B - TOST3 - 98 - 80</math> </td> </tr> <tr> <td colspan="5" style="text-align: center;">Checked by</td> </tr> <tr> <td colspan="5" style="text-align: center;">Head of Q.C.D</td> </tr> <tr> <td colspan="5" style="text-align: center;">Design bureau chief</td> <td colspan="3" rowspan="2"></td> </tr> <tr> <td colspan="5" style="text-align: center;">Head of Q.C.D</td> </tr> <tr> <td colspan="5" style="text-align: center;">Approved by</td> <td colspan="3"></td> </tr> </table> |  |  |  |  |      |  |      |        |       | <b>6Yu16.027</b> |  |                | Amend. | Sheet | Doc. No. | Sign | Date  | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center; font-weight: bold;">Stop</td> <td style="width: 15%;">Type</td> <td style="width: 15%;">Weight</td> <td style="width: 15%;">Scale</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">O<sub>2</sub></td> <td style="text-align: center;">0.0068</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> </table> |  |  | Stop     |  | Type | Weight | Scale |  |  | O <sub>2</sub> | 0.0068 | 2:1 |  |  | Sheet |  | Sheets 1 | Developed by |  |  |  |  | Wheel $V - 16GOST2590 - 71$<br>$30KhGSA - B - TOST3 - 98 - 80$ |  |  | Checked by |  |  |  |  | Head of Q.C.D |  |  |  |  | Design bureau chief |  |  |  |  |  |  |  | Head of Q.C.D |  |  |  |  | Approved by |  |  |  |  |  |  |  |
|                       |                |                |               |                    | <b>6Yu16.027</b>   |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
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| Developed by          |                |                |               |                    | Wheel $V - 16GOST2590 - 71$<br>$30KhGSA - B - TOST3 - 98 - 80$   |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Checked by            |                |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Head of Q.C.D         |                |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Design bureau chief   |                |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Head of Q.C.D         |                |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |
| Approved by           |                |                |               |                    |  |               |  |  |  |           |  |   |  |  |  |  |      |  |      |        |       |                  |  |                |        |       |          |      |       |  |  |  |          |  |      |        |       |  |  |                |        |     |  |  |       |  |          |              |  |  |  |  |  |  |  |            |  |  |  |  |               |  |  |  |  |                     |  |  |  |  |  |  |  |               |  |  |  |  |             |  |  |  |  |  |  |  |

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# SPECIFICATIONS /CERTIFICATES



**BELT LOADING MACHINE**

**AO-18N**

**Specifications**

**AO-18N.000 TU**

|                |               |                    |                    |               |
|----------------|---------------|--------------------|--------------------|---------------|
| Orig. Inv. No. | Sign and Date | Alternate Inv. No. | Duplicate Inv. No. | Sign and Date |
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| Sign and Date   |               |       |          |      |      | AO-18N.000 TU   |      |       |        |
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| Orig. Inv. No.  | Developed by  |       |          |      |      | <b>BELT LOADING MACHINE<br/>AO-18N<br/>Specifications</b> | Type | Sheet | Sheets |
|   | Checked by    |       |          |      |      |   |      | 2     | 26     |
|   | Head of Q.C.D |       |          |      |      |   |      |       |        |
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These specifications pertain to belt loading machine (further referred as machine) and meant for loading and unloading cartridge belts, consisting of links Z-AO-18.001 and cartridges type AO-18.

These specifications together with design documents and approved manufacturing processes are mandatory manuals for manufacturing, acceptance, tests, packing, storage and transportation of machines.

Manufacturing of machine should be carried out as per technological processes, approved by chief engineer of manufacturing unit.

Technological processes for flaw detection and instruction for preservation are agreed upon with customer's representative at manufacturing unit.

Amendments in prevailing technological processes as well as technological process approved by customer's representative are carried out after conducting necessary inspections as per schedule, approved with customer's representative.

Example of description of machine designation while placing an order and in documents of other article : AO-18N.000.

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## 1. TECHNICAL REQUIREMENTS

### 1.1 Basic parameters of machine.

1.1.1 Basic parameters of machine should comply to requirements, mentioned in table of present TU.

Table

| S. No. | Nomenclature of parameter  | Norm          | Test method |
|--------|--|---------------|-------------|
| 1.     | Weight of machine, kg, not more than   | 6.7           | point 3.1   |
| 2.     | Load on handle during loading and unloading, kgf, not more than                        | 15            | point 3.2   |
| 3.     | Designated service life of machine, cycles:<br>a) while loading<br>b) while un loading | 18000<br>2000 | point 3.3   |

### 1.2 Characteristics of machine

1.2.1 Productivity of machine during loading and unloading of cartridge belts- 2000 nos./hour.

1.2.2 Delay is not permissible due to machine fault, during loading and unloading cartridge belts.

### 1.3 Requirements for materials and blanks

1.3.1 Materials, used for manufacturing machine should meet requirements of standards, technical documents, mentioned in drawings and should have documents confirming their quality (certificates, etc.).

1.3.2 Incorporation of materials for production should be carried out in compliance with instruction, approved by chief engineer of machine manufacturing unit and confirmed with customer's representative.

Before incorporating , machines should go through incoming inspection.

1.3.3 Materials, not having supplier's documents can be allowed to production in exceptional cases after getting approval from machine manufacturer regarding their serviceability and compliance to requirements of standards.

Incorporation of such materials in production is carried out by

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<< Permission>>, approved by customer's representative.

Customer's representative is provided with certificates and test reports of manufacturer's laboratory along with <<Permission>>.

Format of <<Permission>> is worked out by manufacturer and approved by customer's representative.

1.3.4 On demand of customer's representative, the manufacturing unit is obligated to conduct additional testing of materials for their conformity to requirements of drawings and present specifications at own manufacturing base as well as other places.

1.3.5 Forged materials and blanks made of alloy steels are checked on steel scope for conformity of steel grade and certified by QCD stamp, before delivery to machine shop.

1.3.6 Forging of structure steels should comply to GOST 8479-70.

Test methods as per point 3.5.

1.4 Requirements for heat treatment

1.4.1 Hardness of heat treated components should be in compliance with requirements, mentioned in drawings.

1.4.2 Components, made of alloy grade steels should be checked for conformity of steel grade on steel scope and should have stamp for such inspection, before heat treatment.

1.4.3 Decrease in drawing dimension by value not exceeding the allowed by 0.1 mm is permissible on components and assembly units during polishing of surfaces at places, meant for hardness test.

1.4.4 Components made of carbon steels may be subjected to repeat hardening up to 2 times and alloy steels not more than once.

Before repeat hardening, components are subjected to high tempering.

Repeat hardening of components with high frequency currents is permissible not more than once.

Repeat hardening is carried out after establishing causes behind non compliance by permission of chief metallurgist of manufacturing unit by recording in logbook for repeat hardening.

1.4.5 Components, having gone through repeat hardening are stamped additionally (letter P) beside stamp for quality of heat treatment.

1.4.6 If after repeat hardening, hardness of components still do not comply to drawing, such components are rejected and segregated from serviceable ones.

1.4.7 Components that are to undergo machining, except grinding, undergo rechecking

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of hardness and restoration of stamps for heat treatment and steel scope.

1.4.8 There should not be any crack on components, subjected to straightening after heat treatment. After straightening, components undergo tempering for removing stress and flaw detection test.

List of components allowed for straightening after heat treatment is given in annexure A. Inspection method as per point 3.6.

1.5 Requirements for gear wheels.

1.5.1 Pitting of operating surfaces of gears, significant marks of machining of gear space, deposits of metal on gear are not permissible.

1.5.2 Set of inspection for gear wheels is decided by manufacturer. Inspection method as per GOST 1643-81.

1.6 Requirements for coating

1.6.1 Coating/plating of components and assembly units are carried out as per requirements of drawings and GOST 9.305-84.

1.6.2 Protection of components against corrosion between operations during manufacturing is carried out as per GOST 9.028-74.

1.6.3 Individual damages of finally applied coatings on surfaces of component and assembly units, occurring during transportation, inspections, and also places of punching, flaring and marking are subjected to localized anti corrosion treatment as per manufacturer's technology.

Inspection method as per 3.7.

1.7 Requirements for measurements and allowances.

1.7.1 Allowances for position or shape, given in drawings should be taken as dependable tolerances as per GOST 24642-81, unless otherwise specified separately.

In absence of tolerances for position and shape in drawings, permissible deviations are limited by tolerance zones for dimensions of such surfaces.

1.7.2 Dimensions, not provided with tolerance in drawings are made as per 7<sup>th</sup> accuracy grade:

1) for holes A<sub>7</sub>;

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2) for shafts as per B<sub>7</sub>;

3) for others as per CM<sub>7</sub> as per OST 1010.

1.7.3 Tolerances not mentioned for round off radii and chamfers should correspond to GOST 25670-83 (medium accuracy grade).

1.7.4 If taper surfaces in drawings are given with diametric dimensions with tolerances and linear dimensions for distance between datum and diameter measurement place, then tolerances for distance should be within range of tolerances for diametric dimensions (complex tolerance).

1.7.5 If surfaces are given with angular and linear dimensions in drawings, in absence of tolerance for angular dimension, deviation of angular dimension should be within tolerance zone for linear dimension (complex dimension).

1.7.6 During machining of surfaces, mentioned with single dimension, but made at various work places, non mergence of surfaces within tolerance range for dimension is permissible.

1.7.7 General instructions for rounding off (blunting) of sharp edges and for inner angles are approximate and should be checked only for absence of sharp edges and cuts and at adjoining places for absence of fitting as per round offs.

1.8 Requirements for machining and stamping.

1.8.1 Following are not permissible on metal components: burrs, notches, cuts of inner round offs, cracks, rust.

Nicks, scratches, flay marks, marks caused by tool, dents, insignificant ring cuts from reamers (not all along hole length) should not exceed permissible norms of tested specimen.

1.8.2 Bending, punching, riveting and caulking of components and assembly units for dressing of deviations and defects are not permissible.

1.8.3 There should not be cracks, ruptures and flaking on components made of rolled sheet.

Change in initial thickness of blank during cold forging at places of bend should not exceed:

1) at thickness of sheet up to 2 mm-10%;

2) at thickness of sheet above 2 mm-15%.

1.8.4 Stamping, engraving, inscriptions of letters , numbers and other symbols by strike method on metal components and assembly units should be carried out clearly and

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distinctively without ruptured edges and unscripted places.

Deformation of components and assembly units is not permissible.

Metal bulging should be filed.

1.8.5 Shift of stamps during manufacturing of components and assembly units should be attested with QCD stamp or signature in document, certifying quality of components and assembly units.

Inspection method is visual.

1.9 Requirements for riveted joints.

1.9.1 Rivet joint should tightly join riveted components. Mutual movement and swinging of components with respect to each other is not permissible.

1.9.2 On surfaces of riveted components, blunt imprint caused by mandrel and mark not exceeding 0.1 mm in depth are permissible.

1.9.3 Geometrical shapes and dimensions of last heads of rivets should be in compliance with requirements of drawing and OST 3-1316-85.

1.10 Requirements for welding joints

1.10.1 Welding joints should comply to requirements of drawings and present specifications.

1.10.2 Welding operations are carried out as per OST 3-4001-91.

Welding joints –category II.

Inspection of welding joints should be visual and thorough.

1.11 Requirements for assembled machine

1.11.1 Link and dummy-gauge of the cartridge should enter the machine , freely-without jamming.

1.11.2 During loading, the link should be placed in groove of gauge. Stretching and break of link are not permissible. Incomplete push of gauge in link is not permissible.

Inspection method as per point 3.8.

1.12 Completion kit.

1.12.1 Supply kit of machine includes:

- 1) belt loading machine AO-18N.000;
- 2) certificate AO-18N.000-01PS;
- 3) key AO-18N.007 (2 nos.)

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- 4) wood screw 1-5x40 GOST 1145-80 (6 nos.);
- 5) drift bolt 4x100 GOST V 18655-82;
- 6) screwdriver 7810-0928 3Al Cd.21 Cr.GOST 17199-88;
- 7) packing box Ya-AO-18N.000.

### 1.13 Marking

1.13.1 Marking of components and assembly units as well as machine is carried out in general in compliance with requirements of drawing and present specifications.

1.13.2 All conventional signs and inscription should be done distinctively, without compromise on quality and look of the article.

### 1.14 Packing

1.14.1 Machine, spare parts, tool, accessories are preserved as per technological process (instruction), developed by manufacturer and approved by customer's representative.

Preservation of machine is done for storage period of 7 years.

1.14.2 Machine, spare parts, tool, accessories and certificate are placed in box Ya-AO-18N.000.

Certificate, spare parts, tool, accessories however are packed in polyethylene sheet packets, with thickness not less than 0.15 mm.

1.14.3 It should be clean inside box, dust and chips inside box are not permissible.

1.14.4 After placement, inspection of correctness of placement and completeness of box, it is closed by tightly fitting cover, locked, tied with wire and sealed with QCD seal and customer's representative.

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## 2. ACCEPTANCE RULES

### 2.1 General conditions

2.1.1 Under mentioned basic categories for inspection tests are set for checking quality and acceptance of machines:

- 1) approval;
- 1) periodical.

Demonstration test carried out by QCD precedes approval test category.

2.1.2 Category of inspection tests includes basic types of inspection and tests:

- 1) test for service life;
- 2) tests for reliability;
- 3) measurement inspection;
- 4) visual inspection.

Specific test schedule includes all or part of basic types depending up on purpose of tests.

2.1.3 Manufacturer's QCD carries out inspection of components and assembly units for compliance requirements of drawings and present specifications by total inspection.

QCD periodically carries out inspection of technological processes as per schedule approved by chief engineer and customer's representative.

2.1.4 Customer's representative controls adherence to technological processes selectively on his discretion.

2.1.5 Demonstration, approval tests and acceptance of machine are carried out by the QCD and customer's representative by furnishing separate documents( notice regarding demonstration, protocol with results). Format of documents is worked out by manufacturer and approved by customer's representative.

2.1.6 Technological certificate should be furnished for each machine, it should have information regarding assembly, tests and inspection operations.

Format of technological certificate is developed by manufacturer and approved by customer's representative.

2.1.7 Servicing of machines during demonstration and approval tests is carried out with help of technological kit of tool and accessories.

Servicing of machines during periodical tests , is carried out by tool and accessories

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taken from supply kit.

2.1.8 Machines, demonstrated during approval tests, should be fully completed in compliance with point 1.1.2 of present specifications.

2.1.9 Test results are considered positive and machines having withstood tests, if it has been tested in full extent and sequence specified in specifications for test category carried out and comply to all requirements of specifications, checked during these tests.

2.1.10 Test results are considered negative and machines, having failed the tests, if test results show non conformity of the machine even if for a single requirement established for this category of tests.

2.1.11 Basis for taking decision about acceptance of machine is positive results of approval tests and also positive results of previous periodical tests, carried out in specified periods.

2.1.12 If the tests and acceptance are carried out at manufacturing unit , material-technical and metrological facilities (necessary documents, hand books, work place, test tools, consumables and others) as well as allotment of maintenance personnel, security, transport and others are provided by the manufacturer.

2.1.13 Test , measurement and inspection tools that are applied and also measurement and inspection technique should be in compliance with requirements for metrological provisions.

While carrying out tests, correctness of application of specified tools and conducting measurements and inspection are ensured.

Use of test, measurement, inspection facilities, without having metrological attestation (checking) within stipulated time , is not permissible.

## 2.2 Demonstration tests

2.2.1 QCD conducts demonstration test in order to check machines for compliance to technical documents and their readiness for demonstration before customer's representative.

2.2.2 QCD carries out checking of machines by total inspection for under listed types of tests and inspection:

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- 1) demonstration tests;
  - 2) inspection of preservation and packing.
- Method as per point 4.2.

2.2.3 Each machine , demonstrated for QCD inspection are subjected to manufacturing inspection for compliance to requirements of technical document during manufacturing.

2.2.4 Manufacturing shop produces for demonstration test or inspection, by providing notification and technological certificate.

Format of notification is worked out by manufacturer and approved by customer’s representative.

2.2.5 Machine is considered having been passed by QCD and fit for demonstration before customer’s representative, if results of tests (inspection) comply to requirements of documents and furnished with protocol.

2.2.6 Machine, which failed QCD tests are returned to manufacturing shop for elimination of causes behind appearance of defects, conducting measures for their rectification, repeat inspection and repeat demonstration.

2.2.7 Repeat demonstration tests are carried out to extent , specified for demonstration tests.

Depending up on nature of defects, detected during preliminary tests (inspection), in individual technically justified cases, repeat demonstration tests may be carried out in volume of those tests, for which discrepancies in machines with established requirements were found, which could have affected appearance of non conformity, for which tests were not carried out.

2.2.8 Machines finally rejected by results of demonstration tests or inspection are segregated from serviceable ones.

Decision about use of finally rejected machines is taken by manufacturer with approval of customer’s representative in necessary cases.

2.3 Approval tests and acceptance by customer’s representative.

2.3.1 Customer’s representative carries out checking of each machine on under mentioned tests and inspection:

- 1) approval tests;

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2) inspection of preservation and packing.

Method as per point 4.3.

2.3.2 Customer's representative carries out tests and inspection for checking machines for compliance to requirements of specifications and determining possibility for acceptance.

2.3.3 Customer's representative carries out tests and acceptance with sources and tools of manufacturer in presence of QCD representative.

2.3.4 Demonstration of machines for inspection, tests and acceptance are carried out by QCD by notification.

Notification is accompanied with documents certifying conformity of machines to requirements of technical documents and technological certificate. Accompanying documents are provided for main components of machine (list is approved by customer's representative) with mention of: material grade, hardness, entry about inspection on steel scope and others.

For approval tests, additionally attached operating certificate for machine.

2.3.5 Customer's representative has right to check any number of components and assembly units at any stage of manufacturing for their compliance to requirements of drawings, technological processes and present specifications.

2.3.6 Machines having passed demonstration tests are produced for approval test.

2.3.7 Test and inspection results are furnished in form of protocol.

Protocols include technological certificate for machine.

If furnishing unified protocol, it has provision for separate column for recording QCD and customer's representative inspection results and report on them.

2.3.8 If during inspection, non compliance of machines to requirements of technical documents is found or even as in-gate delay is found (due to machine), then the machine is considered having failed tests and acceptance.

2.3.9 Machine, having failed the tests is returned to the QCD by customer's representative for finding causes for non compliance to requirements of technical documents, for conducting measures for their rectification, repeat checking and demonstration.

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2.3.10 Repeat tests are carried out in full extent.

Depending up on nature of defects, detected during preliminary tests (inspection), in individual technically justified cases, repeat demonstration tests may be carried out by customer's representative in volume of those tests, for which discrepancies in machines with established requirements were found, which could have affected appearance of non conformity, for which tests were not carried out.

2.3.11 Machines, returned by customer's representative after rectification of defects ( separating defective articles) , repeat inspection by manufacturer, repeat demonstration tests and QCD acceptance , are repeatedly demonstrated to customer's representative with inscription << Secondary>>, in case of positive results.

Notification is attached with act of analysis and rectification of defects and their causes. Secondary notification is signed by chief of manufacturing unit (chief engineer) and QCD head.

Repeat tests are carried out in full extent of approval test.

2.3.12 In case if machine did not pass repeat tests, it is rejected and segregated from serviceable ones.

2.3.13 Tests and acceptance of machines are terminated:

- 1) if units of machines, demonstrated twice for acceptance, did not withstand tests;
- 2) if units of machines were demonstrated one after another for preliminary tests and finally rejected on results of each of two subsequent tests.

2.3.14 Decision regarding resumption of tests and acceptance , decision about using finally rejected machines is taken by chief of manufacturing unit and customer's representative.

In this case, reasons behind termination of tests and acceptance and measures taken by manufacturer for rectification of defects are informed to the buyer and concerned ministry (department) in specified manner.

2.3.15 Machines are considered as accepted if the passed tests, completed and packed in compliance with requirements of present specifications, sealed by QCD and customer's representative and having furnished documents certifying their acceptance.

Accepted machines are subject to delivery or submission for safe storage to the manufacturer.

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2.4 Periodical tests

2.4.1 Periodical tests are carried out for:

- 1) periodical inspection of quality of machines;
- 2) inspection of consistency of technological process between period of previous and next tests;
- 3) confirmation of possibility of continuation of manufacturing of machines as per effective design and technological documents and their acceptance.

2.4.2 Periodical tests are carried out together with periodical tests of gun mount AK-630M.

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### 3. TEST METHODS

#### 3.1 Inspection of weight

3.1.1 Inspection of machine weight is carried out by weighing them on platform type weighing machines or other weighing machines with error not more than 0.02 kgf.

#### 3.2 Inspection of handle load.

3.2.1 Inspection is conducted in following sequence:

- 1) Machine is mounted and fastened on fixture AO-18P.000;
- 2) tray AO-18P.050 is joined to fixture;
- 3) belt consisting 6 new links is hooked and loaded in machine so that sprocket wings of machine grips lugs of first link;
- 4) tray of machine is loaded with 5 gauge-dummy cartridge;
- 5) dynamometer is connected to the handle , by rotating it clock wise loading of cartridge belt and checking of load is done on dynamometer.

By rotating handle by dynamometer anti clock wise, un loading of cartridge belt and inspection of load on dynamometer reading are carried out.

#### 3.3 Inspection of designated service life

3.3.1 Designated service life of machine is determined by loading and un loading cartridge belt with equal number of cartridges in extent, mentioned in point 3 of the table. Service life of component is considered been exhausted if noticing cracks, visible to naked eyes and breakage.

Insignificant ruptures or cracks in case of their appearance on separate components and assembly units are permissible, if they do not affect reliability of machines and do not bring about breaks.

#### 3.4 Inspection of fail safe operation

3.4.1 Inspection of failure safety is carried out during loading and un loading of cartridge belts. Delay caused by defect of machine is not permissible.

Inspection method- visual.

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3.5 Inspection of materials and blanks.

3.5.1 Incoming inspection of materials and blanks is carried out in compliance with GOST 24297-87.

Incoming inspection is carried out by external inspection and by checking certificates of supplier, signed by QCD and customer's representative (in his presence).

3.5.2 All materials used for manufacturing components and assembly units of machine are tested before induction to production by manufacturer's laboratories in compliance with inspection norms, approved by chief engineer and agreed up on with customer's representative.

3.6 Inspection of hardness of components.

3.6.1 Components and assembly units having undergone heat treatment are checked for hardness as per GOST 9012-59 and GOST 9013-59.

3.6.2 Inspection is carried out on devices for checking hardness of metals and alloys as per Rockwell method GOST 23677-79.

Reading of device when determining hardness is counted from medium limit.

If device operates on upper limit, reading is decreased by one unit, if device operates on lower limit, reading is increased by unit.

QCD carries out inspection of hardness by total inspection, barring components that are subjected to selective inspection as per drawing requirement.

Customer's representative conducts inspection for hardness selectively on device especially issued to him.

In addition to these inspections quality of heat treatment is checked in manufacturer's laboratory.

Inspection is carried out as per inspection schedule, approved by customer's representative.

Components and assembly units, not meeting requirements of hardness are returned by customer's representative to QCD for revision.

Revision is done on all components and assembly units of this nomenclature. Act is furnished for results of revision.

Repeat inspection is carried out by customer's representative on his discretion.

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In case if heat treatment of components and assembly units is carried out in batches, then components and assembly units of this very batch are subjected to revision. Components and assembly units pertaining to other batches may be revised selectively.

### 3.7 Inspection of coating.

Inspection of coating quality is carried out as per GOST 9.301-86, GOST 9.302-88, GOST 9.407-84.

### 3.8 Inspection of assembled machine

Inspection is carried out in following sequence:

- 1) Machine is mounted and fastened on fixture AO-18P;
- 2) tray AO-18P.050 is joined to fixture;
- 3) belt consisting 6 new links is hooked and loaded in machine so that sprocket wings of machine grips lugs of first link;
- 4) tray of machine is loaded with 5 gauge-dummy cartridge;
- 5) loading and unloading of cartridge belt is carried out by rotating handle clock wise and anti clock wise.
- 6) Inspection (visual) for fail safe operation of machine is done.

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#### 4. TEST METHODS

##### 4.1 General conditions during tests.

4.1.1 All types of tests of machine at manufacturing unit are carried out under natural climatic conditions.

4.1.2 Machine is operated during tests as per section 6 of present specifications.

##### 4.2 Method for demonstration tests and QCD acceptance.

###### 4.2.1 Demonstration tests include:

- 1) inspection of kit and accompanying documents. Follow point 1.12 of present specifications during inspection.
- 2) visual inspection of machine . During inspection follow points 1.9, 1.10, 1.13 of present specifications;
- 3) measurement inspection of assembly units as per requirements of drawing.
- 4) inspection of coating quality. During inspection follow point 3.7 of present specifications;
- 5) inspection of load on handle during loading and un loading. During inspection follow point 1.1.1 of table of present specifications;
- 6) inspection of failure safe operation of machine. During inspection follow point 1.11 of present specifications.

After loading (un loading) , brightness, knocks on operating surfaces of machine as per test specimen, not affecting reliability of operation is permissible.

List of equipment used during tests are given in annexure B.

4.2.2 Inspection of preservation and packing include checking of requirements as per point 1.14 of present specifications.

##### 4.3 Method of approval tests and acceptance by manufacturer's representative.

###### 4.3.1 Approval tests include:

- 1) inspection of kit and accompanying documents as per 1.12 of present specifications.
- 2) visual inspection of machines. During inspection follow points 1.9, 1.10, 1.13 of present specifications.

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3) inspection of load on handle during loading and unloading. During inspection follow point 1.11 of present specifications.

After loading (un loading) , brightness, knocks on operating surfaces of machine as per test specimen, not affecting reliability of operation is permissible.

List of equipment used during tests are given in annexure B.

4.3.2 Inspection of preservation and packing include checking of requirements of point 1.14 of present specifications.

Inspection is carried out together with QCD.

4.4 Method of periodical tests.

4.4.1 Periodical tests include loading to extent 18000 and un loading to extent 2000 cartridges.

While evaluating the results of tests follow points 3.3, 3.4 of present specifications.

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## 5. TRANSPORTATION AND STORAGE

5.1 Machines, packed in boxes may be transported by any mode of transport, provided the boxes are firmly fastened against free movement and protected from atmospheric moistures and splashes.

5.2 Transport used for loading should be dry and clean.

5.3 Falling of boxes during loading is not permissible.

If packing box falls during loading, then visual inspection of look of packing box is done. If required, inspection of condition of machines is carried out.

5.4 Packed machines accepted by customer's representative are delivered to the consignee or sent to store for ready stock for safe custody until time of delivery.

5.5 Machines are stored on racks, on supports or in rows in manufacturer's packing in heated or non heated premises.

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## 6. OPERATING INSTRUCTIONS

6.1 Before beginning operation with machine for loading belts, it is necessary to study <<Technical description and operating instruction>> so to follow operating rules.

6.2 During operation of belt loading machine, it is necessary to follow for its cleanliness and cleaning and lubrication of its pinions, shaft and link guides , cartridges in due time. Use lubricant MS-70 GOST 9762-76 for lubrication.

For washing components and assembly units use:

- 1) fuel T-1, T-2, TS-1 GOST 10227-86;
- 2) diesel oil GOST 305-82.

6.3 Carry out periodical inspection, cleaning and lubrication not less than once in a week.

6.4 During periodical inspections, removal of nicks, burrs and deposits of metal are polished with flat file and emery paper.

6.5 Once the service life is exhausted, it is permissible to continue operation of machines, used for technological purpose by manufacturer after its flaw detection and repair.

Value of additional service life is set after inspection, flaw detection and repair of machines in manufacturer's shop, by team comprising representative of manufacturing shop, QCD and customer's representative by inviting representative from design office, if necessary.

This data is entered in certificate of machine.

Entry is attested by members of the team.

|                    |        |       |          |      |      |               |  |  |       |
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Annexure A

LIST

of components , which are allowed to straighten after heat treatment.

| Designation | Nomenclature | Remarks |
|-------------|--------------|---------|
| AO-18N.001  | Base plate   |         |
| AO-18N.006  | Shaft        |         |
| AO-18N.008  | Locator      |         |

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Annexure B

LIST

of equipment, used during acceptance of machine

| No. | Nomenclature                   | Designation of drawing or standard | Remarks                                  |
|-----|--------------------------------|------------------------------------|--|
| 1   | Fixture                        | AO-18P.000                         |  |
| 2   | Dynamometer<br>DPU-0.2-1-UkhL2 | GOST 13837-79                      |  |
| 3   | Weighing machine               | -                                  | Any type with error not more than 20 gm. |

|                |                    |                    |               |      |      |               |       |
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**CERTIFICATE**

**AO-18N.000-01 PS**

**BELT LOADING MACHINE AO-18N.000**

**for article-----**

**CERTIFICATE**

**AO-18N.000-01 PS**



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## **1. GENERAL INSTRUCTIONS**

1.1 All entries in certificate are made only with inks distinctively and accurately. Erasing, blotting and incomplete corrections are not permissible.

## **2. GENERAL INFORMATION**

Belt loading machine AO-18N.000.

Date of manufacturing-----

Factory No. -----

### 3. BASIC TECHNICAL DETAILS

| Nomenclature of parameter                      | Characteristics |
|--|-----------------|
| 1. Weight                                      | 6.5 kg          |
| 2. Productivity                                | 2000 nos./hour  |
| 3. Load on handle during loading and unloading | 20 kgf          |

### 4. SUPPLY KIT

| S/No. | Designation    | Nomenclature         | Qty. | Remarks |
|-------|----------------|----------------------|------|---------|
| 1     | AO-18P2.010    | Special breech block | 1    |         |
| 2     | AO-18P2.049    | Ring                 | 1    |         |
| 3     | AO-18P2.010 PS | Certificate          | 1    |         |
| 4     | Sb.13          | Bag                  | 1    |         |

#### 4. SUPPLY KIT

| Designation                 | Nomenclature                        | Qty. | Factory No. | Remarks                                |
|-----------------------------|-------------------------------------|------|-------------|--|
| AO-18N.000                  | Belt loading machine                | 1    |             |  |
| <b>Spare parts</b>          |                                     |      |             |  |
| AO-18N.007                  | Key                                 | 2    | -           |  |
| <b>Tool and accessories</b> |                                     |      |             |  |
|                             | Screwdriver 7810-09283A1            | 1    | -           |  |
|                             | Chem.phos.Oil.<br>GOST 17199-88     |      |             |  |
|                             | Drift bolt 4 x 100                  | 1    | -           |  |
|                             | Wood screw 1.5 x 40<br>GOST 1145-80 | 6    | -           | Used for fastening<br>machine on table |
| <b>Packing</b>              |                                     |      |             |  |
| Ya-AO-18N.000               | Box                                 | 1    |             |  |
|                             |                                     |      |             |  |

**5. ACCEPTANCE CERTIFICATE**

Belt loading machine AO-18N.000 Factory No.----- is in compliance with technical documents and accepted as serviceable for operation.

Stamp

----- (Signature)

----- (Date)

## **6. INFORMATION ON SERVICE LIFE AND SHELF LIFE**

**6.1** Total designated service life of machine is 20000 cycles; out of which:

for loading- 18000 cycles;

for un loading- 2000 cycles.

**6.2** Shelf life of machine in manufacturer's packing is 7 years.

**6.3** Above mentioned service life and shelf life for machine is applicable if the customer follows requirements, mentioned in operating instructions.

**7. PRESERVATION CERTIFICATE**

Belt loading machine AO-18N.000 Factory No.----- was  
subjected to ----- preservation as per requirements, provided in operating  
instructions.

Date of preservation-----

Period of preservation-----

Preservation carried out by----- (Signature)

Stamp

Article accepted after packing by----- (signature)

8.INFORMATION ABOUT PRESERVATION (PACKING) AND DE PRESERVATION

| Date | Nomenclature of operation (job)  | Effective period                            | Name and sign of operator |
|------|--|---|---------------------------|
|      | <p>Belt loading machine is wrapped in anti corrosion paper MBGI-8-40 GOST 16295-82, packed:</p> <p>1) in wax paper BP-3.35 GOST 9569-79</p> <p>2) in wax paper BP-3-35 GOST 9569-79 and casing made of polyethylene sheet Ms GOST 10354-82</p> <p>Machine is preserved with lubricant MS-70 GOST 9762-76, packed in wax paper BP-3-35 GOST 9569-79 and casing made of polyethylene sheet as per GOST 10354-82. packets with silica gel KSMG GOST 3956-76 are put in casing .</p> | <p>1 year</p> <p>7 years</p> <p>7 years</p> |                           |



Continued

| Date | Nomenclature of operation (job)  | Effective period                            | Name and sign of operator |
|------|--|---|---------------------------|
|      | <p>Belt loading machine is wrapped in anti corrosion paper MBGI-8-40 GOST 16295-82, packed:</p> <p>1) in wax paper BP-3.35 GOST 9569-79</p> <p>2) in wax paper BP-3-35 GOST 9569-79 and casing made of polyethylene sheet Ms GOST 10354-82</p> <p>Machine is preserved with lubricant MS-70 GOST 9762-76, packed in wax paper BP-3-35 GOST 9569-79 and casing made of polyethylene sheet as per GOST 10354-82. packets with silica gel KSMG GOST 3956-76 are put in casing .</p> | <p>1 year</p> <p>7 years</p> <p>7 years</p> |                           |

**9. OPERATING BELT LOADING MACHINE**

| Date | Place of operation | No.                        |                               | Remarks | Name and sign of authorized person |
|------|--------------------|----------------------------|-------------------------------|---------|------------------------------------|
|      |                    | of loading since operation | of un loading since operation |         |                                    |
|      |                    |                            |                               |         |                                    |

**Continued**

| Date | Place of operation | No.                        |                               | Remarks | Name and sign of authorized person |
|------|--------------------|----------------------------|-------------------------------|---------|------------------------------------|
|      |                    | of loading since operation | of un loading since operation |         |                                    |
|      |                    |                            |                               |         |                                    |

**Continued**

| Date | Place of operation | No.                        |                               | Remarks | Name and sign of authorized person |
|------|--------------------|----------------------------|-------------------------------|---------|------------------------------------|
|      |                    | of loading since operation | of un loading since operation |         |                                    |
|      |                    |                            |                               |         |                                    |

**10. REPAIR WORKS AND ADJUSTMENTS CARRIED OUT**

| Date | Nomenclature of operation | Reason for carrying out operation | Unit that carried out operation | Name and sign of person having carried out repair work. |
|------|---------------------------|-----------------------------------|---------------------------------|---|
|      |                           |                                   |                                 |   |