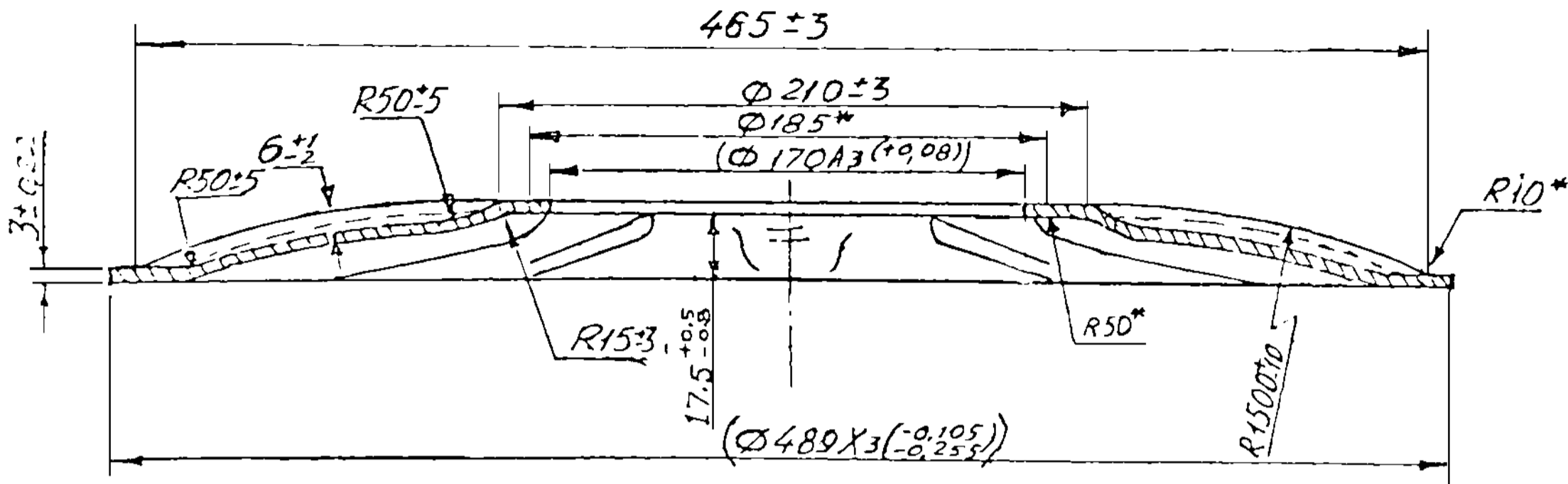


TECH. CONDITIONS

1. Casting is performed by centrifugal method.
2. Casting slops should not exceed 2°.
3. Not specified rounding radius should not exceed 6 mm.
4. Not specified limit deviations of casting sizes are according to the 3rd class of accuracy, ГОСТ 2009-55.
5. HB 241 to 302 (Ø of indent 3.9 to 3.5).
6. Not specified limit deviations of dimensions of machined surfaces of holes - according to A₇; of shafts - according to B₇, of other sizes - according to CM₈.
7. Make the part subject to rubberization according to the conventional dotted line.
8. Sizes and roughness of the surface are given in brackets after assembly.
9. *Size for reference.
10. $\phi = 2.5$
 $\phi = R_{80}$
11. It is allowed to machine sizes 3 and H in assembly according to drawing 675-33-c6104C5.

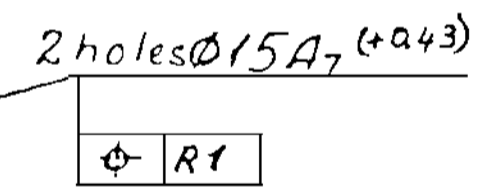
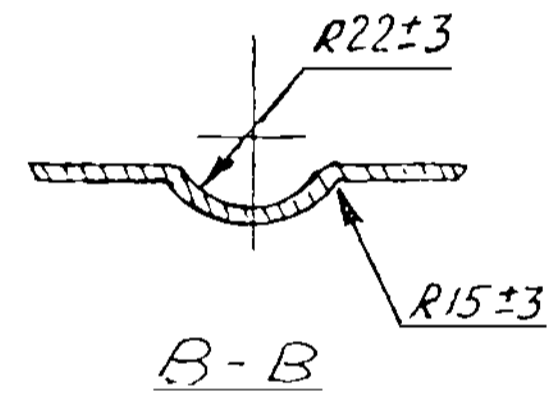
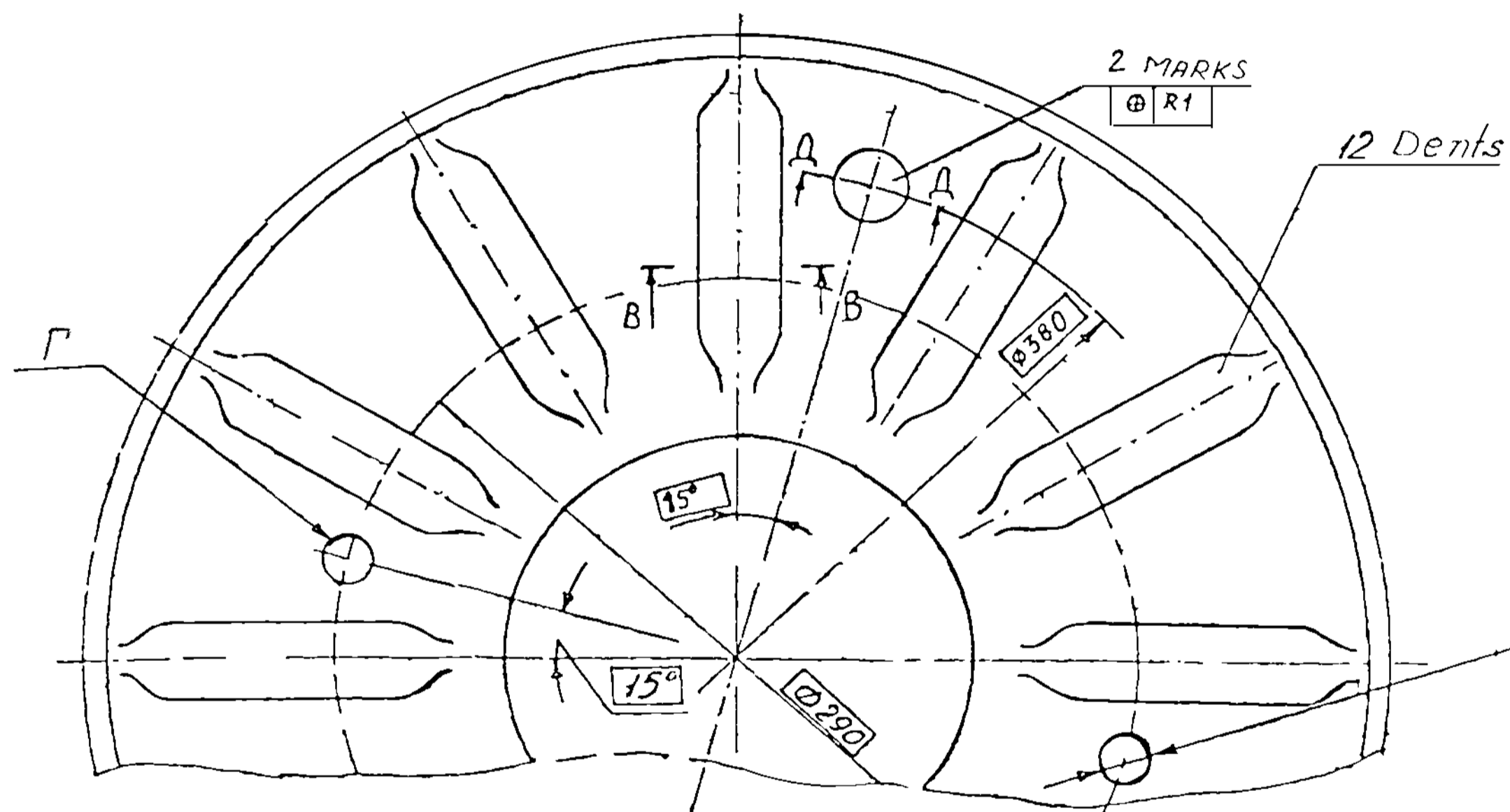
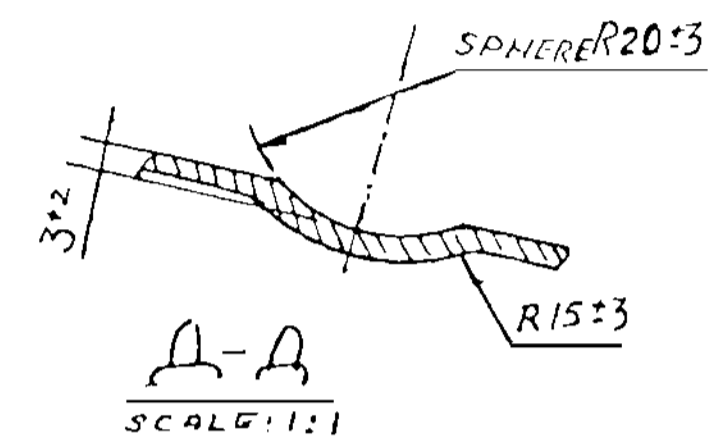
THE ABBREVIATIONS AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS
ALL DIMENSIONS IN mm

NEAREST EQ. MATERIAL			
STEEL 35 XHn TT 25011-00001			
ORGL MATERIAL:-	DC(I)No. & DATE	ISSUE	AMENDMENTS
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART No. MANUFACTURER'S NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:	
SCALE: 1:1			
DATE:			
DRN.	WT. :- (Kg)	HUB	
TCD.	4.22		
CHD		675-33-2	DS CAT No.
APPD			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			





TECH. CONDITIONS

1. Surfaces should be clean, smooth without cracks; Dents and hollows are not permissible.
2. Sizes are given in brackets after assembly.
3. Extension of hole Γ should not exceed 1 mm.
4. It is permissible to make holes Γ according to drawing 675-33-c6112.
5. *Dimensions are ensured by the manufacturing process.



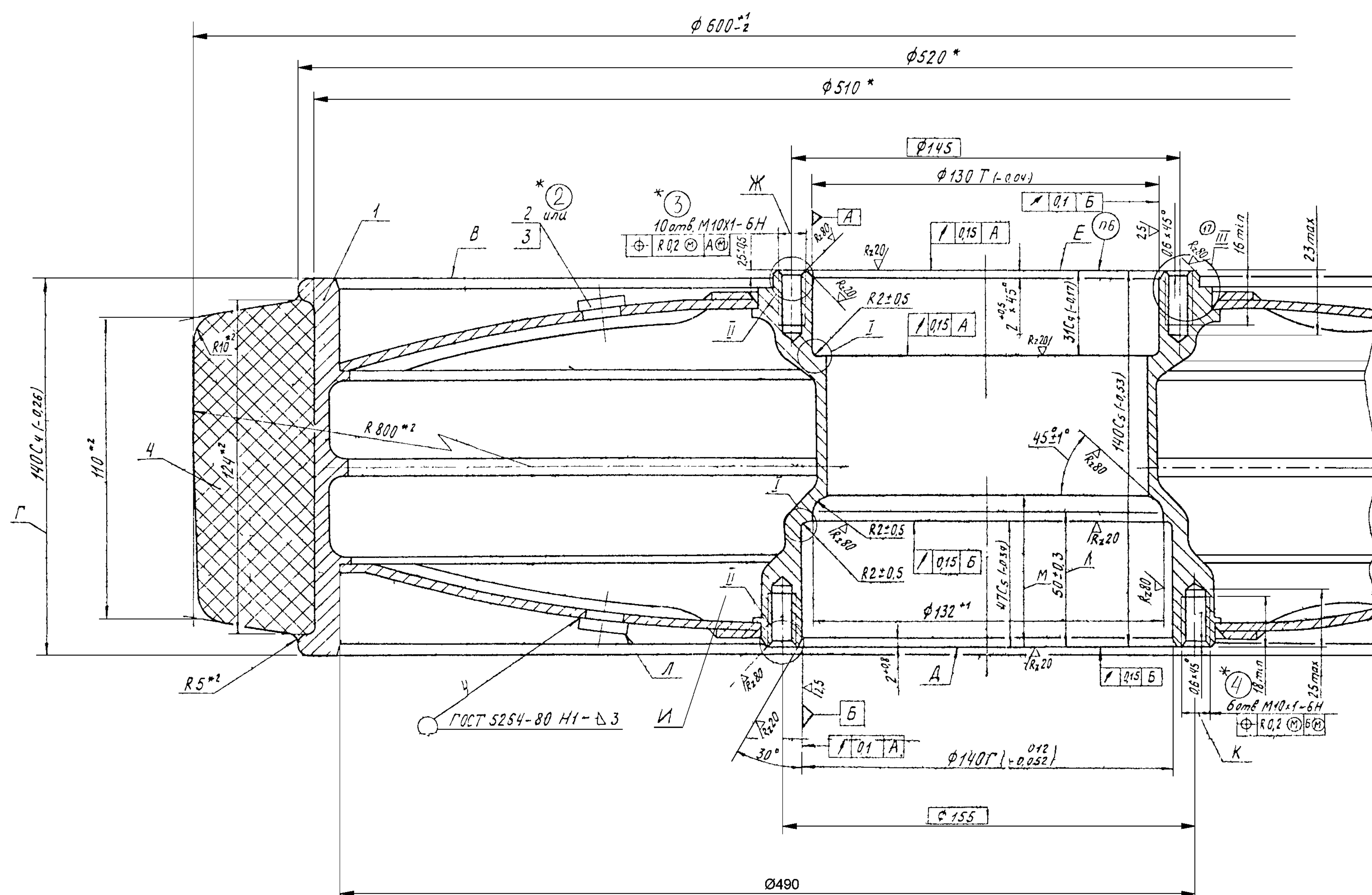
NEAREST EQ. MATERIAL			
STEEL Bn 25, TY 14-1-1369-75			
ORGL MATERIAL:-	DC(I) No. & DATE	ISSUE	AMENDMENTS
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART No. MANUFACTURER'S NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:	
SCALE: 1:2			
DATE:			
DRN.	WT :- (Kg)	675-33-3	
TCD.	4.6		
CHD	APPD	DISC	DS CAT No.
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			

No.	Designation	Description	Qty	Remark
		<u>List of Documents</u>		
	675-33-c610ACE TY 38004204-74	Assembly drawing Specifications for solid-rubber tyres glued to discs (rims) with clamps		
		<u>Assembly Units</u>		
1	675-33-c6105	Welded road wheel		
		<u>Parts</u>		
2	765-33-39	Plug		4 pcs. Replace- ment by Ref. No. 3 is permis- sible
3	700-58-54	Plug		4 pcs. Replace- ment by Ref. No. 2 is permis- sible
		<u>Materials</u>		
4		Rubber 34PM-14	10.85 kg	

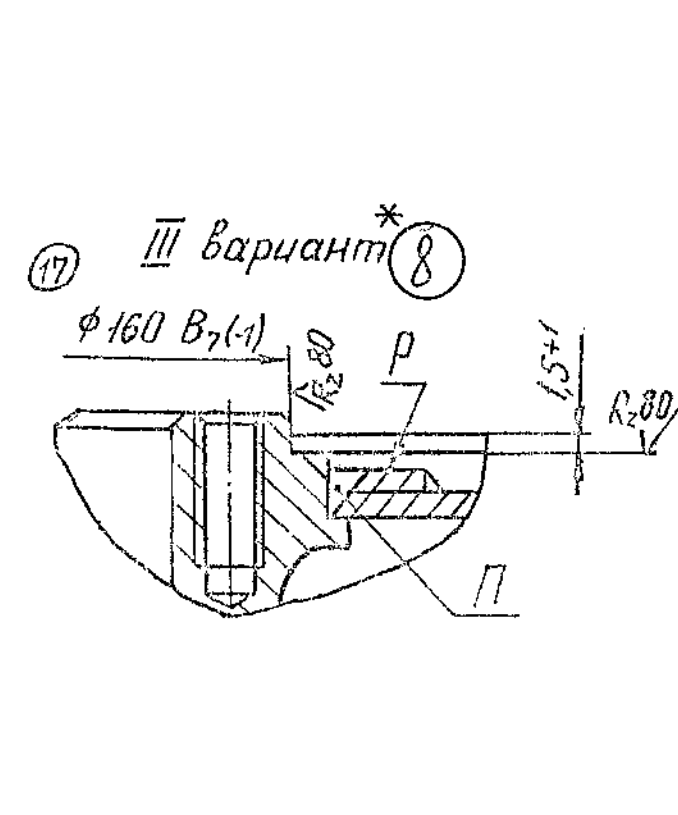
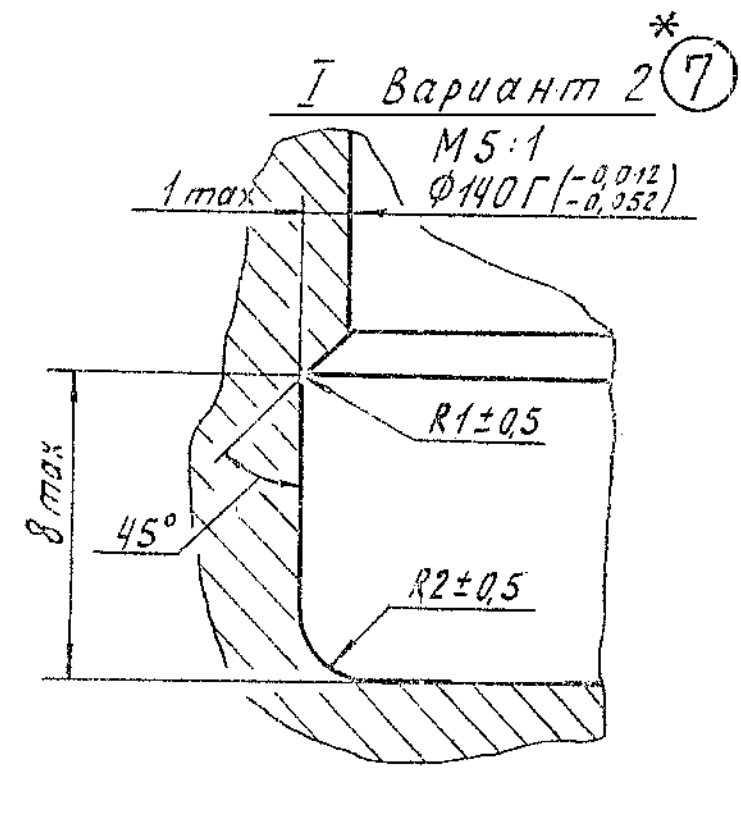
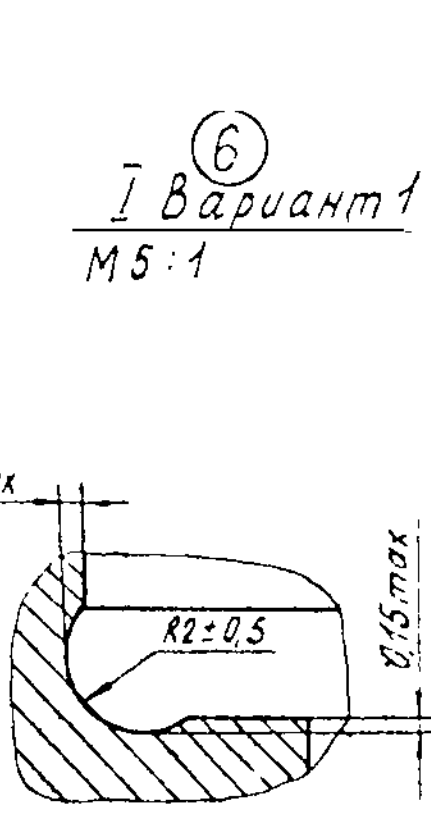
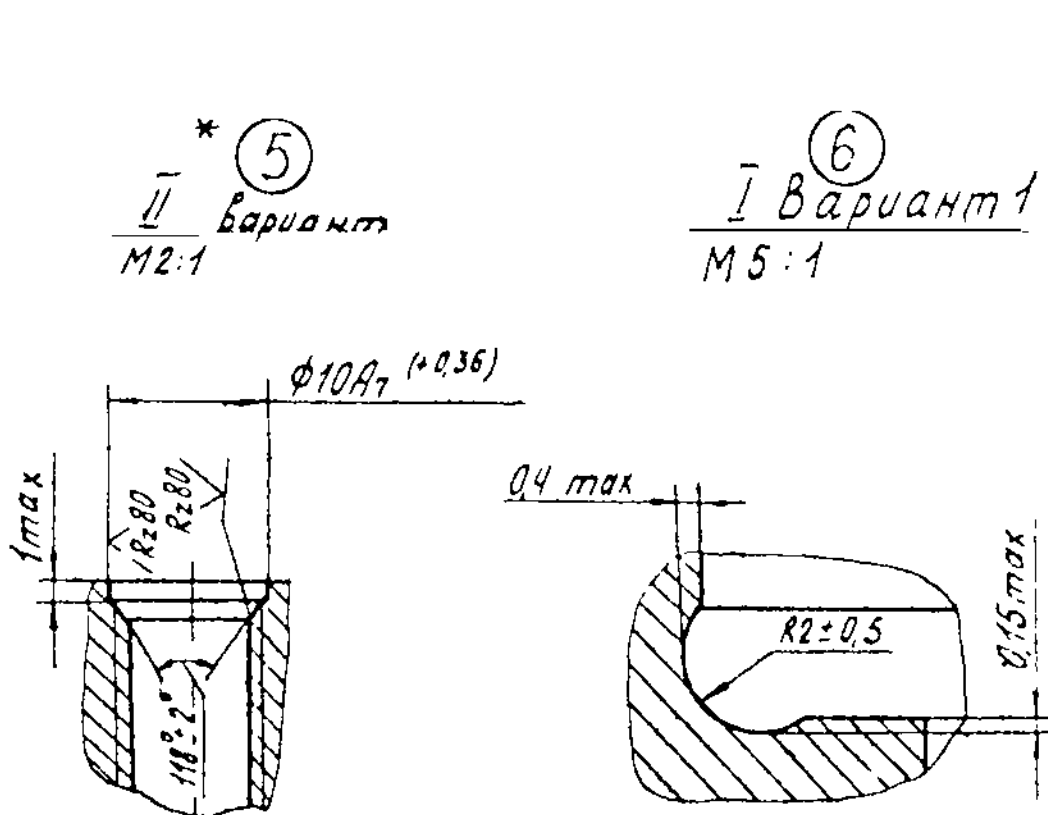
APPROVED		675-33-Sb1'04		
CHECKED				
CONTROLLERATE OF QUALITY ASSURANCE (ICV)	ROAD WHEEL WITH SOLID RUBBER TYRE		WEIGHT	SCALE
		SHT	SHTS	

TECH. CONDITIONS

1. Technical requirements for manufacturing tyre solid rubber conform to Specifications ТУ 38 004204-74.
2. Tyre material is rubber 34PK-14. Replacement by rubber 34PK-13 is permissible.
3. Surfaces A and B may have a longitudinal tool notch, not exceeding 0.1 mm in depth and 0.3 mm in width.
4. Surfaces I and E may have only one spiral tool notch, not exceeding 0.1 mm in depth.
5. Cutting of face B is permissible. In this case, loosening of size Г should not exceed 0.35 mm.
6. Use type ПС-5...8, ГОСТ 2930-62, to mark index of the Manufacturing Plant of the road wheel, index of the Manufacturing Plant of the tyre and date (month, year) of the tyre manufacture.
7. Apply the tyre serial No. on the side surfaces of the rubber mass only from the side of face B.
8. Holes Ж and К should not extend into space И.
9. Coat external surfaces of parts, except face surfaces of the hub and rubber surfaces, with primer ФЛ-03К, ГОСТ 9109-81. It is allowed to prime the parts after assembly.
10. * Dimensions for reference.
11. ** Dimensions of solid mass tyre are ensured by tooling.
12. Weld with electrode 3100, ГОСТ 9467-75.
13. It is allowed to perform electric arc welding in an atmosphere of shielding gas, ГОСТ 14771-76, with wire св 08Г2С, ГОСТ 224-70.
14. Flash welding of edge П is permissible.
15. Loosening of holes Ж (4 pcs maximum) and holes К (3 pcs maximum) to M10 x 1-7H is permissible.
16. For other requirements for weld quality, see OCT 3-4001-77 for welded joints of the 3rd category.
17. Making of size M = 56 ± 0.6 mm instead of size Л is permissible.
18. Cutting of weld П, protruding beyond surface P, is permissible.





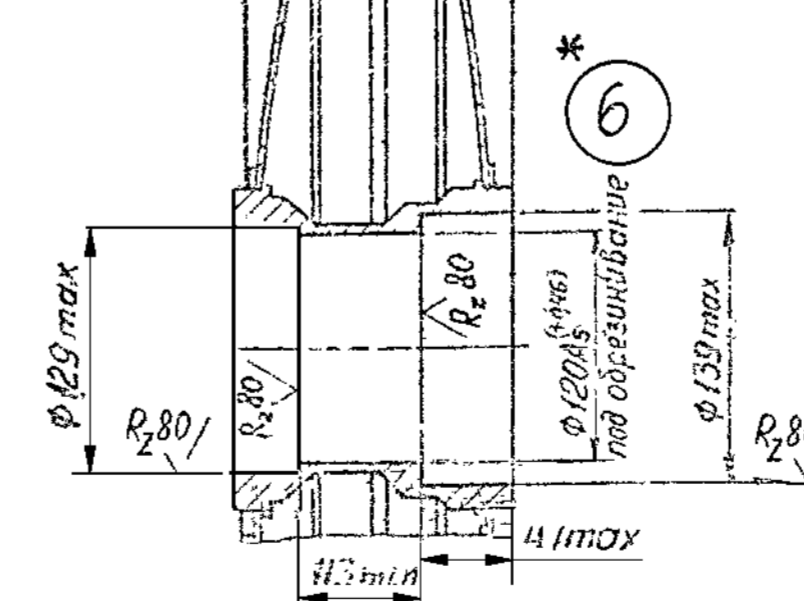
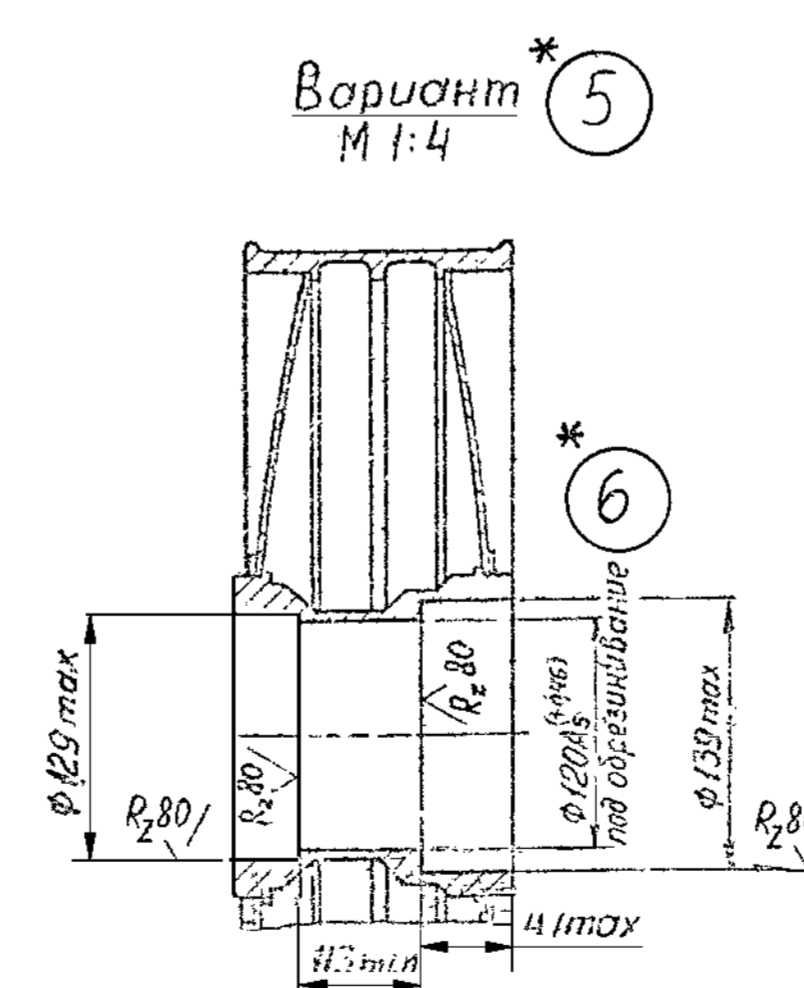
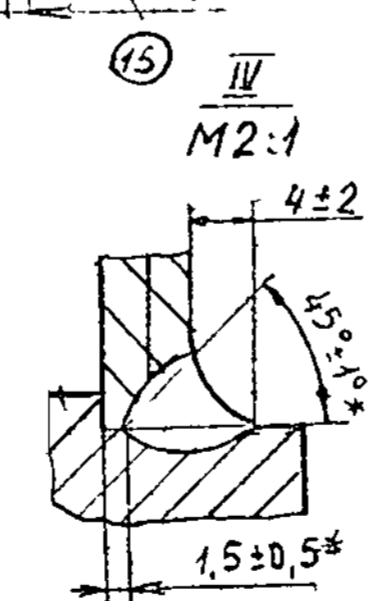
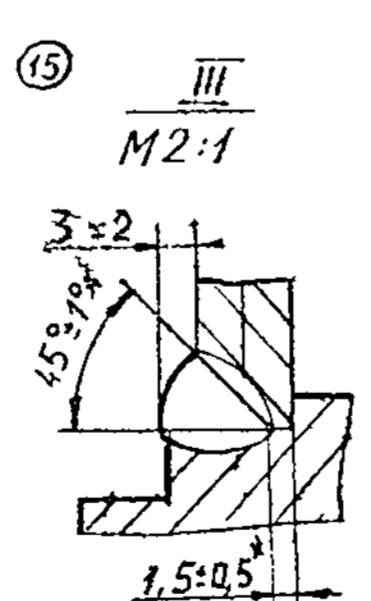
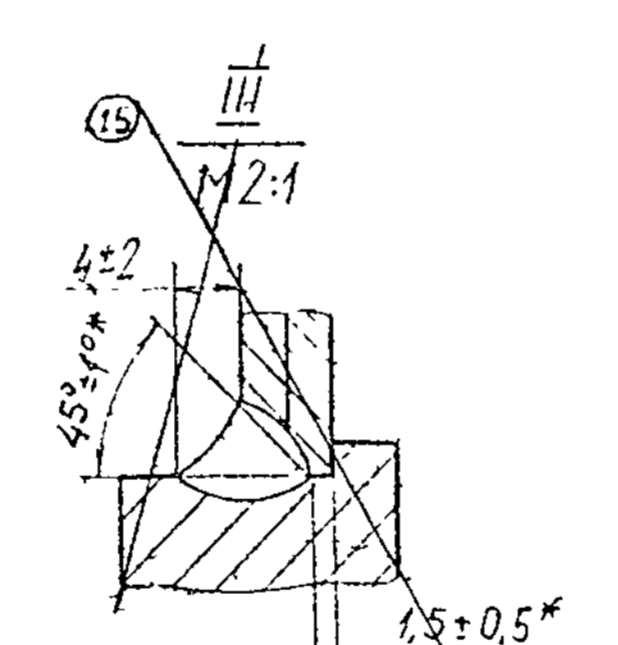
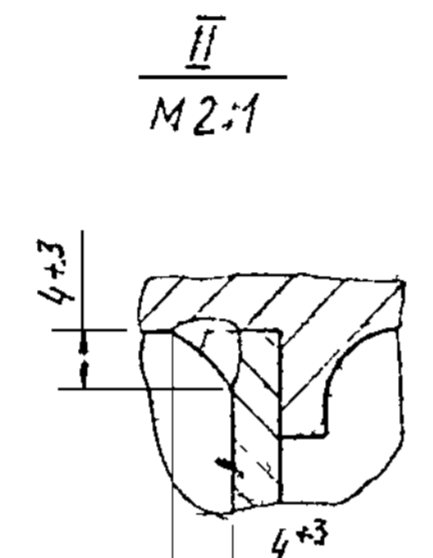
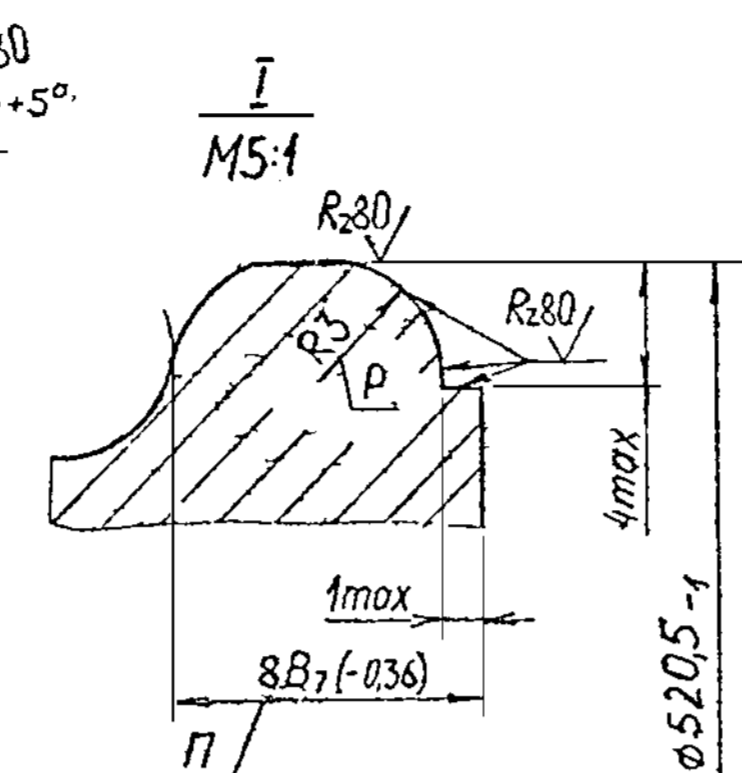
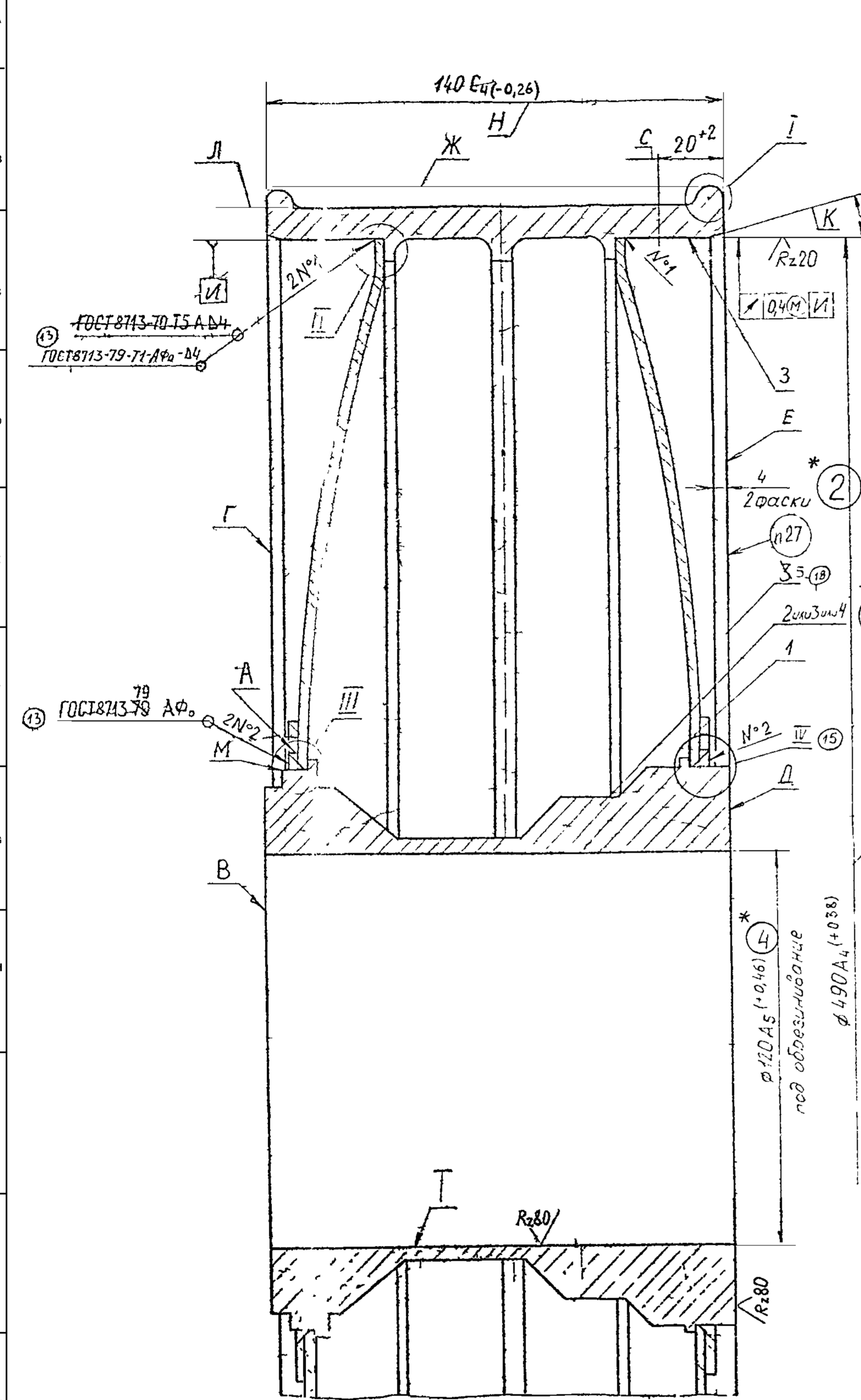
- * ② 2 or 3
- * ③ 10 holes M10x1-6H
- * ④ 6 holes M10x1-6H
- * ⑤ version II, scale 2:1
- * ⑥ I Version 1 Scale 5:1
- * ⑦ I Version 2 Scale 5:1
- * ⑧ III Version



APPROVED	675-33-Sb 104 Sb		
CHECKED	ROAD WHEEL WITH SOLID RUBBER TYRE		WEIGHT SCALE
CONTROLLERATE OF QUALITY ASSURANCE (ICV)			41.09 1:1
			SHT SHTS

No.	Designation	Description	Qty	Remark
		<u>List of Documents</u>		
	675-33-c6105CB	Assembly drawing		
		<u>Assembly Units</u>		
1	675-33-c6112	Disc, assy		
2	765-33-c6187	Hub		1 pc. Replace- ment by Ref. Nos 3, 4 is permis- sible
		<u>Parts</u>		
3	675-33-2	Hub		1 pc. Replace- ment by Ref. Nos 4, 2 is permis- sible
4	675-33-10	Hub		1 pc. Replace- ment by Ref. Nos 2, 3 is permis- sible
5	765-33-120	Road wheel rim		

APPROVED 	<h1>675-33-Sb105</h1>			
CHECKED 				
CONTROLLERATE OF QUALITY ASSURANCE (ICV)	<h2>WELDED ROAD WHEEL</h2>		WEIGHT	SCALE
		SHT	SHTS	





20. Check surface X with a single-point tool, as shown on Detail I.
21. Surfaces 3, M, T, E and N may have one spiral tool notch, 0.2 mm deep and 0.3 mm wide, maximum.
22. Surface N subject to rubberization should conform to Specifications IV 38004204-74. Corrosion, paint, passivating material acid, alkali, salt and oil are not permissible.
23. Dent dressing traces on surfaces T, E, X, K, 8 mm long and 0.5 mm deep, maximum, are permissible.
24. After welding the road wheel it is allowed to machine one face of the rim according to sizes H, N and P. In this case runoff of surface E relative to the axis of surface 3 should not exceed 0.5 mm, roughness of surface E and radius P is R_{z20} .
25. Local loosening of size H to $140C_{5(-0,5)}$ over the arc length of 300 mm, maximum, is permissible.
26. Coat disc external surfaces with primer 6T-03K, GOST 9109-81. In consultation with the tyre manufacturing shop, it is allowed not to perform coating of the disc external surfaces.
27. Stamp a mark of the Manufacturing Plant of the road wheel with type П05...8, GOST 2930-62.
28. For other technical requirements for weld quality, see Specifications OCT 3-4001-77 for the welded joints of the 3rd category.
29. *Dimensions for reference.

- * (2) 2 chamfers
- * (3) 2 or 3 or 4
- * (4) For rubberization
- * (5) Version Scale 1:4
- * (6) For rubberization

1. Perform welding with wire cs 18XMA, GOST 2246-70, and flux AH-348AM, GOST 9087-69.
2. After welding, temper the part to remove internal stresses.
3. During welding press the discs to the respective shoulders of the hub and rim.
4. Weld up auxiliary hole A (if it is available) in cover plates with electrode 3-100 or 3-85, GOST 9467-75, before testing the road wheel for tightness.
5. Rolls, welding splashes and dents on surfaces 3, M over a length C from both faces are not permissible.
6. Flash welding of edge M is permissible.
7. In welded joints:
 - (a) cracks in weld seam metal and adjacent zones, not-welded blow-holes and shrink holes, cuts of more than 0.3 mm on the surface of disc assembly (1) and cuts of more than 1 mm on the surface of hub (2) and rim (3) are not permissible.
 - (b) surface pores (2 x 2 mm), up to 1 mm deep, 5 pieces per a weld, and a leg increase by 3 mm on the weld overlapped portion, 30 to 70 mm long, are permissible.
8. Test the weld seams for tightness by air at a pressure of 0.03 ± 0.01 ($0.3^{+0.1}$ atm, gauge) in a water bath in the course of one minute. Emission of air bubbles is impermissible.
9. To check the part for proper assembly and welding, use specimens cut out in any place of the weld, except the end portion, 150 mm long. Perform a check for a lot of road wheels, 500 pieces maximum.
10. In welded seam specimens:
 - (a) cracks, faulty fusion, angle top incomplete penetration are not permissible;
 - (b) a clearance in joint of the disc with shoulders of the hub and rim of 1 mm maximum, radial clearance in joint of the disc with the rim and hub of 0.5 mm maximum, size enlargement of the weld by 2 mm above the tolerance in points of defect correction, separate pores, 1 mm maximum, incomplete penetration by a value of the disc dulling in the joint with the hub and disc face in the joint with the rim, - are permissible.
11. Check parts for proper heat treatment by metallographic examination of their structure and by measurement of the welded joint hardness. Hardness of basic metal of the disc, hub, rim is HB 255 to 302 (ϕ of indent 3.8 to 3.5), and of the weld and heat-affected area is 400 HB maximum. (Check hardness of the weld and heat-affected area on a road wheel from a lot of 1000 pieces, maximum).
12. Correct welding defects by electrode 3-100 or 3-85, GOST 9467-75 or wire cs 18XMA, GOST 2246-70.
13. It is allowed to correct with subsequent heat treatment the following defects: cracks of welds connecting the discs with the rim, 250 mm long, maximum, cracks of welds connecting the discs with hubs, 150 mm long, maximum, pores with sizes exceeding the values mentioned in Item 7 and gas inclusions, 12 pieces on each weld, maximum.
14. It is allowed to correct separate defects of welded joints, connecting the disc and the rim, except cracks, by manual electric arc welding without subsequent heat treatment with total length of corrected sections of up to 80 mm and length of separate sections of up to 30 mm.
15. Defect located in one and the same place may be corrected two times, maximum, for the welds connecting the disc and the rim and 1 time, maximum, for the welds connecting the disc and hub.
16. Correction of burning on the disc is not permissible.
17. Maintain size B over length C from both faces. In this case, local loosening of the size should not exceed 0.4 mm per the diameter.
18. Hub displacement relative to the rim from their nominal position after welding should not exceed 3 mm. Check it from faces B and F. Machining of face B is not allowed.
19. Dress face N of the hub (with allowance) flush with rim face E. Before rubberization displacement should not exceed 0.7 mm, after rubberization, not over 1.3 mm. It is allowed not to check the displacement while making the tyre.

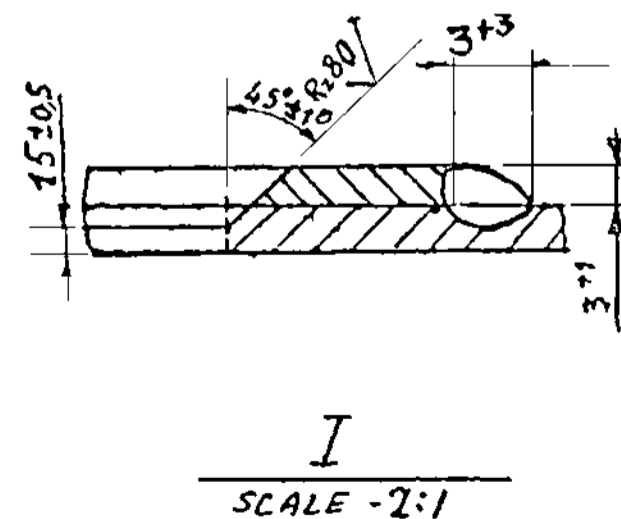
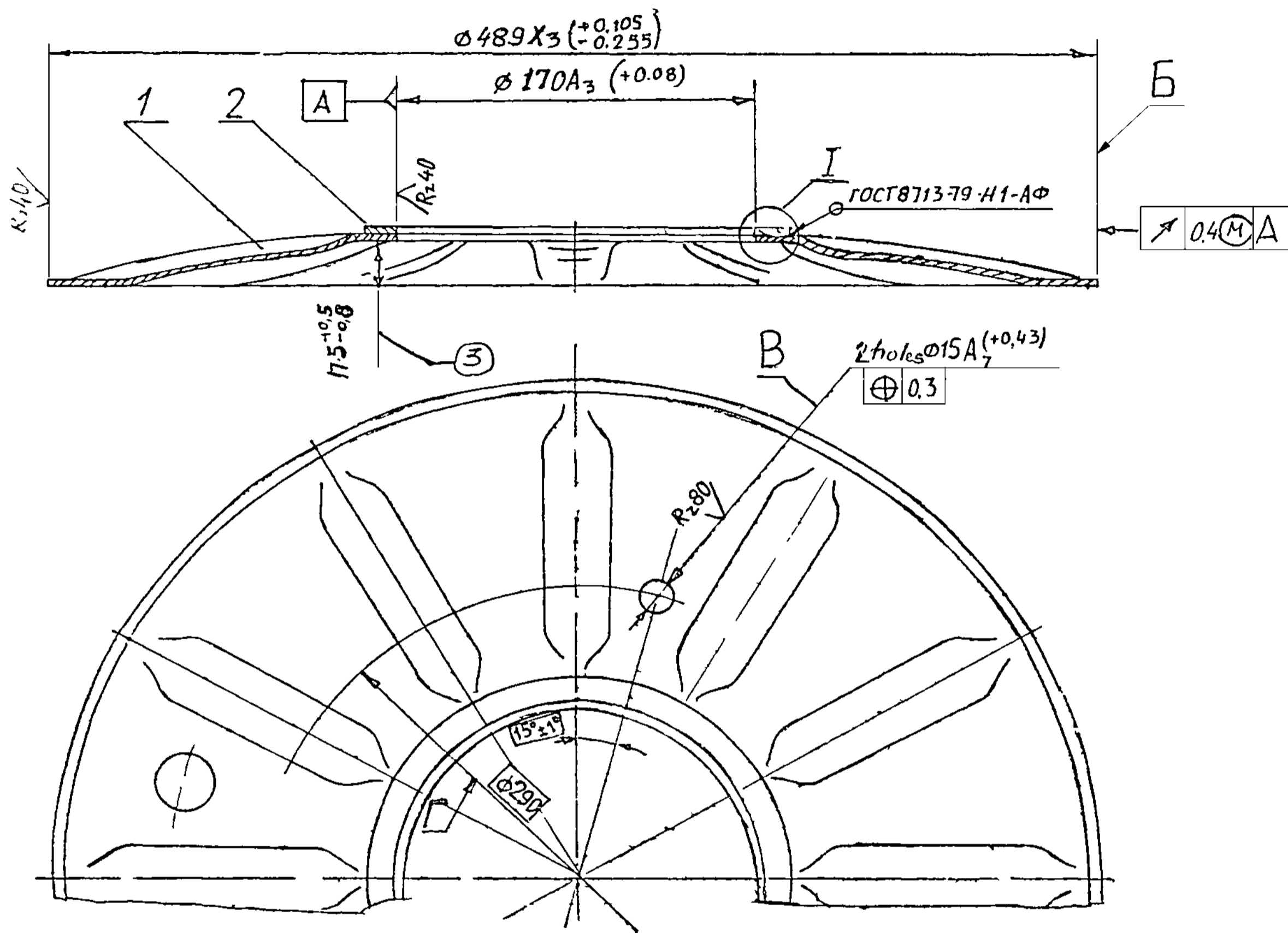
APPROVED	675-33-Sb105 Sb	WEIGHT	SCALE
CHECKED		30.23	1:1
CONTROLLERATE OF QUALITY ASSURANCE (ICV)	WELDED ROAD WHEEL	SHT	SHTS

No.	Designation	Description	Qty	Remark
		<u>List of Documents</u>		
	675-33-c6112CB	Assembly drawing		
		<u>Parts</u>		
1	675-33-3	Disc	1	
2	765-33-92	Cover plate	1	

APPROVED 	675-33-Sb112		
CHECKED 	DISC assembly		WEIGHT SCALE
CONTROLLERATE OF QUALITY ASSURANCE (ICV)			
		SHT	SHTS

TECH. CONDITIONS

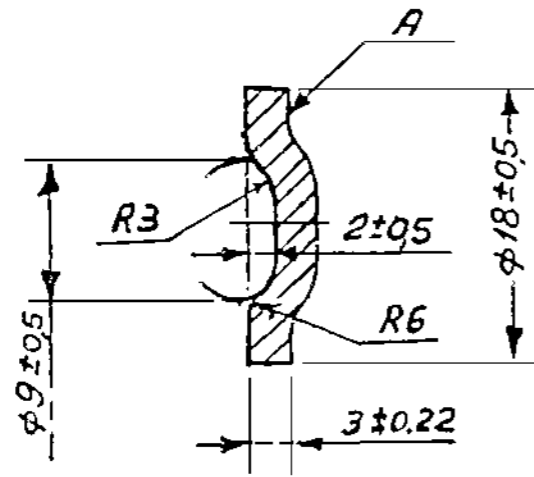
- To perform welding, use wire ca 18XMA, GOCT 2246-70 and flux AH-348AM, GOCT 9087-69.
 - Welds may have surface gas inclusions, 2 x 2 mm in size, up to 1 mm deep. 6 pieces maximum. Correct gas inclusions of larger size in a quantity of 10 pieces maximum, by welding.
 - It is allowed to correct defects by manual electric arc welding with electrodes 3100 or 385, GOCT 9467-75.
 - Correct a defect in one and the same place for one time only.
 - Permissible increase of the weld leg is 3 mm maximum in the area of overlapping of the weld, 20 to 40 mm long, and in places of defect correction.
 - Correction of burns and cuts exceeding 0.3 mm are not permissible.
- For other requirements for weld quality, see OCT 3-4001-77 for welded joints of the 3rd category.
- HB 255 to 302 (ϕ of indent 3.8 to 3.5). Check by the part (Ref. No. 1).
 - Clean the surface with sand.
 - Instead of 2 auxiliary holes B, it is permissible to make 4 holes.
 - It is permissible to make holes B in the part (1).
 - Roundness tolerance of surfaces A and B in the machine must be within the range of the half of tolerance of sizes. The roundness of surface A being out of the machine should not exceed 0.075 mm, and of surface B, 0.25 mm.
 - Permissible clearance between parts (1) and (2) should not exceed 0.5 mm, and 1 mm at a distance of up to 3 mm from the weld.
 - Displacement of the axis of part (2) relative to the internal diameter of part (1) should not exceed 1.5 mm (ensured by tooling).
 - Displacement of the axis of surface A relative to the axis of circumference Γ should not exceed 1 mm.
 - Size 3 may be checked in compressed condition by a force of not more than 10 kgf.



THE ABBREVIATIONS AND SYMBOLS ARE
BASED ON RUSSIAN SPECIFICATIONS
ALL DIMENSIONS IN mm

NEAREST EQ. MATERIAL			
MATL			
ORGL MATERIAL:-		DC(I) No. & DATE	ISSUE
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		AMENDMENTS	
DRG. NOT TO BE SCALED		STAMP OR ETCH, PART No. MANUFACTURER's NAME & YEAR OF MFR.	
SCALE: 1:2		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE:		USED ON: 675-33-Sb105	
DRN.	WT. :- (Kg)	675-33-Sb112Sb	
TCD.	4.8		
CHD	APPD	DISC, ASSEMBLY	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			

700-58-54



TECHNICAL CONDITIONS

1. BLUNT SHARP EDGES.
 2. STAMPING DRAFT SHOULD NOT EXCEED 0.3 mm.
 3. NON FLATNESS OF SURFACE A SHOULD NOT EXCEED 0.5 mm TO A WIDTH OF 1.5 mm.
 4. ALTERNATE MATERIAL IS STEEL Cm 5, GOST 380-71, AND STEEL 08, 10, 15, 20, 25 AND 30, GOST 1050-74.
- Ⓐ EQ. MATERIAL:- Fe 410 TO IS:1079-88.

THE ABBRIVATIONS AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS.

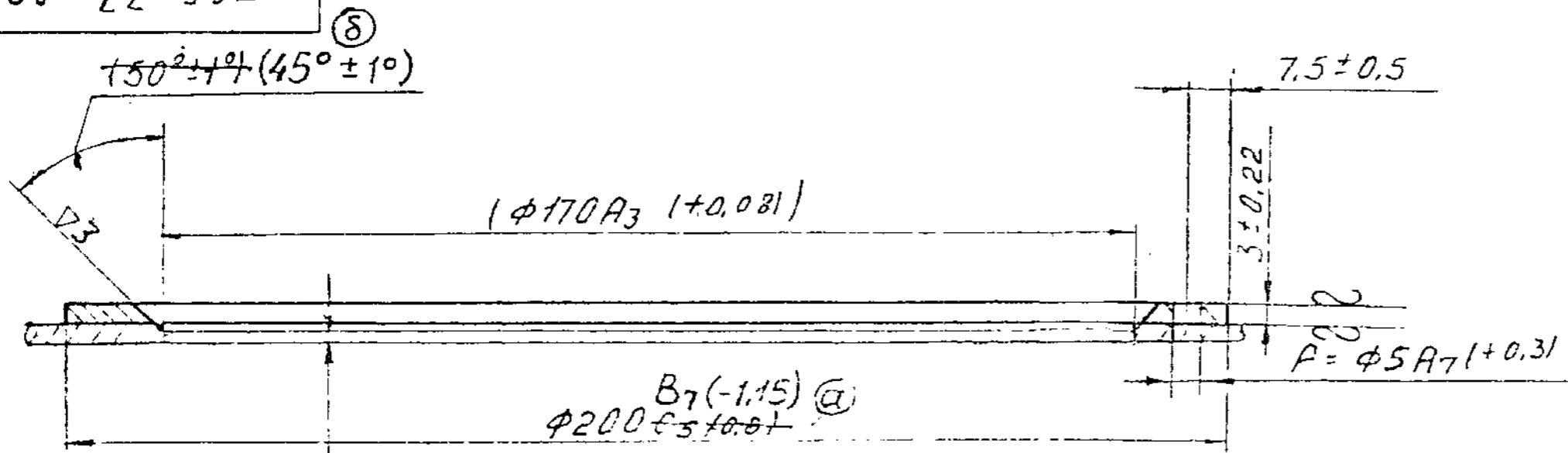
ALL DIMENSIONS ARE IN mm.

NEAREST EQ. MATERIAL		00716-ICV	Ⓐ	EQ. MATERIAL ADDED IN THE DRAWING
STEEL Cm 3cn, GOST 380-71		<i>[Signature]</i>	<i>[Signature]</i>	
ORGL MATERIAL:-		12-8-99	DC(I)No. & DATE	ISSUE
ALL SHARF EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART No. MANUFACTURER'S NAME & YEAR OF MFR.		
DRG. NOT TO BE SCALED	SCALE: 2:1	USED ON: 765-50-Sb716 675-50-Sb420		
DATE: 28-1-92	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED			
DRN. <i>[Signature]</i>	WT :- (Kg) 0.006	700-58-54		
TCD. <i>[Signature]</i>				
CHD. <i>[Signature]</i>		PLUG		
APPD. <i>[Signature]</i>				
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)				

DS CAT No.

765-33-92

(17)



(15±0.5)
(2±0.5)
②

1. Surfaces should be clean and smooth, without cracks. Hollows and dents, beyond the limits of tolerance for thickness, are not permitted.
2. Alternate material is steel 25xГCA, GOST 4543-71.
3. Dimensions given in brackets^{are} after assembly.
4. Auxiliary hole A is permitted.
5. Non-flatness should not exceed 0.5 mm.
Checking is permitted by pressing the part with the hand.

APPROVED	<i>[Signature]</i>	765-33-92	WEIGHT	SCALE
CHECKED	<i>Kathak</i>		0.2	1:1
CONTROLLERATE OF QUALITY ASSURANCE (ICV) SECUNDERABAD		COVER PLATE	SHT	SHTS
			STEEL 30xГCA GOST 4543-71	57 OF 116

