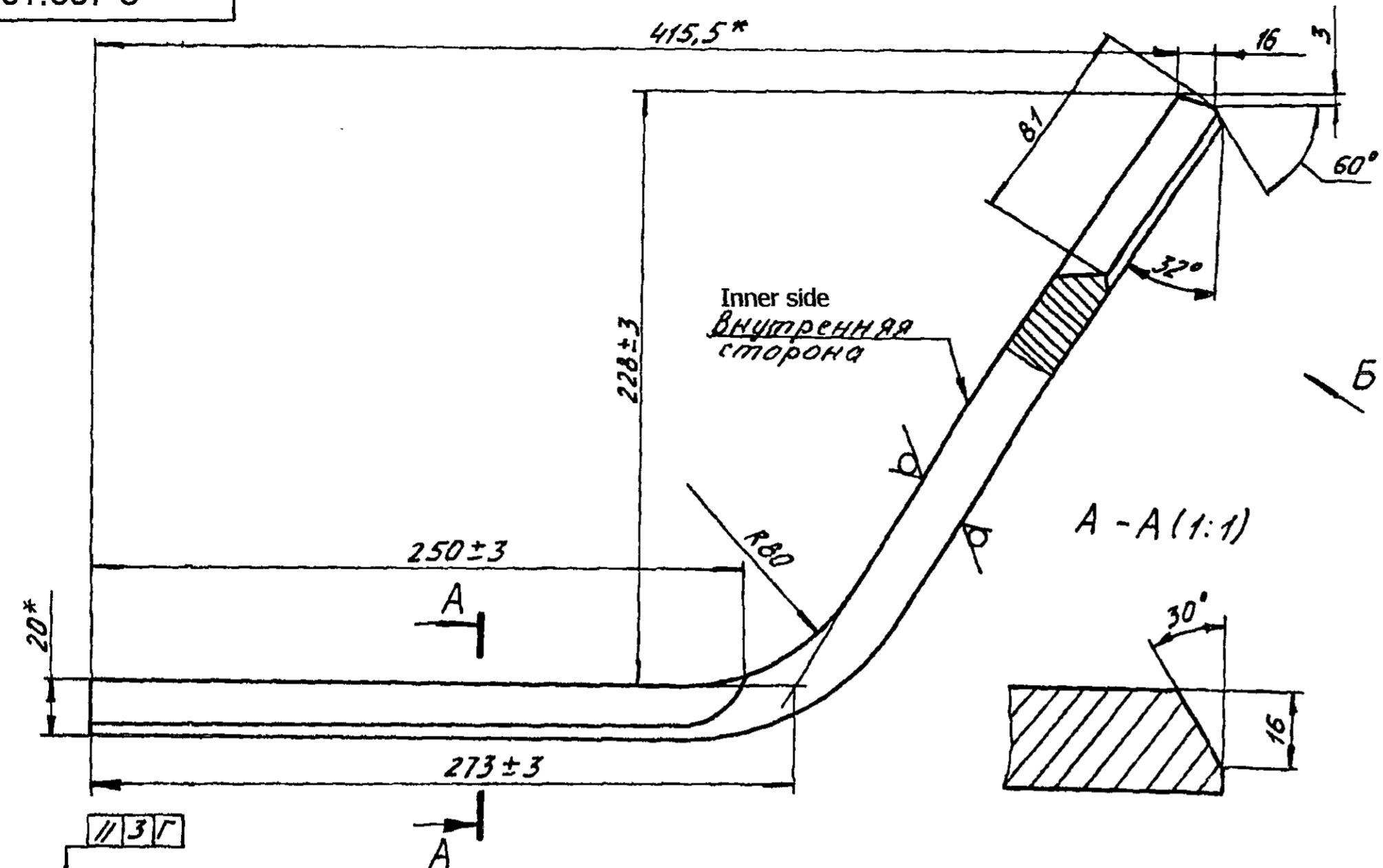
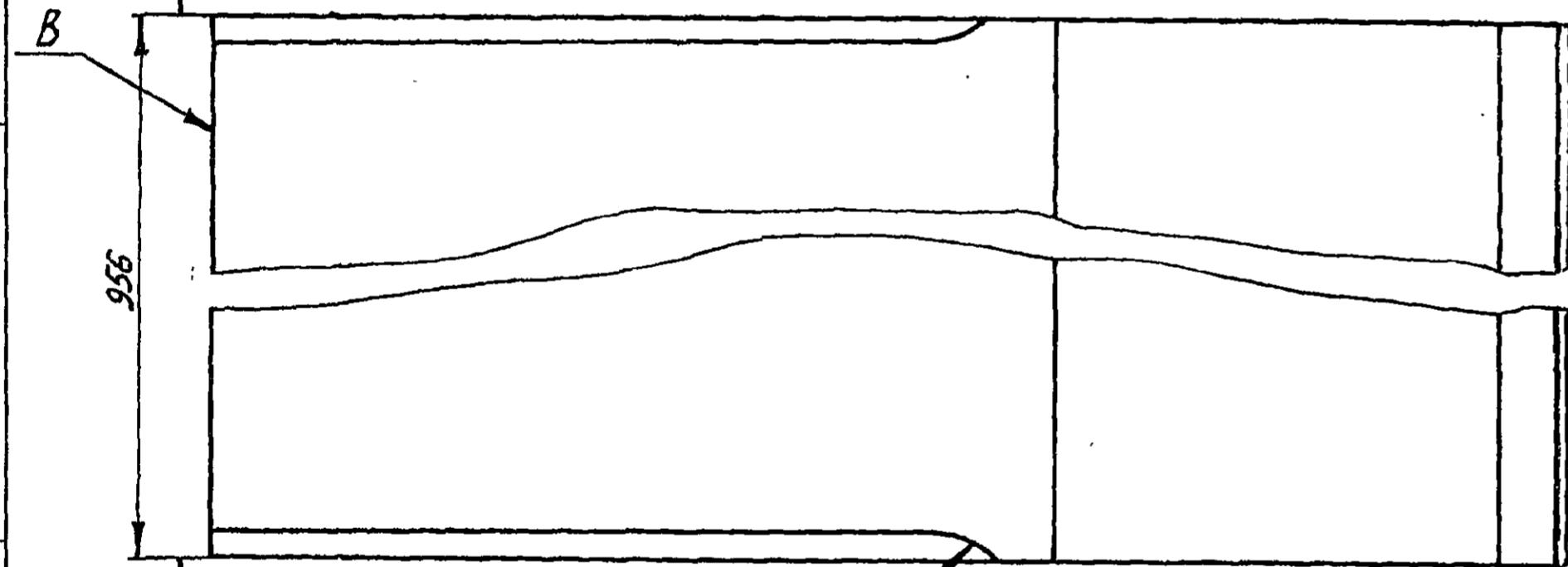


DRAWING NUMBER  
175.01.007-5

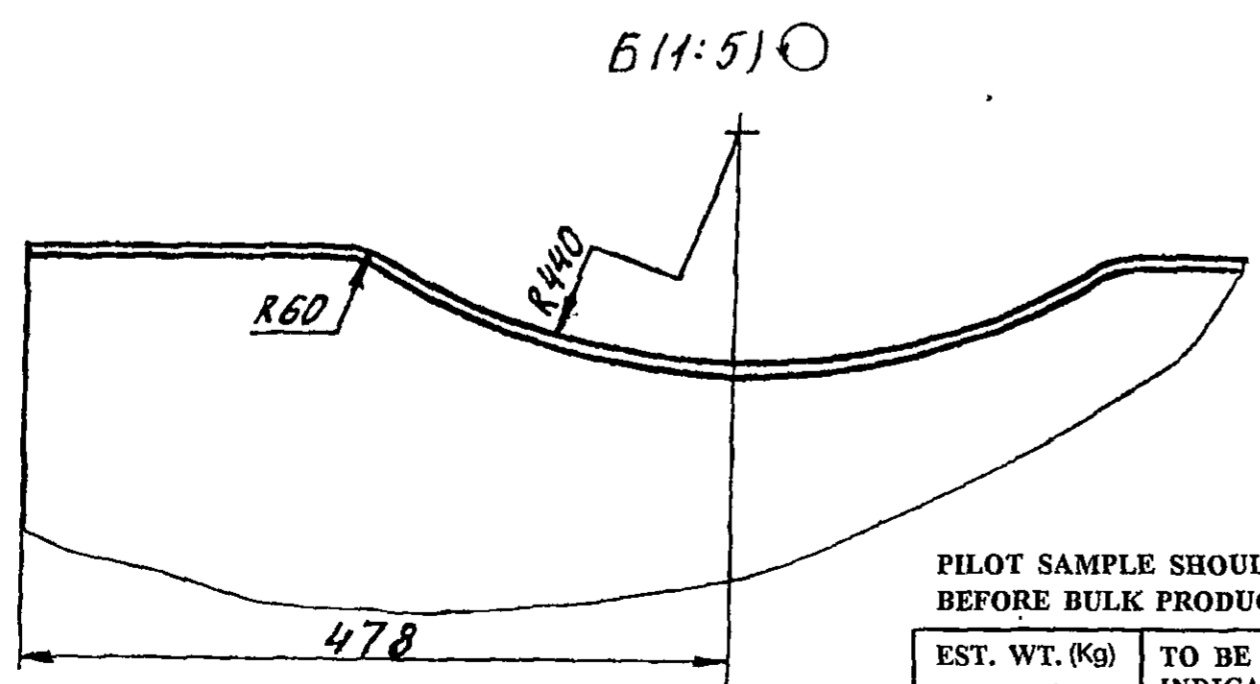
SHEET No. 1 OF 1



1. Марка стали, термообработка, способ приемки и испытаний согласно действующей ведомости на детали из спец. стали. Твердость средняя.
2. Требования к качеству газорезных кромок по ОСТ В3-4302-88.
3. В местахгиба допускается естественное утонение металла 17<sup>±1</sup> мм.
4. Допуск плоскостности поверхностей 4 мм во внешнюю сторону.
5. По поверхности В предусмотреть технологический припуск.
6. \*Размеры для справок.
7. Остальные требования по 520.ТУ1.
1. Steel grade, heat treatment, method of acceptance and test should be as per existing list on component made of special steel. Medium hardness.
2. Requirements for quality of gascutting faces should be as per OST B3-4302-88.
3. In the bending places natural thinning of metal 17<sup>±1</sup> mm is allowed.
4. Tolerance for flatness of surface, should be 4 mm in the outer side.
5. Technological allowance should be provided on surface B.
6. \*Dimensions for reference.
7. Other requirements should be as per specifications 520.TY1.



R 30 in cutting plane R30 в плоскости реза  
2 Radii 2 радиуса



PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. (Kg)	TO BE STAMPED OR MARKED WHERE INDICATED THUS # ( LETTERS)
74.27	

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	J Ram	MATERIAL:-	USED ON:-
CHD	Shankar	SPECIAL STEEL	172.01.274 cb-1Cb
APPD		CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
DATE	26-10-04	AVADI	
SCALE:-	1:2	TITLE:-	
DIMENSIONS IN mm		HULL REAR LOWER PLATE	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69		D S CAT NUMBER	DRAWING NUMBER
ALL THREADS TO CONFORM TO			175.01.007-5
ISSUE	DATE	NATURE OF AMENDMENTS	

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - NIL

356  
SUPPLY CODE  
U-01-1-2  
D90038

F-59  
49  
SIZE A2

Sl. No.	Nomenclature & Drawing No.	Manufacturing Technology & Testing /Inspection Facilities required to produce the item		Must be possessed by the vendor in his own premises (List of Plant & Machinery and Testing/Inspection facility to be submitted)	COMPLIANCE	Must be possessed by the vendor in his own premises (or) may be out sourced. (Name and Address of sub-contractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).	COMPLIANCE
1	HULL BOTTOM FRONT PLATE Drg.No. 172.01.009-15 LF.No. 6201001031	Technology 1	RAW MATERIAL			Under taking by Vendor that vendor will procure Raw material from SAIL ( Who is the approved source of Raw material for HVF as of now) or any other source approved by HVF in future or Russia OEM with suitable documents proof required.	
2	BOTTOM PLATE FRONT Drg.No. 172.01.009-9 LF.No. 6206801680						
3	FLOOR PLATE MIDDLE Drg.No . 172.01.010-2 LF.No. 6206801111						
4	MIDDLE PLATE OF HULL BOTTOM Drg.No. 172.01.010-8 LF.No. 6201001032						
5	REAR PLATE OF HULL BOTTOM Drg.No. 172.01.011-5 LF.No. 6201201136						

Manufacturing Technology & Testing /Inspection Facilities required to produce the item		Must be possessed by the vendor in his own premises (List of Plant & Machinery and Testing/ Inspection facility to be submitted	COMPLIANCE	Must be possessed by the vendor in his own premises (or) may be out sourced.(Name and Address of sub-contractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).	COMPLIANCE
Technology 2	GAS CUTTING	CNC Gas Cutting Machine:- Capacity to cut 20 mm thick plate.			
Technology 3	HEATING FOR FORMING AND HARDENING	Gas Fired Chamber Furnace : 3000X5500 MM , Loading temperature in furnace : 900-1000°C Heating temperature : 900-980 °C Heating time : 20-40 minutes. Holding time : 40-70 minutes with facilities:- Rotary loading unit 7T , Over Head Crane 10T & Water bath.			
Technology 4	FORMING	Hydraulic Press - 10000 T Pressing Force 7500-10000T Holding time 10-15 seconds. Transfer time of blank from furnace till complete dipping in water Max. 4 minutes. Cooling time in water Min.1.5 minutes Water temperature 20-40°C Straightening Hydraulic Press 400T.			

Manufacturing Technology & Testing /Inspection Facilities required to produce the item	Must be possessed by the vendor in his own premises (List of Plant & Machinery and Testing/ Inspection facility to be submitted	COMPLIANCE	Must be possessed by the vendor in his own premises (or) may be out sourced.(Name and Address of sub-contractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).	COMPLIANCE
Technology 5	HIGH TEMPERING	Gas Fired Chamber Furnace : 3000X5500 MM Loading temperature in furnace : 570-620°C Heating temperature : 580-620 °C Heating time : 1.0 -1.50 Hrs Holding time : 1.0 -1.50 Hrs Transfer time Max.4 minutes, Cooling time in water Minimum 2 minutes water temperature 20 - 60 °C with facilities:- Rotary loading unit 7T, Over Head Crane 10T & mechanized bath.		
Technology 6	SURFACE TREATMENT			Shot Blasting Machine
Technology 7	MILLING			Vertical Milling Center
Technology 8	TESTING	Surface Table for inspection, Measuring instruments, profile/receiver gauges. Portable / Universal Hardness testing equipments.		

Sl. No.	Nomenclature & Drawing No.	Manufacturing Technology & Testing /Inspection Facilities required to produce the item		Must be possessed by the vendor in his own premises (List of Plant & Machinery and Testing/ Inspection facility to be submitted	COMPLIANCE	Must be possessed by the vendor in his own premises (or) may be out sourced.(Name and Address of sub-contractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).	COMPLIANCE
1	SHEET STREN BOTTOM Drg.No. 175.01.007-4 LF No.6206801291	Technology 1	RAW MATERIAL			Under taking by Vendor that vendor will procure Raw material from SAIL ( Who is the approved source of Raw material for HVF as of now) or any other source approved by HVF in future or Russia OEM with suitable documents proof required.	
2	HULL REAR LOWER PLATE Drg.No. 175.01.007-5 LF No.6201201126			Technology 2	GAS CUTTING		
		Technology 3	BENDING	Bending in clod condition Load under closed die : 3500T Holding time in die: 5-10 sec Straightening Hydraulic Press 400T.			

Manufacturing Technology & Testing /Inspection Facilities required to produce the item		Must be possessed by the vendor in his own premises (List of Plant & Machinery and Testing/ Inspection facility to be submitted	COMPLIANCE	Must be possessed by the vendor in his own premises (or) may be out sourced.(Name and Address of sub-contractor, list of Plant & Machinery and Testing / Inspection facility to be submitted).	COMPLIANCE
Technology 4	HARDENING	Gas Fired Chamber Furnace : 3000X5500 MM Loading temperature in furnace : 860-950°C Heating temperature : 880-950 °C Heating time : 40-60 minutes. Holding time : 45-75 minutes Transfer time . Max.4 Minutes Cooling time in water: 6-8 Minutes Temperature of water: 30-45°C with facilities:- Quenching press 1600 T Rotary loading unit 7T , Over Head Crane 10T			
Technology 5	HIGH TEMPERATURE TEMPERING	Gas Fired Chamber Furnace : 3000X5500 MM Loading temperature in furnace : 570-640°C Heating temperature : 570-640 °C Heating time : 60-90 minutes. Holding time : 60-90 minutes Transfer time . Max.4 Minutes Cooling time in water: 3-5 Minutes Temperature of water: 30-45°C with facilities:- Quenching press 1600 T Rotary loading unit 7T , Over Head Crane 10T			
Technology 6	SURFACE TREATMENT			Shot Blasting Machine	
Technology 7	TESTING	Surface Table for inspection, Measuring instruments, profile/receiver gauges. Portable / Universal Hardness testing equipments.			