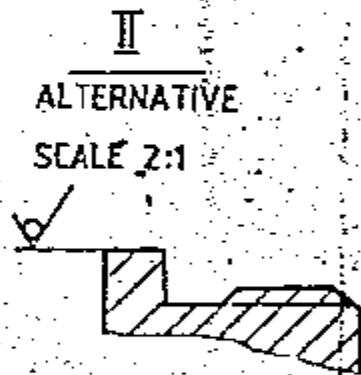
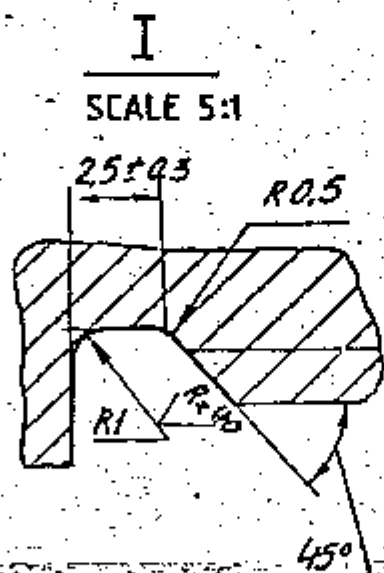
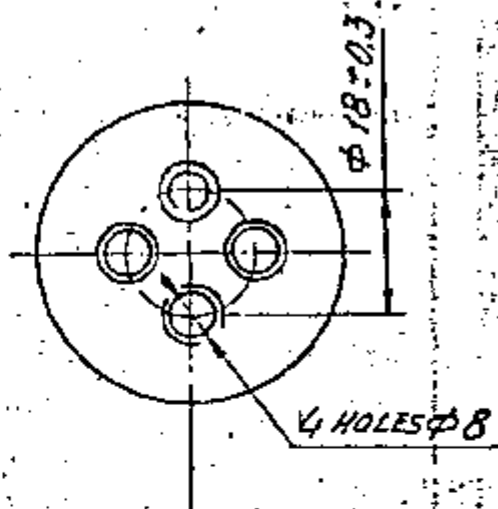
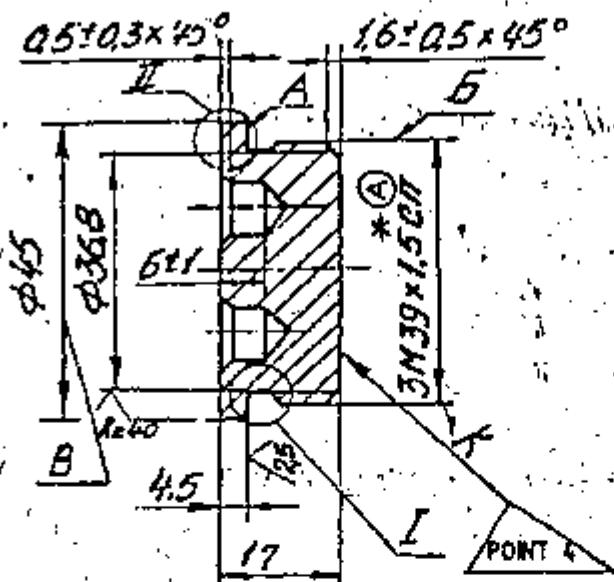


DRAWING NUMBER

303-13-4



1. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS: FOR HOLES AS PER A7, FOR SHAFTS AS PER B7. Rz80/ (✓)
2. TECHNICAL REQUIREMENTS FOR THREAD - AS PER STANDARD 82021-00.
3. END PLAY OF SURFACE 'A' RELATIVE TO SURFACE 'B' ALONG ϕB SHOULD NOT EXCEED 0.1mm.
4. TO BE MARKED BY PUNCHING.
5. DIAMETER 'B' MAY BE OBTAINED WITH TOLERANCE h 16 (-1,6), ON THE SURFACE OF DIAMETER 'B' ROUGH SPOTS ARE PERMISSIBLE.

6. EXPLANATORY NOTE:

MATERIAL QUOTED: БАРЕПАЖ 9-4 GOST 1628-78

БАРЕПАЖ 9-4 = GRADE OF MATERIAL

CHEMICAL COMPOSITION % (AS PER GOST 18175-78)

BASIC COMPONENT

ALUMINIUM = 8.0-10.0; IRON = 2.0-4.0; COPPER = REST

IMPURITIES (MAX)

TIN = 0.1; SI = 0.1; Pb = 0.01; P = 0.01;

Zn = 1.0; Mn = 0.5; TOTAL IMPURITIES = 1.7

MECHANICAL PROPERTIES (AS PER GOST 1628-78)

ULTIMATE TENSILE STRENGTH $Kgf/mm^2 = 55$ (min)

RELATIVE ELONGATION % = 15 (min)

BRINELL HARDNESS (HB) = 110-180

Ⓐ 7. * REPAIR SIZE DIMENSION, R1=3M42X1.5 ADDED BASED ON LETTER No. 82847/0H/QAD/ED DT. 26 DEC 94.

KVO NO. 78974

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

EST. WT.

0.17 kg.

TO BE STAMPED OR MARKED WHERE INDICATED THUS # I LETTERS)

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

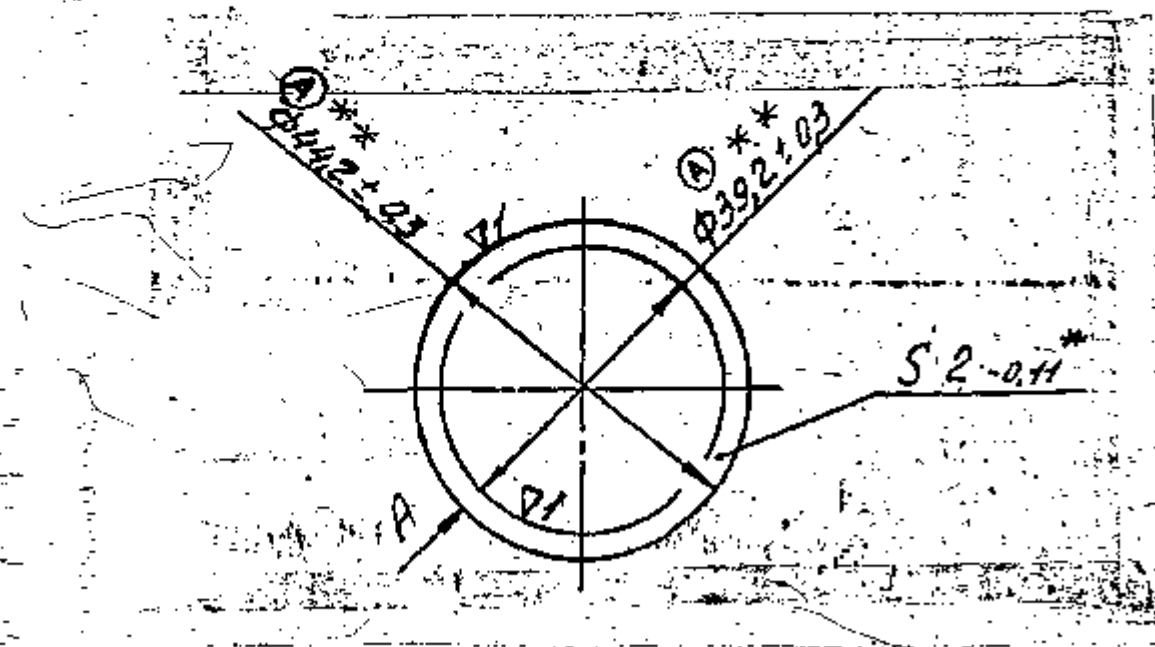
DRN	CHD	TCD	APPD	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102-69.	ALL THREADS TO CONFORM TO IS: 2210 Pt IV	MATERIAL: BAR BP A * 9-4 GOST 1628-78	USED ON CE 303-02-7 CE 303-03-7
				20-8-96	1:1				CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADL	
								TITLE PLUG		
A 20-1-95 REPAIR SIZES ADDED								D S CAT NUMBER		DRAWING NUMBER 303-13-4
ISSUE	DATE	NATURE OF AMENDMENTS								

A-3
67

DRAWING NUMBER

303-40

20(7)



1. MATERIAL STRIP АПРММ 2.0H M3 GOST 1173-77
2. VARIATION THICKNESS ON DIMENSION A SHOULD NOT EXCEED 0.3 mm.
3. TO BE ANNEALED
4. * DIMENSION FOR REFERENCE.

Ⓐ 6. ** FOR REPAIR SIZE R₁ DIMENSIONS FOR $\frac{O}{D} = 47.2 \pm 0.3$ } ADDED
 $\frac{I}{D} = 42.2 \pm 0.3$ }

BASED ON LETTER NO. 82847/0H/QAD/ED, DT. 26. DEC. 94.

EXPLANATORY NOTE:-

MATERIAL QUOTED:

STRIP АПРММ 2.0 H A M3 GOST 1173-77

A ≡ COLD ROLLED; TP = RECTANGULAR SECTION;

H = NORMAL ACCURACY; M=SOFT; 2.0 = THICKNESS;

M3= COPPER GRADE AS PER GOST 859-78.

CHEMICAL COMPOSITION: % (AS PER GOST 859-78)

BASIC CONSTITUENT Cu+Ag (MIN) = 99.5

IMPURITIES

Bi = 0.003 ; Fe = 0.05 ; Ni = 0.2 ; Pb = 0.05 ;

Sn = 0.05 ; S = 0.01 ; O₂ = 0.05 ;

ANTIMONY = 0.05 ; ARSENIC = 0.01

MECHANICAL PROPERTIES: (AS PER GOST 1173-77)

TENSILE STRENGTH kgf/mm² (MIN) = 20

% ELONGATION (MIN) = 30

EXPLANATORY NOTE ADDED ON 4-9-91

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

EST. WT.
0.005 kg.

TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)

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

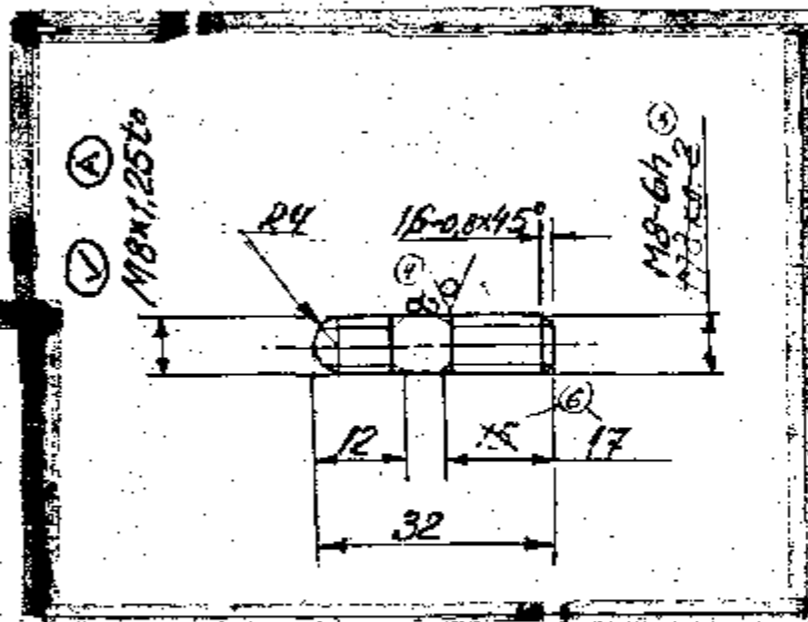
DRN	CHD	TCD	APPD	DATE	SCALE:- 1:1	MATERIAL:- SEE NOTE No. 1.	USED ON C6 303-03-7 II
				30-3-88.		CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI.	
					DIMENSIONS IN mm	TITLE RING	D S CAT NUMBER
					TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102-69.		
					ALL THREADS TO CONFORM TO		DRAWING NUMBER 303-40
ISSUE	DATE	NATURE OF AMENDMENTS					
A	20-1-95	REPAIR SIZES ADDED					

SIZE A3

DRAWING NUMBER
350 123

EXPLANATORY NOTE

Rz80



REFERENCE MATERIAL QUOTED:

COLD DRAWN SIZED STEEL ROUND BAR ϕ 8mm TO GOST 7417-75 STEEL OF GRADE 45 TO 1051-73 AND MANUFACTURED IN ACCORDANCE WITH QUALITY CARBON STRUCTURAL STEEL GRADE 45 AND REFERENCE NOTE 5, OR ALTERNATE MATERIAL STEEL GRADES 40 & 50 TO GOST 1050-74.

a) CHEMICAL COMPOSITION AS PER GRADES 45, 40 & 50 TO GOST 1050-74.

GRADE OF STEEL	CONTENT OF ELEMENTS %						REMARKS
	C	Si	Mn	Cr	S	P	
45	0.42-0.50	0.17-0.37	0.50-0.80	0.25	0.040	0.035	Ref,Matl
40	0.37-0.45	0.17-0.37	0.50-0.80	0.25	0.040	0.035	Alt,Matl
50	0.47-0.55	0.17-0.37	0.50-0.80	0.25	0.040	0.035	Alt,Matl

RESIDUAL CONTENT OF COPPER AND NICKEL SHOULD NOT EXCEED 0.25% EACH.

b) MECHANICAL PROPERTIES UNDER NORMALISED CONDITION:

GRADE OF STEEL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	YIELD POINT Kgf/mm ²	ELONGATION %	REDUCTION IN AREA %	IMPACT STRENGTH Kgm/cm ²	HARDNESS B H N MAX	RE-MAR-KS
45	61	36	16	40	5	229	Ref,Matl
40	58	34	19	45	6	217	Alt,Matl
50	64	38	14	40	6	241	Alt,Matl

1. TECHNICAL REQUIREMENTS FOR THREADS AS PER STANDARD 02021-00.
2. DIMENSIONS WITH UNSPECIFIED TOLERANCES AND THE REST OF THE TECHNICAL REQUIREMENTS AS PER STANDARD 02052-00.
3. COATING: CADMIUM 3, CHROMATIZING AS PER 42.1-104 WITH SUBSEQUENT ELIMINATION OF HYDROGEN EMBRITTLEMENT.
4. THE THREAD MAY BE MADE BY ROLLING WITH THE DIAMETER OF UN-THREADED PORTION WITHIN THE PITCH DIAMETER OF THREAD.
5. ALTERNATE MATERIAL: STEEL 40, 50, GOST 1050-74.
7. REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED THUS (A), BASED ON OVERHAUL SPECIFICATIONS PART III REPAIR DRAWINGS. **
- (B) 8. HARDNESS - 27--32 HRC.

(B) * MATERIAL:-

STEEL 709 M40 (EN-45) TO BS-970 Pt.-1-1983.

SL. NO.	REMARKS
1	M10 X 1.5 to
2	PCD 9.026 + 0.152 + 0.082

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

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

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

ISSUE	DATE	NATURE OF AMENDMENTS
C	20-5-09	Authy: Third Alt. Comm. Minutes Point 5 Dated 27-02-2009.
B	13-01-08	AUTHY-MIN. OF ALT. COM. MEET. POINT-NO.-2.12 Dt.- 07-02-07
A	10-11-95	REPAIR SIZE DIMNS ADDED

DRN	...
CHD	...
TCO	...
APPO	...
DATE	25-8-'86
SCALE:	1 : 1
DIMENSIONS IN	mm
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS :	2102-69
ALL THREADS TO CONFORM TO	

MATERIAL: ROUND BAR - GOST 7417-75 - 45 GOST 1051-73

USED ON: 331-20-10 LB 331-20-6

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI

TITLE: STUD M8x32

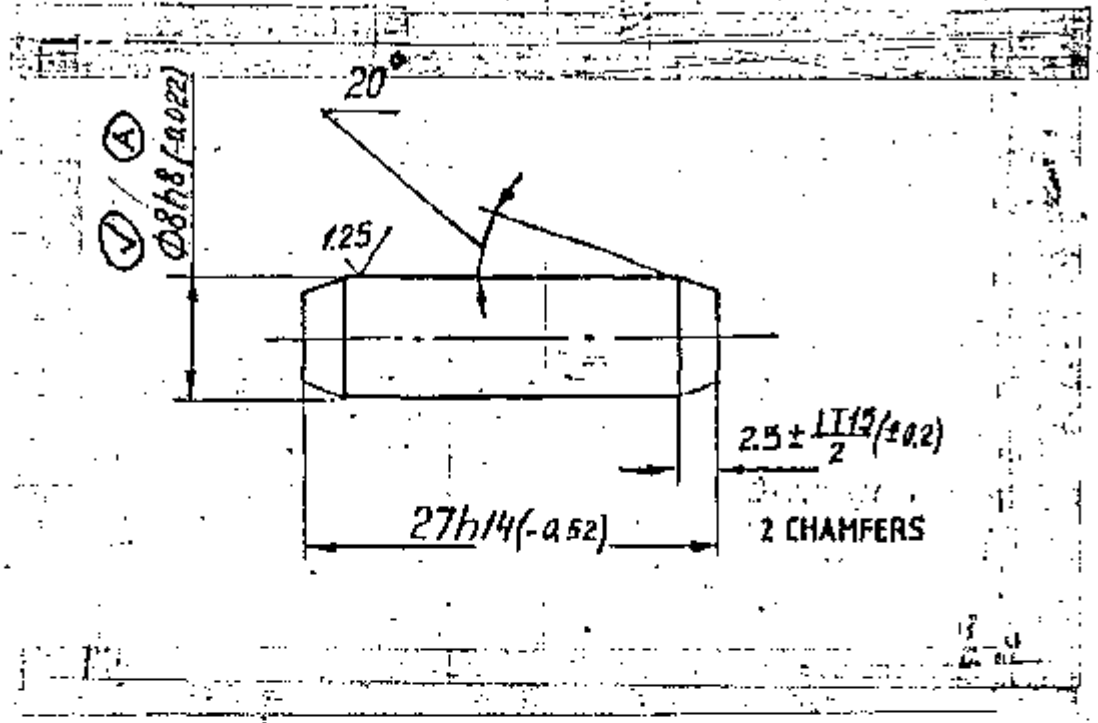
D'S CAT NUMBER

DRAWING NUMBER 350 123

350 123

DRAWING NUMBER
352-18-1

READ ✓ (✓)



EXPLANATORY NOTE

MATERIAL QUOTED:-ROUND GOST 7417-75
45GOST 1051-74

45 = GRADE OF STEEL

CHEMICAL COMPOSITION % (AS PER GOST 1050-74)

CARBON = 0.42-0.50
SILICON = 0.17-0.37
MANGANESE = 0.50-0.80
CHROMIUM = 0.25
PHOSPHORUS = 0.035
SULPHUR = 0.040
COPPER = 0.25
NICKEL = 0.25

} MAXIMUM

MECHANICAL PROPERTIES (AS PER GOST/1050-74)

TENSILE STRENGTH kgf/mm^2 (min) = 61
YIELD POINT kgf/mm^2 (min) = 36
RELATIVE ELONGATION % (min) = 16
REDUCTION IN AREA % (min) = 40
IMPACT STRENGTH kgf/cm^2 (min) = 5

1. ALTERNATE MATERIAL: STEEL OF GRADES 40 AND 50, GOST 1050-74.
 2. COATING: CHEMICAL OXIDATION AND OIL-FINISHING.
 3. REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED
- (A) THUS (✓) BASED ON OVERHAUL SPECIFICATION PART III REPAIR DRAWINGS. **

**

S.No	R ₁	R ₂	REMARKS
1	∅ 8.5 - 0.022	∅ 9 - 0.022	ALL OTHER CONDITIONS AS PER STD DRG.

(B) EQUIVALENT MATERIAL
STEEL 080 M40 (EN8) TO BS 970 OR
45 CB TO IS 1570

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

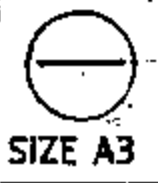
EST. WT. TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)
0.0105kg

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	CHD	TCD	APPO	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102-69.	MATERIAL- ROUND GOST 7417-75 45GOST 1051-74	USED ON CB 303-03-II
				30-09-88	2:1			CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI.	
								TITLE PIN 8 x 27	
								D S CAT NUMBER	DRAWING NUMBER 352-18-1
ISSUE	DATE	NATURE OF AMENDMENTS							

EXPLANATORY NOTE ADDED ON 18-9-91

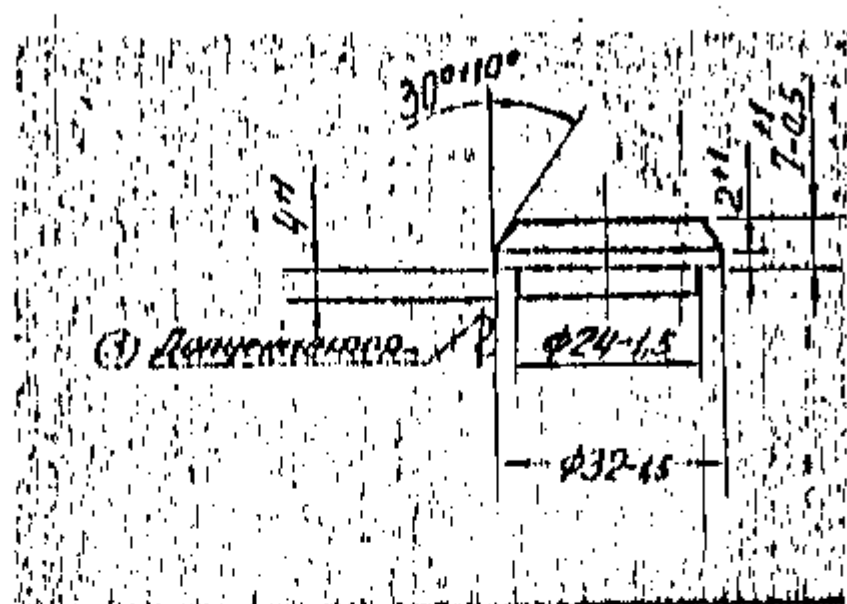
Issue 1 - BK 83-683



SIZE A3

DRAWING NUMBER
402-84

Rx80



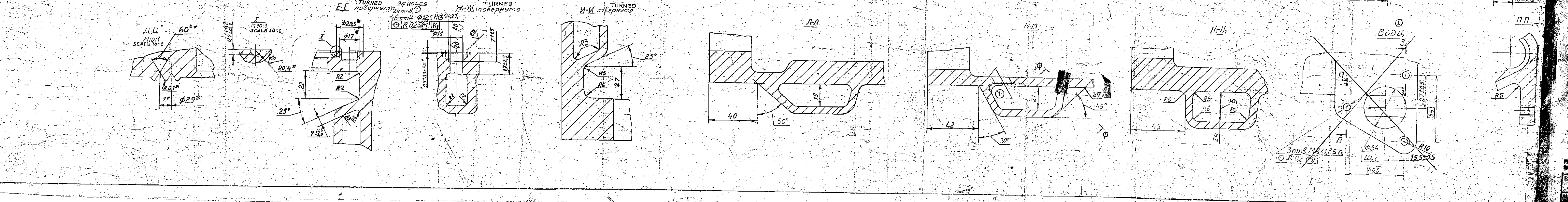
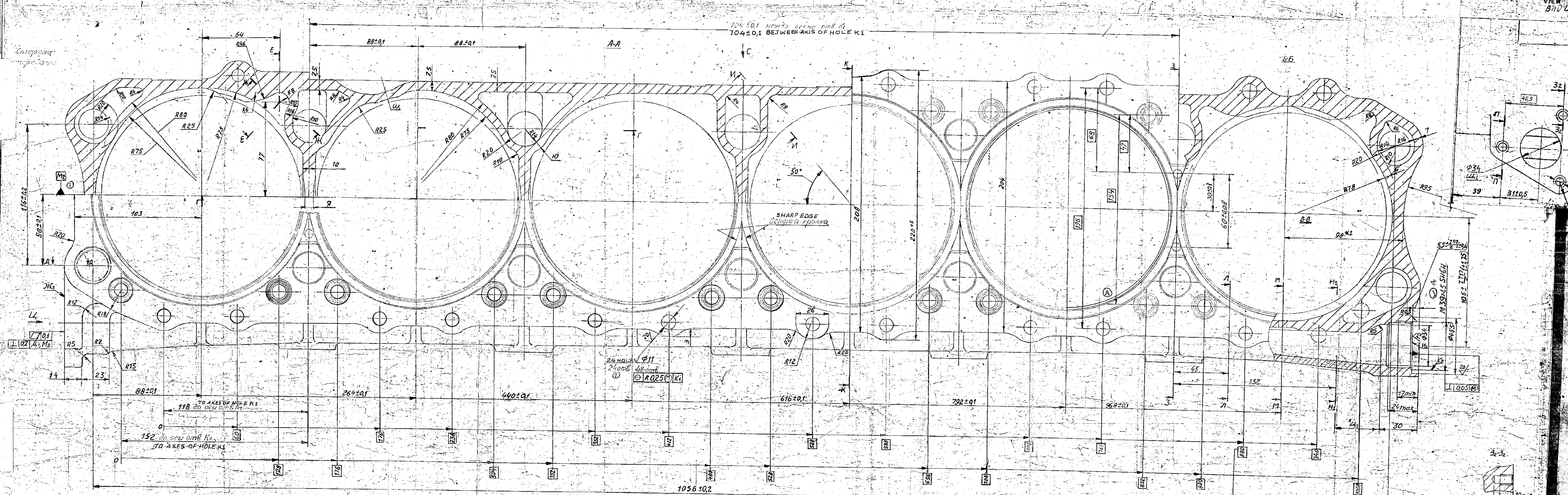
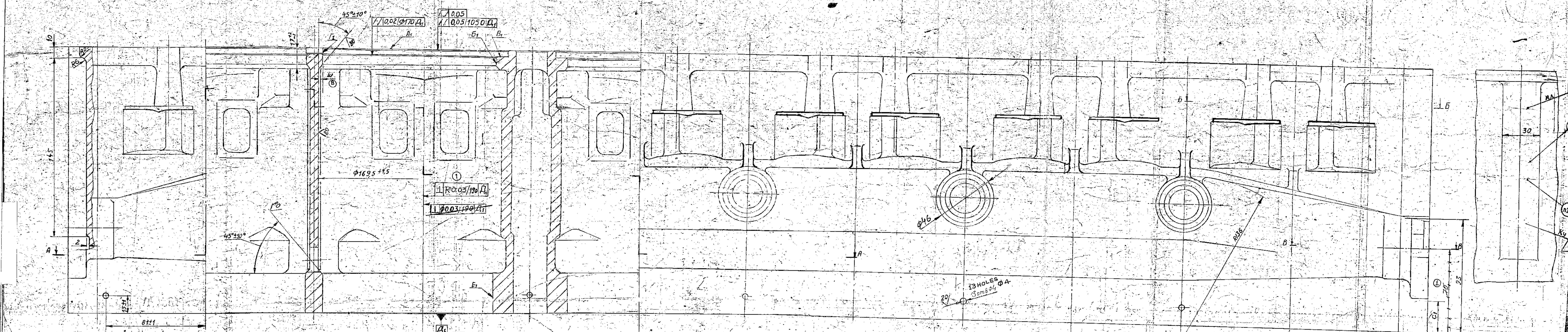
ALTERNATE MATERIAL : ДАК Д1Т КР 32А, ГОСТ 21408,
UNMACHINED OVER EXTERNAL DIAMETER.

A3
34

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

		EST. WT. 0.016 kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS ≡ (LETTERS)
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT- SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
		MATERIAL:- ДЛ 9 ГОСТ 2605-75 CASTING.	USED ON СБ 303-03-7 СБ 3301-15-30 СБ 303-02-7
ISSUE DATE	NATURE OF AMENDMENTS	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) АВАДИ.	
DRM	SCALE:- 1:1 DIMENSIONS IN mm	TITLE END CAP	
CHD	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102-69	D S CAT NUMBER	
TCG	ALL THREADS CONFORM TO	DRAWING NUMBER 402-84	
APPO			
DATE 24-3-83			

SIZE A4



- Requirements for castings as per GOST 27-73.
- Water space and walls of anchor studs should be hydrostatically tested with water at temperature 80°-100°C at pressure (0.3-0.5 MPa) (3-5 kg/cm²) for 5 mins. Leakage of water is not allowed. Air pressure testing is allowed, in water bath under pressure (1.5 kg/cm²) (0.2-0.2 MPa). Passage of water is not allowed.
- Unspecified light deviations of casting dimensions:
 - From 50mm to 250mm - ± 0.2 mm
 - From 250mm to 500mm - ± 0.3 mm
 - Above 500mm - ± 0.5 mm
- Wall thickness 6mm-10mm:
 - Above 6 mm - ± 0.2 mm
- Dimensions obtained by machining:
 - Holes - as per HK
 - Shafts - as per HK
 - Others - ± 0.1 mm
- Unspecified casting radii 2-5 mm.
- TR for thread should be made as per standard GOST 9150-80.
- Non-parallelism of surfaces A1 and B1 may be checked in pressed condition.
- Non-flatness of surface B1 should be checked by bluing with bluing along fitting bands by and B1 imprints of flour should be uniform along the circumference and width at least 2 mm.
- In case of projection of surface M1 on surface of hole K2, Machining V of 25K15 (L+0.04) should be carried out on the entire height of jacket.
- Dimension U1 not exceeding 25.5 mm should be ensured on height C1 from surface A1. Dressing is allowed with smooth transitioning on the complete contour provided the wall thickness is maintained.
- In areas U1 wall thickness should be made at least 5 mm.
- On section U1, dimension J1 should smoothly pass to dimension U1.
- Dimension U1 should be checked by machining V on height 25-30 mm.
- On surfaces F1, E1 and E2 marks of depth not exceeding 0.03 mm are allowed. To be taken as per the standard.
- Hole K1 should be drilled in third or fourth cylinder.
- The following are allowed to be carried out: dimension H1 at least 6mm, dimension U1 at least 4 mm, dimension U2 at least 1.7 mm, dimension U3 at least 5.5 mm, dimension X1 at least 4 mm along dimension U1 (local finishing up to 6mm, is allowed, dimension U2 at least 4mm, when drilling hole U1).
- Work on surface A1 should be made around extreme anchor walls at per section A-A. Surface F1 may be damaged, in this case local fused up metal should not exceed 0.3 mm.
- Profile for notching should be taken as per the standard.
- Argon arc welding for place of comp. - 2.
- Unmachined surfaces should be taken as per the standard.
- Dimensions for reference.
- Dimensions should be ensured with tool.
- Mark the grade of material as per GOST 2171-73.
- Heat number should be marked by punching.
- GO should be marked by punching.
- Arrangement of designations of surfaces is given in Table 1. Dimensions U1, U2, U3, and H1 in Table 2.
- REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED THIS IS BASED ON LETTER NO. 02. REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED THIS IS BASED ON LETTER NO. 02. REPAIR SIZE DIMENSIONS ARE ADDED WHERE INDICATED THIS IS BASED ON LETTER NO. 02.

Sl. No.	REPAIR SIZES	REMARKS
1	INSIDE DIA (TOP) 165.5 H7 +0.04	1. MARK REPAIR SIZE CATEGORIES: R1, R2 2. ALL OTHER SURFACE FINISH MATERIALS AND TECHNICAL REQUIREMENTS ARE ACCORDING TO THE STANDARD DRAWING SHT-LIKE.
2	INSIDE DIA (BOTTOM) 164.5 H7 +0.04	
3	DEPTH 5.7 -0.03	3. DEPTH 6.9 -0.02
4	WATER JUMBY BELLS 3 M 42 X 80	

EST. PASS TO BE STAMPED OR MARKED WHERE INDICATED THIS IS...
 ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED HAVING COVERED TO SAVE IT. OUTSIDE SURFACE UNWARRANTY CHANGERS ARE RESPONSIBLE.
 ISSUE DATE: 27.04.84
 NATURE OF AMPLIFICATION: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

MATERIAL: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

USED ON: CD 303-03-11
 CONTROLLER OF QUALITY ASSURANCE: A V A D I
 TITLE: CYLINDER JACKET R.H.
 DRAWING NUMBER: SHEET 1
 OF 103-01

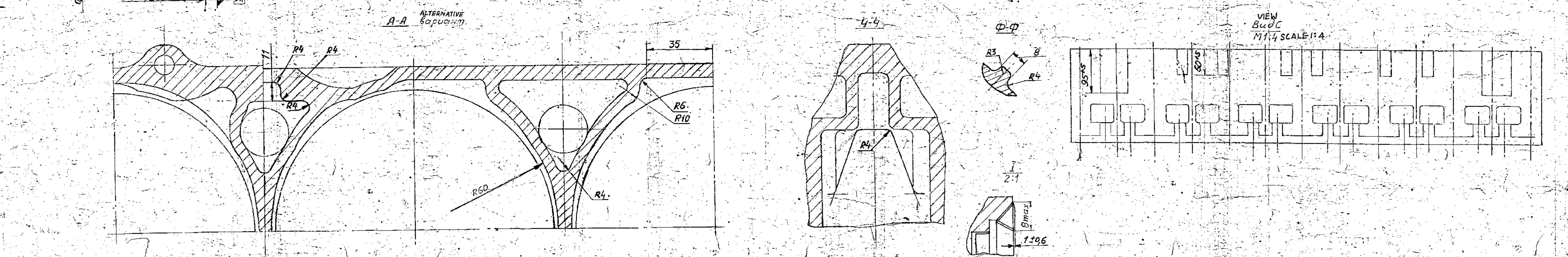
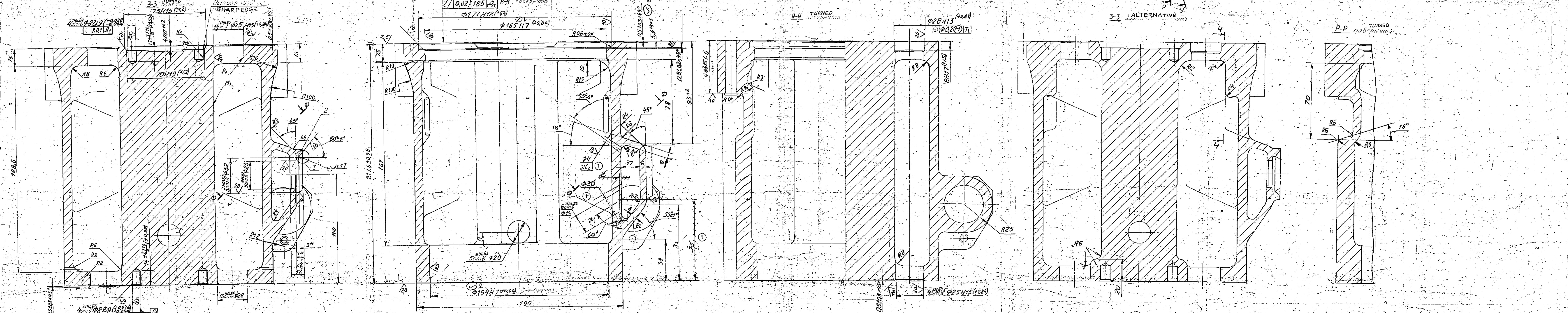
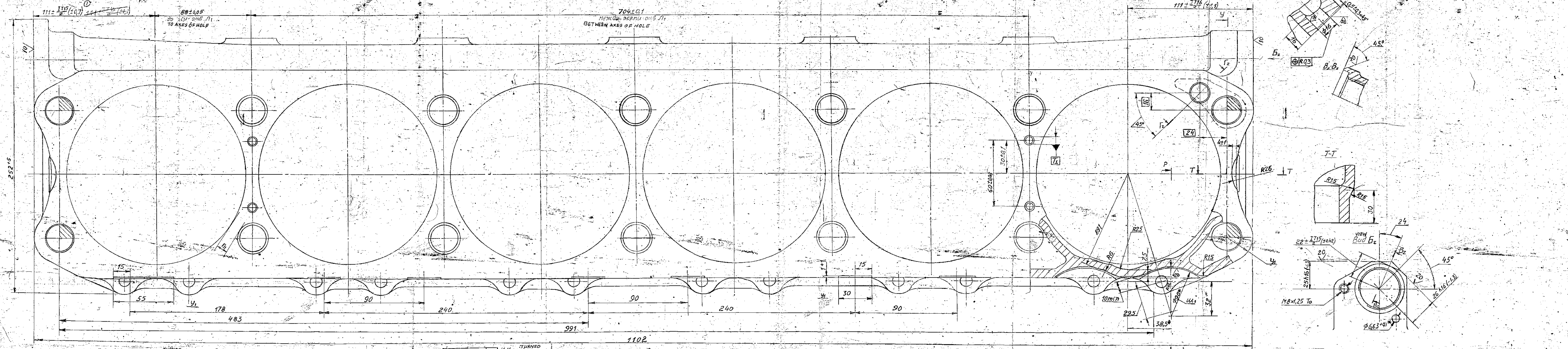


TABLE 1
Таблица 1

СHEET / Лист	Назначение / Назначение	ДЕЗИГНАЦИЯ / Обозначение
1	MAIN VIEW / Вид сверху	C ₁
2	UPPER VIEW / Вид сверху	A ₁ B ₁ F ₁ D ₁ U ₁
3	VIEW / Вид	3, M ₂ H ₂
4	VIEW / Вид	C U ₁ 10 A
5	VIEW / Вид	U ₂ V ₂ K ₂
6	VIEW / Вид	10 ₂
7	VIEW / Вид	U ₂
8	VIEW / Вид	U ₂

TABLE 2
Таблица 2

СHEET NUMBER / Листовой номер	ДИМЕНЗИОН / ДИМЕНЗИОН	ДИМЕНЗИОН / ДИМЕНЗИОН
1	24	73
2	21	71
3	18	69
4	17	67
5	20	65
6	12	63

EST. MASS 27.6 kg TO BE STAMPED OR MARKED WHERE INDICATED THIS IS LETTERS!

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

DRN: [Signature] DATE: 1978-08-18 SCALE: 1:1 MATERIAL: [Blank] USED ON: C6 303-03-1

CONTROLLERATE OF QUALITY ASSURANCE/HEAVY VEHIC A V A D I

ДИМЕНЗИОН IN mm TOLERANCE ON DIMS UNLESS OTHERWISE STATED IS 202-65. ALL THREADS TO CONFORM TO

7-28-01 (NOTN. No. C4-24 (F-15)) ISSUE DATE NATURE OF AMENDMENTS

TITLE: CYLINDER JACKET R.M. ASSY. D S CAT NUMBER: 2 DRAWING NUMBER: 577-2 C6 303-06-16 CB

