

LH CYLINDER HEAD

- Nicks, Marks and other surfaces, trimming and flay marks from machining are not allowed on the packing surface M<sub>3</sub>.
- Dimensions of grooves location are given for manufacturing of Tool.
- On the exhaust side two extreme holes M 8 X 1.25 To are to be fulfilled.
- Blank.
- Blow holes, Flay marks, steps from tools and other surface defects are not allowed on surface Y<sub>2</sub>.
- Tool marks at a height of 60 mm from the upper surface of head is allowed in the anchor pit with oil drain hole.
- Other dimensions, surface finish, graphics and technical requirement are as per drawing 306-16-23 (sheet 1 & 2) by taking into consideration of modification as per drawing 306-16-19
- Surface B<sub>2</sub> & M<sub>3</sub> should be on one plane.
- Non perpendicularity of surface X<sub>1</sub> to axis of thread should not exceed 0,1 mm (dependent tolerance).

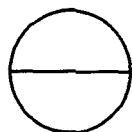
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST WT. (kg) 36.61 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 0.1. SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	CHD	APPD	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 20:08	ALL THREADS TO CONFORM TO IS: 4218.PART-4.
AK7u(A/19)	GOST 1583-93	16-05-2012	1:1				
CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI							TITLE: LH CYLINDER HEAD
ISSUE DATE NATURE OF AMENDMENT							D S CAT NUMBER
17A	08.07.21	SHEET 2 CREATED.					DRAWING NUMBER 306-34-19

SHEET 2 CREATED ISSUE-"17A", BASED ON CQA(HV) NOTING No. 111909/CQA(HV)/DB/ENG/T-90/ALT.COMM dt. 05 Aug 2020 & POINT No.3 OF 14TH ACM



**DRAWING NUMBER**  
**306-34-19**

**SHEET No. 2 OF 2**

**EXPLANATORY NOTE:**

**Material Quoted:** AK7Ч (АЛ9) GOST 1583-93  
**Base - Aluminium**  
**Material Grade - AK7Ч (АЛ9).**

**CHEMICAL COMPOSITION: AS PER GOST 1583-93**

GRADE OF ALLOY	Product Form	Main Components %		Impurities Maximum								Sum of Impurities Max
		Magnesium	Si	Fe	Mn	Cu	Zinc	Ni	Pb	Tin	Si	
AK7Ч (АЛ9)	Ingot	0.25 - 0.45	6.0 to 8.0	0.5 - 1.0	0.5	0.20	0.30	Titanium + Zirconium 0.15	0.05	0.01	Beryllium 0.10	1.0
	Casting	0.20 - 0.40					1.5					

**MECHANICAL PROPERTIES: AS PER GOST 1583-93**  
(Chill mould Casting)

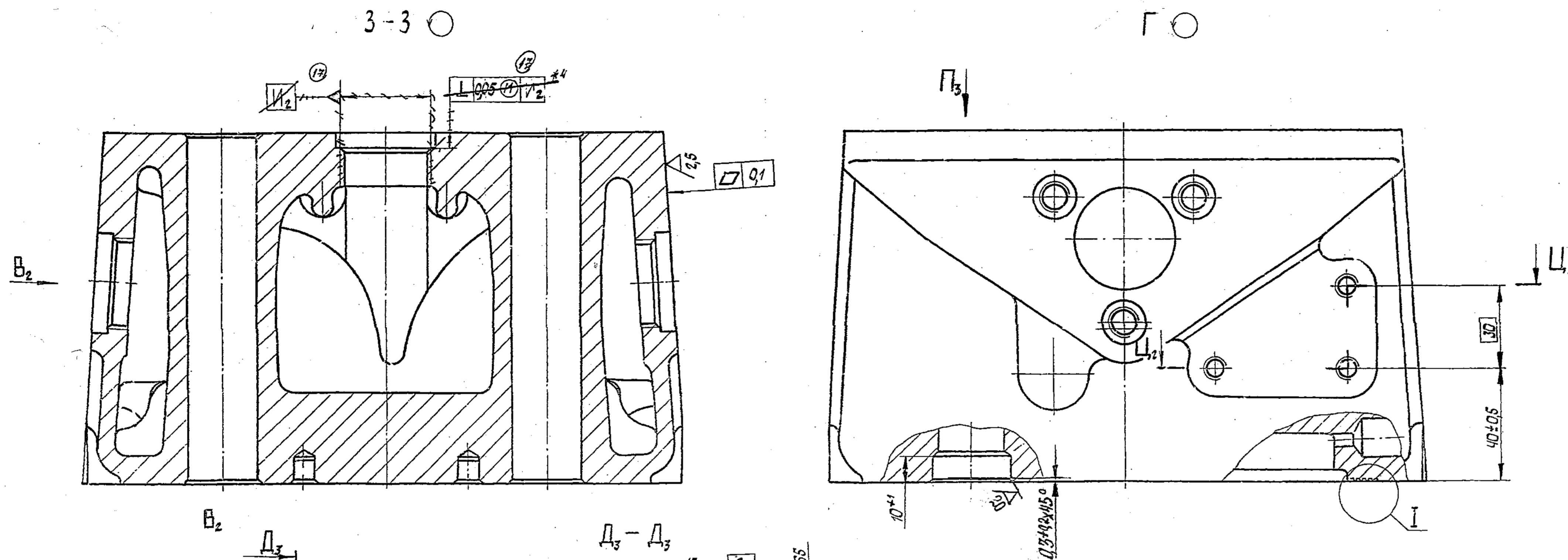
GRADE OF ALLOY	Ultimate Tensile Strength Kgf/mm <sup>2</sup>	Relative Elongation %	Hardness Brinell HB
AK7Ч (АЛ9)	21	2.0	60

**Note :** Any other parameters given in specification to be adhered in ToTo.

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

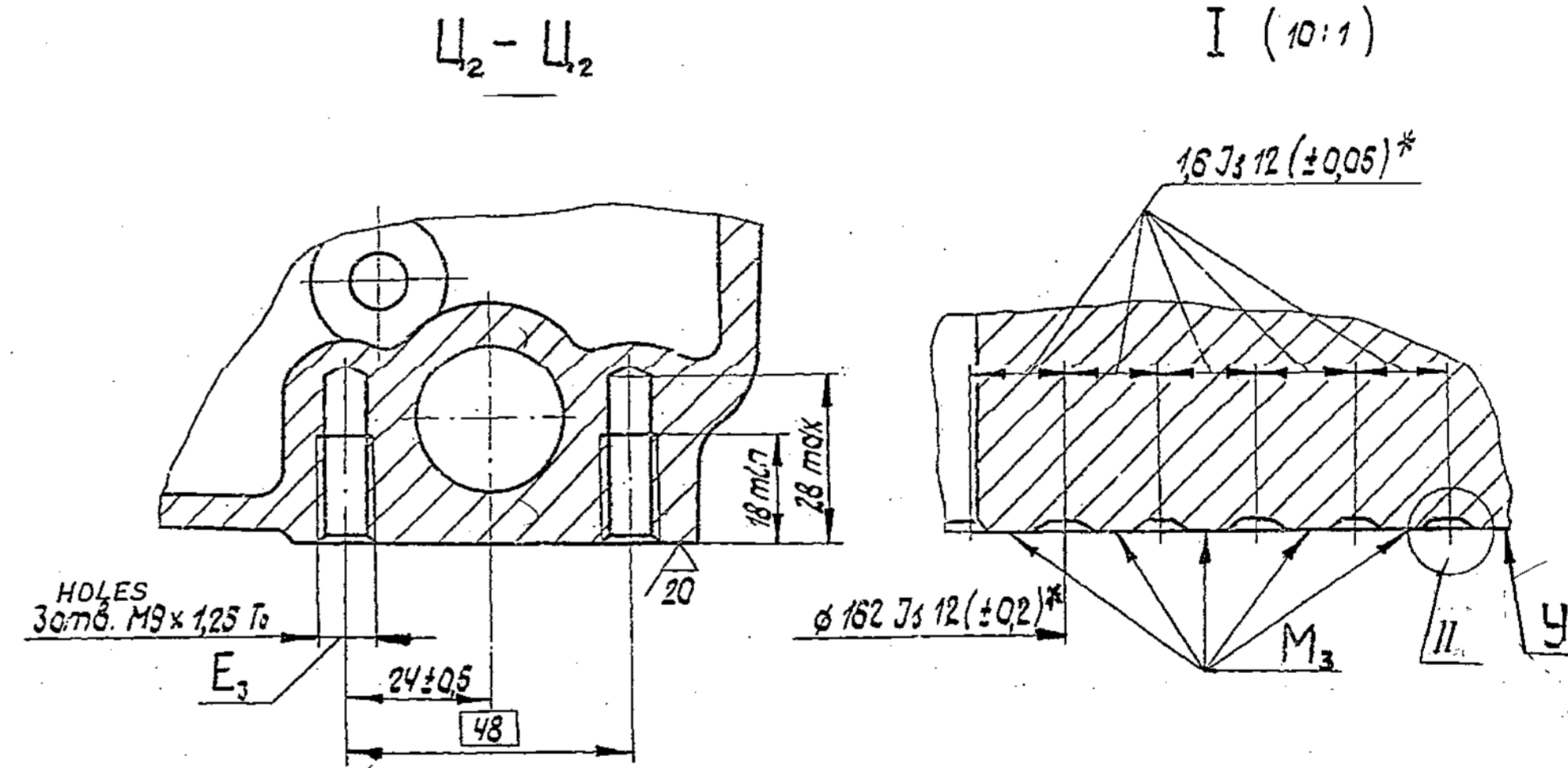
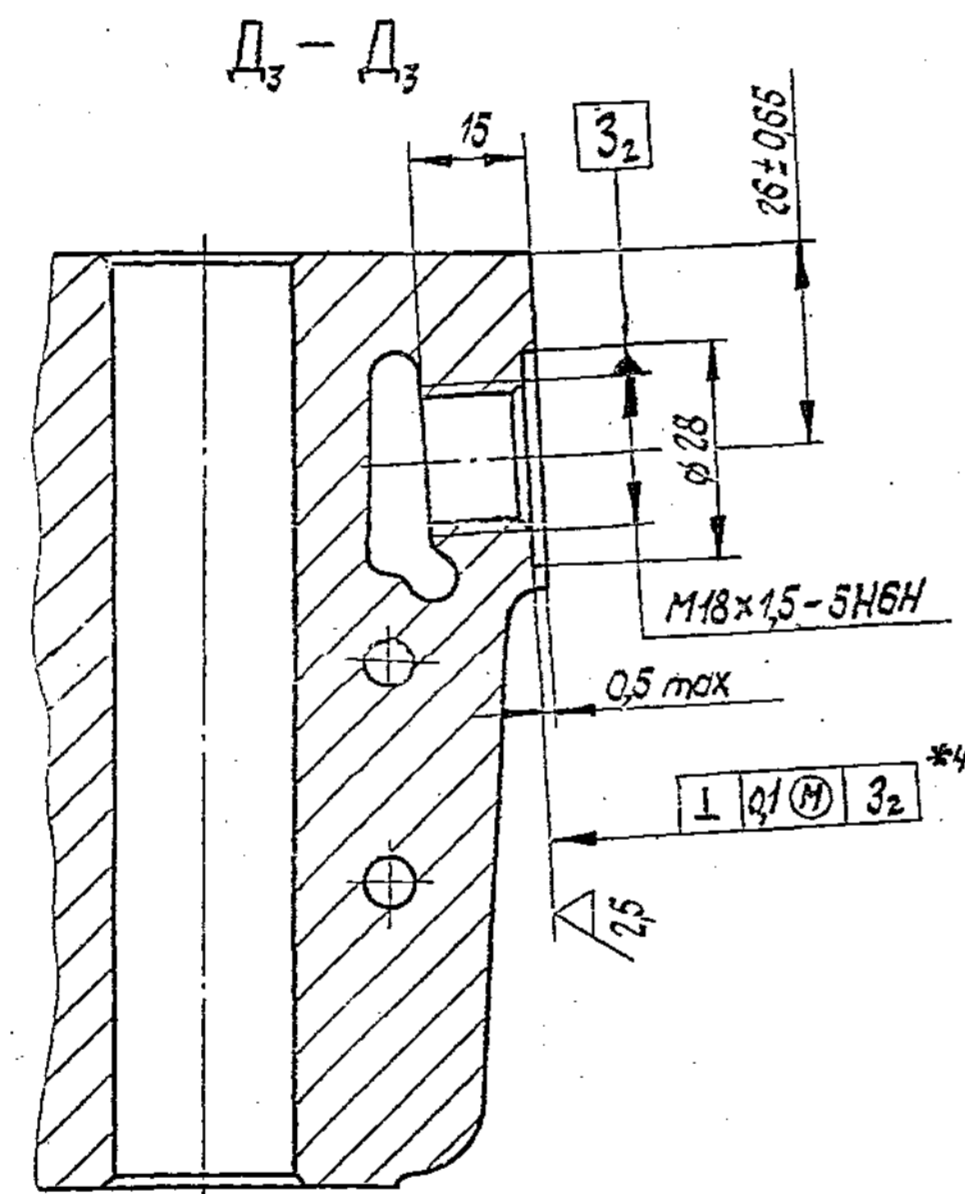
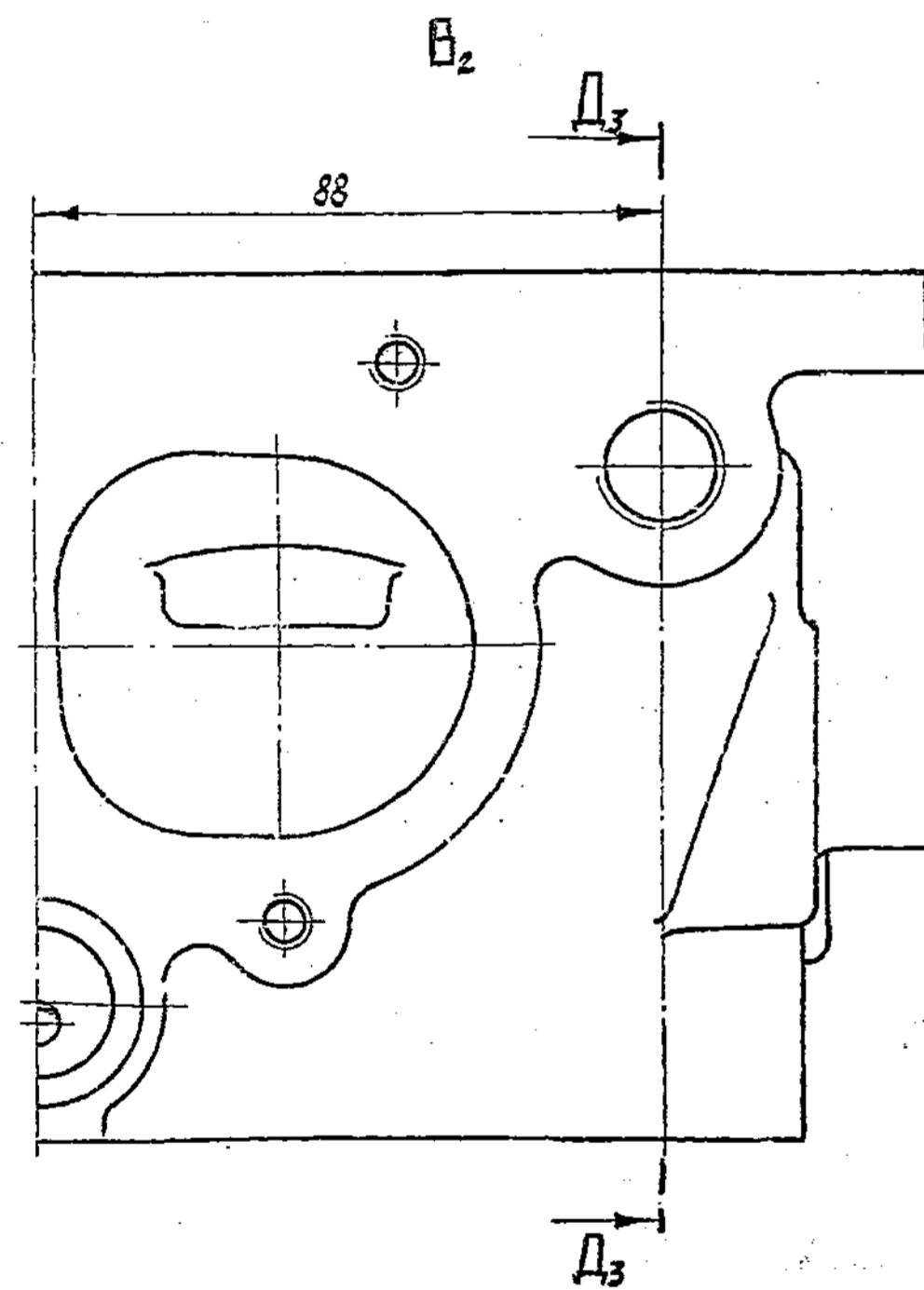
		EST. WT. Refer Sht 1 of 2	TO BE STAMPED OR MARKED WHERE INDICATED THUS # ( LETTERS )
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
		MATERIAL :- Refer Sht 1 of 2	USED ON :- Refer Sht 1 of 2
ISSUE DATE	NATURE OF AMENDMENTS	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
DRN 	SCALE :- — DIMENSIONS IN mm		
CHD 	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS : 2102 - 69		TITLE :- <b>LH CYLINDER HEAD</b>
APPD 	ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER <b>306-34-19</b> SHT 2 of 2
DATE 08 Jul 2021			
SIZE A4			

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 17 AND DRG REPLACES ISSUE A VIDE 18<sup>th</sup> IRIGC POINT No. 2

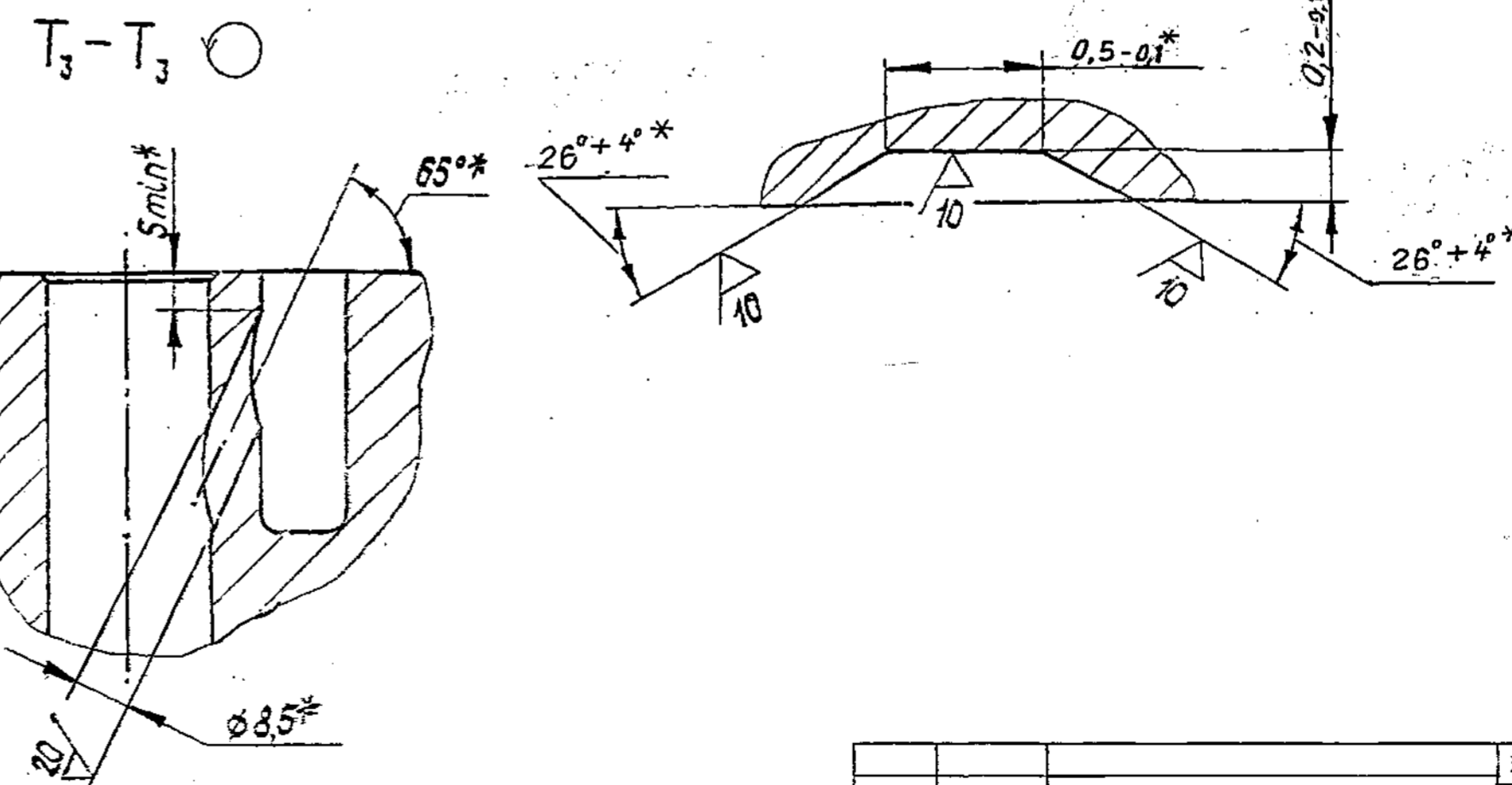
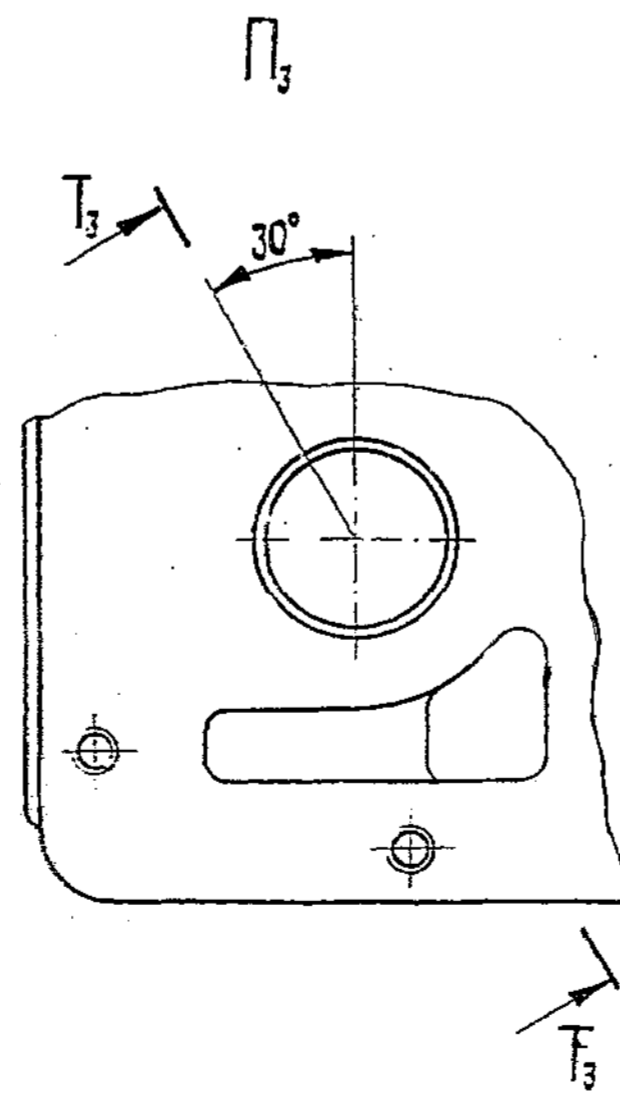
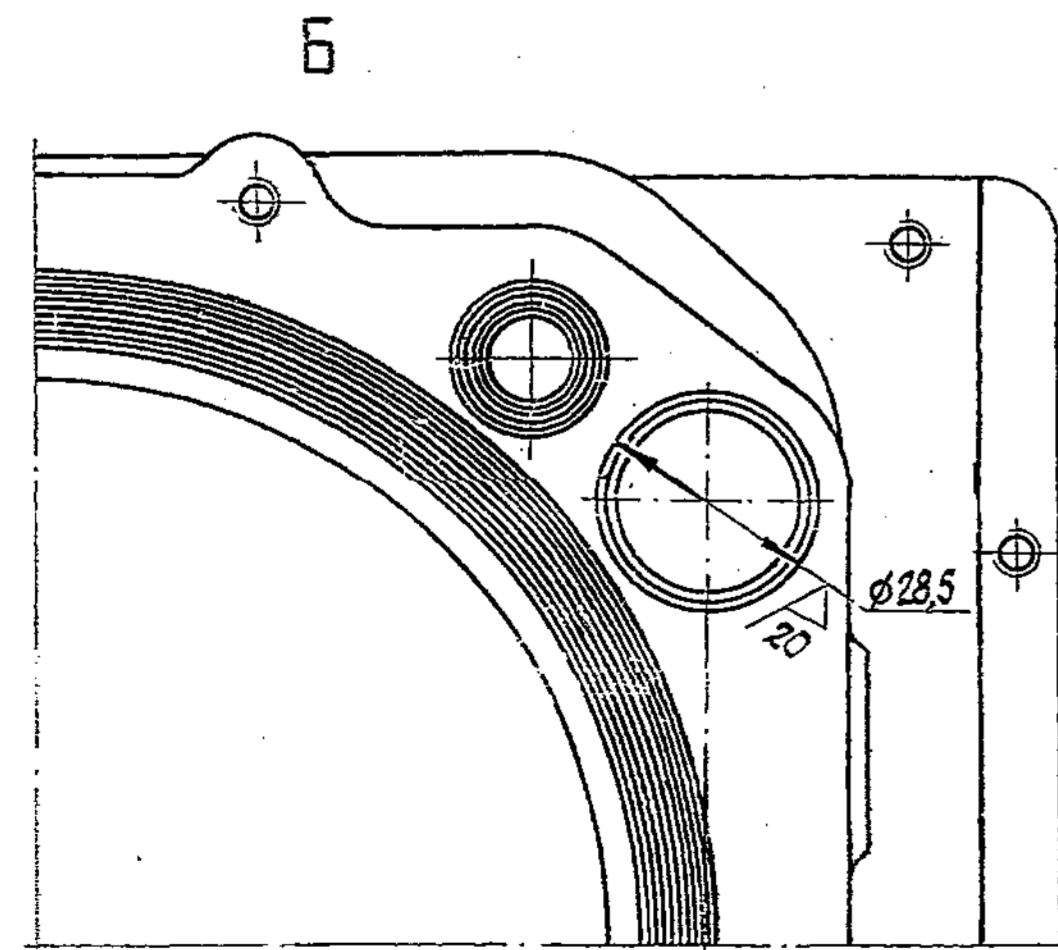


REDUCED ORIGINAL No. -1  
R.H CYLINDER HEAD

1. NICKS, MARKS FLAY MARKS AND DIG OUT FROM MACHINING ARE NOT ALLOWED ON THE SURFACE M3.
2. SURFACE  $M_3$  AND  $M_2$  SHOULD BE ON ONE FLATNESS.
3. \*4 BASE AXIS OF NEAR DIAMETER.
3. OTHER GRAPHICS, DIMENSIONS, SURFACE FINISH MATERIAL AND TECHNICAL REQUIREMENTS ARE AS PER DRAWING 306-16-23.



II (30:1)

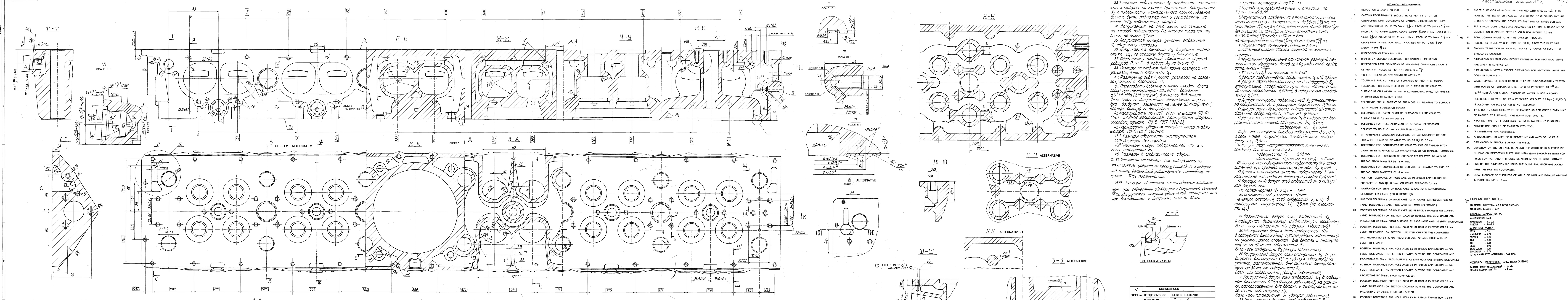


PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

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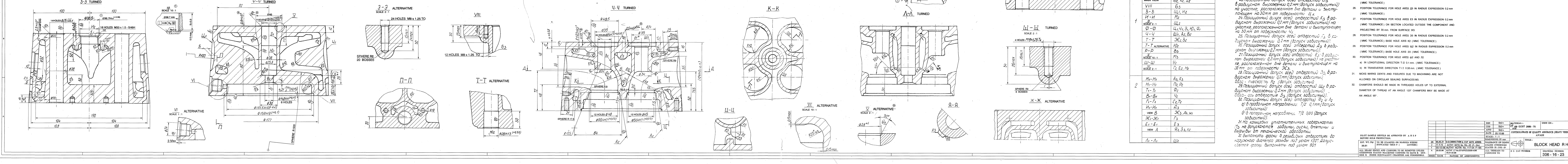
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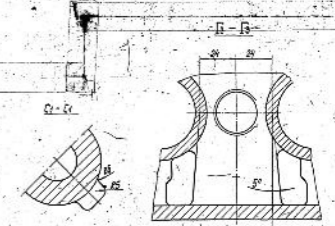
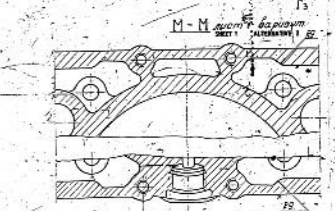
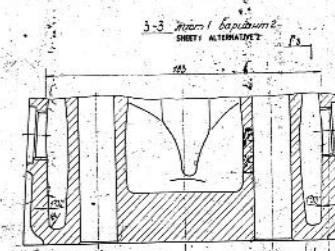
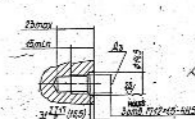
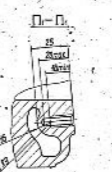
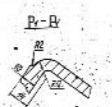
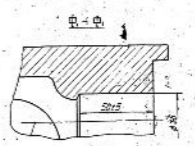
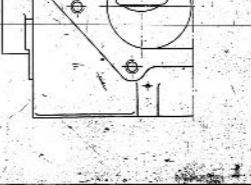
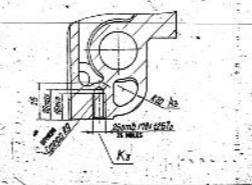
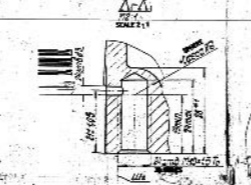
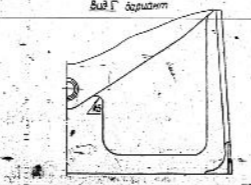
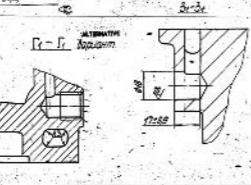
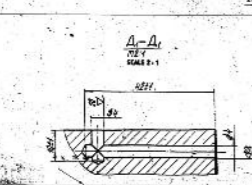
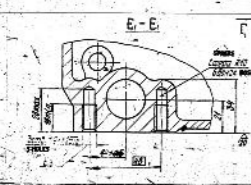
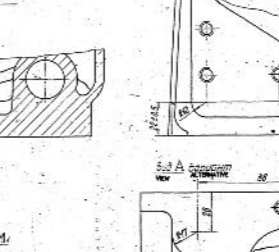
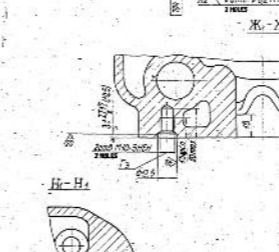
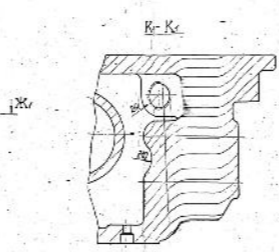
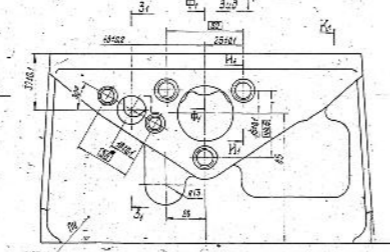
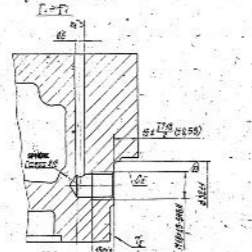
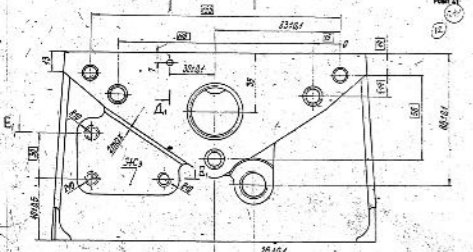
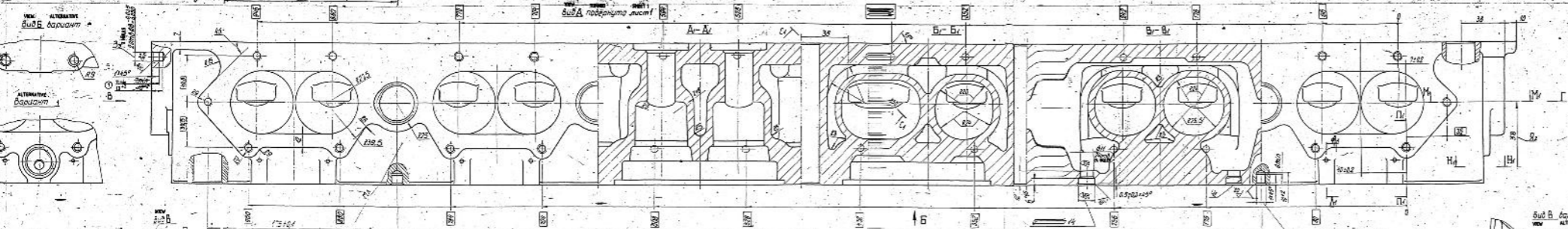
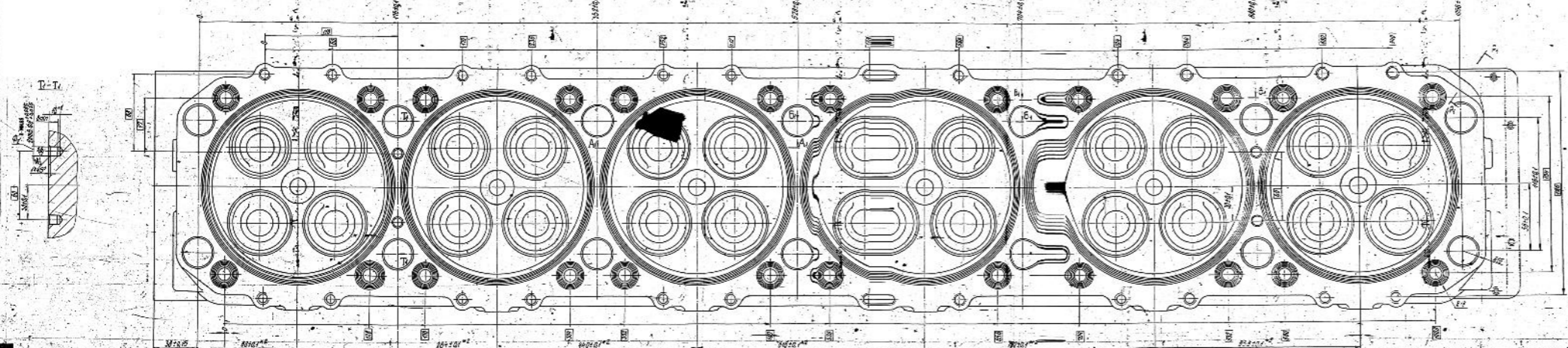
DRN	CHD	APRD	DATE	SCALE	DIMENSIONS	TOLERANCE ON DIMNS	ALL THREADS TO CONFORM TO	MATERIAL:-	USED ON:-
			16-05-2012	1:1	mm	UNLESS OTHERWISE STATED IS: 2102-69			Cb.306-01-20
								CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
								TITLE:-	
								R.H CYLINDER HEAD	
								D S CAT NUMBER	DRAWING NUMBER
									306-16-19



33. Конусные поверхности  $K_1$  обработать специальными инструментами...  
34. Допускается наличие выскочек от зеркала на боковой поверхности  $M_1$  камер сгорания, глубиной не более 0,1 мм...  
35. Допускается четыре угловых отверстия  $U_1$  сверлить насквозь...  
36. Допускается выточка  $K_2$  в крайних отверстиях  $U_1$  со стороны впуска и выпуска...  
37. Ответить на наличие обломка и перелома радиусов  $R_1$  и  $R_2$  в радиус  $R_3$  на длине  $L_1$ ...  
38. Размеры на впадинах в виде краев размеров на разрезах даны в плоскости  $U_1$ ...  
39. Размеры на впадинах в виде краев размеров на разрезах даны в плоскости  $U_1$ ...  
40. Пропускать вальные полости головки блока цилиндров в плоскости  $U_1$  до  $100^\circ C$  давлением  $0,3 \times 10^6$  МПа...  
41. Маскировать по ГОСТ 2171-79 ширину  $10-10$  ГОСТ 1740-82...  
42. Маскировать ударным способом номер ладки ширину  $10-5$  ГОСТ 2930-82...  
43. Размеры обеспечить инструментально...  
44. Размеры для справок...  
45. Размеры обеспечить инструментально...  
46. Размеры в скобках после сборки...  
47. Отклонение от плоскостности поверхности  $M_1$  на ширине  $L_1$  превышать не допускается...  
48. Размеры обеспечить согласованием кондуктора или собственной обработкой сопрягаемой детали...  
49. Допускается местное увеличение толщины стенок вогнанными и выпуклыми осевыми отверстиями  $U_1$ ...

Table with columns: No, Designations, Representations, Design Elements. Includes a list of views and their corresponding designations.





ITEM		DESCRIPTION	QUANTITY	UNIT
1	1	ALTERNATIVE SUB B ALTERNATIVE		
2	2	ALTERNATIVE SUB B ALTERNATIVE		
3	3	ALTERNATIVE SUB B ALTERNATIVE		
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