

R240/(V)

DRAWING NUMBER
351-08

EXPLANATORY NOTE:

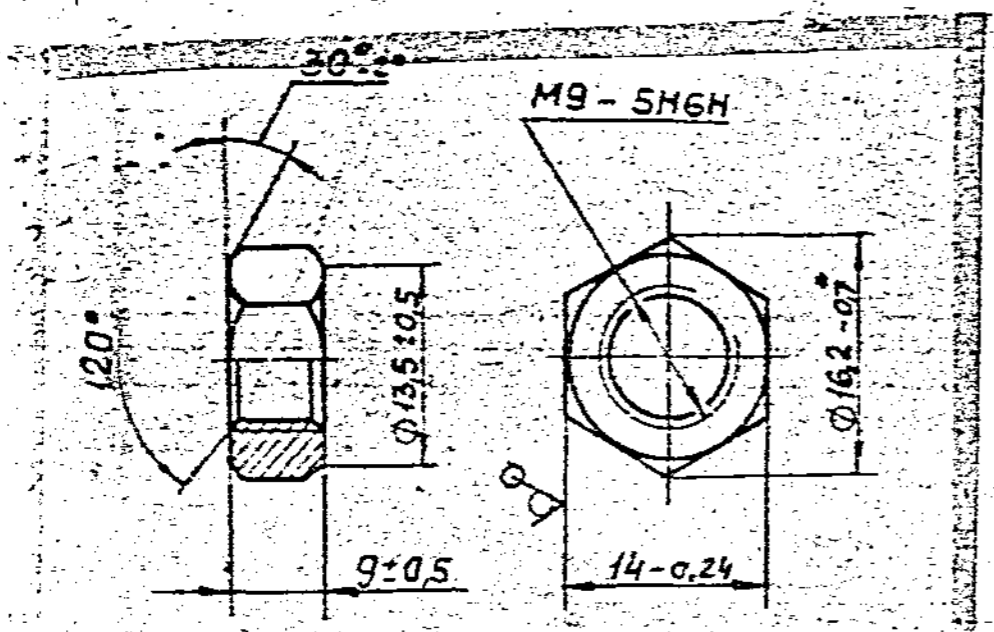
Material Quoted: 14-5 GOST 8560-78
45 GOST 1050-74

14 : Nut 14mm across flats; 5 : Class of accuracy.

Alternate material Quoted: steel 40, 50 GOST 1050-74

Chemical composition:

Grade of steel	C	Si	Mn.	Cr.	P	S	Cu	Ni
40	0.37-	0.17-	0.50-	MAXIMUM				
	0.45	0.37	0.80	0.25	0.035	0.040	0.25	0.25
45	0.42-	0.17-	0.50-	0.25	0.035	0.040	0.25	0.25
	0.50	0.37	0.80					
50	0.47-	0.17-	0.50-	0.25	0.035	0.040	0.25	0.25
	0.55	0.37	0.80					



Mechanical Properties

Grade of steel	Tensile strength kgf/mm ² (min)	yield point kgf/mm ² (min)	Elongation %	Reduction in area % (min)	Impact strength kgf/cm ² (min)
40	58	34	19	45	6
45	61	36	16	40	5
50	64	38	14	40	4

- ALTERNATE MATERIAL IS STEEL 40, 50, GOST 1050-74.
- CHAMFER 120° UPTO THE MAJOR DIAMETER OF THE THREAD.
- COATING: ZINC-PLATED, 6 MICRONS THICK, OILED.
- OTHER TECHNICAL REQUIREMENTS ARE AS PER GOST 1759-70.
- * DIMENSION IS GIVEN FOR REFERENCE.

(A) EQUIVALENT MATERIAL STEEL
45C8 TO IS:1570

* CB 3300-00-27 CX
* CB 306-02-20 of 306-01-20
CB 20-06-02-5, CB 20-06-01-5

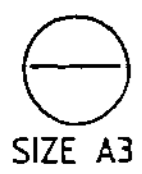
PLOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

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

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

DRN	<i>Prasad</i>	MATERIAL:-	USED ON *
CHD	<i>Prasad</i>	14-5 GOST 8560-78	CB.20-01-00-8
TCD		45 GOST 1050-74	
APPD	<i>Prasad</i>	CONTROLLERATE OF QUALITY ASSURANCE(HEAVY VEHICLES)	
DATE	19-4-89	AVADI	
SCALE:-		TITLE: NUT M9	
DIMENSIONS IN mm TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS:2102-69		D S CAT NUMBER	
ALL THREADS TO CONFORM TO		DRAWING NUMBER	
ISSUE DATE	12-8-10	351-08	
NATURE OF AMENDMENTS		4 th Alt. Comm. Meeting Minutes Point No.11 Dt: 26-10-09	

KVD.No. 63605

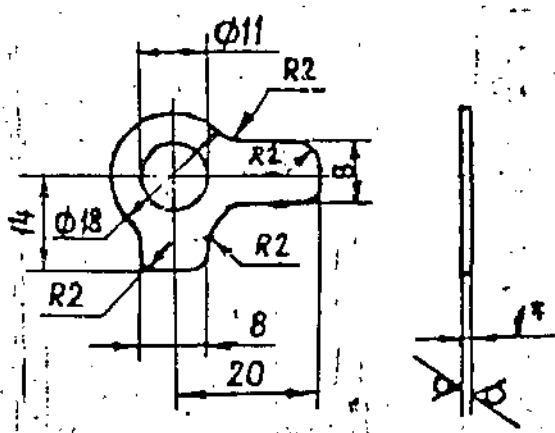


SIZE A3



USED ON * *
 SB 20-06-01-5
 SB 20-06-02-5
 SB 20-34-00-1
 SB 20-09-00-7
 SB 20-11-00-6
 SB 20-13-00-9
 SB 20-18-00-4
 SB 20-18-201
 SB 20-18-202
 SB 3320-00-43
 CB 3301-15-30
 CB 3320-00-33
 CB 3338-00-16
 CB 3301-15-44
 CB 337-100 / CB-310-44 / CB-3320-00-43
 COMMON TO V-92S2 & UTD-20 ENGINES
 CB 3336-00-11
 (A)
 SIZE A3

DRAWING NUMBER
353-15



1. REQUIREMENTS PLACED UPON STAMPING ARE AS PER STANDARD 82050-16.
2. STRAIGHTEN AFTER STAMPING
3. COATING = ZINC-PLATED, 9 MICRONS THICK, OILED WITH REMOVAL OF HYDROGEN EMBRITTLEMENT
4. * DIMENSION IS GIVEN FOR REFERENCE.

EXPLANATORY NOTE:

Material Quoted : Strip 08MC-M-2-1 GOST 503-71
 Cold rolled low carbon steel strip of steel grade 08MC and condition of material - soft (M) with 2nd group of surface quality (roughness parameter $Ra \leq 1.25$ micron) and thickness = 1mm.

Chemical composition (as per GOST 1050-74)%

C = 0.05-0.11, Mn = 0.35 - 0.65
 Si = 0.05-0.17, Cr = 0.1 (max)
 S = 0.040 (max), Cu = 0.25 (max)
 P = 0.035 (max), Ni = 0.25 (max)

Mechanical Properties

ultimate Tensile strength $\text{kgf/mm}^2 = 32-45$
 Relative Elongation % = 17 (min)

(B) EQUIVALENT MATERIAL
 Gr.O IS: 513-1994

PLOT. SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION		DRN	<i>J. J. J.</i>	MATERIAL:- STRIP	USED ON * *
EST. WT. 0.0022 Kg. TO BE STAMPED OR MARKED WHERE INDICATED THUS # 1 LETTERS)		CHKD	<i>S. S. S.</i>	08MC-M-2-1 GOST 503-71	
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.		TCD	<i>P. P. P.</i>		
		APPD	<i>S. S. S.</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	AVADI
		DATE	23-11-89	TITLE	
		SCALE:-	1:1	LOCK WASHER 11	
		DIMENSIONS IN mm TOLERANCE ON DIMMS UNLESS OTHERWISE STATED IS: 2102-69		D S CAT NUMBER	
		B	17-3-10	DRAWING NUMBER	
		A	28.8.08	353-15	
		ISSUE DATE		NATURE OF AMENDMENTS	
		4 th Alt. Comm. Mt. Minutes Pt. No. 1 Dt. 26.10.09.		USED ON NUMBER ADDED	

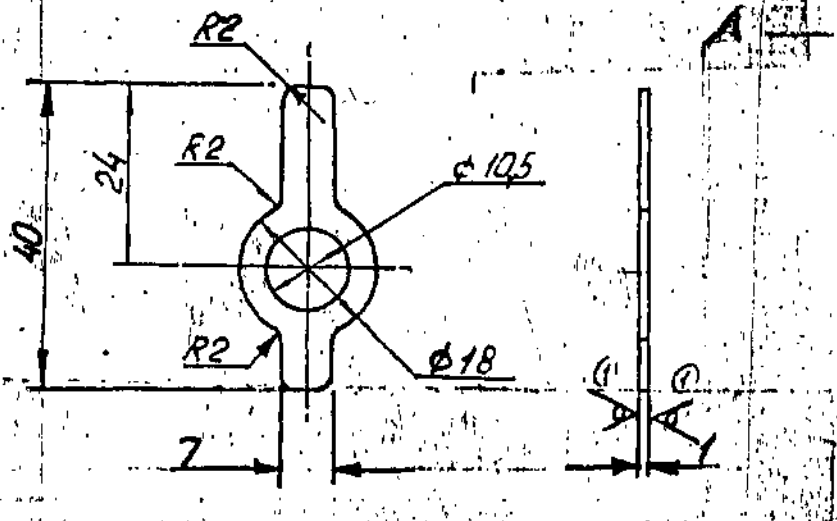


DRAWING NUMBER

353-19

Rz80 / (✓) 08

F
E
D
C



2. REQUIREMENTS FOR STAMPING AS PER STANDARD 82050-16.
3. THE COMPONENT SHOULD BE STRAIGHTENED AFTER STAMPING.
4. BURRS ARE NOT ALLOWED.
6. COATING : Cd 9, CHROMATIZING AS PER UUA-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
7. REQUIRED FINISHING OF SURFACES BEING STAMPED SHOULD BE ENSURED BY TOOL.

(A) EQUIVALENT MATERIAL.
Gr. 0 IS: 513-1994.

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

KVP - 63630

A-11
67

EST. WT. 0.0025 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS ≡ (LETTERS)
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ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

MATERIAL:- STRIP 08nc-M-2-1, GOST 903-71.	USED ON CB20-06-04 CB 20-35-00-5 CB 306-04-2.
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A	17.3.10	4 th Alt. Comm. Meet. Minutes Point No.1. Dt:26-10-09.
ISSUE	DATE	NATURE OF AMENDMENTS

DRN	SCALE:- 1:1
CHD	DIMENSIONS IN mm

CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI.

TCD	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102 -69
APPD	ALL THREADS CONFORM TO

	TITLE LOCK WASHER-10
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DATE	27/7/88
SIZE	A4

D'S CAT NUMBER	DRAWING NUMBER 353-19
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DRAWING NUMBER

353-21

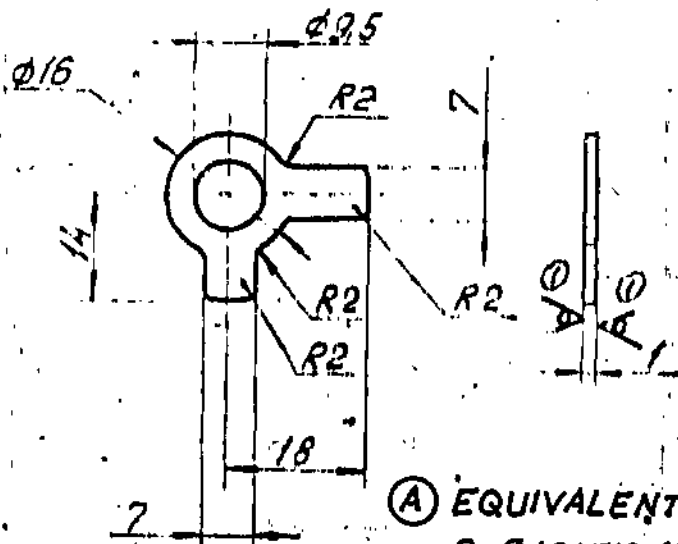
Rz80 (V)

F

E

D

C



Ⓐ EQUIVALENT MATERIAL
Gr. OIS: 513-1994

2. Requirements for stamping as per standard 82050-16
3. The component should be straightened after stamping.
4. Burrs are not allowed.
6. Coating :- Cd 9, Chromating as per 1125A-104 with elimination of Hydrogen embrittlement.
7. Required finishing of surfaces being stamped should be ensured by tool.

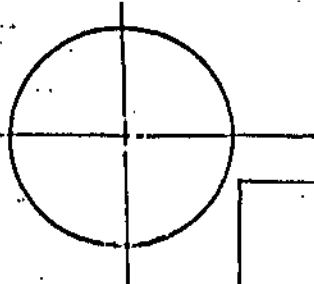
A-11
69

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

		EST. WT. 0.0016 kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # 1 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.	
A	17-3-10	4 th Alt. Comm. Meet. Minutes Point No.1 Dt:26-10-09.	MATERIAL:- STRIP 08NC-M-2-1 GOST 508-71
ISSUE DATE		NATURE OF AMENDMENTS	USED ON CB 306-01-20, CB 20-06-01-5 CB 306-02-23 CB 20-06-02-5
DRN	lg.	SCALE:- 1:1 DIMENSIONS IN mm	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI.
CHD	gany.	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102 -69	TITLE LOCK WASHER 9
TCD	Dus	ALL THREADS CONFORM TO	
APPO	208		U S CAT NUMBER
DATE	15-2-89		DRAWING NUMBER 353-21

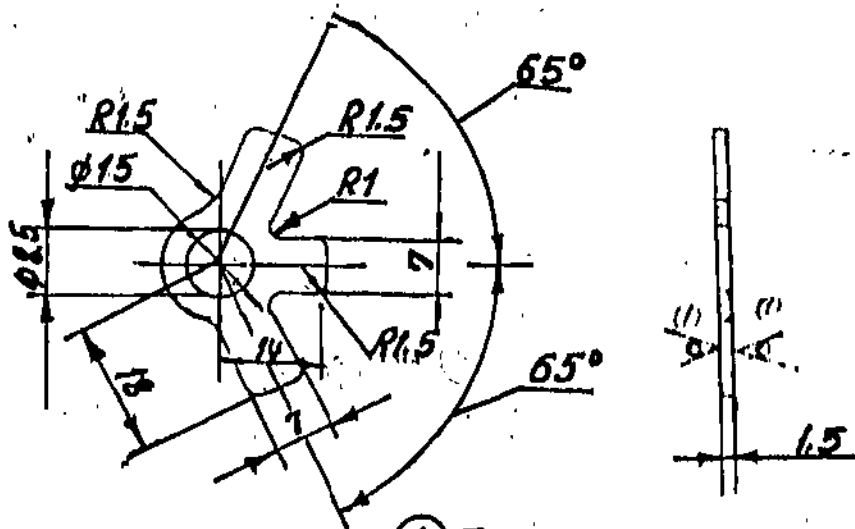
SIZE A4





DRAWING NUMBER
353-32

Rz 80 ✓(✓)



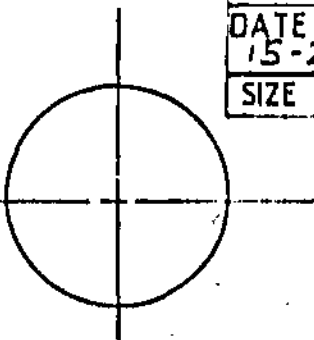
Ⓐ EQUIVALENT MATERIAL
Gr. O IS: 513-1994

2. Requirements for stamping - as per standard B2050-16.
3. The component should be straightened after stamping.
4. Burrs are not allowed.
6. Coating :- Cd q, Chromating as per user - 10H with elimination of Hydrogen embrittlement.
7. Required finishing of surfaces being stamped should be ensured by tool.

A-11
75


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

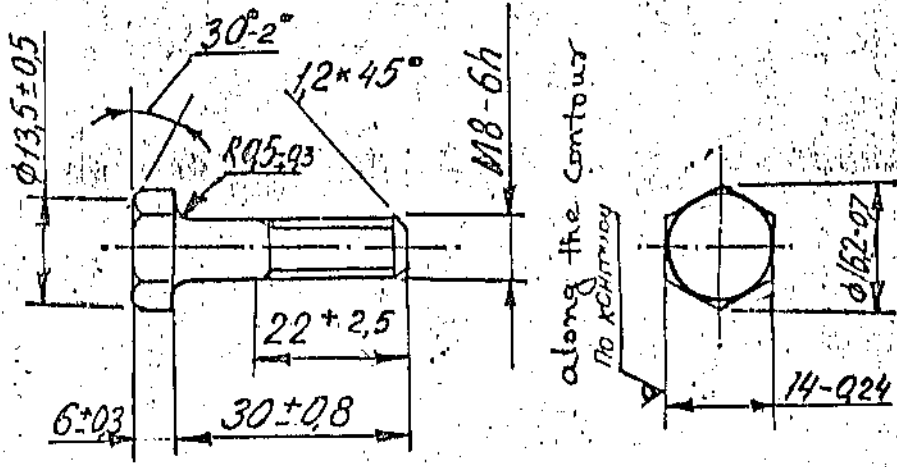
		EST. WT. 0.0022 kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS = (LETTERS)
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
A.	17-3-10	Alt. Comm. Meet. Minutes Point No. 1 Dt: 26-10-09.	MATERIAL:- STRIP 0806-M-2-1.5 CHOST 503-71.
ISSUE	DATE	NATURE OF AMENDMENTS	
ORN	llg.	SCALE:- 1:1	
CHD		DIMENSIONS IN mm	
TCD		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102 -69	
APPD		ALL THREADS CONFORM TO	
DATE	15-2-89.	TITLE LOCK WASHER 8	
SIZE A4		D S CAT NUMBER	DRAWING NUMBER 353-32





356-73

Rz 80




1. Burrs should be dressed.
2. The thread may be made by rolling with the diameter of unthreaded portion within the pitch diameter of thread.
3. The thread may be formed along the entire length of the shank.
6. Dimensions should be checked before coating.
7. Coating 1 - Cd 9, Chromating as per 82el-104 with elimination of Hydrogen embrittlement
8. The rest of the requirements as per standard 82032-00.
- Alternate material: steel, grades 40 and 50, GOST 1050-74.
10. Rolled stock of group B class 4 GOST 1051-73 may be used. To ensure high quality of coating, it is allowed to eliminate surface defects of rolled stock with decrease of dimension as per accuracy class 5.

APPROVED TO U46 A10

MATERIAL: STEEL 709 M40 (EN 19)

TO BS. 970 Pt. I. 1983

~~HEXAGON BAR~~ (A)

~~44-4 GOST 8560-78~~

~~45-8 GOST 1051-73~~

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

EST. MASS 0.016 kg		TO BE STAMPED ON MARKED WHERE INDICATED THIS # LETTERS	
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED. MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE		MATERIAL: USED ON - C5 406-12-44 C5 406-13-44	
3RD ALTN. COMMUNITES POINT 5 DT 27-2-09		CONTROLLER OF QUALITY ASSURANCE (HEAVY VEHICLES) A V A D I	
ISSUE DATE	NATURE OF AMENDMENTS	TITLE: BOLT M8 x 30	
DIIN	SCALE: 1:1	DRAWING NUMBER: 356-73	
CD	DIMENSIONS IN mm	D'S CAT NUMBER	
TCO	TOLERANCE ON DIMS UNLESS OTHERWISE STATED		
APPL			
DATE: 12-3-88	ALL THREADS TO CONFORM TO		

DRAWING RE-INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE-NIL

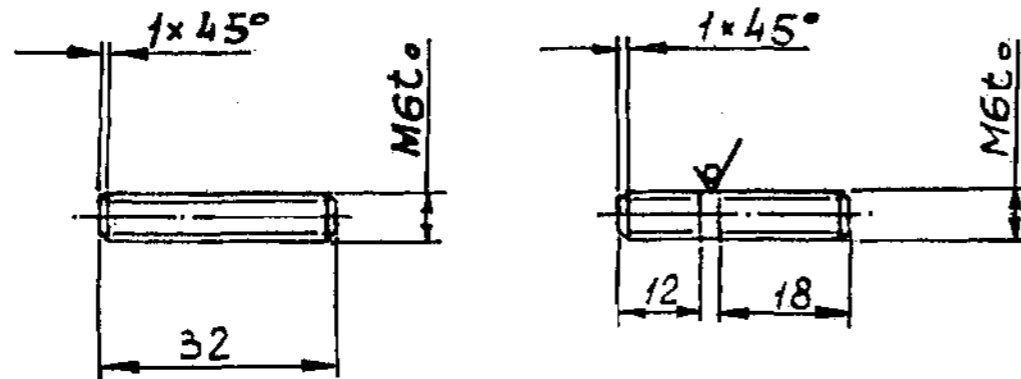
AMDT No. 1761 - 81

(R. BALAKRISHNAN)
 JTO (D) DT. 9.6.09

8 7 6 5 4 3 2 1

DRAWING NUMBER
550 - 103

R280/ (✓)



ALTERNATE

1. INSPECTION GROUP IV AS PER TECHNICAL REQUIREMENTS TT-11. HRC 26 TO 33.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
FOR SHAFTS - AS PER B7,
OTHERS - AS PER CM7.
3. MAKE THREAD AS PER STANDARD 82020-12.ISSUE 7.
4. TECHNICAL REQUIREMENTS ARE AS PER GOST 1759-70.
5. COATING: CADMIUM-PLATED, 3 MICRONS THICK, OILED. WITH REMOVAL OF HYDROGEN EMBRITTLEMENT.
6. THE UNTHREADED PORTION OF THE ROD MAY BE MADE WITH-IN THE LIMITS OF THE ANGLE DIAMETER OF THREAD.
7. MECHANICAL DAMAGE TO COATING SUCH AS SCRATCHES, NOTCHES AND DENTS WHICH DO NOT EXPOSE STEEL ARE PERMITTED, IN ASSEMBLY UNITS

Ⓐ ALTERNATE MATERIAL : STEEL 709 M 40 (EN 19)
TO BS : 970- Pt I- 1983

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 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.

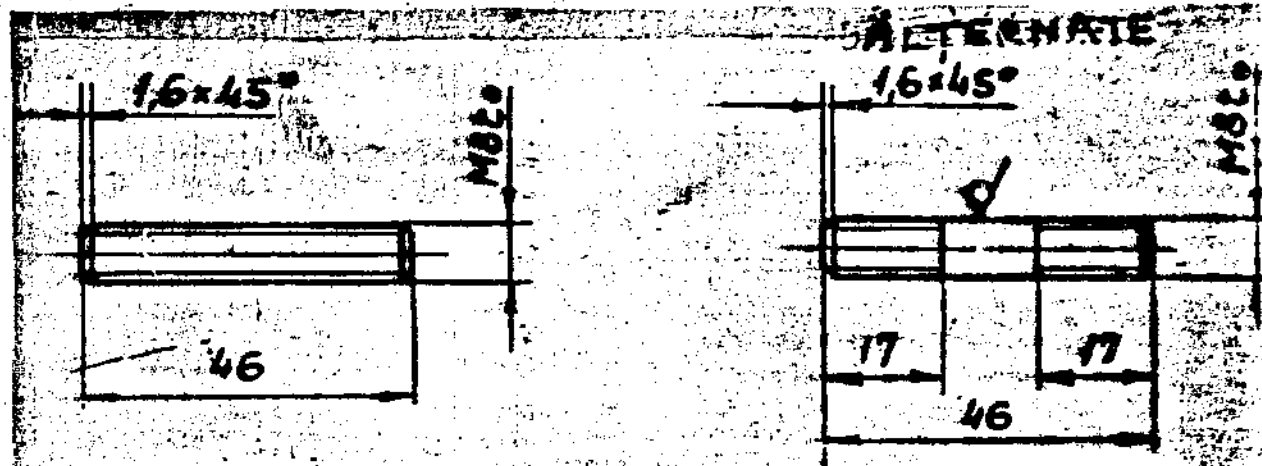
			DRN	Sd	MATERIAL :-	USED ON :- Cb 20 - 06 - 01 - 5
			CHD	Sd	38 XA GOST 4543 - 71	Cb 20 - 06 - 02 - 5
			TCD	Sd	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
			APPD	Sd		
			DATE	10-09-87	TITLE :- STUD M6 X 32	
			SCALE:-	1:1		
			DIMENSIONS IN mm		D S CAT NUMBER	
			TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69			
			ALL THREADS TO CONFORM TO		DRAWING NUMBER 550 - 103	
A	9-6-09	3 rd ALTERATION.COMM. MINUTES POINT 2. DATE 27-2-09	ISSUE	DATE		



SIZE A3

DRAWING NUMBER
550-105

Rz80 (✓)



1. INSPECTION GROUP IV AS PER TECHNICAL REQUIREMENTS TT - 11, HRC 26 TO 33.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
FOR SHAFTS - AS PER B7,
OTHERS - AS PER CM7
3. MAKE THREAD AS PER STANDARD 82020-12, ISSUE 7.
4. TECHNICAL REQUIREMENTS ARE AS PER GOST 1759-70.
5. COATING: CADMIUM-PLATED, 3 MICRONS THICK, OILED, WITH REMOVAL OF HYDRGEN EMBRITTLEMENT.
6. UNTHREADED PORTION OF THE ROD MAY BE MADE WITH IN THE LIMITS OF THE ANGLE DIAMETER OF THREAD.
7. IN THE ASSEMBLY UNITS MECHANICAL DAMAGE TO THE COATINGS SUCH AS SCRATCHES NOTCHES AND DENTS WHICH DO NOT EXPOSE STEEL ARE PERMITTED.

EXPLANATORY NOTE :

8. REFERENCE MATERIAL QUOTED :
HIGH QUALITY (A) CHROMIUM STEEL TO GRADE 38XA.
 - a) CHEMICAL COMPOSITION :

CARBON	-	0.35	-	0.42	%
SILICON	-	0.17	-	0.37	%
MANGANESE	-	0.50	-	0.80	%
CHROMIUM	-	0.80	-	1.10	%
SULPHUR	-	0.025	(max)	%	
PHOSPHORUS	-	0.025	(max)	%	
COPPER	-	0.30	(max)	%	
NICKEL	-	0.30	(max)	%	
 - b) PHYSICAL PROPERTIES :

YIELD POINT	-	80	Kgf/mm ²	(min)
U T-S	-	95	Kgf/mm ²	(min)
ELONGATION %	-	12	(min)	
REDUCTION IN AREA%	-	50	(min)	
IMPACT STRENGTH	-	9	Kgfm/cm ²	(min)

(A) Alt. Material: STEEL 709M40 (EN-19) TO BS-970 Pt-1-1983

CB 20-11-02-9
CB-20-13-02-11

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

EST. WT. TO BE STAMPED OR MARKED WHERE INDICATED THUS \equiv (LETTERS)

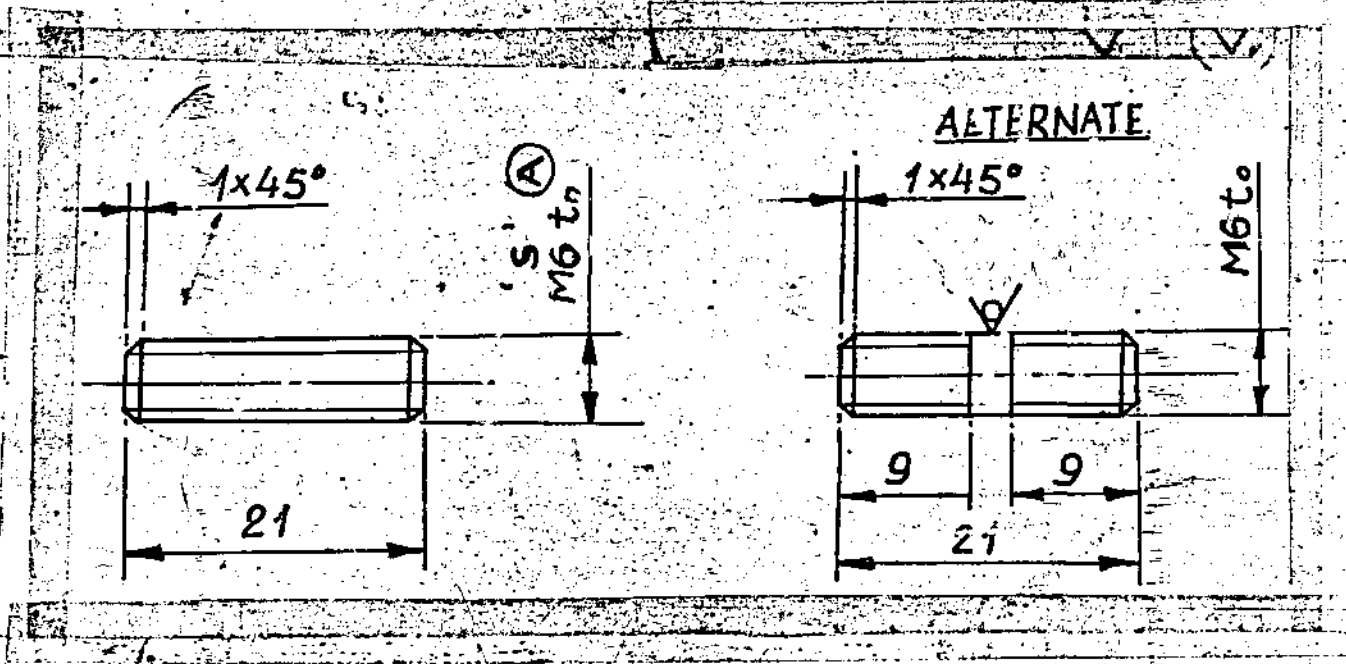
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT SIDE INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

DRN		MATERIAL:-	USED ON
CHD		38XA GOST 4543-71	CB 20-15-601-5
TCD			
APPD			
DATE	24-4-1987	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
SCALE:-	1:1	AVADI	
DIMENSIONS IN mm		TITLE	STUD M8X46
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS:2102-69			
ALL THREADS TO CONFORM TO		D. S. CAT NUMBER	DRAWING NUMBER
			550-105
ISSUE DATE	18.5.09	NATURE OF AMENDMENTS	
		Auth: Third Alt. Comm. Minutes Point - 2 Dated 27-02-2009.	

SIZE A3

550-106

R280 (✓)



EXPLANATORY NOTE :

MATERIAL QUOTED : STEEL 45 GOST 1050-74. (D)
 45 = GRADE OF MATERIAL
 CHEMICAL COMPOSITION : (AS PER GOST 1050-74)

GRADE OF STEEL	CONTENT OF ELEMENTS %						
	C	Si	Mn	Cr	P	S	Cu Ni
45	0.42-	0.17-	0.50	0.25	0.035	0.040	0.25 0.25
	0.50	0.37	0.80				

MECHANICAL PROPERTIES
 TENSILE STRENGTH Kgf/mm² = 61 (min)
 YIELD POINT Kgf/mm² = 36 (min)
 ELONGATION % = 16 (min)
 REDUCTION IN AREA % = 40 (min)

1. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
 FOR SHAFTS - AS PER B7., OTHERS - AS PER CM7.
2. MAKE THREAD AS PER STANDARD B2020-12, ISSUE 7.
3. TECHNICAL REQUIREMENTS ARE AS PER GOST 1759-70.
4. COATING CADMIUM PLATED, 3 MICRONS THICK, OILED.
5. UNTHREADED PORTION OF THE ROD MAY BE MADE WITHIN THE LIMITS OF THE ANGLE DIAMETER OF THE THREAD.
6. MECHANICAL DAMAGE TO COATING SUCH AS SCRATCHES, NOTCHES AND DENTS WHICH DO NOT EXPOSE STEEL IS PERMITTED IN ASSEMBLY UNITS.
7. HARDNESS:- 27-32 HRC.

(A) **REPAIR SIZE DIMENSIONS**

CATEGORY	DESIGNATION OF SIZE	SIZE ACCORDING TO WORKING DRG	REPAIR SIZE DIMENSION 'S'
550-106 R ₁	DIAMETER	M 6 X 1 to	M 8 X 1.25 to
	DIAMETRAL PITCH	*	+0.170 9.026 + 0.095

(B) * MATERIAL:-
 STEEL 709 M40 (En-19) to
 BS 970 Pt.1:- 1983.

All other details as per working drg.

USED ON CB 20-06-01-5
 CB 20-06-02-5
 CB 20-05-45-2
 CB 20-12-50-13
 CB 20-11-04-3

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

EST. WT. TO BE STAMPED OR MARKED WHERE INDICATED THIS # LETTERS
 0.004 Kg

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

ISSUE	DATE	NATURE OF AMENDMENTS
D	9.6.09	3 rd ALTERATION COMM. MINUTES POINT 5 DATE 27-2-09
C	11.01.08	AUTHY:- Pt.No. 212 ALT. COM. MEET. DT. 07-02-2007.
B	19.09.07	AUTHY:- ALT.No.25,2nd ALT. COM. MEET. Dt. 07-02-2007.
A	7.8.98	AUTHY:SPECN FOR REPAIR SIZE DRGS. PE

DRN
 CHD
 TCD
 APPD
 DATE
 SCALE:- 2:1
 DIMENSIONS IN mm
 TOLERANCE ON DIMS UNLESS OTHERWISE STATED IS:2102-69
 ALL THREADS TO CONFORM TO.

MATERIAL:- (D) *
 45 GOST 1050-74

CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
 AVADI

TITLE
STUD M6x21

D S CAT NUMBER
 DRAWING NUMBER
550-106

KVD NO-63594



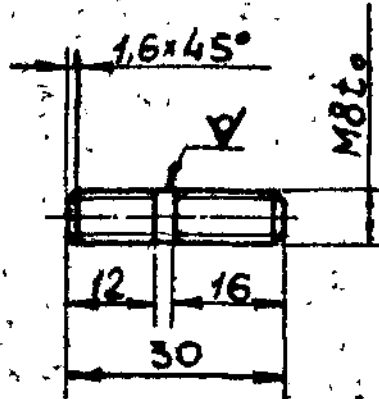
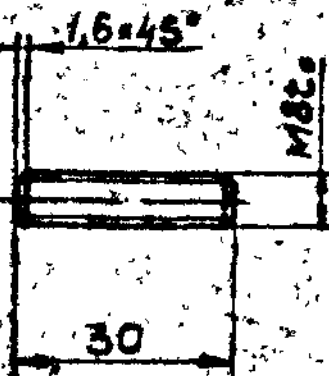
SIZE A3

550-111

Rz 80



ALTERNATE



1. ALTERNATE MATERIAL IS STEEL 40, 50, GOST 1050-74.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
FOR SHAFTS - AS PER B₇,
OTHERS - AS PER CM₇,
3. MAKE THREAD AS PER STANDARD 82020-12, ISSUE 7.
4. TECHNICAL REQUIREMENTS ARE AS PER GOST 1759-70.
5. COATING: CADMIUM-PLATED, 3 MICRONS THICK, OILED.
6. UNTHREADED PORTION OF THE ROD MAY BE MADE WITH IN THE LIMITS OF THE ANGLE DIAMETER OF THE THREAD.
7. MECHANICAL DAMAGE TO COATINGS SUCH AS SCRATCHES, NOTCHES AND DENTS WHICH DO NOT EXPOSE STEEL IS PERMITTED IN ASSEMBLY UNITS.
8. HARDNESS:- 27-32 HRC.

* MATERIAL:-

STEEL 709 M40 (EN-19) TO BS-970 PT.-1-1983.

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

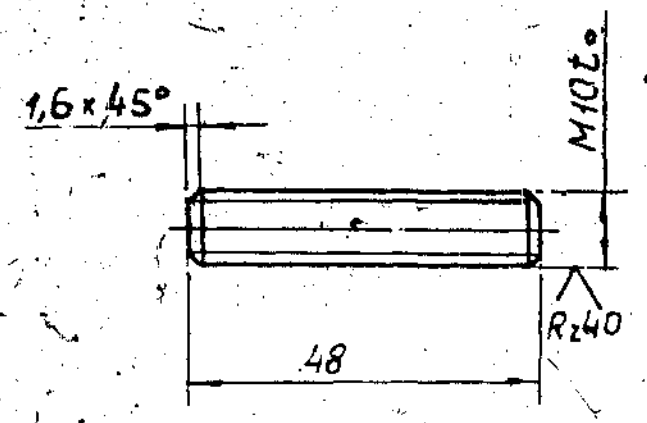
B	9/09	3 rd ALTN. COMM MINUTES POINTS DT 27-2-09	EST MASS 0,011 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS #
A	12.01.08	AUTHY:- MIN. OF ALT. COM. MEET. PT.-2.12 DT.-07-02-07	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL - 45 GOST 1050-74 * (B)	USED ON - C6 20-06-01-5 C6 20-06-02-5
URN	GNSA	SCALE - 1:1	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
C 10		DIMENSIONS IN mm,	TITLE - STUD M8X30	
TID		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.	D S CAT NUMBER	
APPD		ALL THREADS CONFORM TO	DRAWING NUMBER 550-111	
DATE	10/9/87			

ДОСТУПНОСТЬ
 ВЕРНО
 АМДТ NO 1761-81

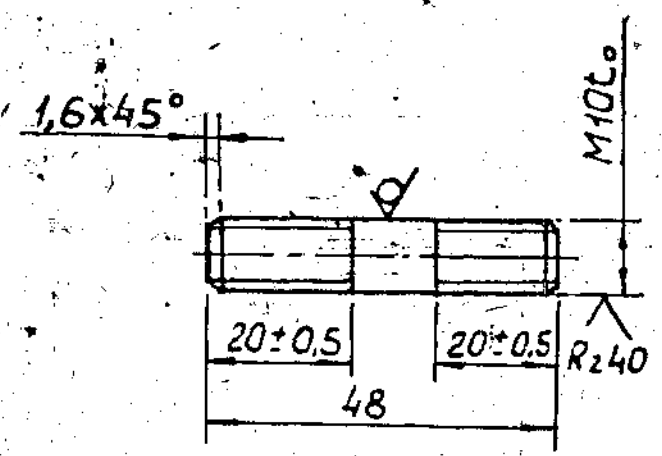
550-118

R_{1.80} ✓

Восстановлено с позначки Верно



ALTERNATE



1. INSPECTION GROP IV AS PER TECHNICAL REQUIREMENTS TT-11. HRC 26 TO 33.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS: FOR SHAFTS - AS PER B₇, OTHERS - AS PER CM₇.
3. MAKE THREAD AS PER STANDARD 82020-12, ISSUE 7.
4. COATING: CADMIUM - PLATED, 3 MICRONS THICK OILED WITH REMOVAL OF HYDROGEN EMBRITTLMENT.
5. UNTHREADED PORTION OF THE ROD MAY BE MADE WITH IN THE LIMITS OF THE ANGLE DIAMETER OF THE THREAD.
6. MECHANICAL DAMAGE TO COATINGS SUCH AS SCRATCHES NOTCHES AND DENTS, WHICH DO NOT EXPOSE STEEL IN ASSEMBLY UNITS ARE PERMITTED.

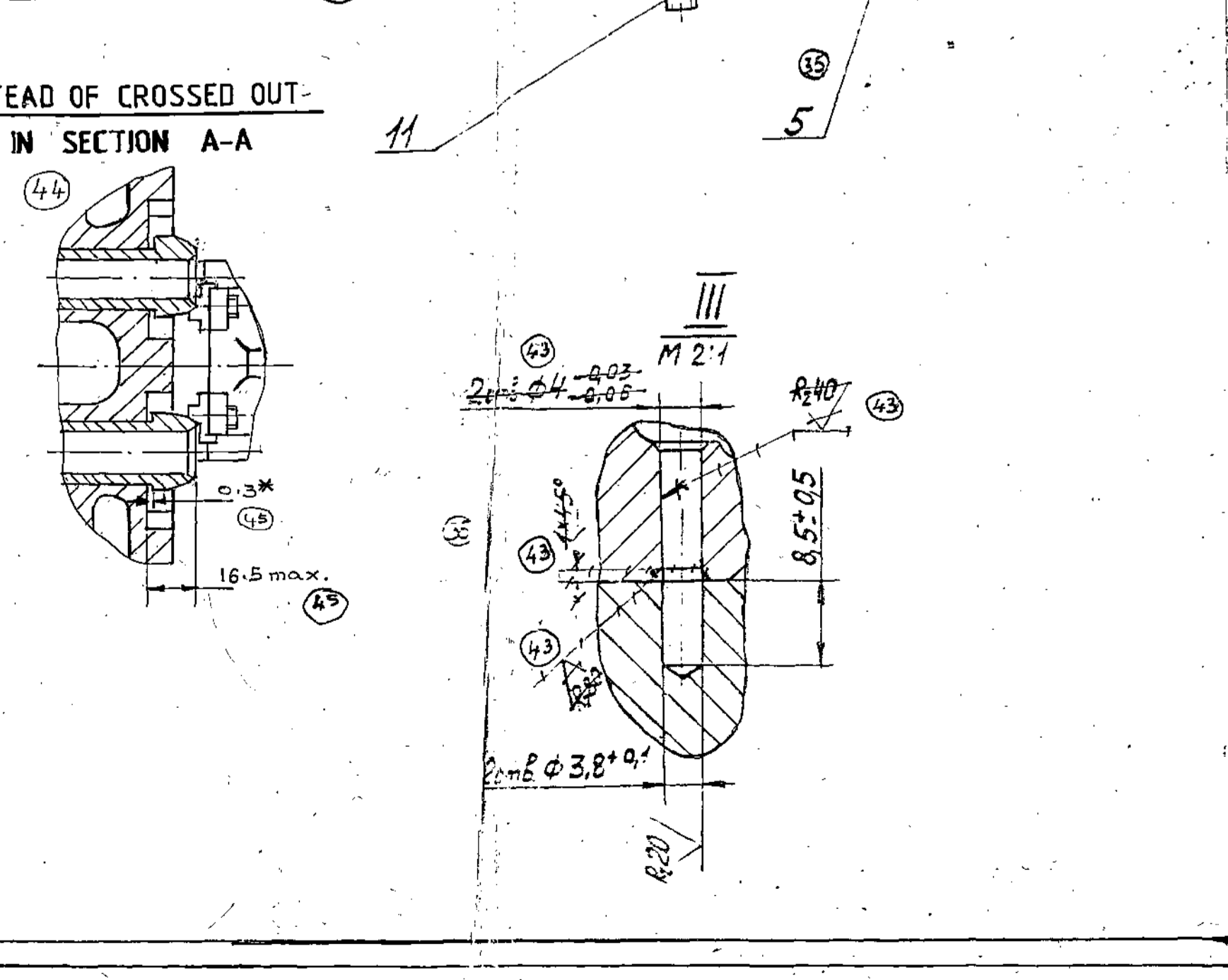
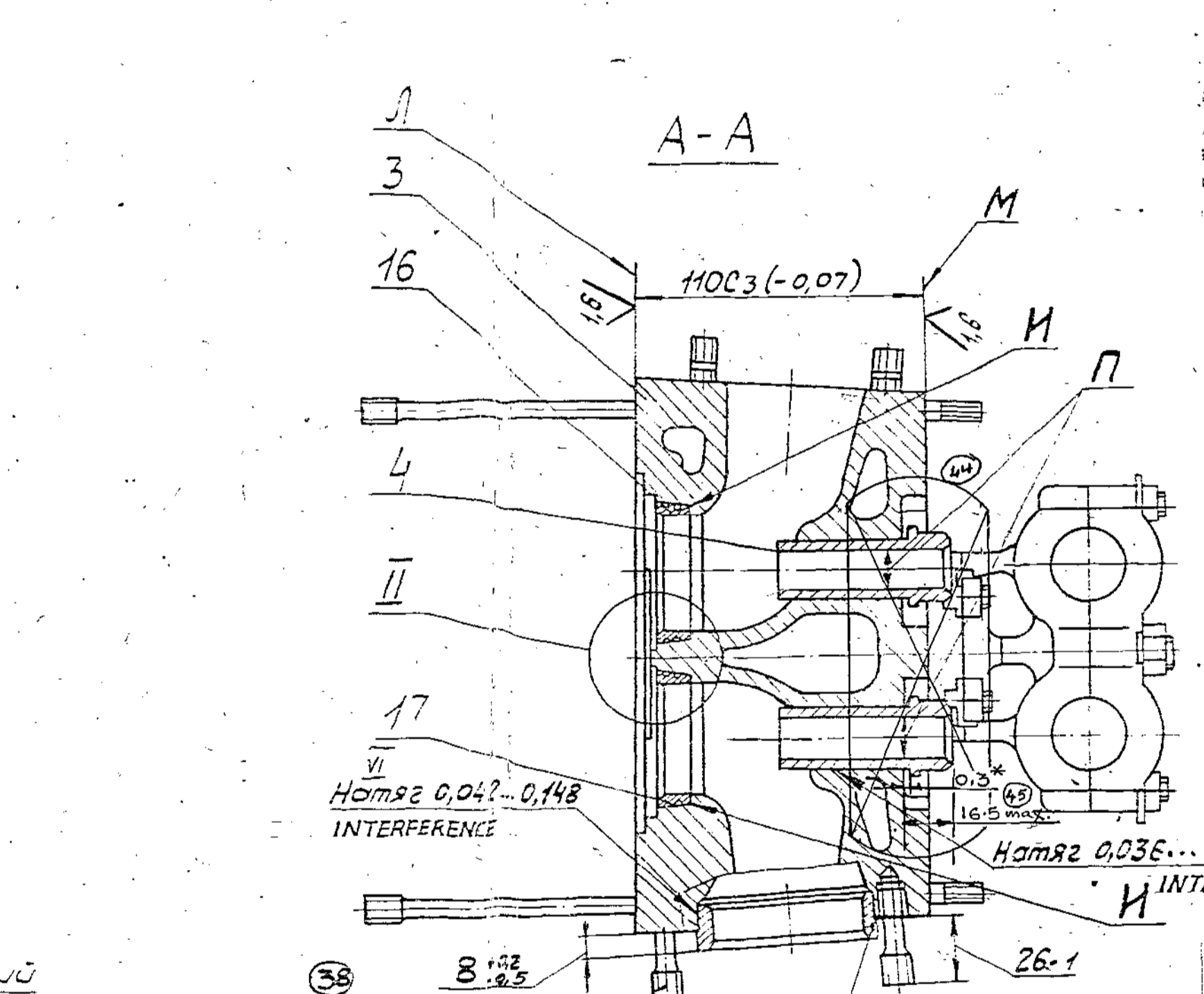
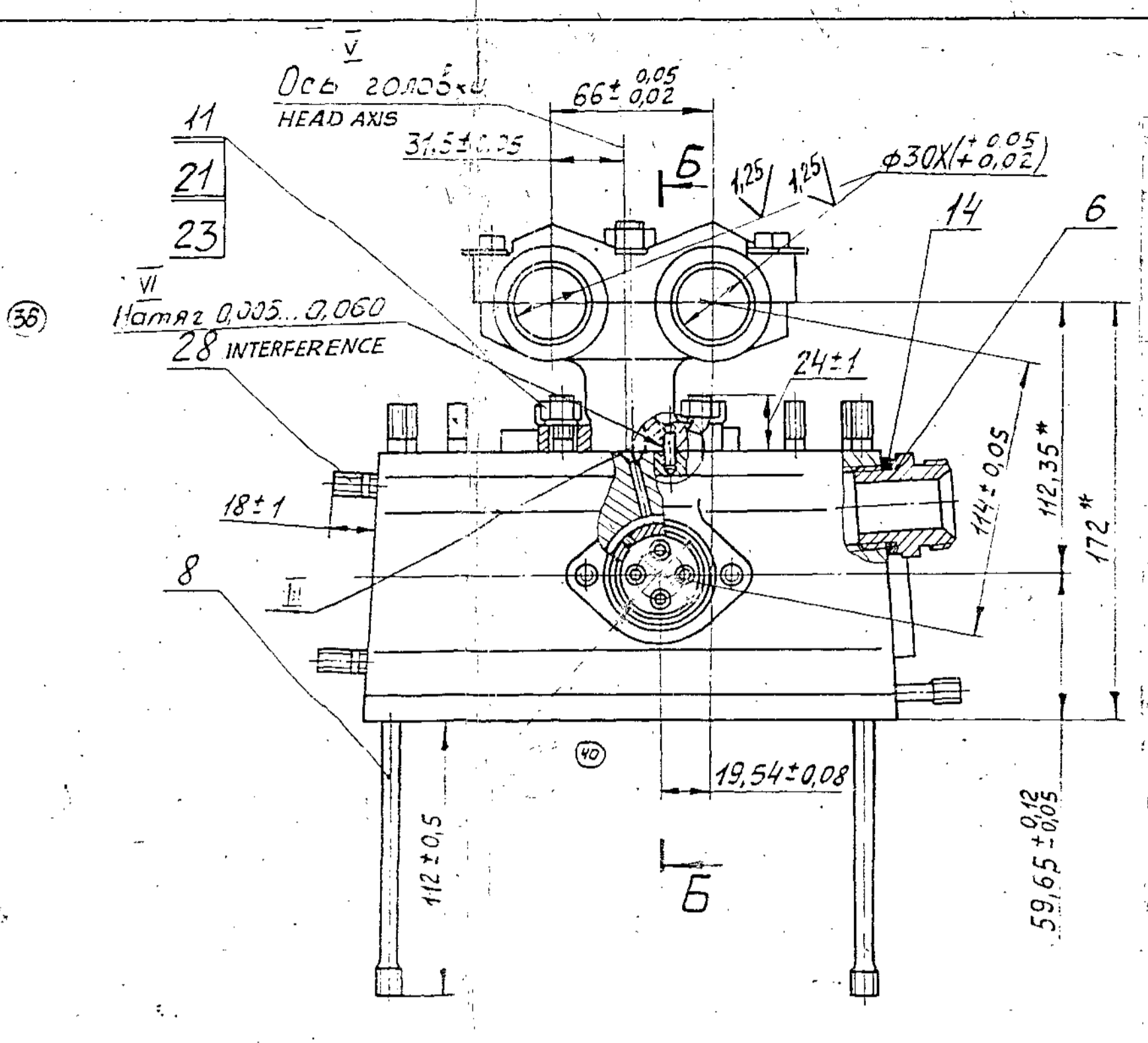
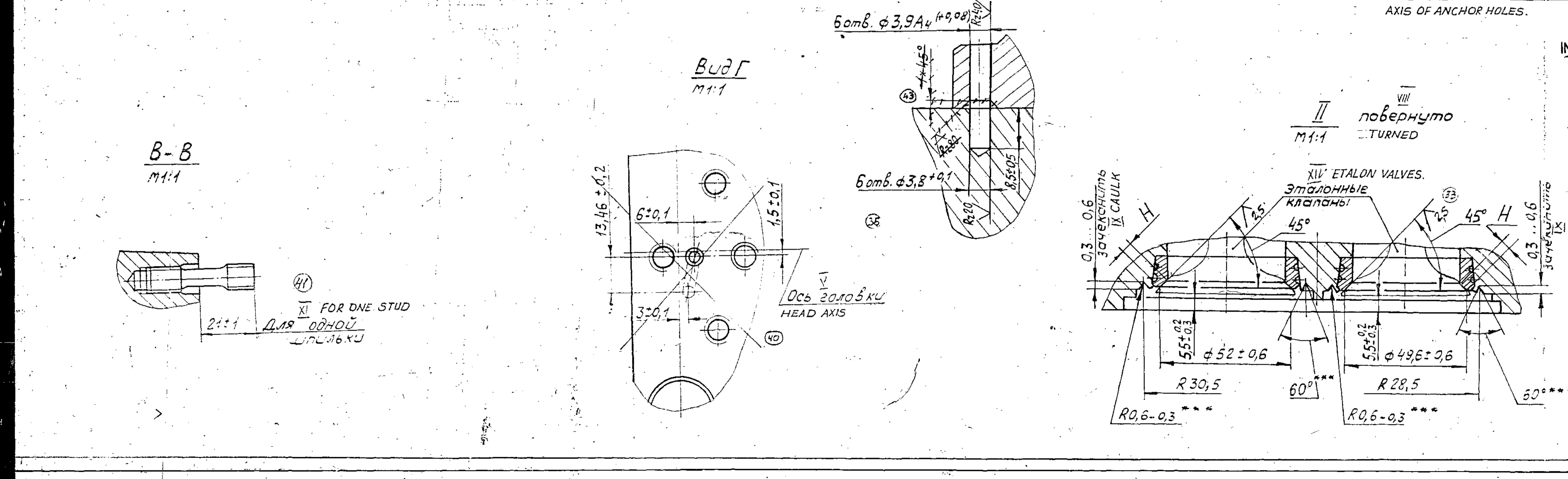
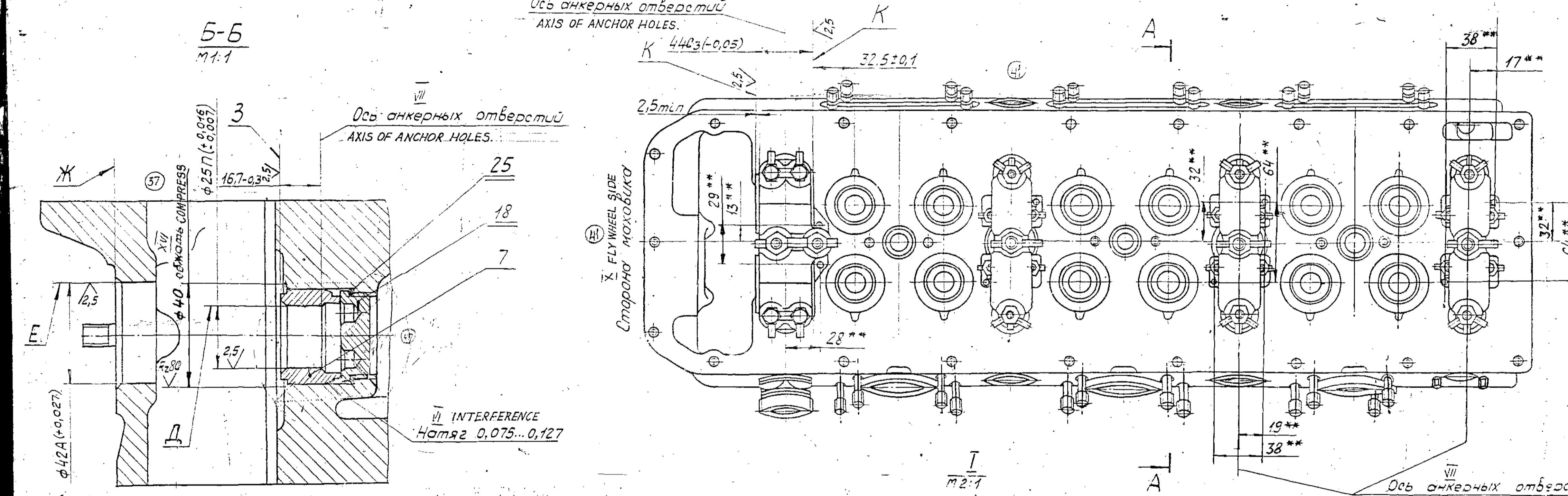
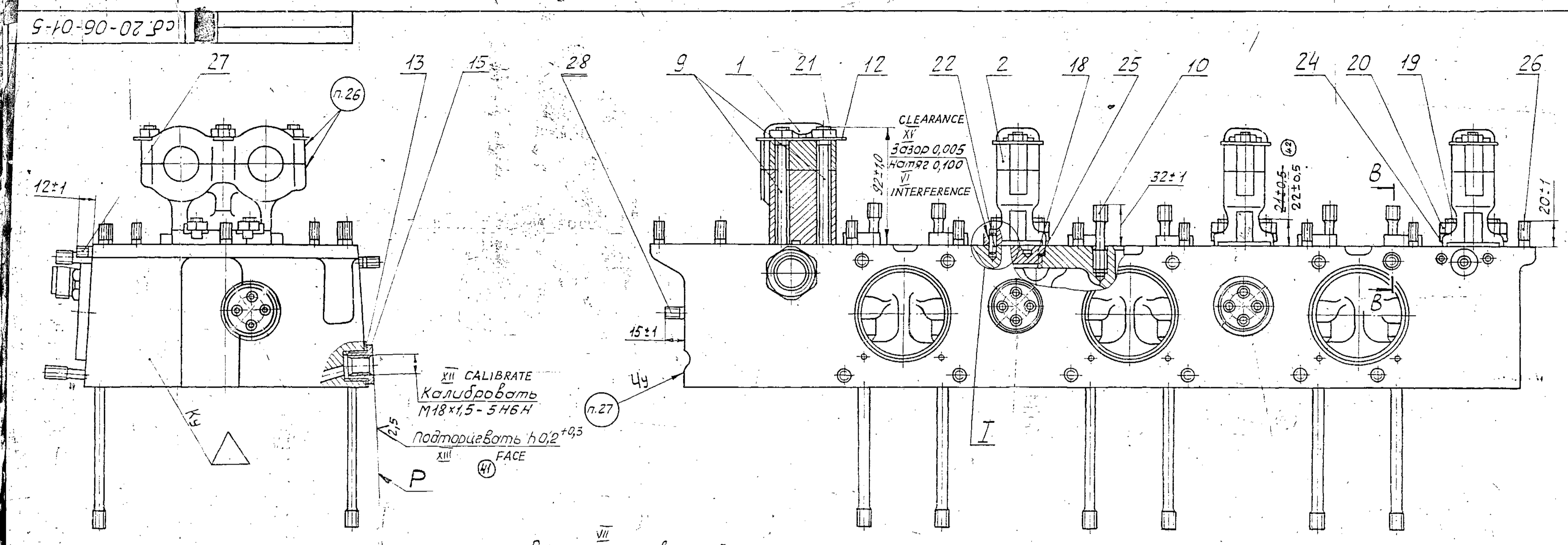
Alt. Material: STEEL 709M40 (EN-19) TO BS-970 Pt-1-1983

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

Сделано в ЦУМБ по чертежу, верно

		EST. MASS	TO BE STAMPED OR MARKED WHERE INDICATED THUS #
		0,025 Kg	(LETTERS)
A	18.5.09	Authy: 3 rd Alt. Comm. Min. Pt. 2 Dated 27-02-09.	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.
ISSUE DATE	NATURE OF AMENDMENTS		
DRN	SCALE - 1 : 1	MATERIAL:-	USED ON:-
CHD	DIMENSIONS IN mm.	38 XA GOST 4-543-71	CB 20-06-04
TCD	TOLERANCE ON DIMNS - UNLESS OTHERWISE STATED	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI.	
APPO	ALL THREADS CONFORM TO	TITLE:-	STUD M10X48
DATE 19/87		D S CAT NUMBER	DRAWING NUMBER
			550-118

THIS DRAWING SUPPLIED AS PER No. CG 20-06-01-5
ISSUE 01-61-01 DATE APPROVED 01-01-61



13. Допуск перпендикулярности шпильки поз. 8 относительно поверхности Л, 0,1 мм на длине 100 мм.

14. Допуск перпендикулярности поверхности Ротносительно оси внутренней резьбы 0,05 мм.

15. Зазор И между торцом седла и доньщиком гнезда в головке перед запрессовкой 0,1...0,15 мм. После запрессовки зазора не должно быть.

16. Зазор между буртом детали поз. 4 и опорной поверхностью головки 0,3...1 мм.

17. Втулку поз. 7 запрессовать до упора и зачеканить обжимкой.

18. Фаски седла клапанов принимать эталонным клапаном по кромке. Краска должна покрывать не менее 60% поверхности.

19. Момент затяжки гаек поз. 21 детали поз. 1 20...30 Нм (2...3 кгс м).

20. Выключить металл за поверхность З на $\phi 36$ не допускается.

21. Ширина поверхности И не менее 1,7 мм.

22. Размеры для справок.

23. Размеры выполнять по сопрягаемым деталям.

24. Размеры обеспечить инструментом.

25. Маркировка узором способом номер головки и номер подшипника от 1 до 4 на ободках и на крышках подшипников. Счет со стороны противоположной маховику. Шрифт по ГОСТ 2930-62.

26. Маркировать при отправке в запасные части.

27. Допуск параллельности осей отверстий под шпильки поз. 1, 2 относительно поверхности Л и между собой 0,07 мм. Соосность отверстий проверять специальным калибром $\phi 30 - 0,017$ мм.

28. Углы подшипника ставить на герметике ГОСТ 13489-75. Допуск перпендикулярности поверхностей К относительно осей отверстий 0,03 мм на $\phi 40$ мм.

29. Отверстия Е и Д обрабатывать с одной установкой. Допуск соосности отверстий Д относительно осей отверстий Е 0,02 мм.

30. Допуск перпендикулярности поверхности З относительно осей отверстий Д 0,03 мм.

31. Допуск параллельности общей оси поверхностей Е и Д относительно оси 0,2 мм.

32. Допуск перпендикулярности шпильки поз. 10 относительно поверхности М 0,2 мм на всей длине шпильки.

TECHNICAL REQUIREMENTS - IN RUSSIAN

1. Головку проточить водой до поставления шпильки опрессовать водой $t = 60^{\circ}...70^{\circ}C$ под давлением $0,4 \pm 0,05$ МПа ($4 \pm 0,5$ кгс/см²) в течение 5 мин. Течь воды не допускается.

2. Масляные каналы опрессовать под давлением 0,3 МПа (3 кгс/см²) в течение 3 мин. чистым маслом индустриальным 30 А ГОСТ 20739-75. Течь масла не допускается. Допускается опрессовка воздухом под давлением 0,4 МПа (4 кгс/см²) в течение 1 мин. Пропуск воздуха не допускается.

3. Втулки поз. 15 опрессовать дизельным топливом под давлением 9,8 МПа (100 кгс/см²) в течение 2 мин. Подтекание дизельного топлива не допускается. Проверку производить на 20% добавок. Допускается опрессовка воздухом под давлением 3,4 МПа (35 кгс/см²) в течение 2 мин. Пропуск воздуха не допускается.

4. Шпильки поз. 18 и штицер поз. 6 ставить на делках цинковых заготовок марок МА-01Н-1 или МА-01Н-1Н, или МА-01Н-2 ГОСТ 482-77.

5. Допуск плоскостности поверхности Л после запрессовки детали поз. 4, 16 и 17 0,1 мм на длине головки. После окончательной обработки прямолинейность поверхности Л проверить линейкой, допустимый провал в продольном и поперечном направлениях не более 0,03 мм.

6. Допуск параллельности поверхностей М и Л в продольном и поперечном направлениях 0,05 мм.

7. Допуск параллельности осей отверстий подшипников поз. 1, 2 относительно поверхности Л и между собой 0,07 мм. Соосность отверстий проверять специальным калибром $\phi 30 - 0,017$ мм.

8. Углы подшипника ставить на герметике ГОСТ 13489-75. Допуск перпендикулярности поверхностей К относительно осей отверстий 0,03 мм на $\phi 40$ мм.

9. Отверстия Е и Д обрабатывать с одной установкой. Допуск соосности отверстий Д относительно осей отверстий Е 0,02 мм.

10. Допуск перпендикулярности поверхности З относительно осей отверстий Д 0,03 мм.

11. Допуск параллельности общей оси поверхностей Е и Д относительно оси 0,2 мм.

12. Допуск перпендикулярности шпильки поз. 10 относительно поверхности М 0,2 мм на всей длине шпильки.

TECHNICAL REQUIREMENTS - TRANSLATED

Sheet 1
Sheet 2

1. Shape cylinder head water space by water of $t = 60^{\circ}...70^{\circ}C$ under pressure 0.4 ± 0.05 MPa (4 ± 0.5 kgf/cm²) before mounting studs. Water leakage is not allowed.

2. Shape oil channels under pressure 0.3 MPa (3 kgf/cm²) for 3 min. by pure industrial oil 30A GOST 20739-75. Oil leakage is not allowed. Air shunting is allowed under pressure 0.4 MPa (4 kgf/cm²) for one minute. Air leakage is not allowed.

3. Shape bushings (pos. 15) by diesel fuel under pressure 9.8 MPa (100 kgf/cm²) for two minutes. Diesel fuel leakage is not allowed.

4. Check 20% of heads. Air shunting is allowed under pressure 3.4 MPa (35 kgf/cm²) for 2 min. Air leakage is not allowed.

5. Put plugs (pos. 15) and union (pos. 6) on consistent size of grades MA-01N-1 or MA-01N-1H or MA-01N-2 GOST 482-77.

6. Plane and parallelism of L surface is 0.1 mm or the head length after pressing in of part (pos. 4, 16 and 17). Check straightness of L surface by ruler after finishing work. Allowable clearance in longitudinal and cross directions is no more than 0.03 mm.

7. Parallelism allowance of M and L surfaces is longitudinal and cross directions is 0.05 mm.

8. Parallelism allowance of hole axis of bearings (pos. 1, 2) relative to L surface and between each other is 0.07 mm. Check co-axiality of hole by special calibrator of $\phi 30 - 0.017$ mm dia.

9. Perpendicularity allowance of E surfaces relative to hole axis is 0.03 mm on $\phi 40$ mm dia.

10. Perpendicularity allowance of Z surface relative to axis of hole is 0.03 mm.

11. Perpendicularity allowance of X surface relative to common axis of E and L surfaces is 0.2 mm.

12. Parallelism allowance of hole axis of bearings (pos. 1, 2) relative to hole axis of bearings for exhaust camshaft is 0.03 mm on the length of 100 mm.

13. Perpendicularity allowance of studs (pos. 10) relative to M surface is 0.2 mm on all the length of stud.

14. Perpendicularity allowance of studs (pos. 2) relative to L surface is 0.2 mm on the length of 100 mm.

15. Perpendicularity allowance of F surface relative to axis of inner thread is 0.05 mm.

16. H clearance between seat and face and nest bottom in the head before pressing-in is 0.1...0.15 mm. After pressing-in there must not be any clearance.

17. Accept chamfers of valve seats by special valve by paint. Paint should cover no less than 60% of surface.

18. Torque of tightening nuts (pos. 21) of part (pos. 1) is 20...30 N·m (2...3 kgf·m).

19. Metal protrusion beyond Z surface on $\phi 36$ dia. is not allowed.

20. Width of H surface is not less than 1.7 mm.

21. Dimensions for informatics.

22. Make dimensions according to nested parts.

23. Provide dimensions in tools.

24. Mark by besting method camshaft head number and bearing number first 1 to 4 on the bases and caps of bearings. Count from the side opposite to flywheel.

25. Type is according to GOST 2930-62.

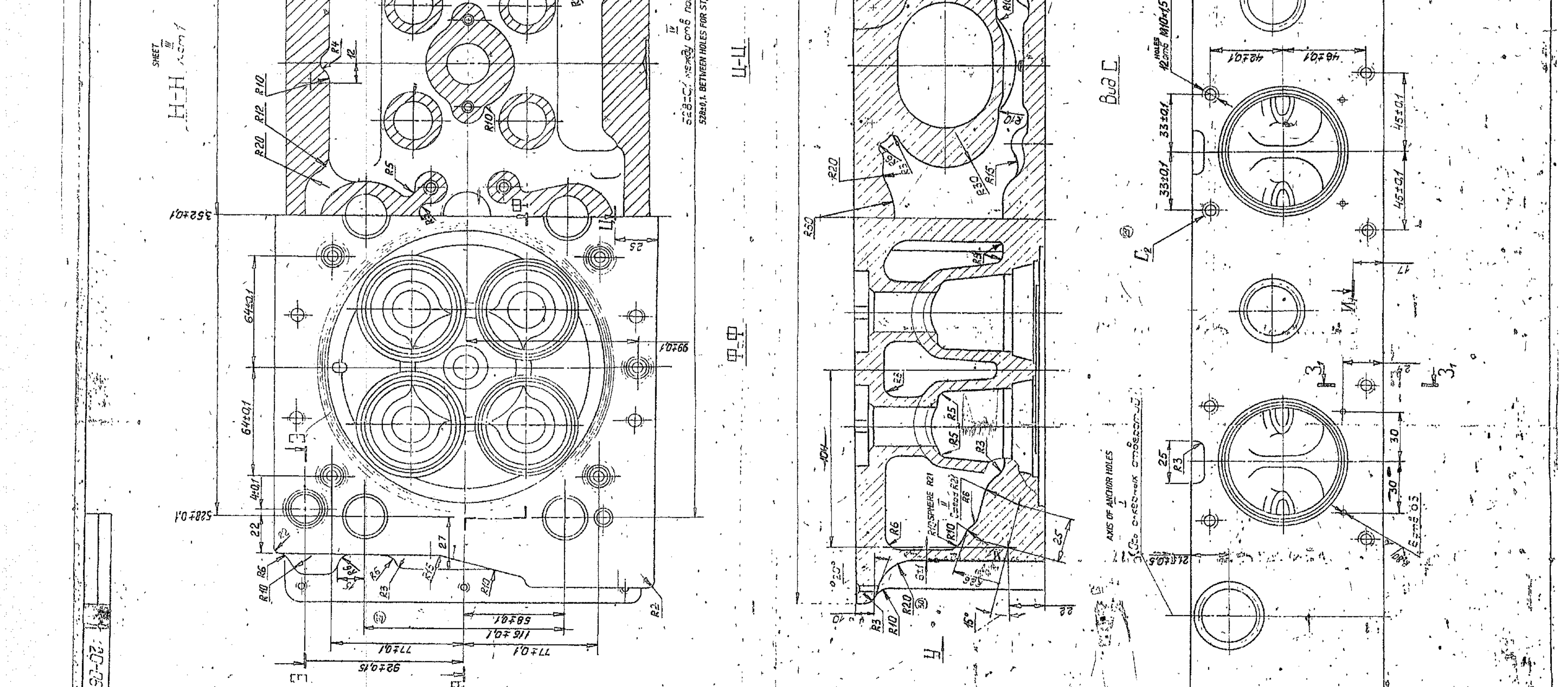
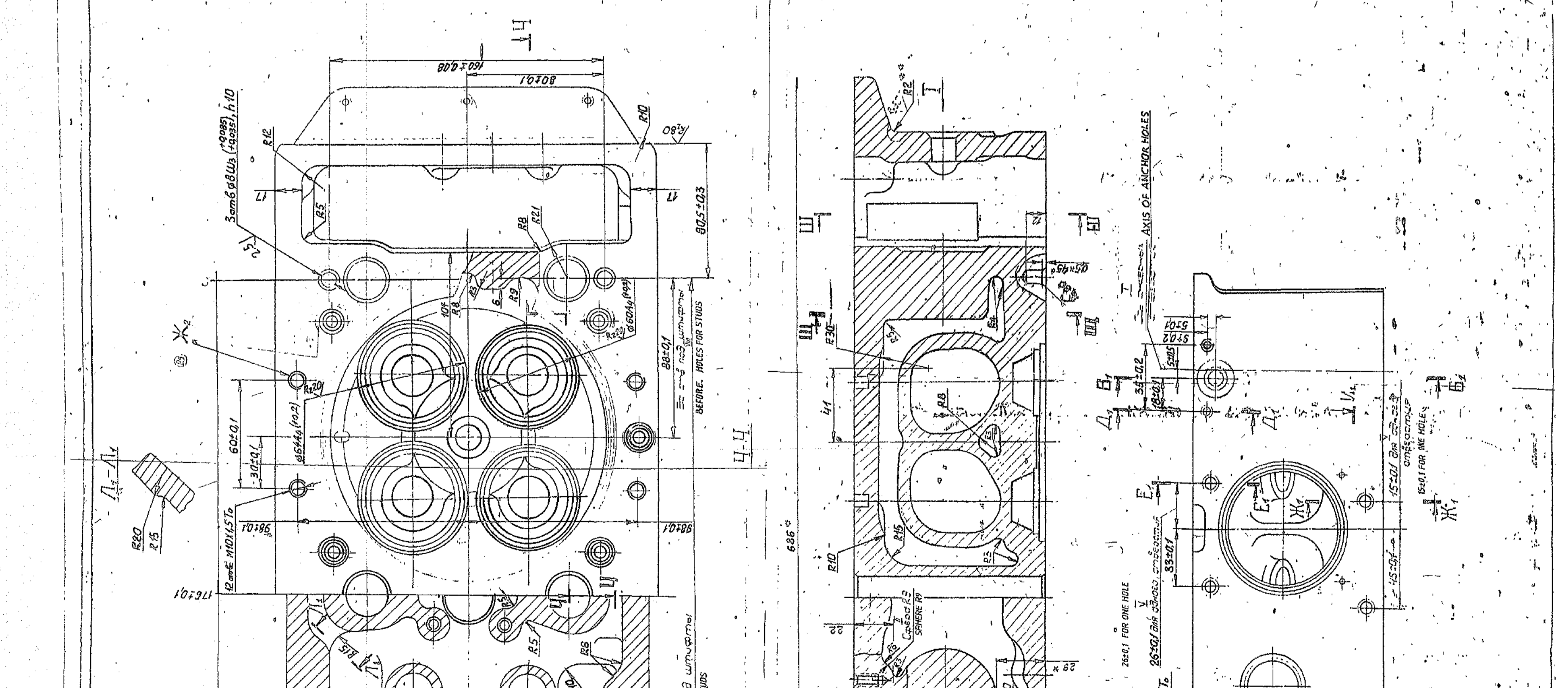
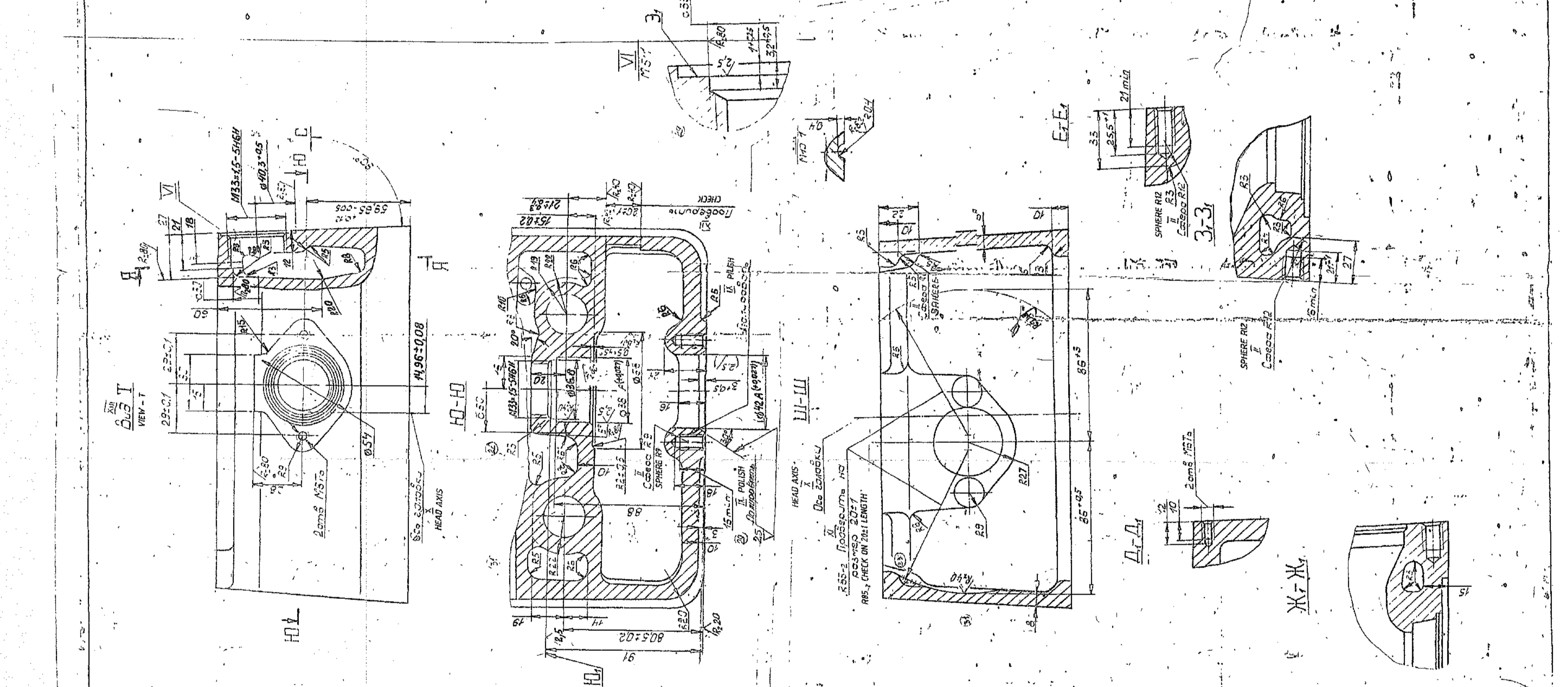
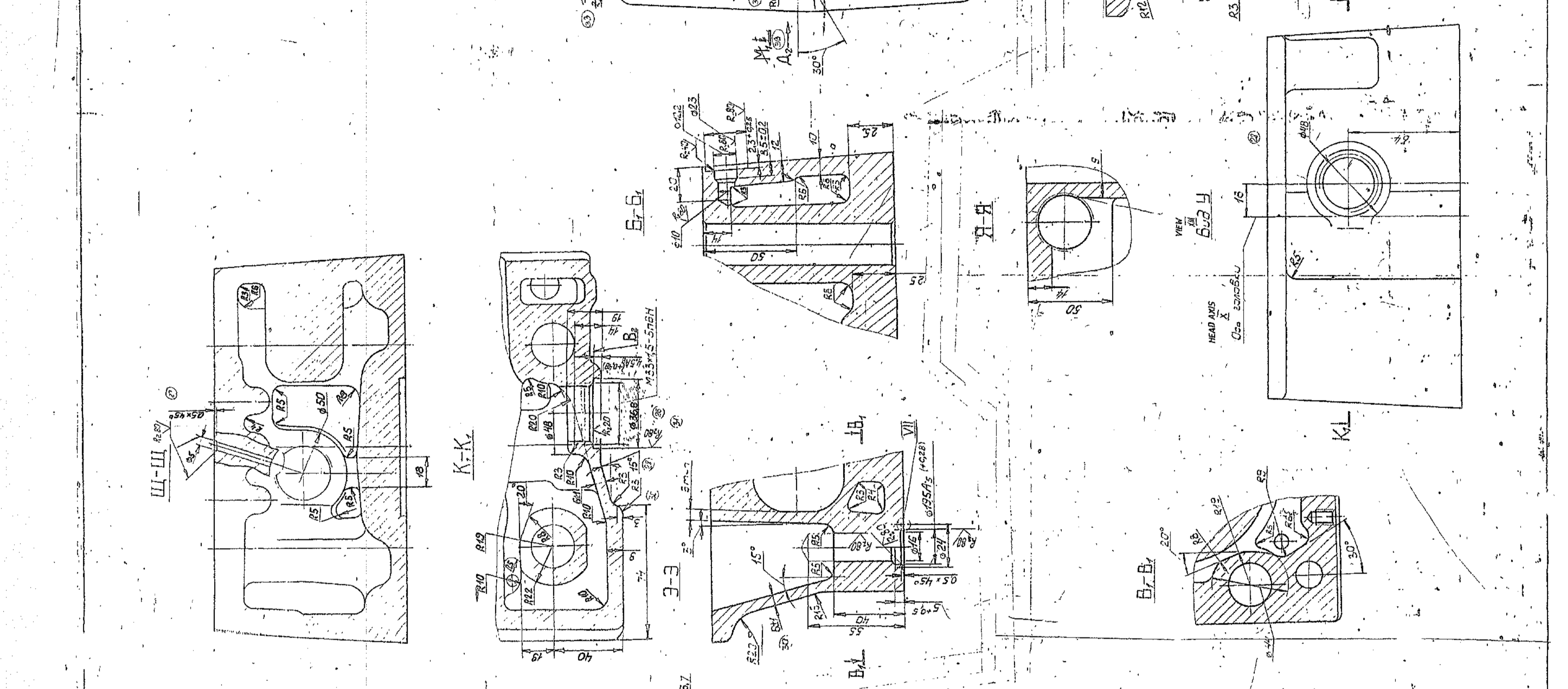
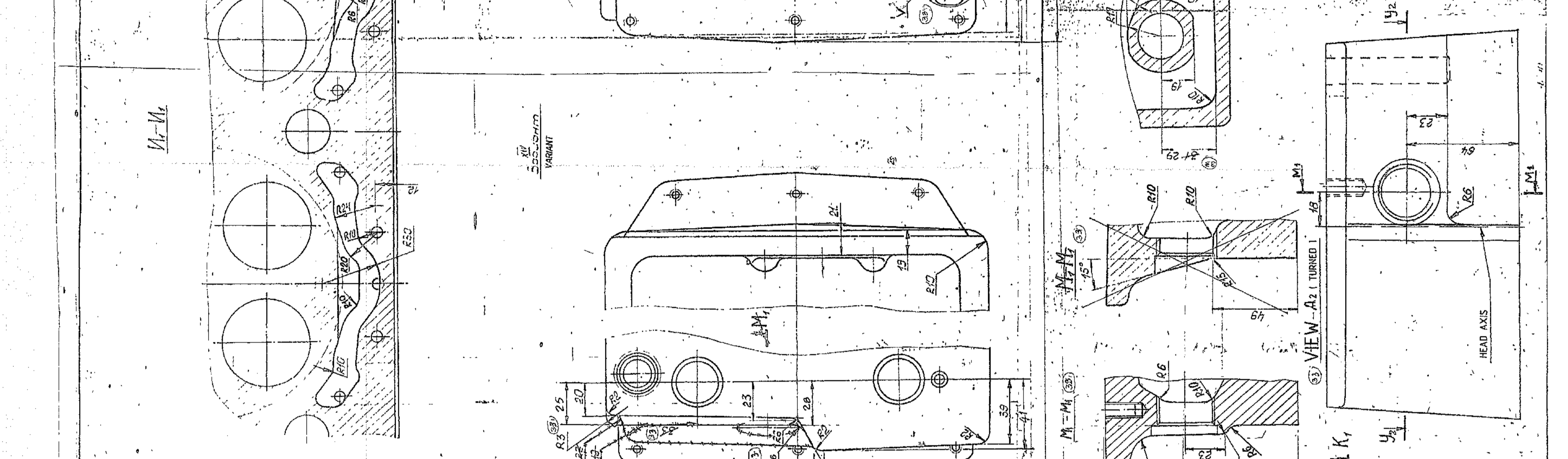
26. Mark when delivering as spare parts.

№	№	№	№	№	№	№	№	№	№
47	1	073-85	1	073-85	1	073-85	1	073-85	1
48	3	037-83	1	037-83	1	037-83	1	037-83	1
49	1	737-80	1	737-80	1	737-80	1	737-80	1
50	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
51	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
52	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
53	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
54	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
55	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
56	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
57	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1
58	1	1744-83	1	1744-83	1	1744-83	1	1744-83	1

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

№	№	№	№	№	№	№	№	№	№
45	1	073-85	1	073-85	1	073-85	1	073-85	1
46	1	073-85	1	073-85	1	073-85	1	073-85	1
47	1	073-85	1	073-85	1	073-85	1	073-85	1
48	1	073-85	1	073-85	1	073-85	1	073-85	1
49	1	073-85	1	073-85	1	073-85	1	073-85	1
50	1	073-85	1	073-85	1	073-85	1	073-85	1
51	1	073-85	1	073-85	1	073-85	1	073-85	1
52	1	073-85	1	073-85	1	073-85	1	073-85	1
53	1	073-85	1	073-85	1	073-85	1	073-85	1
54	1	073-85	1	073-85	1	073-85	1	073-85	1
55	1	073-85	1	073-85	1	073-85	1	073-85	1
56	1	073-85	1	073-85	1	073-85	1	073-85	1
57	1	073-85	1	073-85	1	073-85	1	073-85	1
58	1	073-85	1	073-85	1	073-85	1	073-85	1

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
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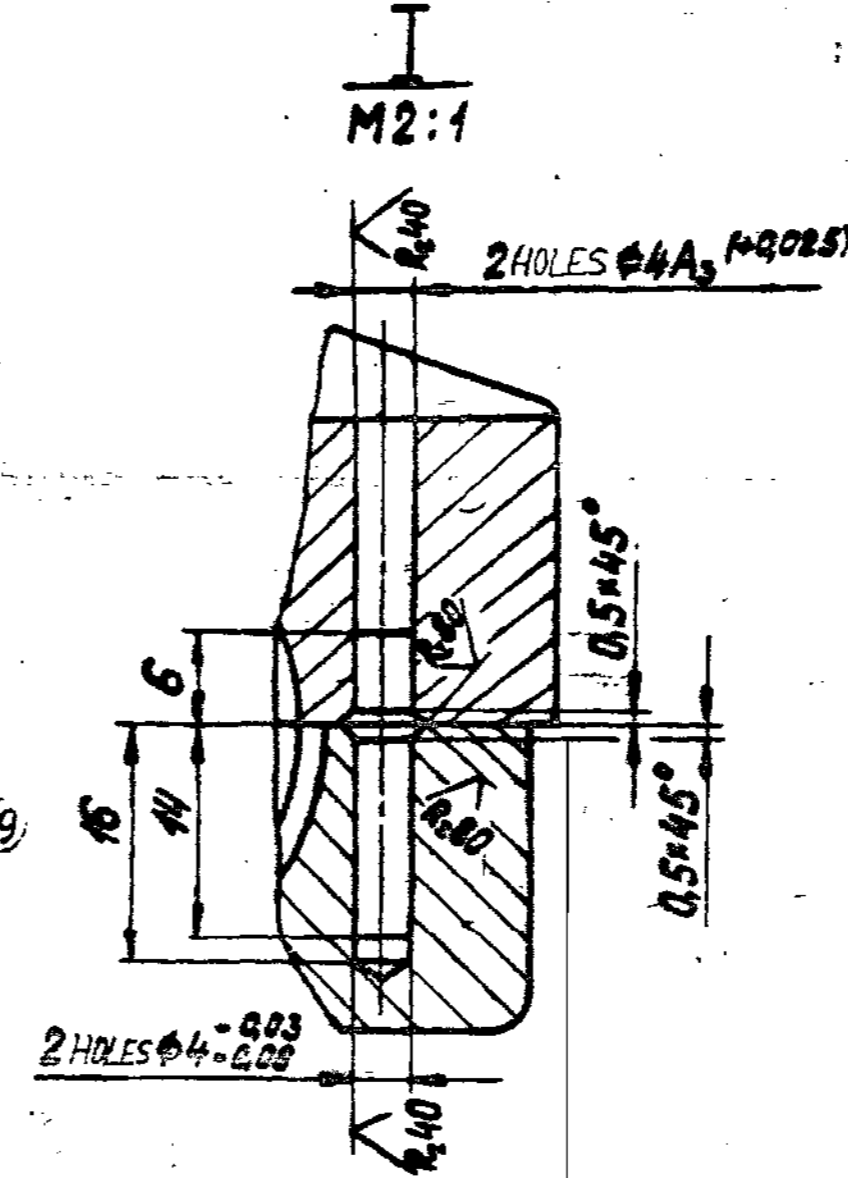
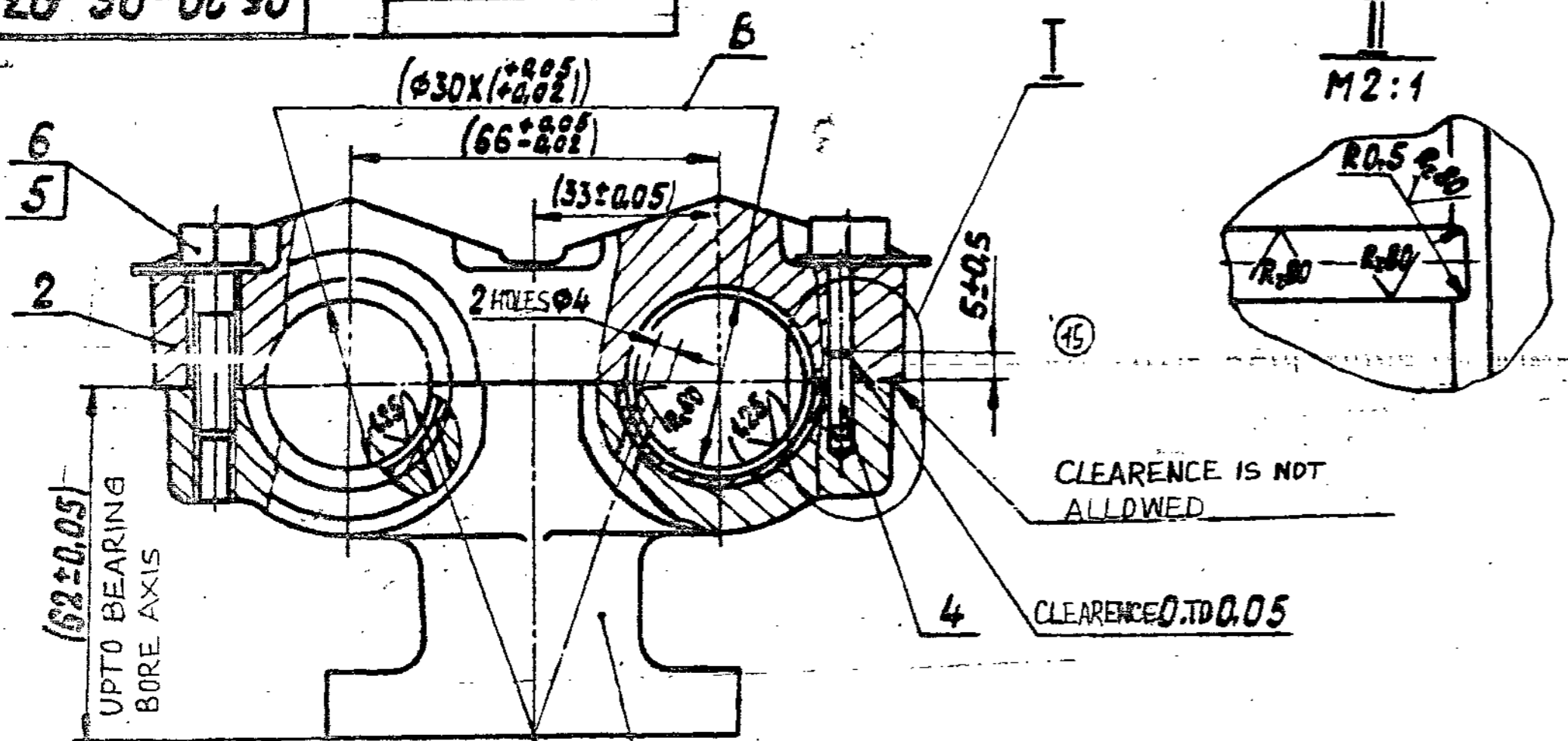
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AUTHORITY NOTN. No. 03-86

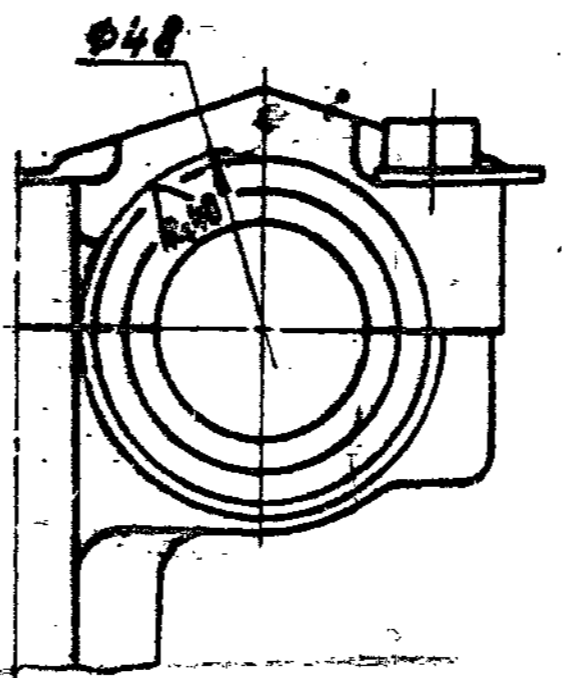
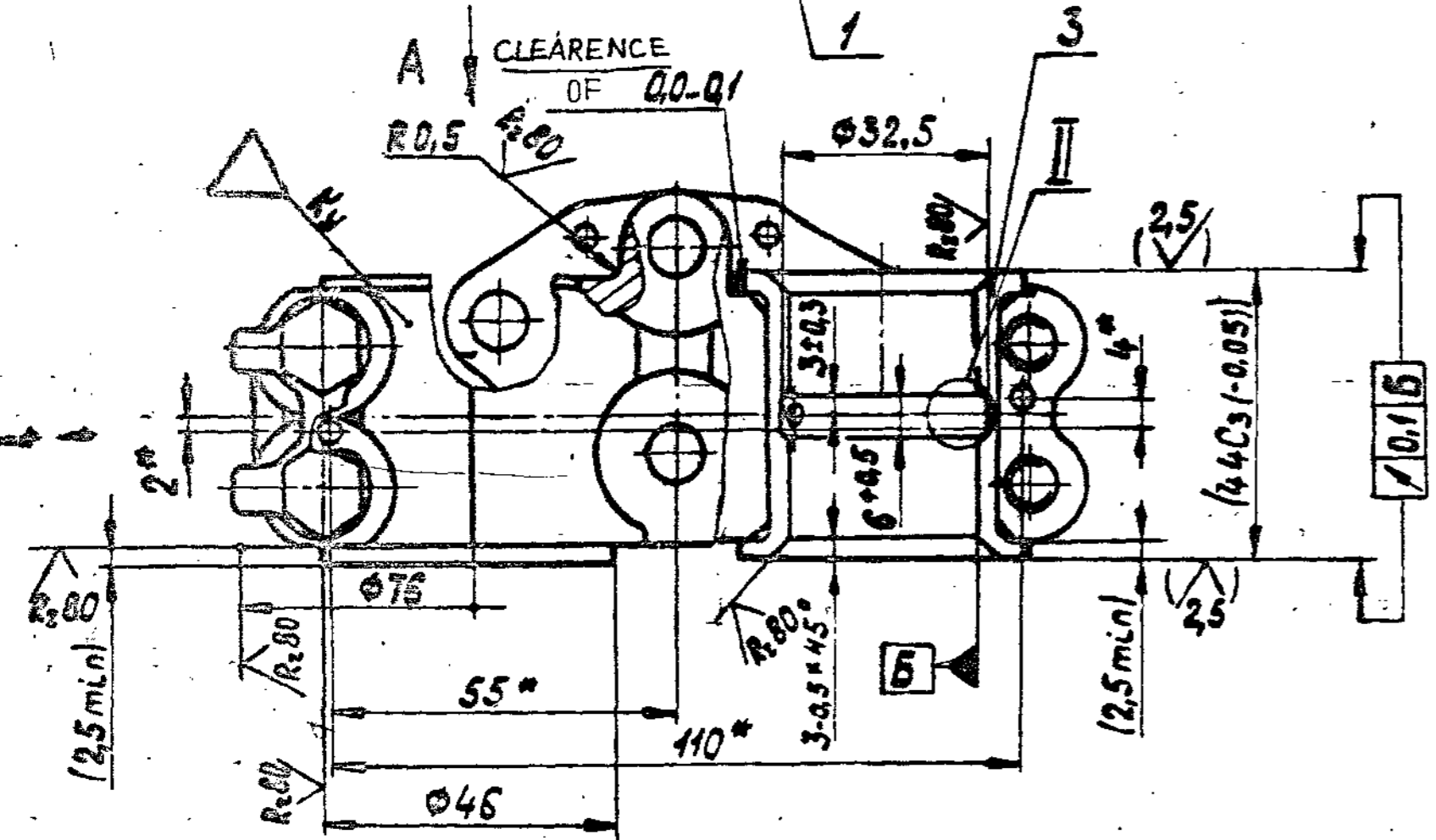
C6 20-06-12-6

ITEM NO	DRAWING NUMBER	D S CAT NUMBER	DESCRIPTION	NO. OFF	REMARKS
	C6 20-06-01-5		ASSEMBLY CYLINDER		
	& ITEM LIST		RIGHT HEAD		
1	C6 20-06-03-1. & I/L		CAMSHAFT THRUST BEARING ASSY	1	
2	C6 20-06-04 & I/L		CAMSHAFT BEARING ASSY	3	
3	20-06-16-5		CYLINDER RIGHT HEAD	1	
4	20-06-17-1		VALVE GUIDE	12	
5	20-06-24		SCREEN	3	
6	20-06-56-1		JOINT PIN	1	
7	20-06-68-5		BUSHING	1	
8	20-06-152		JOINT-PIN	12	
9	20-50-08		STUD M10x110	2	
10	20-50-17		STUD M8x50	6	
11	20-50-25		STUD M10x42	14	
12	20-53-19		LOCKING WASHER 10	1	
13	20-55-105		SEALING RING	3	
14	20-55-23		PACKING RING	1	
15	306-19-2		INLET VALVE BUSHING	3	
16	306-22-1		INLET VALVE SEAT	6	
17	306-23-1		EXHAUST VALVE SEAT	6	
A	11-11-14	I/L Sht 2 OF 2 AMENDED.			
ISSUE	DATE	NATURE OF AMENDMENTS	ISSUE	DATE	NATURE OF AMENDMENTS
DRN	<i>S. S. S.</i>		CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI		
CHD	<i>D. S. S.</i>		TITLE:-		
TCO	<i>S. S. S.</i>		ASSY CYLINDER RIGHT HEAD		
APPD	<i>S. S. S.</i>				
DATE	07 Sep '87		SHEET 1 OF 2	D S CAT NUMBER	ITEM LIST FOR C6 20-06-01-5

7-20-90-02 97



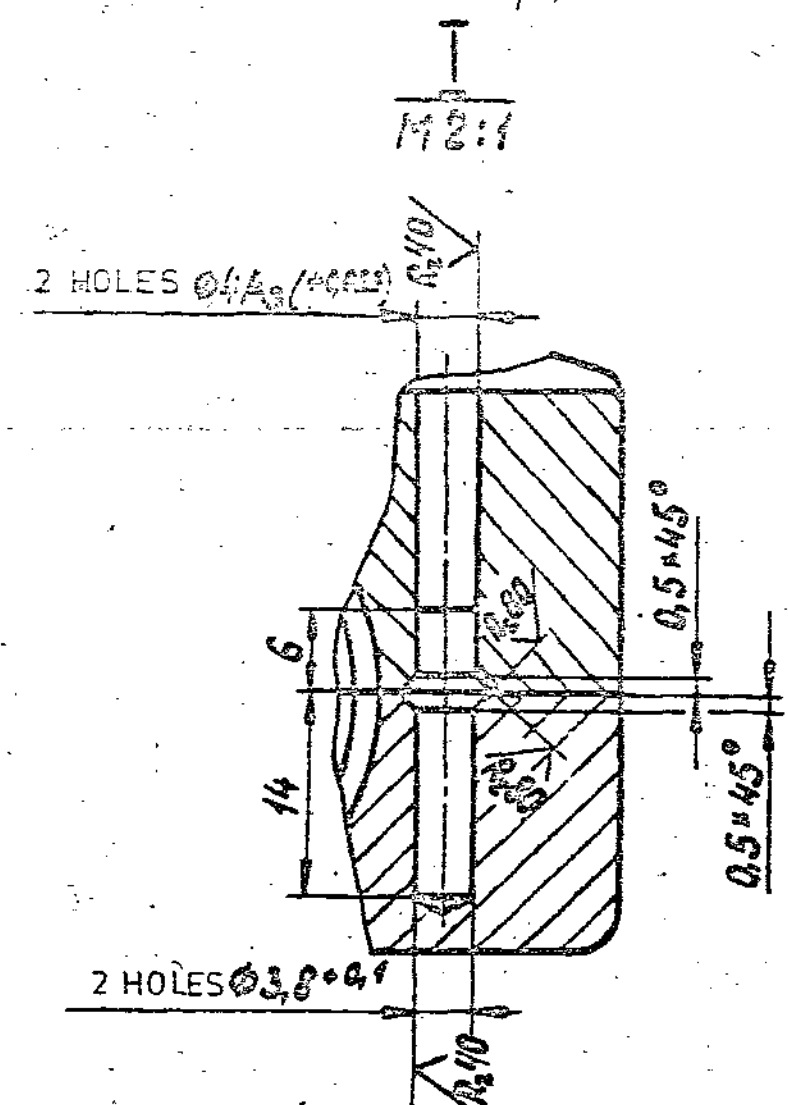
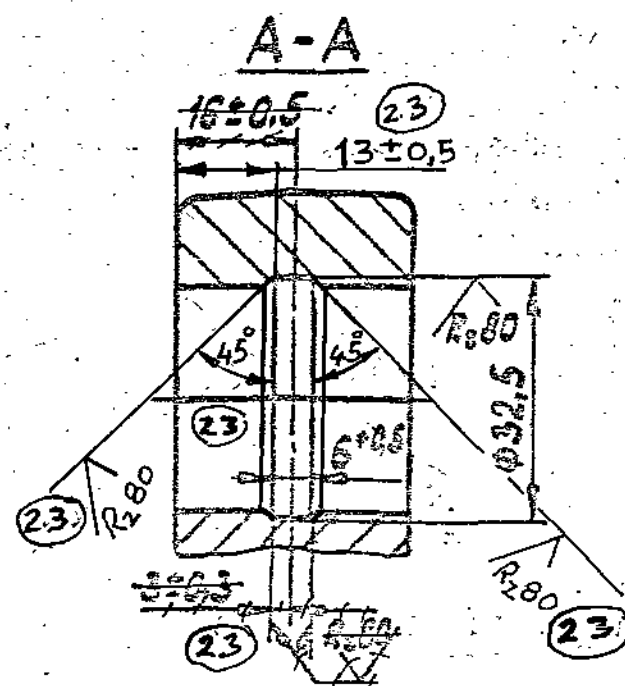
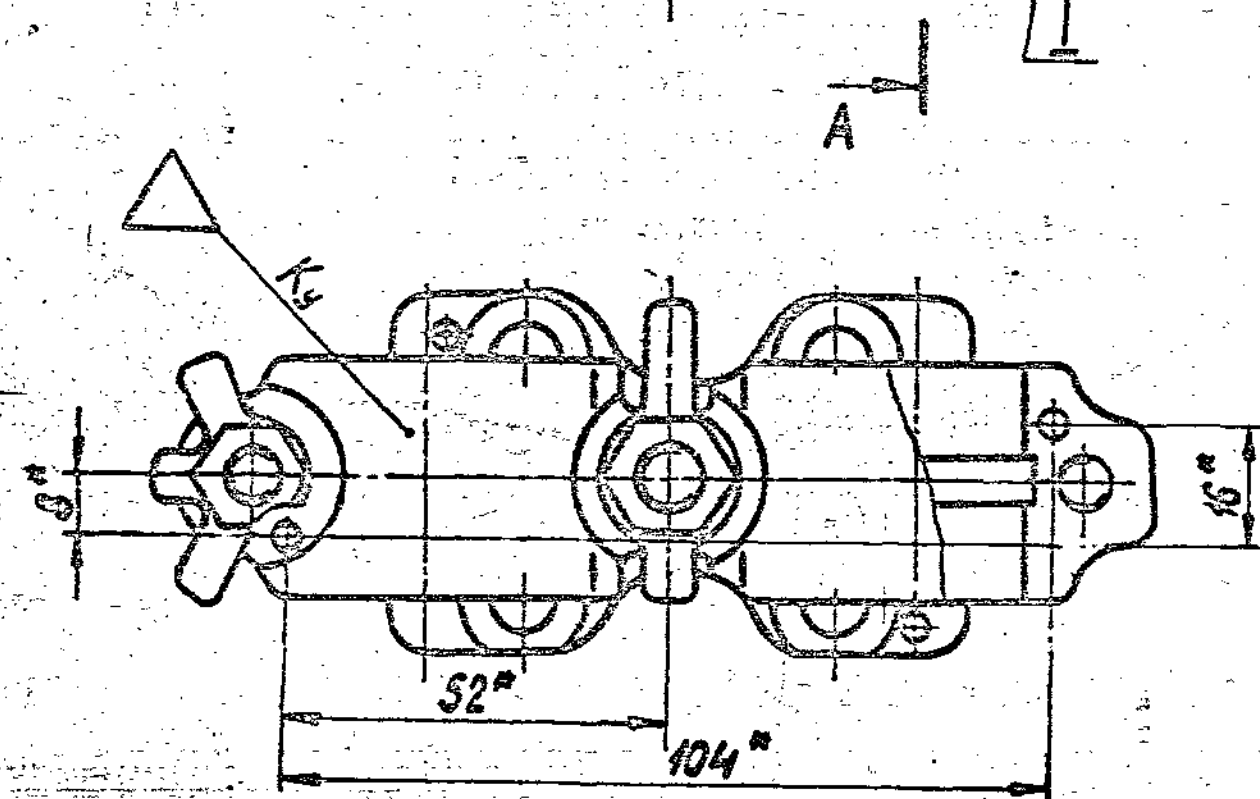
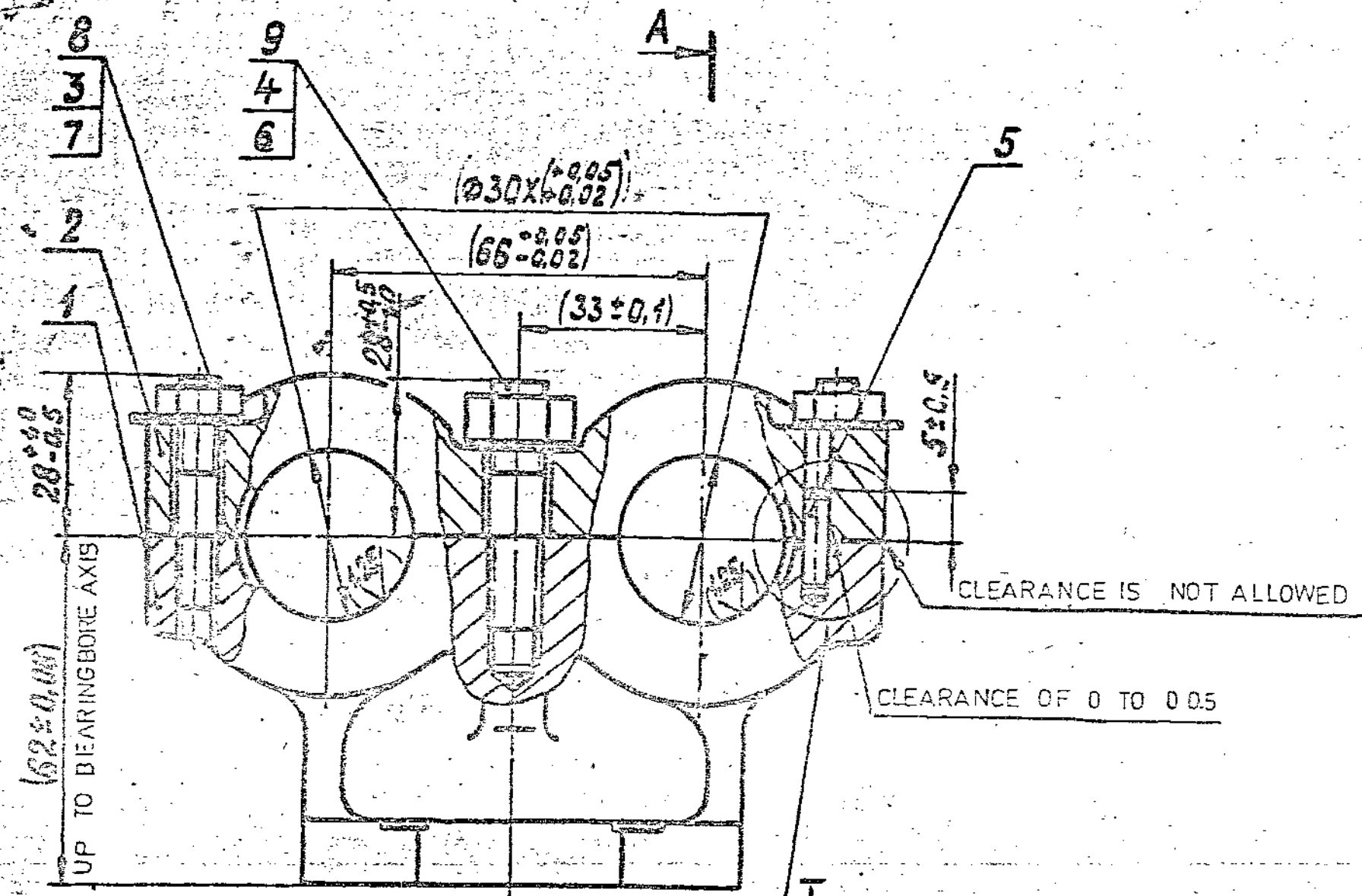
VIEW A REVOLVED



- 1 GIVEN IN BRACKETS ARE DIMENSIONS AND SURFACE FINISH AFTER ASSEMBLY.
- 2 DRESS THE BURRS IN THE CIRCULAR GROOVE AFTER MACHINING HOLE 'B'.
- 3 WASHERS 353-05-1 MAY BE INSTALLED PROVIDED THAT THEY ARE REPLACED WITH LOCK WASHERS 353-12 DURING FINAL ASSEMBLY OF HEAD.
- 4 UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS :
 FOR HOLES -AS PER A7,
 SHAFTS -AS PER B7,
 OTHERS -AS PER CM8.
- 5 * MACHINE AS PER PART, REF-NO.2 .

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

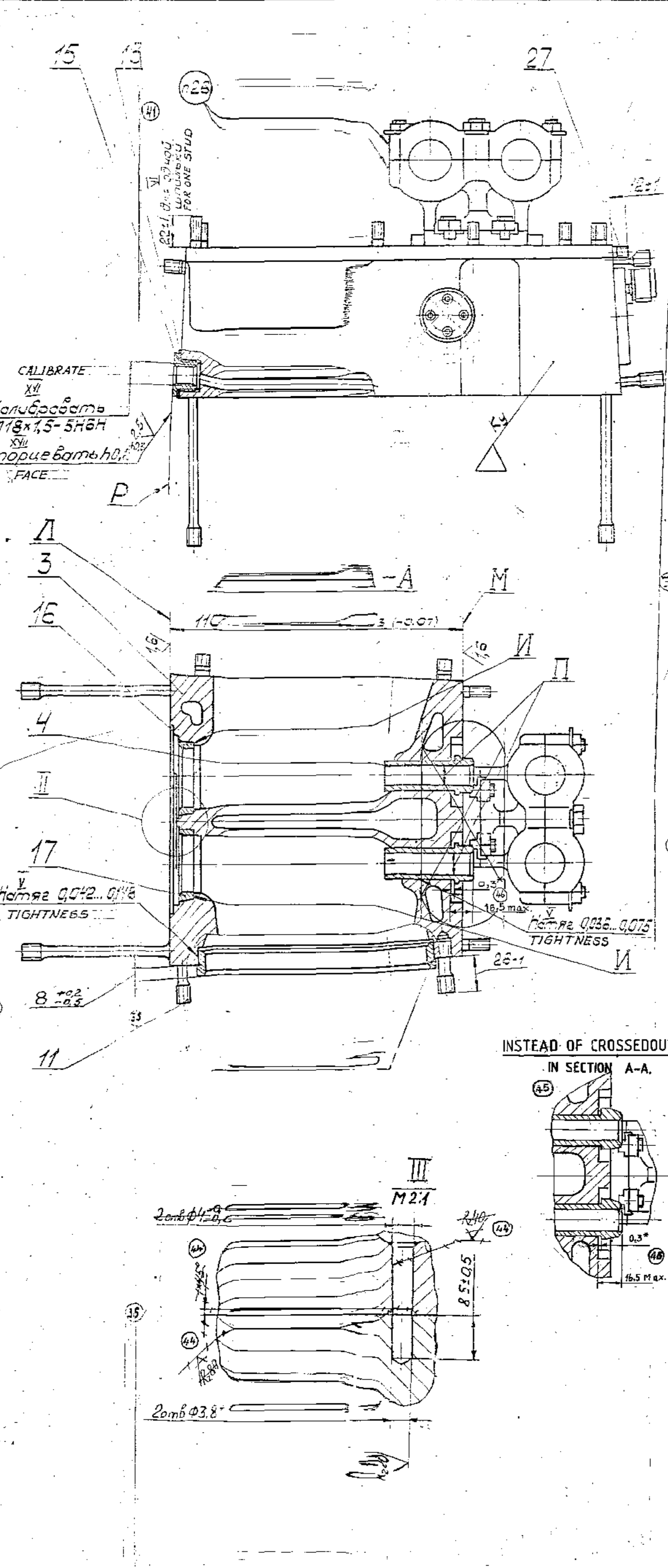
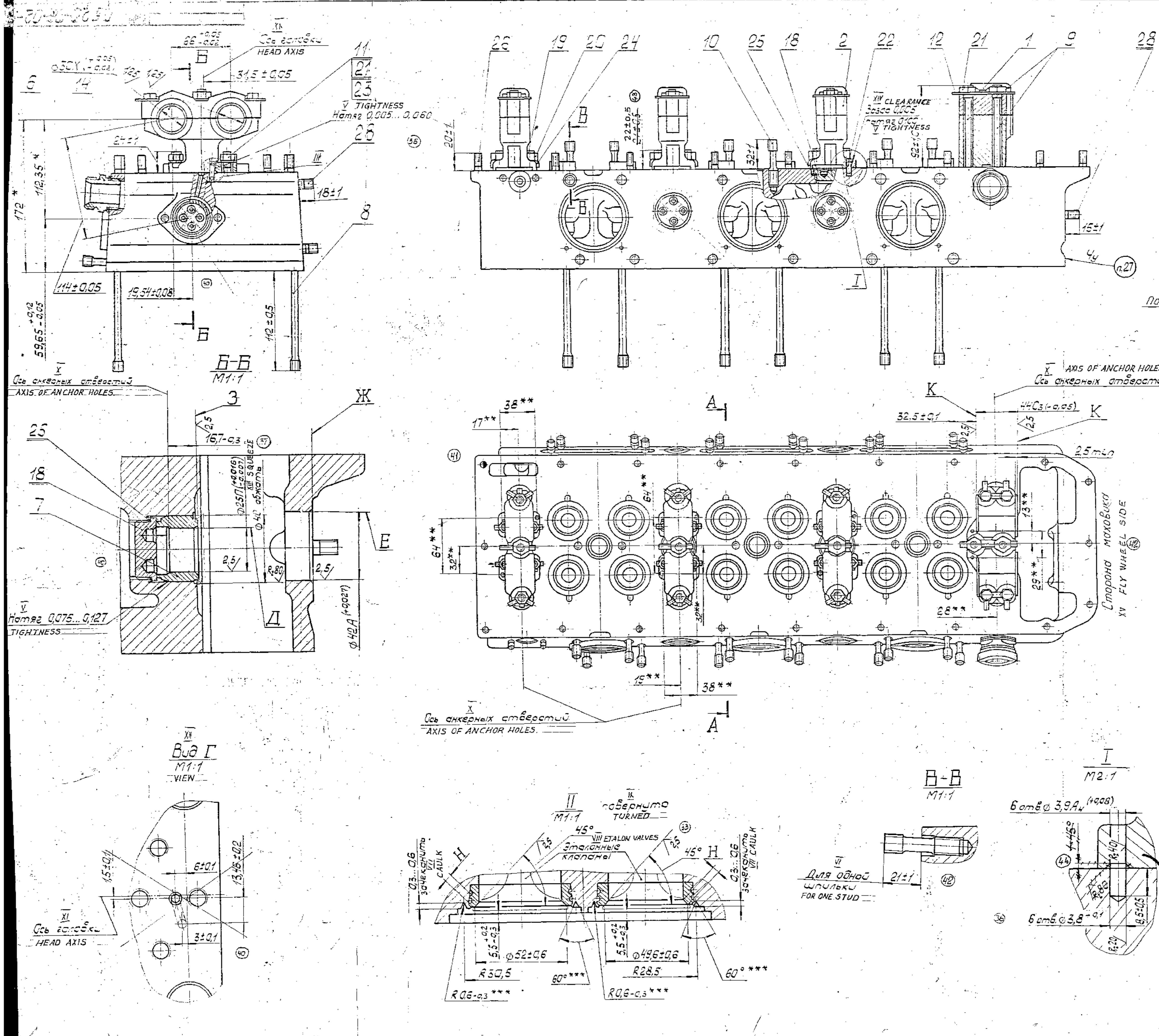
		EST. MASS 1.42 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS: [] LETTERS I
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE A OUTSIDE R UNLESS EQUIVALENT CHAMFERS ARE PERMISSIBLE	
ISSUE DATE	NATURE OF AMENDMENTS	MATERIAL	USED ON: C6 20-06-01-5 C6 20-06-02-5
DRN [Signature]	SCALE: 1:1	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADH	
END [Signature]	DIMENSIONS IN mm	TITLE: CAMSHAFT THRUST BEARING ASSY	
TCD [Signature]	TOLERANCE ON DIMS UNLESS OTHERWISE STATED	D'S CAT NUMBER	DRAWING NUMBER SHEET 1 OF 2
APPD [Signature]	ALL THREADS TO CONFORM TO	C6 20-06-03-1	
DATE 26/11/87			



1. GIVEN IN BRACKETS ARE DIMENSIONS AND SURFACE FINISH AFTER ASSEMBLY.
2. WASHERS 353-05-1 MAY BE INSTALLED PROVIDED THAT THEY ARE REPLACED WITH LOCK WASHERS 353-32 DURING FINAL ASSEMBLY OF HEAD.
3. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
 FOR HOLES - AS PER A7,
 SHAFTS - AS PER B7,
 OTHERS - AS PER CM 8.
4. MACHINE AS PER PART, REF No. 2.
5. BOTTOM PLANE MAY BE LAPPED, WITH ROUGHNESS Rz 20 BEING PROVIDED.

PISTON SAMPLE SHOULD BE APPROVED BY A.I.E.P BEFORE BULK PRODUCTION

EST. MASS	0.57 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS 4-	LETTERS 1
ISSUE DATE	23 137-89	NATURE OF AMENDMENTS	NoTn. No. 348-803
DRN	SCALE: 1:1	MATERIAL	USED ON: C6 20-06-01-5 C6 20-06-02-5
CHD	DIMENSIONS BY PART	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVAD	
TCD	TOLERANCE ON DIMS UNLESS OTHERWISE STATED	TITLE: CAMSHAFT BEARING ASSY	
APPD	ALL THREADS UNLESS OTHERWISE STATED	DRAWING NUMBER	SHEET 1 OF 2
DATE	26/11/87	C6 20-06-04	



IV. Допуск параллельности общей оси по-
верхности В и Д относительно оси от-
верстий подшипников под распределитель-
ной вал впускной 0,03 мм на длине 100 мм

V. Допуск перпендикулярности шпильки поз. 15
относительно поверхности П 0,03 мм на
длине 100 мм

VI. Допуск перпендикулярности поверхности Р
относительно оси внутренней резьбы 0,03 мм

VII. Зазор А между торцом седла и болти-
ком гнезда в головке перед запрессовкой 0,1 мм.
После запрессовки зазора не должно быть.

VIII. Зазор между шпилькой детали поз. 4
и гнездом в головке 0,03 мм

IX. Допуск перпендикулярности осей шпильки
относительно поверхности Л на длине 100 мм

X. Допуск перпендикулярности осей шпильки
относительно поверхности М на длине 100 мм

XI. Допуск перпендикулярности осей шпильки
относительно поверхности Н на длине 100 мм

XII. Допуск перпендикулярности осей шпильки
относительно поверхности О на длине 100 мм

XIII. Допуск перпендикулярности осей шпильки
относительно поверхности П на длине 100 мм

XIV. Допуск перпендикулярности осей шпильки
относительно поверхности Р на длине 100 мм

XV. Допуск перпендикулярности осей шпильки
относительно поверхности С на длине 100 мм

XVI. Допуск перпендикулярности осей шпильки
относительно поверхности Т на длине 100 мм

XVII. Допуск перпендикулярности осей шпильки
относительно поверхности У на длине 100 мм

XVIII. Допуск перпендикулярности осей шпильки
относительно поверхности Ф на длине 100 мм

XIX. Допуск перпендикулярности осей шпильки
относительно поверхности Х на длине 100 мм

XX. Допуск перпендикулярности осей шпильки
относительно поверхности Ц на длине 100 мм

XXI. Допуск перпендикулярности осей шпильки
относительно поверхности Ч на длине 100 мм

XXII. Допуск перпендикулярности осей шпильки
относительно поверхности Ш на длине 100 мм

XXIII. Допуск перпендикулярности осей шпильки
относительно поверхности Щ на длине 100 мм

XXIV. Допуск перпендикулярности осей шпильки
относительно поверхности Ъ на длине 100 мм

XXV. Допуск перпендикулярности осей шпильки
относительно поверхности Ы на длине 100 мм

XXVI. Допуск перпендикулярности осей шпильки
относительно поверхности Ъ на длине 100 мм

XXVII. Допуск перпендикулярности осей шпильки
относительно поверхности Ы на длине 100 мм

XXVIII. Допуск перпендикулярности осей шпильки
относительно поверхности Ъ на длине 100 мм

XXIX. Допуск перпендикулярности осей шпильки
относительно поверхности Ы на длине 100 мм

XXX. Допуск перпендикулярности осей шпильки
относительно поверхности Ъ на длине 100 мм

TECHNICAL REQUIREMENTS - TRANSLATED

OUTLETER LEFT HEAD

IV (To class 7)

- Shape head water space by water up to 40...70°C and by pressure 0.4-0.05 MPa (4-0.5 kg/cm²) for 5 min. before mounting studs. Water leakage is not allowed.
- Shape oil channel by pressure 0.3 MPa (3 kg/cm²) for three min. by pure industrial oil 30A ГОСТ 20799-75. Oil leakage is not allowed. Air leakage is not allowed.
- Shape bushings (Pos. 15) by diesel fuel by pressure 9.8 MPa (100 kg/cm²) for two min. Diesel fuel filtering is not allowed. Check 20% of heads. Air shipping is allowed by pressure. Air leakage is not allowed.
- Install plugs (Pos. 12) and nuts (Pos. 6) on castings with size of grade 12-011-1 on 12-011-12 or 12-011-2 acc. to ГОСТ 482-77.
- Dimension allowance of A surface after pressing-in of parts (Pos. 16 or 17) is 0.1 mm on head length. After finishing treatment check strictness of surfaces with micrometer. Allowable clearance in longitudinal and cross directions is 0.03 mm max.
- Perpendicularity allowance of M and N surfaces in longitudinal and cross directions is 0.03 mm.
- Parallelism allowance of bearing hole axes (Pos. 12) relative to A surface and between each other is 0.03 mm. Check coaxiality of holes by special gauge of 30-0.01 mm dia.
- Machine E and A holes from one mounting. Coaxiality allowance of A hole relative to B hole is 0.05 mm.
- Perpendicularity allowance of S surface relative to A hole axis is 0.03 mm.
- Perpendicularity allowance of X surface relative to common axis of E and A surfaces is 0.12 mm.
- Parallelism allowance of common axis of E and A surface relative to axis of bearing holes for outlet chamber is 0.05 mm on 100 mm length.
- Perpendicularity allowance of studs (Pos. 10) relative to surface is 0.03 mm on all stud length.
- Perpendicularity allowance of studs (Pos. 8) relative to A surface is 1.0 mm on 100 mm length.
- Perpendicularity allowance of P surface relative to inner thread axis is 0.05 mm.
- V clearance between saddle end and nest bottom in before pressing-in is 0.7...1.15 mm. There must not be clearance after pressing-in.
- Clearance between part head (Pos. 1) and support surface of head is 0.3...1 mm. Perpendicularity allowance of axis of P holes to A surface of 100 mm length is 0.08 mm. Axial clearance between part head and support surface of head is 0.3...1 mm. Diameter decrease of hole is allowed to 18.00 mm.
- Press in bushing (Pos. 7) to stop and count by squeezing.
- Accept chamfers of valve saddles by etalon valve by paint. Paint should cover 60% of surface min.
- Tightening torque of nuts (Pos. 21) of part (Pos. 1) is 20...30 Nm (2...3 kg·cm).
- Metal provision beyond S surface on φ 36 is not allowed.
- H surface width is 1.7 mm min.
- Dimensions for information.
- ** Take dimensions to rated parts.
- *** Provide dimensions with tools.
- Mark by heating method head number and bearing number from first to fourth on the base and axis of bearing. Count from side opposite to flywheel. Type is 10-5 acc. to ГОСТ 2930-62.
- Mark when delivering as spare parts.

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

42 187.87	187.87	582-82	EST MASS	TO BE STAMPED OR MARKED WHERE INDICATED THIS IS LETTERS)
43 187.87	187.87	582-82	28,03 kg	
44 187.87	187.87	582-82		
45 187.87	187.87	582-82		

ISSUE DATE: NATURE OF AMENDMENTS: MATERIAL: USED ON: 06-20-06-13-6

DRN: SCALE: 1:2

INDY: DIMENSIONS IN mm

TOL: TOLERANCE ON DIMS UNLESS OTHERWISE STATED

APPR: TITLE: ASSY. CYLINDER LEFT HEAD

DATE: ALL THREADS CONFORM TO S' LAT NUMBER: DRAWING NUMBER: 07-9-87