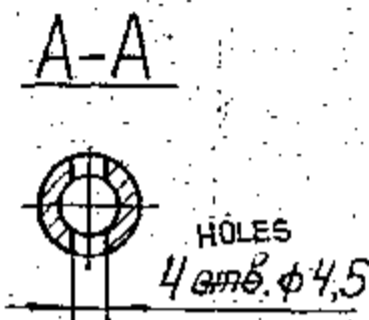
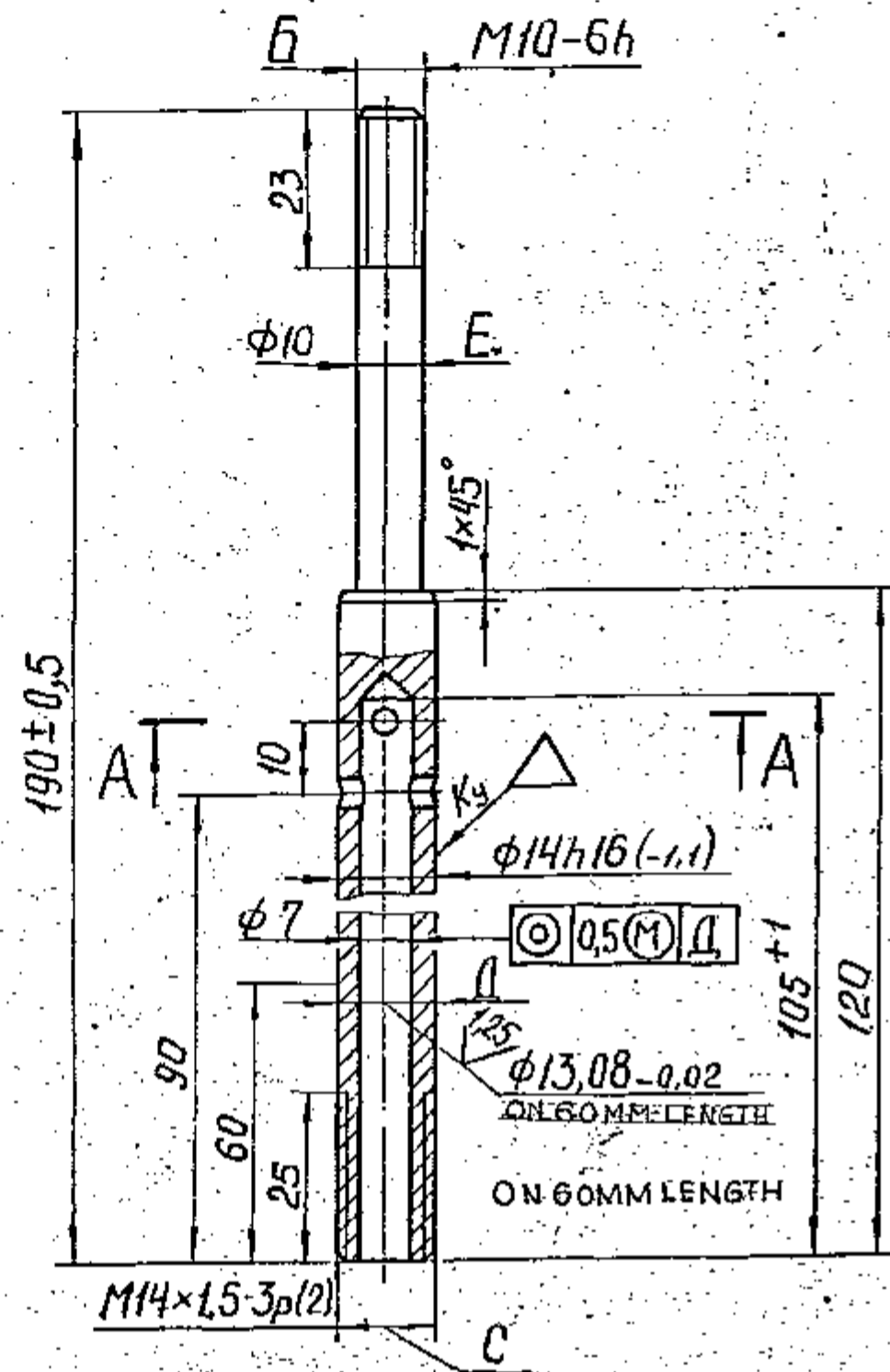


DRAWING NUMBER
20-29-16-7

Rz.80



EXPLANATORY NOTE:-

MATERIAL QUOTED : 45XGOST 4543-71

45X = GRADE OF STEEL.

CHEMICAL COMPOSITION%

CARBON = 0.41 - 0.49

SILICON = 0.17 - 0.37

MANGANESE = 0.50 - 0.80

CHROMIUM = 0.80 - 1.10

PHOSPHORUS = 0.035

SULPHUR = 0.035

COPPER = 0.30

NICKEL = 0.30

MAXIMUM

MECHANICAL PROPERTIES :

ULTIMATE TENSILE STRENGTH $\text{Kgf/mm}^2 = 105$ (MIN)

% RELATIVE ELONGATION = 9 (MIN)

YIELD POINT $\text{Kgf/mm}^2 = 85$ (MIN)

% REDUCTION ACROSS SECTION = 45 (MIN)

IMPACT STRENGTH $\text{Kgf.m/cm}^2 = 5$ (MIN)

NOTE:-

1. NON-INDICATED LIMIT DEVIATIONS OF DIMENSION :

H14; h14, $\pm \frac{IT14}{2}$

2. COATING : μ_3 xp. COATING ABSENCE IS ALLOWED ON THE THREAD AND ON INNER SURFACES.

3. MAKE C THREAD TO GOST 4608-B1.

4. WHILE MAKING B THREAD BY ROLLING IT IS ALLOWED TO MAKE E DIMENSION EQUAL TO AVERAGE THREAD DIAMETER.

5. K23 COATING IS ALLOWED.

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

EST. WT. 0.14 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.

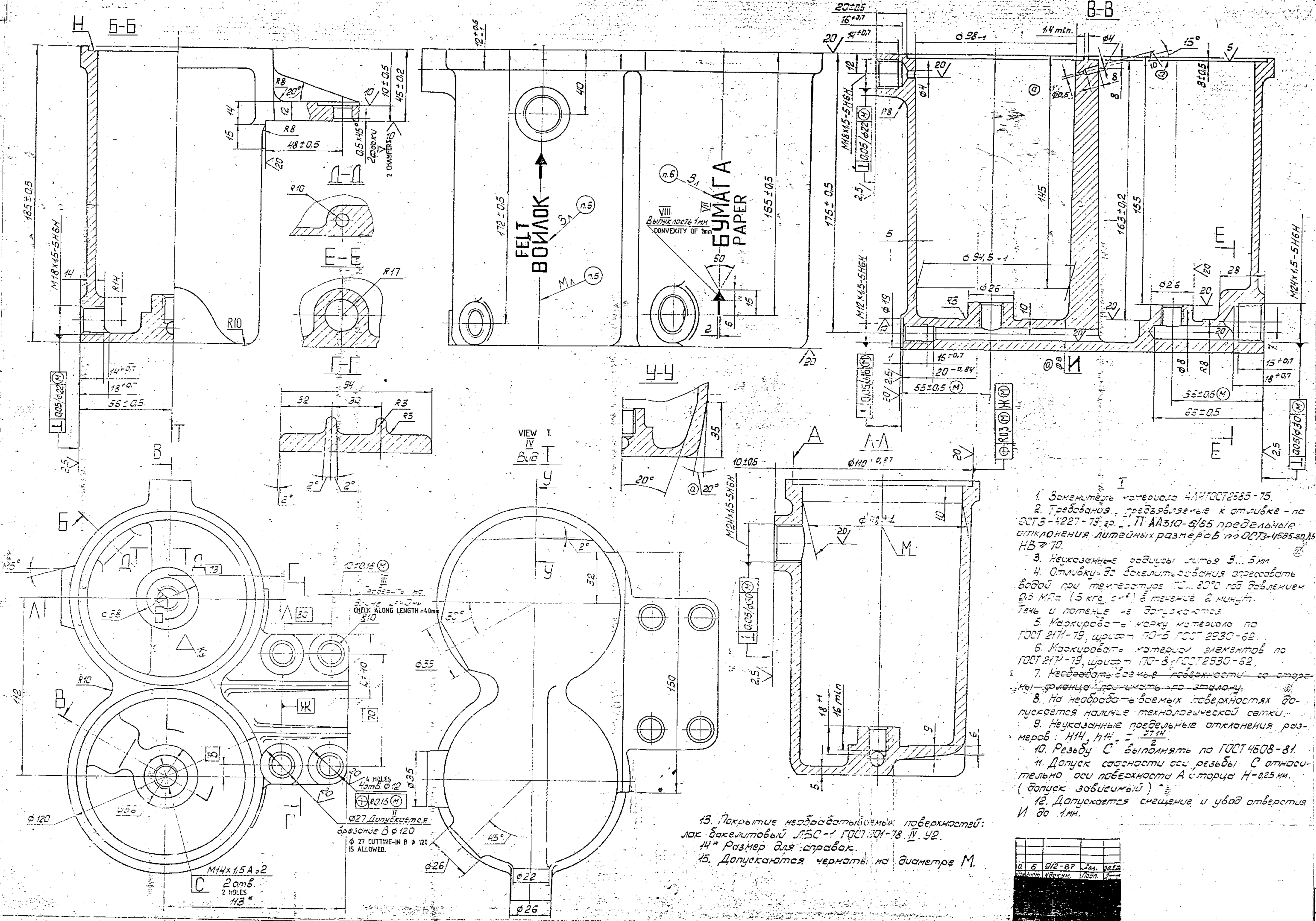
DRN	<i>[Signature]</i>	MATERIAL :-	45X GOST 4543-71	USED ON	CS 20-29-08-8
CHD	<i>[Signature]</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)			
TCD	<i>[Signature]</i>	AVADI			
APPO	<i>[Signature]</i>	TITLE : COUPLING ROD			
DATE	23-9-86	D S CAT NUMBER			
SCALE	1:1	DRAWING NUMBER			
DIMENSIONS IN mm		20-29-16-7			
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 2102-69		DRAWING NUMBER			
ALL THREADS TO CONFORM TO		20-29-16-7			
ISSUE	DATE	NATURE OF AMENDMENTS			

SUPERSEDES DRG. NO. 20-29-16-6, AUTHY NOTN. NO. 010-86.

EXPLANATORY NOTE ADDED ON 21-3-92



DRG. INDICATED BASED ON RUSSIAN ORIGINAL ISSUE - a (912-87)



1. Substitute: A/14 GOST 2685-75.
2. Requirements for the casting are according to OCT-4227-79 group I, TT AA 310-5/65 limit deviations of casting dimensions are according to OCT3-4565-80, A5 HB 70.
3. Non-indicated casting radiuses are 3...5 mm.
4. Before bakeliting subject the casting to a water pressure test under the pressure of 0.5 MPa (5 kgf/cm²) at the temperature of 70...80°C for 2 minutes. Leakage and sweating are not allowed.
5. Mark the material mark according to GOST 2171-79, IIO-5 type, GOST 2930-62.
6. Mark the elements material according to GOST 2171-79, IIO-8 type, GOST 2930-62.
7. Manufacturing net is allowed on non-working surfaces.
8. Non-indicated limit deviations of dimensions: H14, h14, $\frac{1}{2}$.
9. Make thread C according to GOST 4608-81.
10. Tolerance of concentricity of C thread axis relative to A surface and H face is 0.25 mm. (Tolerance is dependent one).
11. Displacement and run-off of M hole is allowed up to 1 mm.
12. Coat of non-working surfaces: phenol-formaldehyde lacquer ЛФ-1, GOST 901-78. IX, Y2.
13. * Dimension for references.
14. Blacknesses on M diameter are allowed.

1. Заменить материал АА14ГОСТ2685-75.
 2. Требования, предъявляемые к отливке - по ГОСТ 4227-79, гр. I, ТТ АА310-5/65 предельные отклонения литых размеров по ГОСТ 3-4565-80, А5 HB 70.
 3. Неуказанные радиусы отливки 3...5 мм.
 4. Отливку до бакелитирования обработать водой при температуре 70...80°C под давлением 0.5 МПа (5 кгс/см²) в течение 2 минут. Течь и потение не допускаются.
 5. Маркировка марки материала по ГОСТ 2171-79, шрифт П0-8 ГОСТ 2930-62.
 6. Маркировка материала элементов по ГОСТ 2171-79, шрифт П0-8 ГОСТ 2930-62.
 7. Необрабатываемые поверхности со стороны формы шлифовать по стандарту.
 8. На необрабатываемых поверхностях допускается наличие технологической сетки.
 9. Неуказанные предельные отклонения размеров: H14, h14 = $\frac{1}{2}$.
 10. Резьбу С выполнять по ГОСТ 4608-81.
 11. Допуск сасности оси резьбы С относительно оси поверхности А и торца Н-0.25 мм. (допуск зависимый).
 12. Допускается смещение и увод отверстия И до 1 мм.

13. Покрытие необрабатываемых поверхностей: лак бакелитовый ЛФ-1 ГОСТ 901-78. IX, Y2.
 14. * Размер для справок.
 15. Допускаются черноты на диаметре М.

6	012-87	Л.А.	РАС
		Инж.	

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

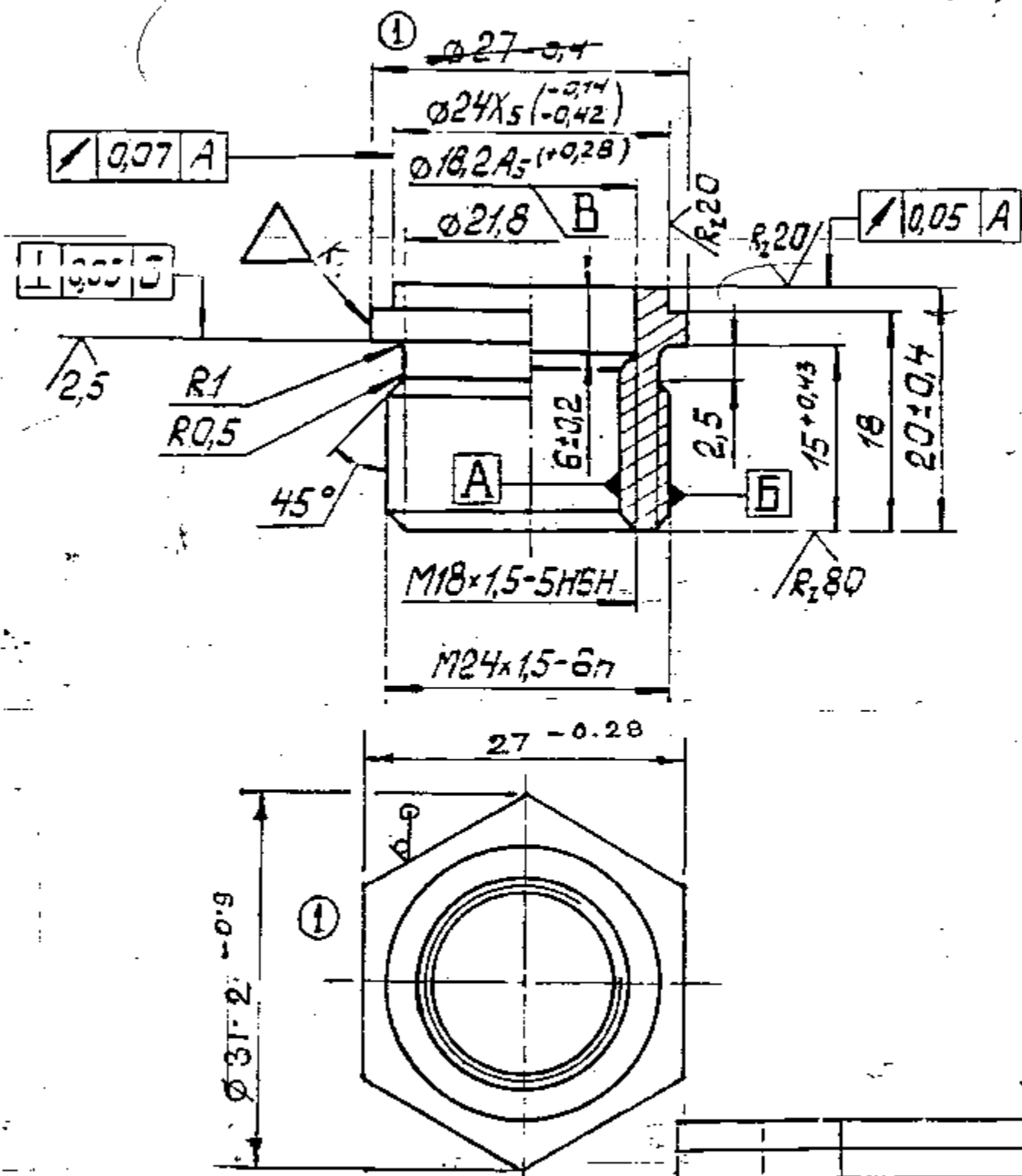
EST. MASS 2.75 Kg. TO BE STAMPED OR MARKED WHERE INDICATED THUS #
 ALL SHARP EDGES AND CORNERS TO BE ROUNDED UNLESS OTHERWISE STATED. MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	6	MATERIAL	A/19 GOST.2685-75	USED ON	c8 20-29-06-8
CHD					
TCD					
APPD					
DATE	12 AUG 82				
SCALE	1:1				
SOME DIMS IN					
TOLERANCE ON DIMS					
UNLESS OTHERWISE					
STATED IN 2102-77					
ALL T READS TO					
COMP 14 10					
ISSUE		DATE		NATURE OF AMENDMENTS	
TITLE FUEL FILTER CASE					
DRAWING NUMBER 20-29-24-8					



DRAWING NUMBER

20-29-35



1. Alt. Matl. IS STEEL 40,50 GOST 1050-74.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS :
FOR HOLES - AS PER A7, FOR SHAFTS - AS PER B7
FOR OTHERS - AS PER CM7
3. THREAD TRACE ON SURFACE 'B' IS PERMITTED.
4. COATING : CADMIUM-PLATED, 9 MICRONS THICK
OILED ABSENCE OF COATING ON THE INTERNAL SURFACE IS ALLOWED.

①A EQUIVALENT MATERIAL
STEEL 080M40 (EN8) TO BS: 970 OR
45 CB TO IS: 7570

①* 27-5 GOST 8560-78
45 GOST 1051-74

KVD No. 63465

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

EST. WT. TO BE STAMPED OR MARKED WHERE
0,03 Kg INDICATED THIS ≡ LETTERS!

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

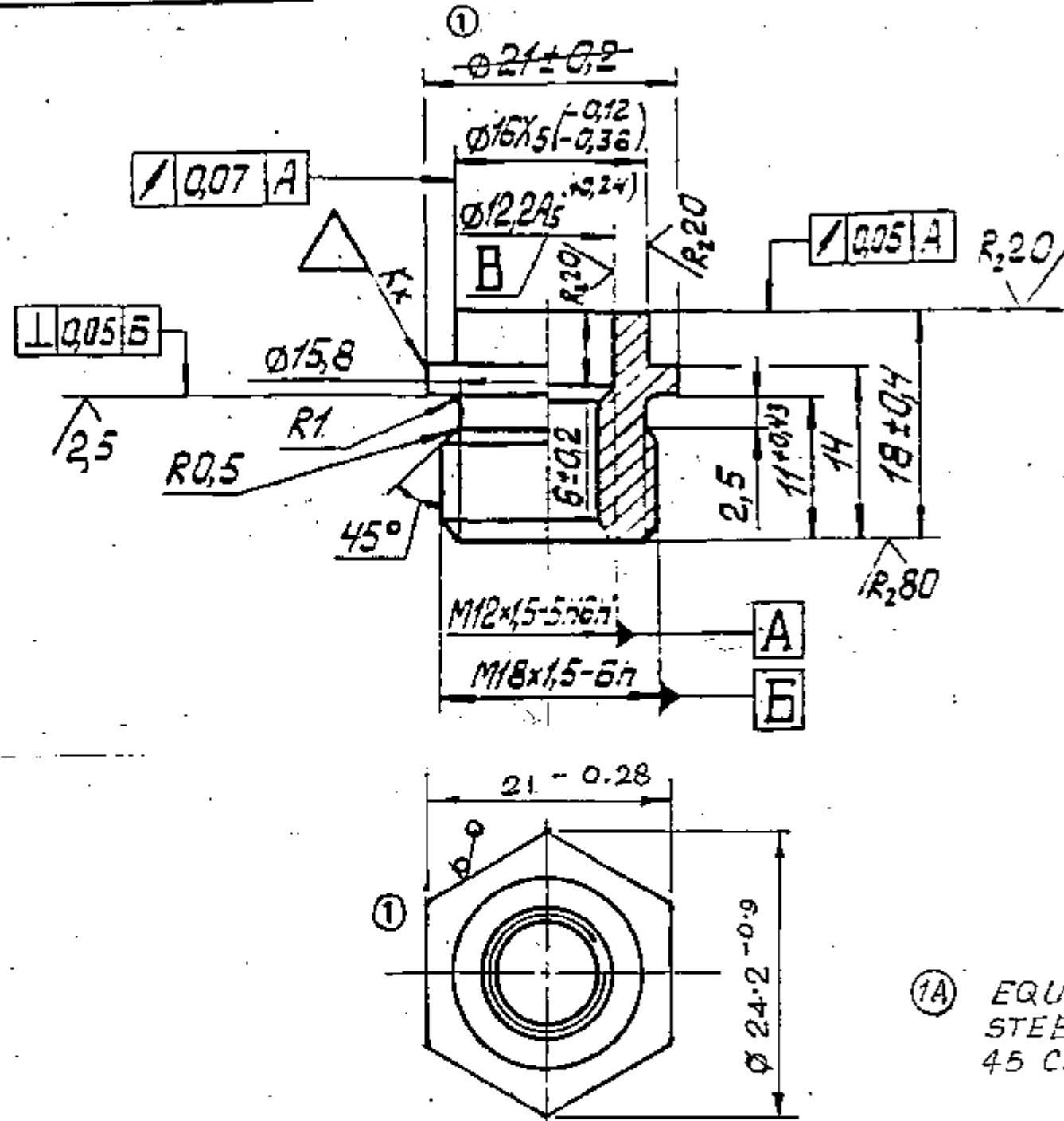
FORM	1	DATE	17-3-80	MATERIAL	Hex bar	USED ON:	C620-27-01-4
ISSUED		SCALE	2:1		45 GOST 1050-74 * ①		C6 20-29-08-B
APPROVED		CONTROLLER OF QUALITY ASSURANCE HEAVY VEHICLES					
						AVAY	
		DIMENSIONS IN mm		TITLE			
		TOLERANCE ON DIMS		BUSHING			
		UNLESS OTHERWISE					
		STATED IS: 2102-85					
		ALL THREADS TO		D S CAT NUMBER		DRAWING NUMBER	
		CONFORM TO				20-29-35	
REVISION	1 A	DATE	10-7-10	NATURE OF AMENDMENTS			
			16.2.01	EFA/P/PDO/023 dt 22.9.2000			



SIZE A3



DRAWING NUMBER
20-29-36



1. Alt. Matl. IS STEEL 40, 50, GOST 1050-74.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS:
FOR HOLES - AS PER A₇, SHAFTS - AS PER B₇, OTHERS - AS PER CM₇
3. THREAD TRACE ON SURFACE B IS PERMITTED.
4. COATING: CADMIUM-PLATED 9 MICRONS THICK, OILED
ABSENCE OF THE COATING ON THE INTERNAL SURFACE IS ALLOWED.

(1A) EQUIVALENT MATERIAL
STEEL 080 M40 (EN 8) TO BS: 970 OR
45 CB TO IS: 1570

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

EST. WT. 0.18 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.

DRN	AS	MATERIAL: ① hex bar	USED ON
CHD	Chandhika	21-5 GOST 8560.78	CS 20-27-01-4
TCD	AS	45-5 GOST 1051.73	CS 20-29-08-8
APPD	C.S. Rao	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI.	
DATE	28-2-01.	SCALE:- 2 : 1	
DIMENSIONS IN mm		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102-69.	
ALL THREADS TO CONFORM TO		D S CAT NUMBER	DRAWING NUMBER
ISSUE	DATE	20-29-36	
1 A	10-7-10	4 1/2 ALT.COMM. Mtg. MINUTES	
1	16.2.01	POINT No 7 DT. 26-10-09	
		EFA/P/PDO/023 dt 22.9.2000	

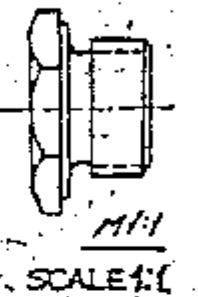
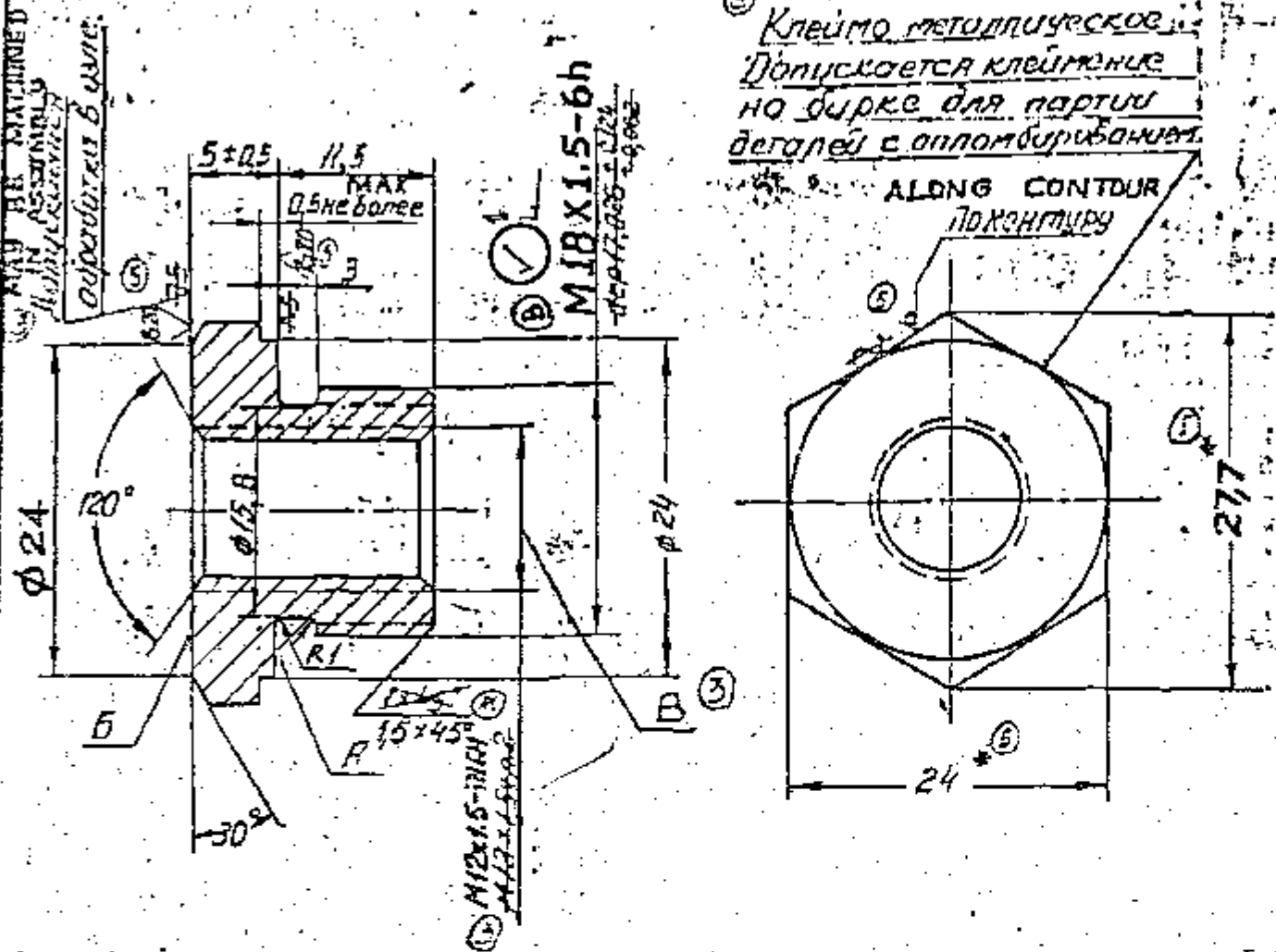
SIZE A3



1-901-10E

TO BE PUNCHED, MARKING ON TAG FOR A BATCH OF COMPONENTS WITH PACKING AND SEALING IS PERMISSIBLE.

Клеймо металлическое
Допускается клеймение
но бирке для партии
деталей с опломбированием



Inspection group V
Tolerance on free dimensions are as per class 7 accuracy of OST 1010.
Tech. Requirements for thread are as per standard 82021-00.
End play on surface A relative to the axis of external thread should not exceed 0.1 mm on Ø 23. End play on surface B relative to the axis of internal thread should not exceed 0.15 mm on Ø 23. Thread dimensions are to be checked before coating, internal thread may not be coated. Sharp edges should be blunted, turning of face on Ø 26 C5 is permissible.
Coating is Cd 9 Cr as per ~~U.S. 569-84~~ with hydrogen embrittlement removed.
Alternate material-steel grades 40 and 50, Gost 1050-74

*Dimensions for reference.

ALTERNATE MATERIAL: STEEL 080M40 (EN B)
TO BS: 970 Pt. I-1983 OR 45 CB 70 IS: 1570

COA(HV)5.07.50ZE Cb 306-01-36 * CB-20-29-08-2
COA(HV)5.07.504E Cb 306-02-36 CB-3329-01-11
Cb 337-120 CB-3301-15-44
PILOT SAMPLE SHOULD BE APPROVED BY A HSP BEFORE BULK PRODUCTION

D	9-6-09	3 rd ALTN. COMM. MINUTES POINT B. DT 27-2-09	EST. MASS 0,022 Kg	TO BE STAMPED ON MARKED WHERE INDICATED THUS #
C	9-9-08	USED ON NUMBER ADDED	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
B	20-5-98	REPAIR SIZES ADDED	MATERIAL 24-5 GOST 8560-78 USED ON- CB 3301-15-30 *	
G		BK 82-207	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
A	25.12.08	AUTHY BK 65-141	TITLE: BUSH	
ISSUE	DATE	NATURE OF AMENDMENTS	U.S. CAT NUMBER DRAWING NUMBER	
E	5.3.14	Authy. Point No.11 of 7 th Alt. Comm. Meeting at EFA.	301-106-1	
ISSUE	DATE	NATURE OF AMENDMENTS	DATE 28-1-88	

EXPLANATORY NOTE:-

MATERIAL QUOTED :- HEXAGONAL BAR 24-5 GOST 8560-78.
45- GOST 1051-73.

ALTERNATE MATERIAL QUOTED :- 40 AND 50 GOST 1050-74.

BRIGHT STEEL HEXAGONAL FROM GRADE 45 STEEL WITH WIDTH ACCROSS FLATS 24 mm; OF ACCURACY CLASS - 5 AS PER GOST 1051-73.

CHEMICAL COMPOSITION:-

GRADE OF STEEL	CONTENT OF ELEMENTS %							
	C	Si	Mn	Cr	P	S	Cu	Ni
40	0.37-0.45	0.17-0.37	0.50-0.80	0.25	0.035	0.040	0.25	0.25
45	0.42-0.50	0.17-0.37	0.50-0.80	0.25	0.035	0.040	0.25	0.25
50	0.47-0.55	0.17-0.37	0.50-0.80	0.25	0.035	0.040	0.25	0.25

MECHANICAL PROPERTIES:-

GRADE OF STEEL	TENSILE STRENGTH	YIELD POINT	ELONGATION	REDUCTION IN AREA	IMPACT STRENGTH
	kgf/cm ²	kgf/mm ²	%	%	kgf.m/cm ²
40	58	34	19	45	6
45	61	36	16	40	5
50	64	38	14	40	4

REPAIR SIZE DIMENSIONS ARE ADDED BASED ON LETTER NO: 82847/OH/GAS/ED. DT: 27 MAR 95 AS FOLLOWS:

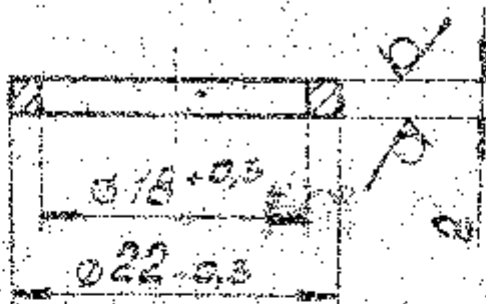
REPAIR SIZE DIMENSION ADDED WHERE INDICATED THUS: (B)

S/N	R	REMARKS
1	M20x1.5-6h	ALL OTHER CONDITIONS AS PER STD DRG. MARK REPAIR SIZE

COMMON TO V-92S2 & UTD-20 ENGINES

A-2





1. ALTERNATE MATERIAL IS COPPER M2 AND, M3, GOST 859-79.

2. ANNEAL.

USED ON
* CE20-29-08-8

2
10
40

TEST SAMPLE SHOWN BY APPROXIMATELY A 1/2" P. SCALE. THIS IS FOR INFORMATION.

NET MASS
0.0029 Kg

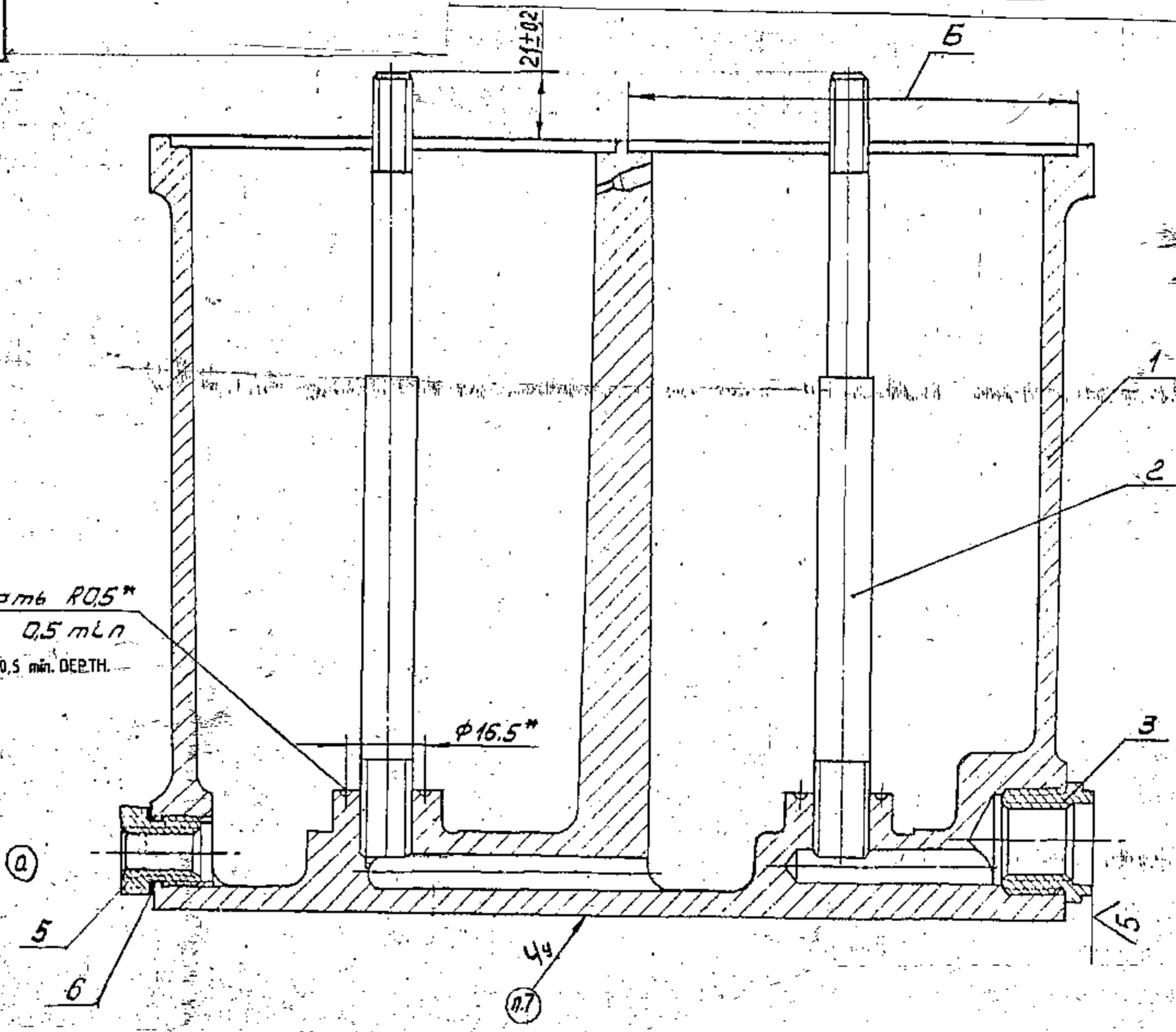
M1, GOST 859-78

ES 20-06-09-2 *
ES 20-29-00-8

GASKET

329-30

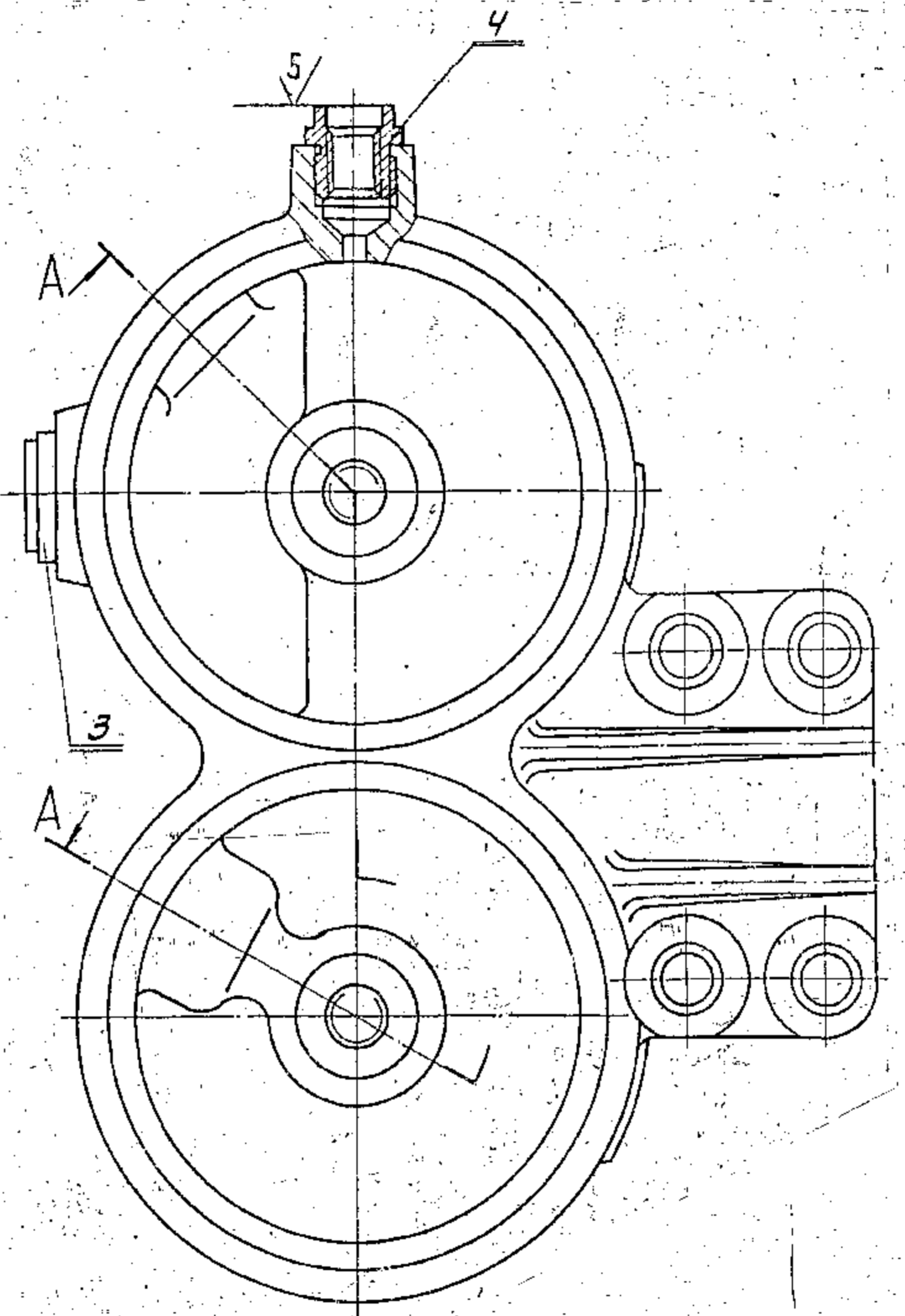
Handwritten notes and signatures on the left side of the page, including a date '10/19/87'.



II
Завальцевать R0.5*
глубиной 0,5 мм
ROLL R 0.5* OF 0.5 mm. DEPTH.

1. После постановки втулок (детали 3,4)
внутреннюю резьбу втулок калибровать.
2. Допуск перпендикулярности торцов
втулок к среднему диаметру резьбы не более
0,05 мм (допуск зависимый) на $\phi 15$ мм (деталь 4)
и на $\phi 23$ мм (деталь 3).
3. Допускается подторцовка глубиной 0,1...0,5 мм.
4. На сопрягающиеся с корпусом фильтра
торцы втулок (детали 3,4) и прилегающие
к ним 2...4 нитки резьбы нанести лак 33Ш
по инструкции И240-280/75.
5. Допуск соосности оси стержня и оси
ступени $\phi 5$ не более 0,5 мм - допуск зависи-
мый.*
6. Размеры обеспечить инструментом.
7. Маркировать обозначение узла в за-
часте шрифтом П0-3 ГОСТ 2930-62.

- I.
1. Calibrate the internal thread of bushings after their mounting (parts 3,4).
 2. Tolerance of squareness of bushings faces to the pitch diameter is not more than 0,05 mm (tolerance is dependent one) for $\phi 15$ mm (part 4) and for $\phi 23$ mm (part 3).
 3. Facing h 0.1...0.5 mm is allowed.
 4. Apply 33Ш lacquer on bushings faces (parts 3,4) mated with the filter case and 2...4 threads of a screw adjoining to them. by И240-280/75 manual.
 5. Tolerance of concentricity of the rod axis and step axis $\phi 5$ is not more than 0.5 mm - tolerance is dependent one.
 6. * Dimensions are ensured by a tool.
 7. Mark the unit designation when sending as spare parts by П0-3 type, GOST 2930-62.



ORG. INDIAISED BASED ON RUSSIAN ORIGINAL ISSUE - a. 1912-87

ORG. SUPERSEDES Cb 20-29-08-7. DATE: 1912-87

Q 2	9/2-87	10.5	10.5
10.5	10.5	10.5	10.5

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

EST. MASS 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.

DRN	CHD	TCD	APPD	DATE	SCALE	MATERIAL	USED ON
				1 AUG 89			Cb 20-29-08-8
CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) A V A D I						TITLE	
						FUEL FILTER BODY	
ISSUE DATE NATURE OF AMENDMENTS						D S CAT NUMBER	
						DRAWING NUMBER	
						Cb 20-29-08-8	



