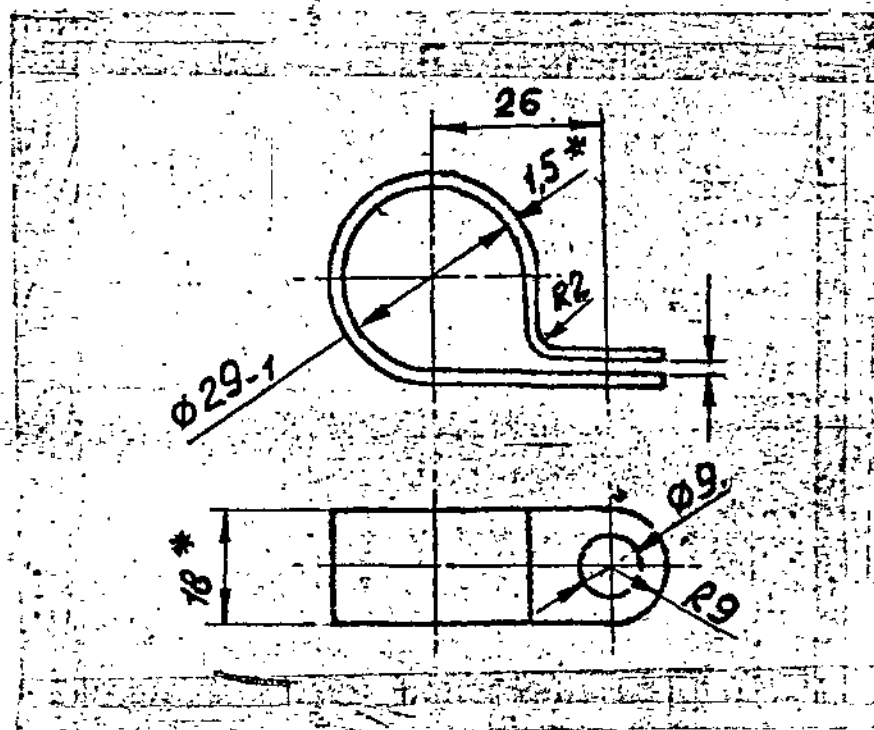


DRAWING NUMBER

3320-140



1. REQUIREMENTS PLACED UPON STAMPING ARE AS PER STANDARD 82050-16.
2. ALTERNATE MATERIAL IS 08K0 GOST 1050-74.
3. TOTAL LENGTH IS APPROXIMATELY = 138.
4. *DIMENSIONS ARE GIVEN FOR REFERENCE.
5. COATING: ZINC-PLATED, 15 MICRONS THICK, OILED, WITH REMOVAL OF HYDROGEN EMBRITTLEMENT.
6. PERMISSIBLE COATING: VARNISH ГФ-95, GOST 8018-70.

Ⓐ EQUIVALENT MATERIAL
Gr. D IS: 513-1994

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

EST. WT. TO BE STAMPED OR MARKED WHERE INDICATED THIS # 1 LETTERS)

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

EXPLANATORY NOTE:-

MATERIAL QUOTED:

STRIP 08ΠC-M-2-1.5x18 GOST 503-71.

08ΠC= COLD ROLLED LOW CARBON STEEL STRIP

M = CONDITION OF MATERIAL- SOFT

2 = GROUP OF SURFACE QUALITY (ROUGHNESS PARAMETERS $R_a \leq 1.25$ MICRON)

1.5 = THICKNESS. 18 = WIDTH OF STRIP.

CHEMICAL COMPOSITION (AS PER GOST 1050-74)

CARBON = 0.05 - 0.11 ; SILICON = 0.05 - 0.17 ;

MANGANESE = 0.35 - 0.65

CHROMIUM 0.1

SULPHUR 0.040

PHOSPHORUS 0.035 MAXIMUM

COPPER 0.25

NICKEL 0.25

MECHANICAL PROPERTIES:-

ULTIMATE TENSILE STRENGTH $Kgf/mm^2 = 32-45$

RELATIVE ELONGATION % = 17 (MIN)

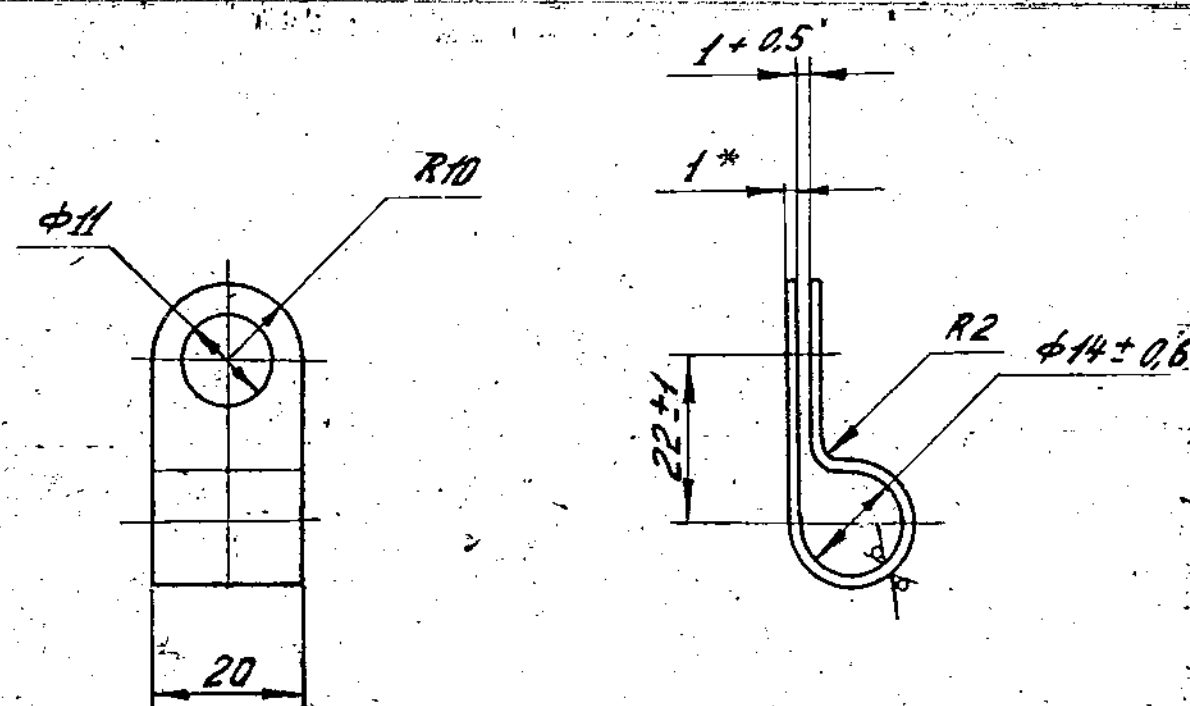
SIZE A3

			DRN		MATERIAL: STRIP 08ΠC-M-2-1.5x18 GOST 503-71.	USED ON C520-20-00-10
			CHD			CB 3342-00-8
			TCD			
			APPO			
			DATE	19-8-87	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
			SCALE:-	1:1	AVADI	
			DIMENSIONS IN mm			
			TOLERANCE ON DIMNS			
			UNLESS OTHERWISE STATED IS: 2102-69			
			ALL THREADS TO CONFORM TO			
A	18.03.10	4 th Alt. Comm. Mt. Minutes Pt. No. 1 Dt. 26.10.09	ISSUE DATE	NATURE OF AMENDMENTS	D S. CAT NUMBER	DRAWING NUMBER
						3320-140

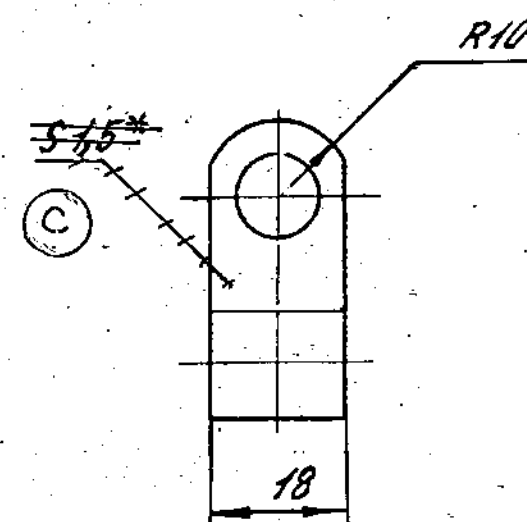
SUSPENSION CLAMP



DRAWING NUMBER
3335 77 3



ALTERNATIVE
вариант



1. MAY BE MANUFACTURED FROM BAND 08nc-M-2 - 1.5, GOST 503-71, AS PER ALTERNATIVE.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ± 0.5 mm.
3. LENGTH OF STRAIGHTENED CLAMP $L = 94$ mm.
4. COATING: Cd 9, CHROMATIZING AS PER INSTRUCTIONS 11-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
5. * DIMENSIONS FOR REFERENCE.
6. IN TROPICAL DESIGN COATING Cd 9, CHROMATIZING AS PER 11-569-84 REMOVING HYDROGEN EMBRITTLEMENT.

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

EST. MASS 0.012 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.

EXPLANATORY NOTE:

6. REFERENCE MATERIAL QUOTED:

COLD ROLLED CARBON STEEL STRIP MATERIAL CONDITION SOFT 'M', SURFACE QUALITY GROUP '2' WITH TRIMMED EDGES' NORMAL MANUFACTURING ACCURACY, 1.0(-0.09)mm THICK TO GOST 503-81 AND MANUFACTURED IN ACCORDANCE WITH QUALITY CARBON STRUCTURAL SEMI KILLED STEEL STRIP GRADE 08nc TO GOST 1050-74.

a) CHEMICAL COMPOSITION AS PER GOST 1050-74:

GRADE OF STEEL	CONTENT OF ELEMENTS %					
	C	Si	Mn	Cr	S	P
08nc	0.05 - 0.11	0.05 - 0.17	0.35 - 0.65	0.10	0.040	0.035

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

b) MECHANICAL PROPERTIES AS PER GOST 503-81:

CONDITION OF MATERIAL	GRADE OF STEEL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	ELONGATION % min
M	08nc	32 - 45	17

④ EQUIVALENT MATERIAL GOST 15:513-1994

DRN	CHD	TCD	APPD	DATE	SCALE - 1 : 1	MATERIAL:- STRIP 08nc-M-2-1 GOST 503-71 81	USED ON:- C 53342-00-805 C 5335 00 2430 C 53342-
					DIMENSIONS IN mm.	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
					TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.	TITLE:- CLAMP	
					ALL THREADS CONFORM TO	D S CAT NUMBER	DRAWING NUMBER 3335 77 3
ISSUE	DATE	NATURE OF AMENDMENTS					

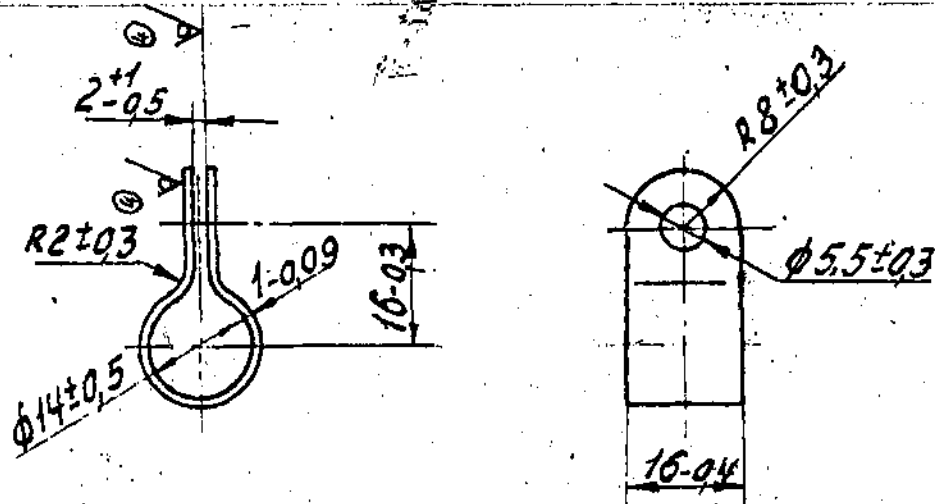


DRAWING NUMBER

3335 77

40

A



B. EQUIVALENT MATERIAL
Gr.D D IS: 513-1994

2. SHARP EDGES ARE NOT ALLOWED.
3. LENGTH OF STRAIGHTENED COMPONENT $L = 77 \text{ mm}$.
4. DIMENSION $\phi 5.5 \pm 0.3$ MAY BE OBTAINED AS PER A 7.
7. COATING : Cd 9, CHROMATIZING AS PER INSTRUCTIONS 44.7.104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
8. ALTERNATE MATERIAL : STEEL, GRADES 08 K Π AND 10 GOST 1050 - 74.

A-9

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

A	20.9.89	Authy. No. 84-889	EST. WT 0.008 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	
B	17.03.10	4 th Alt. Comm. Meet. Minutes Point No. 1 Dt: 26-10-09.	MATERIAL: STRIP 08FC-M-2-1	USED ON: CB 3342 221 CB
A	18.9.89	Authy. BK 84-889.	GOST 503-71	
ISSUE	DATE	NATURE OF AMENDMENTS		
DRN		SCALE: 1 : 1	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
CHD		DIMENSIONS IN mm		
TCD		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	TITLE: CLAMP	
APPD		ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER 3335 77
DATE	20/4/86			

SIZE A4



DRAWING 'INDIANISED BASED ON RUSSIAN ORIGINAL' ISSUE - 11
DRG. REPLACES 3342-139-2 ISSUE-NIL VIDE NOTIFICATION NO: 91-560.

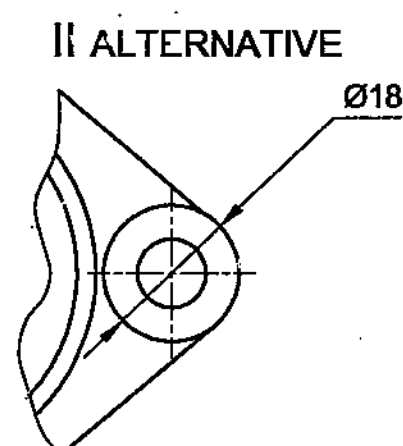
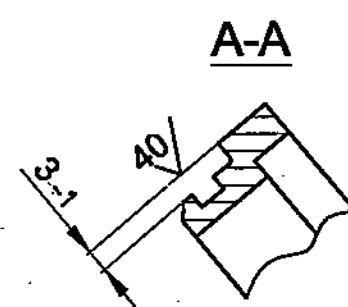
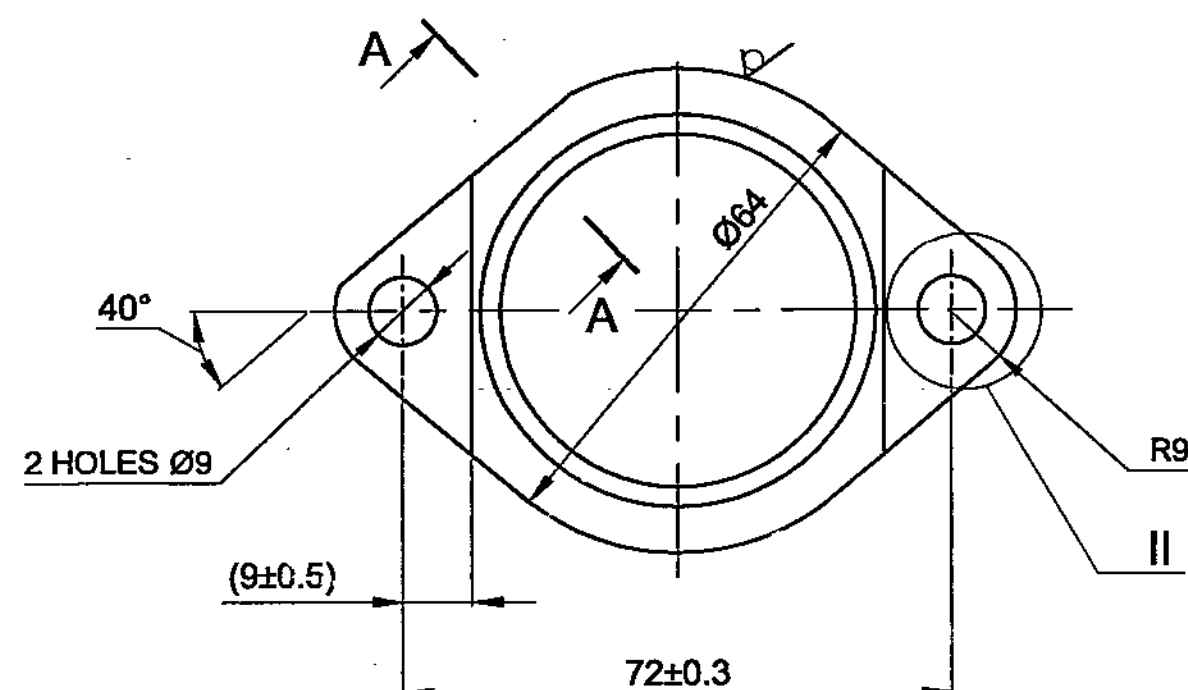
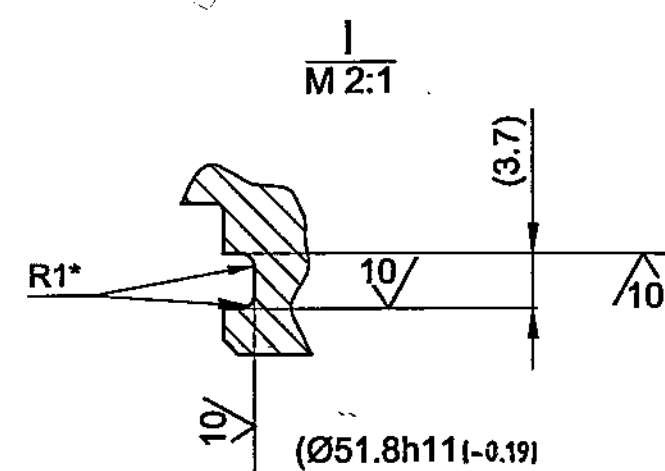
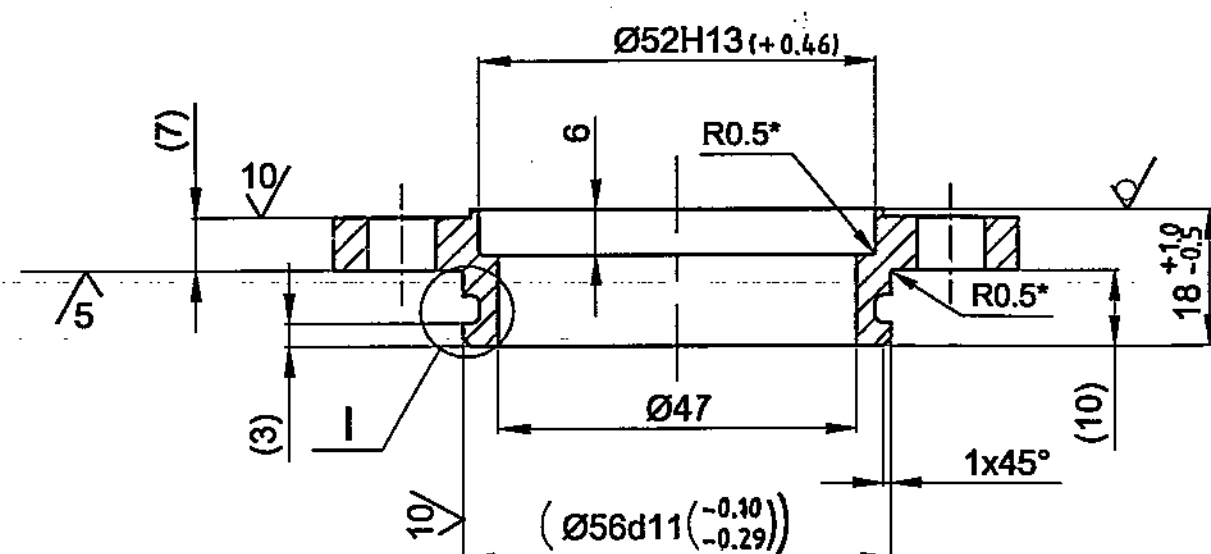
COMMON TO V-9252

1-153
54
74

SIZE A2

DRAWING NUMBER
3342-139-2

20 ✓ (✓)



1. Blank : Forged steel blank as per GOST 7505-89.
2. Unspecified limit deviations of dimensions H14.h14, $\frac{IT14}{2}$.
3. Dimension in brackets - is after assembly.
4. *Dimension to be ensured by tool.
5. Alternative material is steel 35 GOST 1050-88.
6. Local depression are allowed on the unmachined surfaces to a maximum 0.5 mm.

Ⓐ EQUIVALENT MATERIAL
STEEL 070M 20 (EN 3A) TO BS: 970

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.

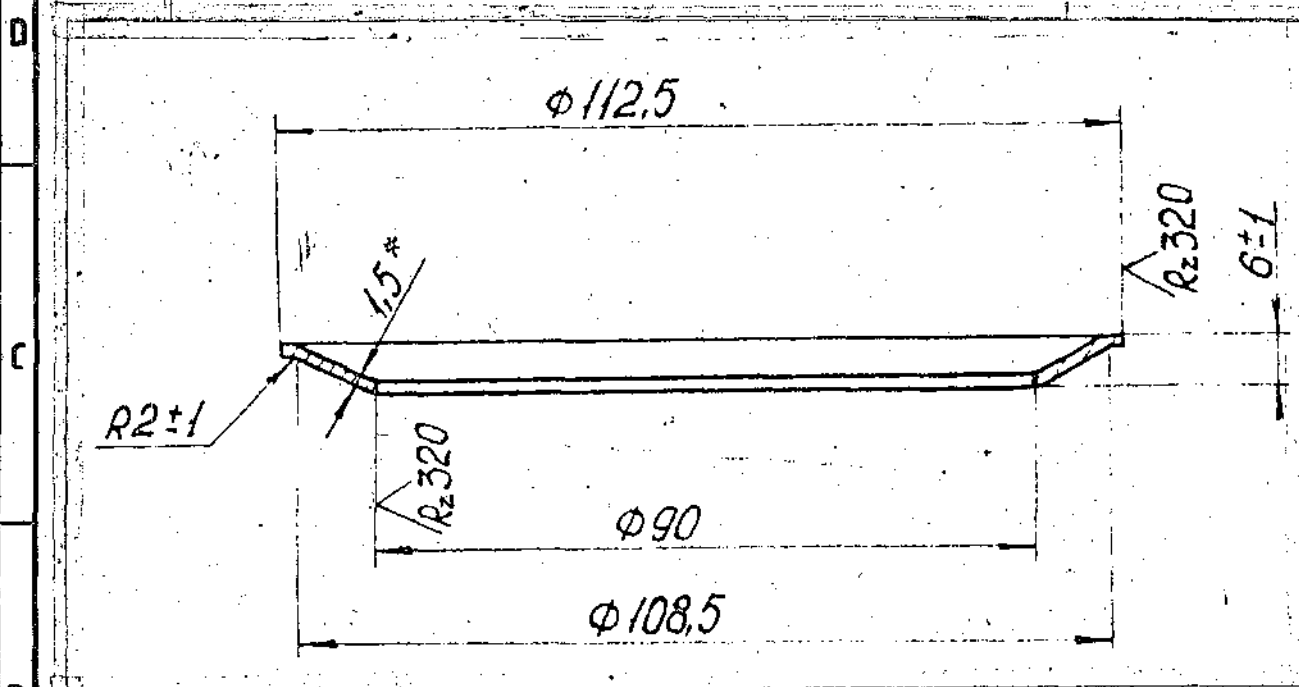
DRN	B. A. / B. L.	MATERIAL :-	STEEL 20	USED ON :-	Sb 3342-185-1
CHD	B. A. / B. L.		GOST 1050-88		Sb 3342-185-2
APPD	B. A. / B. L.	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI			
DATE	01-01-08				
SCALE:-	1:1	TITLE :- FLANGE			
DIMENSIONS IN mm					
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102 - 69		D S CAT NUMBER			
ALL THREADS TO CONFORM TO		DRAWING NUMBER 3342-139-2			
ISSUE	DATE	NATURE OF AMENDMENTS			
A	9-7-10	4 th ALT. COMM. Mfg. MINUTE 9 POINT No. 5 DT. 26-10-09			



DRAWING

3342 - 190

D, (V)



1. DIMENSIONS WITH UNSPECIFIED TOLERANCES SHOULD BE OBTAINED WITH ACCURACY OF $\pm 0.5 \text{ mm}$

2. * DIMENSION FOR REFERENCE

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

EST WT

0.037 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 : SHEET

USED ON

A - 1.5 GOST 19904-74

CB-3342-184-1CB

II - Г - 10 GOST 16523-70

ISSUE DATE

NATURE OF AMENDMENTS

DRN

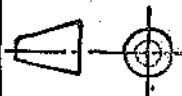
SCALE : - 1 : 1

CHO

DIMENSIONS IN mm

TLD

TOLERANCE ON DIMNS
UNLESS OTHERWISE
STATED



TITLE

CONE

APPD

ALL THREADS CONFORM TO

D S CAT NUMBER

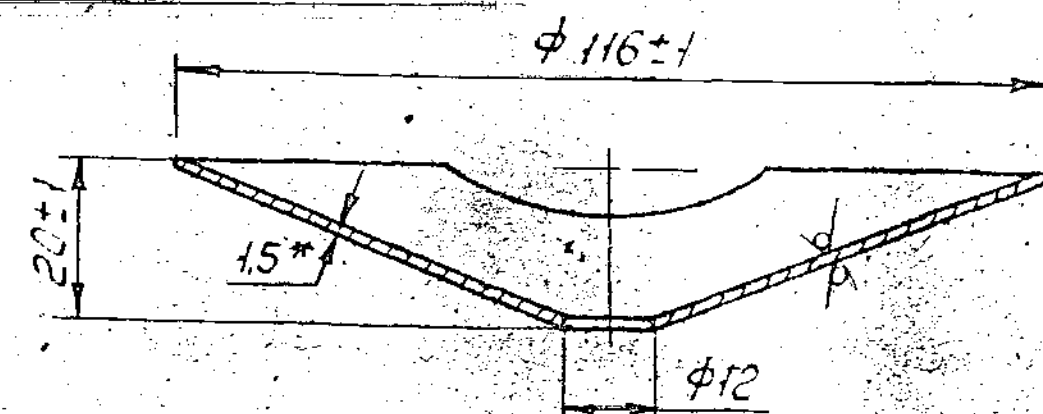
DRAWING NUMBER

DATE

3342-190

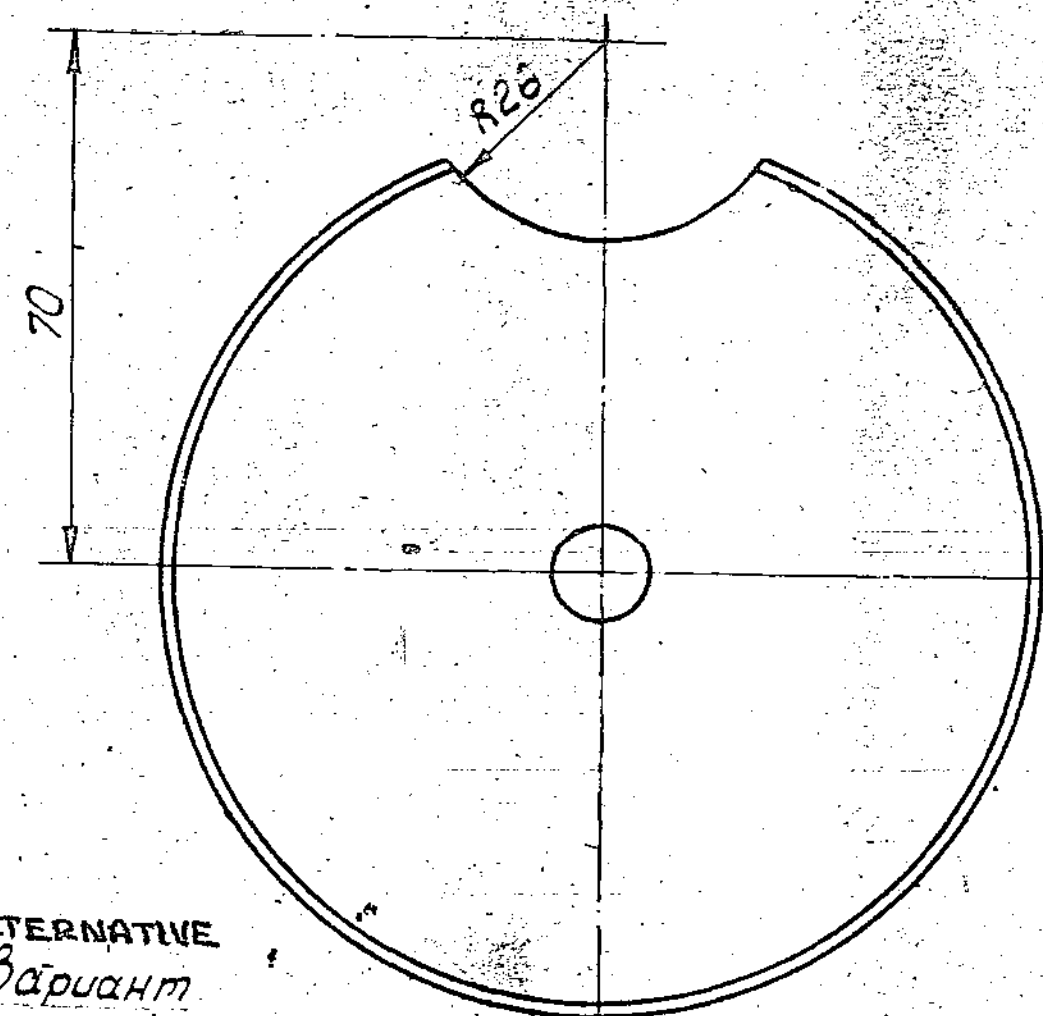
3342 191

Rz160 ✓ (✓)

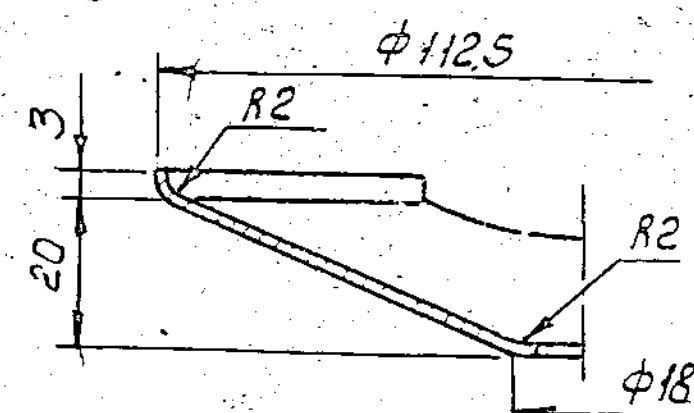


1. Неуказанные предельные отклонения
размеров $\pm 0,5 \text{ мм}$.
2. *Размер для справок

1. UNSPECIFIED TOLERANCES OF DIMENSIONS $\pm 0.5\text{mm}$.
2. *DIMENSION FOR REFERENCE.

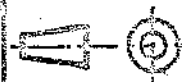


ALTERNATIVE
(1) Вариант



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

EST. MASS	TO BE STAMPED OR MARKED WHERE
0.134 Kg	INDICATED THUS $\frac{A}{1}$ (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	<i>Life size drawing</i>	MATERIAL - SHEET	USED ON:-
			CRD	<i>D. K. S. S.</i>	A-15 GOST 12904-76	CB 3342 104.1 CB
			TCO	<i>Proportional</i>	1/1-10 GOST 16523-70	
			APPD	<i>Proportional</i>	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)	
			DATE	30-6-86	AVADI	
			SCALE	1:1	TITLE:-	
			DIMENSIONS IN mm.			EONE
			TOLERANCE ON DIMS UNLESS OTHERWISE STATED.			
			ALL THREADS CONFORM TO		D S CAT NUMBER	DRAWING NUMBER
ISSUE	DATE	NATURE OF AMENDMENTS				3342 191

A-10

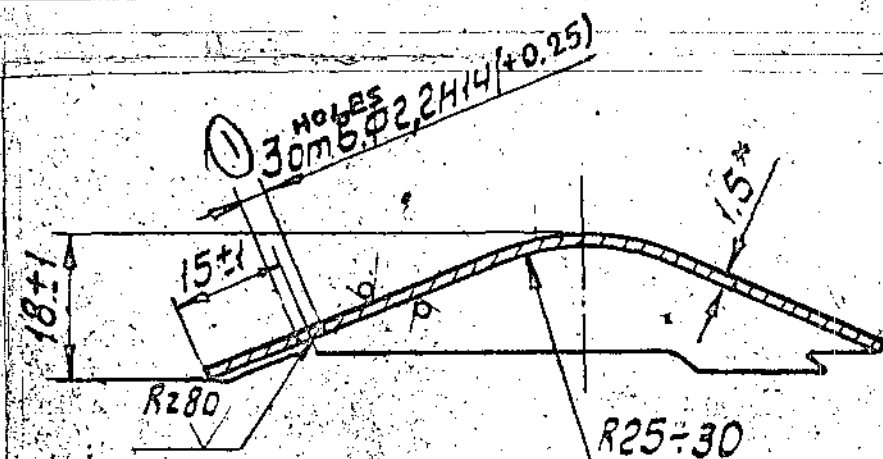
SIZE A2



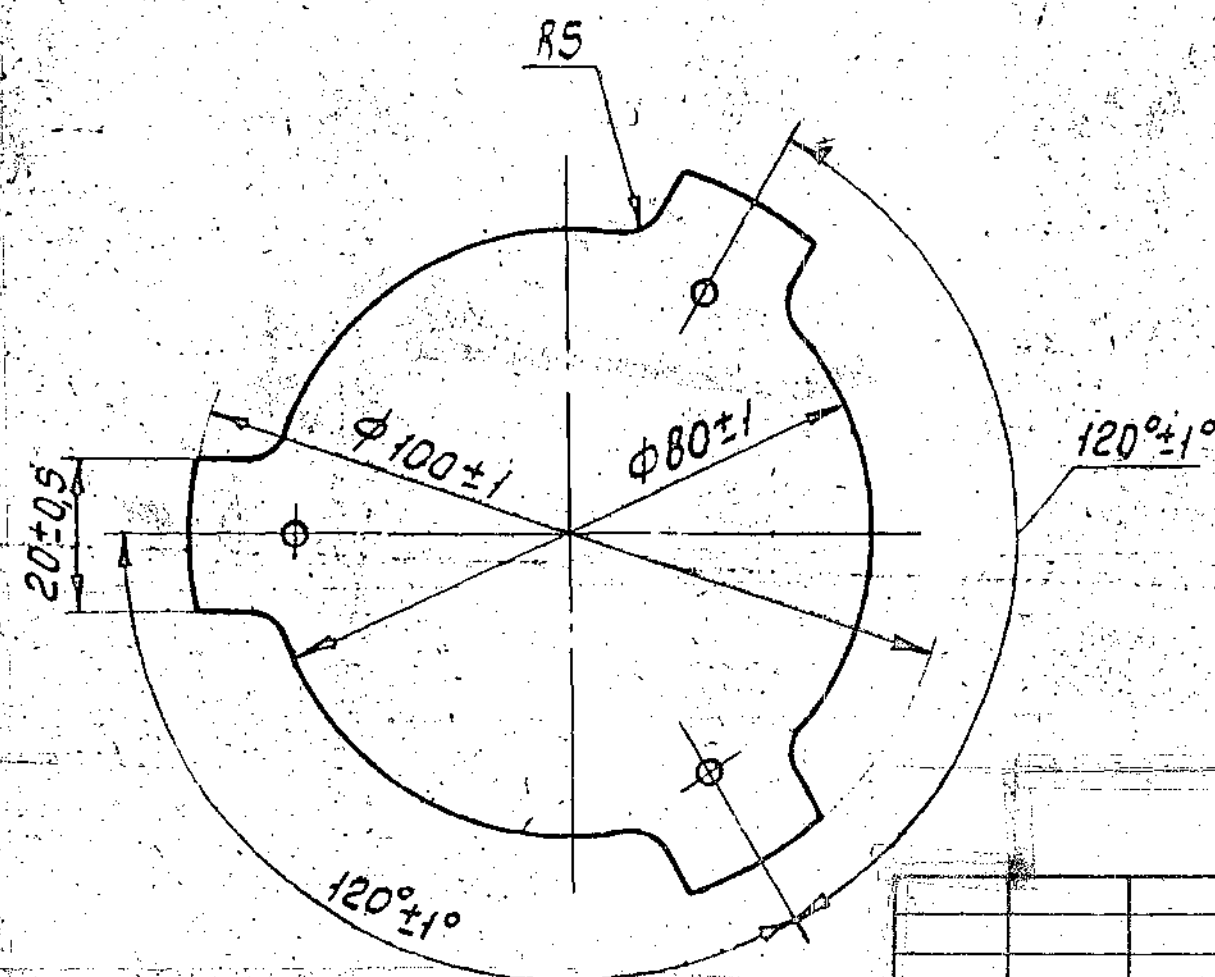
DRAWING NUMBER

3342-192

Rz160 ✓



*DIMENSION FOR REFERENCE.



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

EST. MASS

0.072 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.

DRN
END
TCD
APPD
DATE

SCALE:- 1:1

DIMENSIONS IN mm.
TOLERANCE ON DIMNS
UNLESS OTHERWISE
STATED.

ALL THREADS
CONFORM TO

MATERIAL:- SHEET
A-1-5 GOST 19904-74
II-T-10 GOST 16523-70

USED ON:-

Cb 3342-186

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
AVADI

TITLE:-

CONE

D S CAT NUMBER

DRAWING NUMBER

3342-192

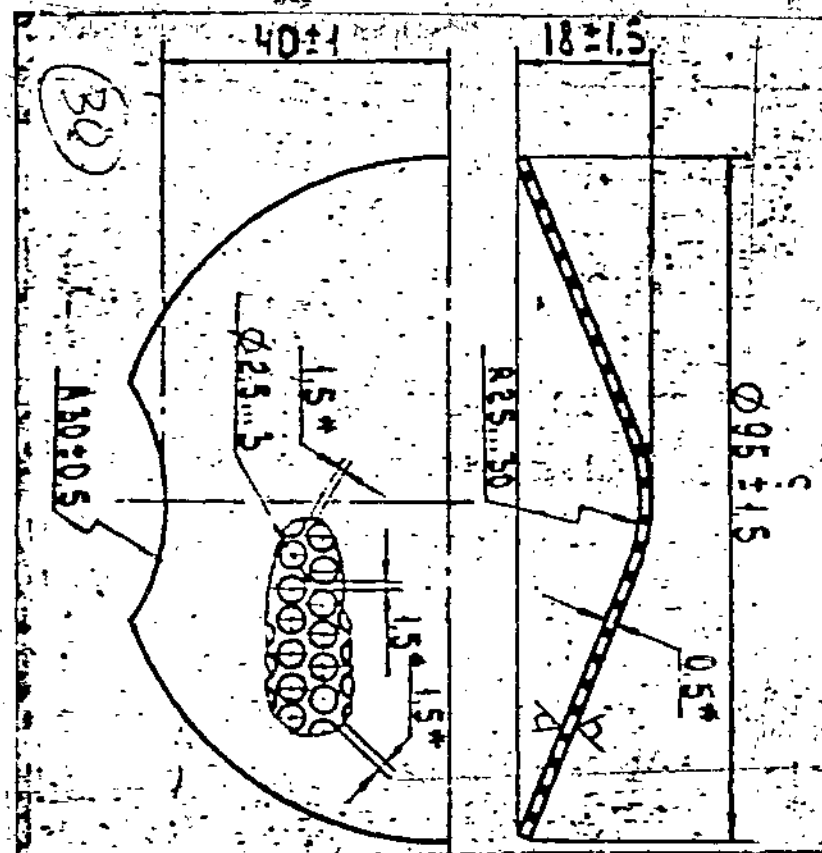
ISSUE DATE NATURE OF AMENDMENTS

A-10

SIZE A3

DRAWING NUMBER

3342-193



1. RUPTURES ALONG WALL EDGES ARE ALLOWED.
2. ENLARGEMENT OF HOLES, ϕ 2.5-3mm IS PERMISSIBLE.
3. * DIMENSIONS FOR REFERENCE.

EXPLANATORY NOTE :-

4. MATERIAL QUOTED

A-0.5 GOST 19904-74

II-BF-0.8Kn GOST 9045-80

A = HIGH ACCURACY.

0.5 = THICKNESS OF COLD ROLLED SHEET STEEL.

II = HIGH SURFACE FINISH.

0.8Kn = GRADE OF STEEL COLD ROLLED SHEET STEEL.

CHEMICAL COMPOSITION :

CARBON = 0.10 (max) SILICON = 0.03 (max)

MANGANESE = 0.20 - 0.40 CHROMIUM = 0.10 (max)

SULPHUR = 0.030 (max) NICKEL = 0.10 (max)

PHOSPHORUS = 0.025 (max) COPPER = 0.15 (max)

MECHANICAL PROPERTIES :

ULTIMATE TENSILE STRENGTH Kgf/mm^2 = 26 - 37

% RELATIVE ELONGATION = 28 (min)

* *

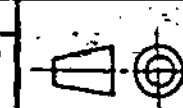
A-0.5 GOST 19904-74

II-BF 0.8Kn GOST 9045-80

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

EST. WT.
0.04 KgTO BE STAMPED OR MARKED WHERE
INDICATED THIS # 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
CHD
TCD
APPD
DATE 22-5-85
SCALE: 1:1
DIMENSIONS IN mm
TOLERANCE ON DIMS
UNLESS OTHERWISE
STATED IS: 2102-69
ALL THREADS TO
CONFORM TO

MATERIAL:-
* * SEE ABOVEUSED ON
CB 3342-186CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
AVADI

TITLE

MESH

D S CAT NUMBER

DRAWING NUMBER
3342-193

ISSUE DATE NATURE OF AMENDMENTS

KVD NO 78604

DRAWING NUMBER

3342-194

EXPLANATORY NOTE :

1. MATERIAL QUOTED : ROUND BAR 6-5 GOST 7417-75
20 GOST 1051-73

SIZED COLD DRAWN STEEL ROUND BAR.

6 = EXTERNAL DIA IN mm.

20 = SIZED STEEL GRADE AS PER GOST 1051-73.

S = CLASS OF ACCURACY (-0.160)

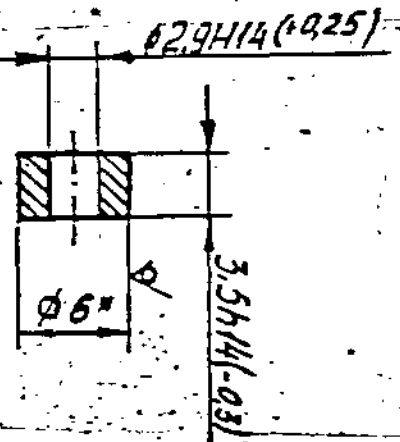
2) CHEMICAL COMPOSITION : AS PER GOST 1050-74.

GRADE OF STEEL	C O N T E N T O F E L E M E N T S %							
	C	Si	Mn	Cr	P	S	Cu	Ni
20	0.17-0.24	0.17-0.37	0.35-0.65	M A X I M U M				
				0.25	0.035	0.040	0.25	0.25

3) MECHANICAL PROPERTIES :

GRADE OF STEEL	TENSILE STRENGTH in Kg/mm ² (min)	YIELD POINT Kg/mm ² (min)	ELONGATION % (min)	REDUCTION IN AREA % (min)
20	42	25	25	55

* DIMENSION FOR REFERENCE.



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

EST. WT.
0.0032 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

CHD

TCD

APPD

DATE

SCALE:- 2.5 : 1

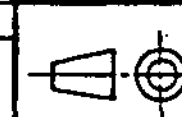
DIMENSIONS IN mm
TOLERANCE ON DIMS
UNLESS OTHERWISE
STATED IS: 2102-69

ALL THREADS TO
CONFORM TO

MATERIAL:- 6-5 GOST 7417-75
ROUND BAR 20 GOST 1051-73

USED ON
CS 3342-186

CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
AVADI



TITLE

SPACER

D S CAT NUMBER

DRAWING NUMBER

3342-194

ISSUE DATE

NATURE OF AMENDMENTS

A10

SIZE A3

KVD NO 78605

DRAWING NUMBER

3342 197

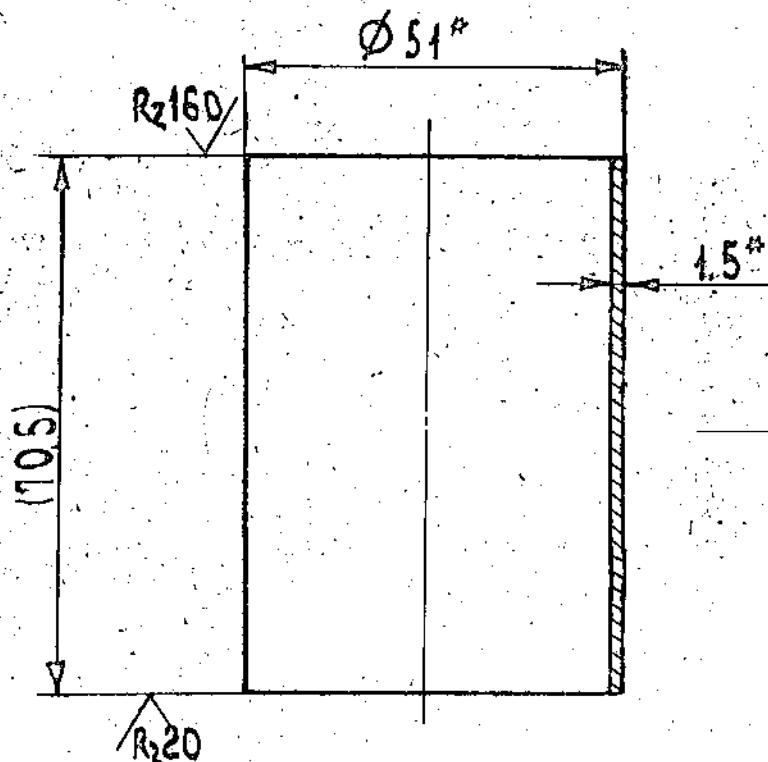
✓ (✓)

D

C

B

A



1. DIMENSION IN BRACKETS SHOULD BE MAINTAINED AFTER ASSEMBLY.
2. * DIMENSIONS FOR REFERENCE.

A-10

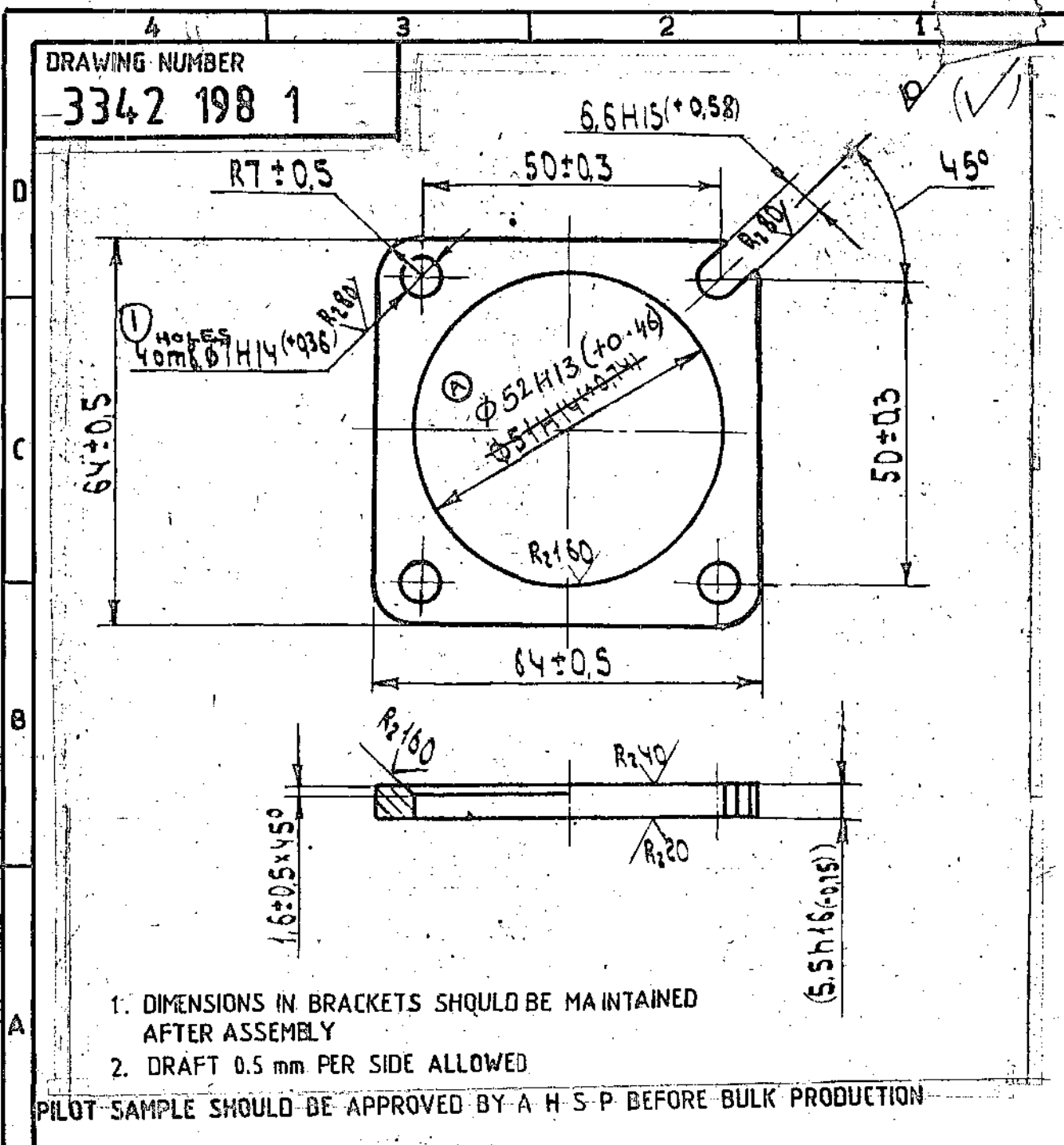
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

		EST WT 0.128 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # I LETTERS I	
		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 PIPE 51 x 1.5 - 10 TY 14 - 3 - 262 - 74	USED ON CB 3342 184 1 CB	
ISSUE DATE	NATURE OF AMENDMENTS			
DRN <i>[Signature]</i>	SCALE: 1 : 1		CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
CHD <i>[Signature]</i>	DIMENSIONS IN mm			
TCU <i>[Signature]</i>	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED		TITLE PIPE PLATE	
APPD <i>[Signature]</i>	ALL THREADS CONFORM TO		D S CAT NUMBER	DRAWING NUMBER 3342 197
DATE 26-6-86				

SIZE A4

DRAWING NUMBER

3342 198 1



EST WT

0.086 kg

TO BE STAMPED OR MARKED WHERE
INDICATED THUS $\neq$
(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

STEEL 10 GOST 1050-74

USED ON

CG 3342 104 1 CG

A 29/87

ISSUE DATE

AUTHY BK 82 -67

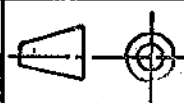
NATURE OF AMENDMENTS

SCALE 1:1

DIMENSIONS IN mm

TOLERANCE ON DIMNS
UNLESS OTHERWISE
STATED

ALL THREADS CONFORM TO

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
AVADI

TITLE

FLANGE

D S CAT NUMBER

DRAWING NUMBER

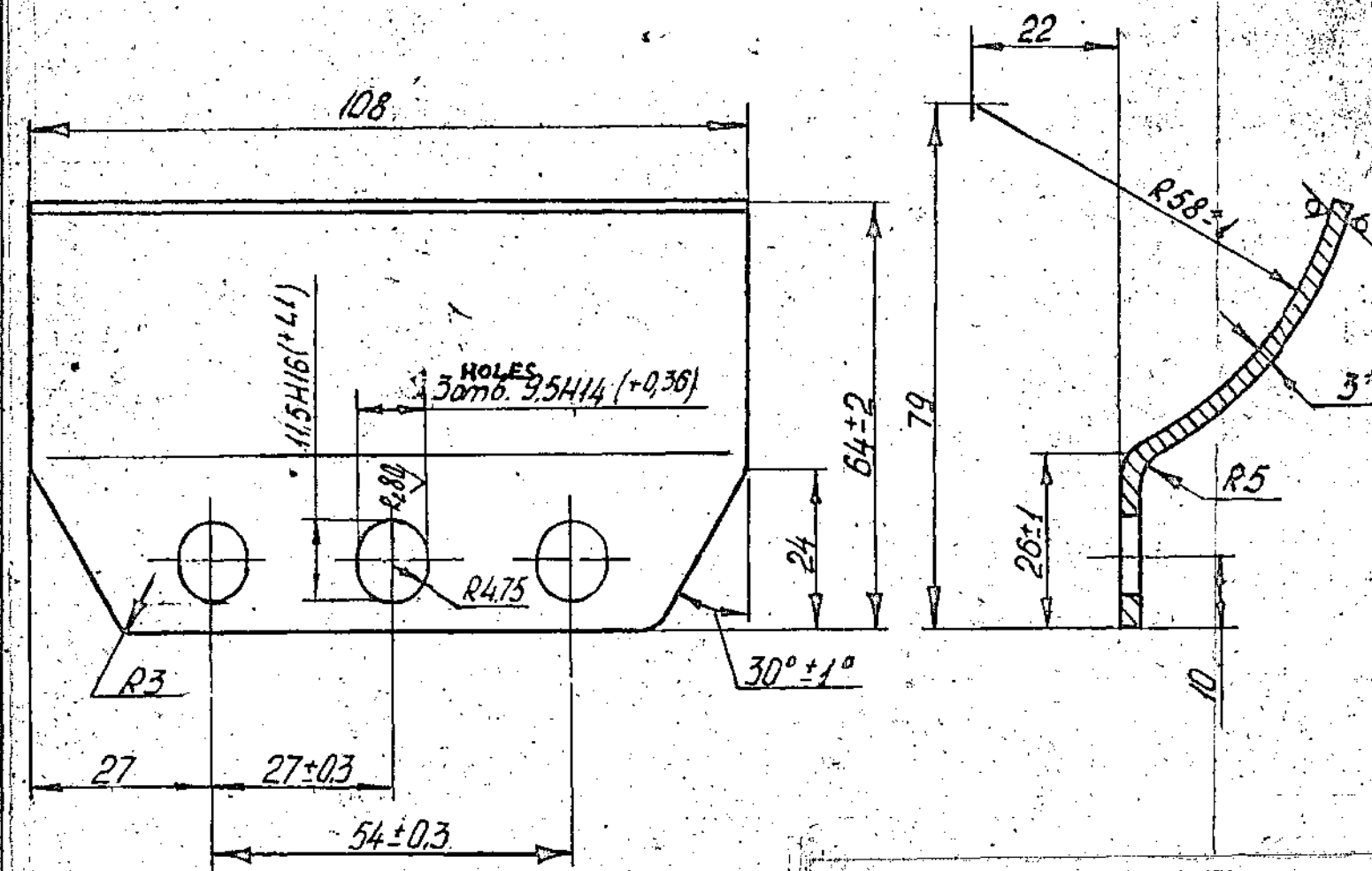
3342 198 1

SIZE A4

DRAWING NUMBER

3342-199

Rz320



1. Размеры без отклонений выполнять с точностью $\pm 0.5\text{mm}$.

2. Допускается штамповочный скос 0.3mm на сторону.

3.* Размер для справок.

1. DIMENSIONS WITH UNSPECIFIED TOLERANCES SHOULD BE OBTAINED WITH ACCURACY OF $\pm 0.5\text{mm}$.

2. DRAFT 0.3mm PER SIDE IS ALLOWED.

3. *DIMENSION FOR REFERENCE.

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

EST. MASS

0.186 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.

DRN

END

TCD

APPD

DATE

SCALE:-

DIMENSIONS IN MM.

TOLERANCE ON DIMNS

UNLESS OTHERWISE

STATED.

ALL THREADS

CONFORM TO

MATERIAL

SHEET

3 GOST 19903-74

5-III- 10GOST 16523-70

USED ON:-

CB 3342-104-1 CB

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
AVADI

TITLE:-

BRACKET

D S CAT NUMBER

DRAWING NUMBER

3342-199

A-10

SIZE A3

0

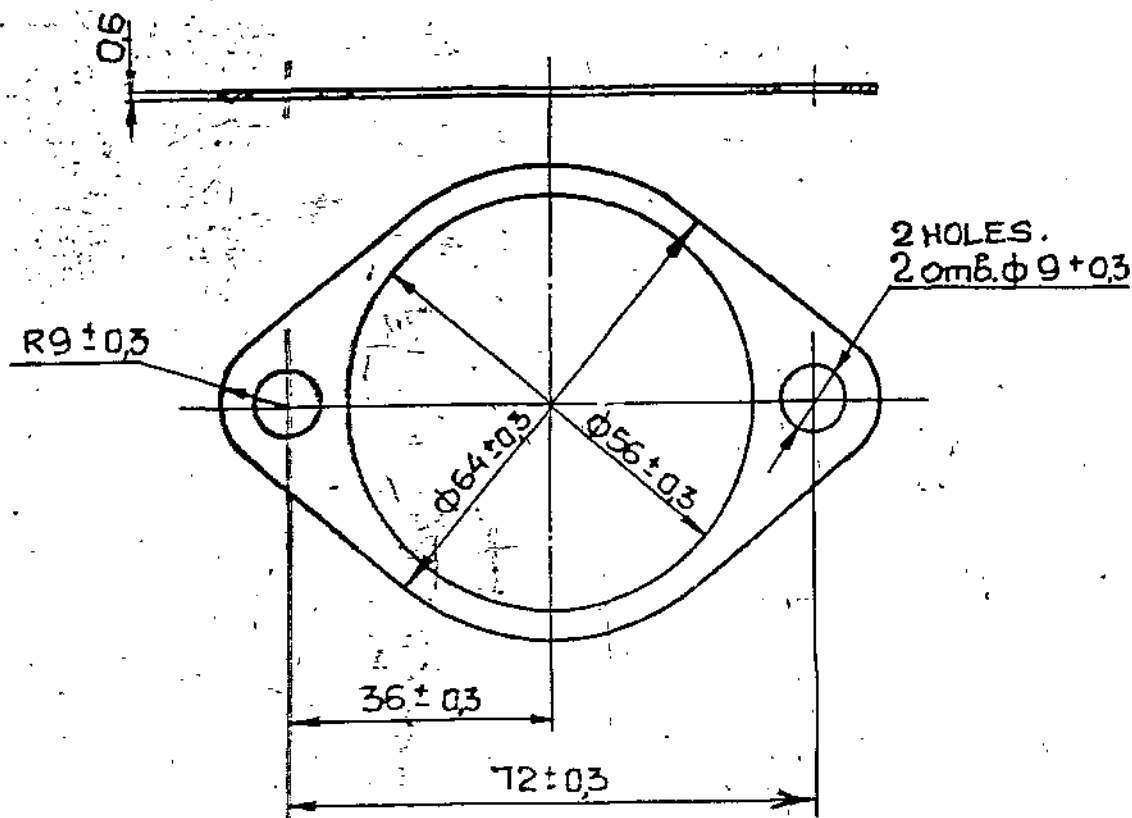
7

6

ISSUE

DATE

NATURE OF AMENDMENTS



Допускается изготовление из паронита

ПМБ ГОСТ 481-80

Заменитель материала паронит ПМБ ГОСТ 481-80

1. Alternate material: Rubberized asbestos
Fabric ПМБ ГОСТ 481-80. [* * RUBBERIZED ASBESTOS

2. IN TROPICAL DESIGN, TO BE MANUFACTURED FABRIC ГОСТ 481-80

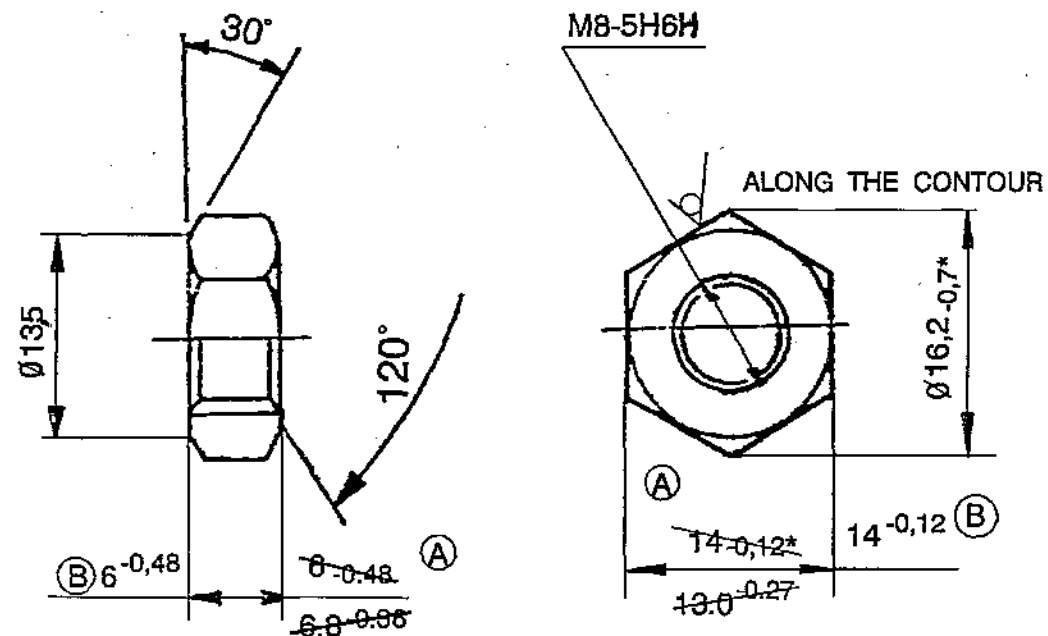
(A) FROM RUBBERIZED ASBESTOS FABRIC ГОСТ, ПМБ, ГОСТ 481-80 AND LETTER
'T' IS TO BE MARKED WITH YELLOW PAINT.

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

EST. MASS		TO BE STAMPED OR MARKED WHERE	
0.0009 Kg		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	26.10.89	Authy. No. BK 86-195.	
ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL: ** SEE ABOVE
DRN		SCALE: 1 : 1	USED ON: СБ 3301-00-37
CHD		DIMENSIONS IN mm	СБ 3342-00-8
TCD		TOLERANCE ON DIMS UNLESS OTHERWISE STATED	CONTROLLER OF QUALITY ASSURANCE (HEAVY VEHICLES)
APPD			AVADI
DATE 7-4-88		ALL THREADS TO CONFORM TO	TITLE: ~ GASKET
		D S CAT NUMBER	DRAWING NUMBER
			301-97-1

DRAWING NUMBER

351 - 02



1. 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 DIMENSIONS AS PER ACCURACY CLASS 5.

~~2. ALTERNATE MATERIAL :- STEEL GRADES 40 AND 50 GOST 1050-74~~

3. THE REST OF THE TECHNICAL REQUIREMENTS AS PER STANDARD 82052 - 00.
5. COATING :- Cd3, CHROMATIZING AS PER UUL-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
6. *DIMENSIONS FOR REFERENCE.

Ⓓ Material: STEEL 709M40 (EN-19) TO BS-970 Pt-I-1983

EXPLANATORY NOTE :

7. MATERIAL QUOTED :- HEXAGON BAR 14-4 GOST 8560-78
45-5 GOST 1051-73

Ⓓ BRIGHT STEEL OF HEXAGONAL CROSS SECTION 14mm ACROSS FLAT, ACCURACY CLASS - 4 TO GOST 8560-78. AND MANUFACTURED FROM COLD DRAWN SIZED STEEL OF GROUP B SURFACE QUALITY TO GOST 1051-73.
ALTERNATE MATERIAL QUOTED :- STEEL GRADE 40 & 50 TO GOST 1050-74.

CHEMICAL COMPOSITION :

STEEL GRADE	C O N T E N T O F E L E M E N T S %							
	C	Si	Mn	Cr(max)	S	P	Ni	Cu
40	0.37-0.45	0.17-0.37	0.50-0.80	0.25	0.040	0.035	0.10	0.15
45	0.42-0.50	0.17-0.37	0.50-0.80	0.25	0.040	0.035	0.10	0.15
50	0.47-0.55	0.17-0.37	0.50-0.80	0.25	0.040	0.035	0.10	0.15

MECHANICAL PROPERTIES :

STEEL GRADE	YIELD POINT Kgf/mm ² (min)	ULTIMATE TENSILE STRENGTH Kgf/mm ² (min)	PERCENTAGE ELONGATION (min)	REDUCTION OF AREA % (min)	IMPACT STRENGTH KJ/m ² (min)
40	34	58	19	45	6
45	36	61	16	40	5
50	38	64	14	40	4

Eb 20-01-00-8, Cb 20-06-12-6, Cb 20-06-13-6, Cb 20-09-07,
Cb 20-19-00-1, Cb 20-11-00-6, Cb 20-12-00-13, Cb 20-13-01-8,
Cb 20-20-00-10, Cb 20-22-00-7, Cb 20-08-00-7, Cb 3301-00-37,
Cb 306-01-20, Cb 306-02-20, Cb 306-03-3, Cb 306-04-2, Cb 321-04-4, Cb 447-01-1,
Cb 421-04-3, Cb 421-18-1, Cb 3301-00-44, Cb 3301-15-44, Cb 306-01-36,
Cb 306-02-36, Cb 3308-15-2, Cb 3312-90-14, Cb 419-00-20, Cb 3320-00-43,
Cb 315-663-33, Cb 3334-02-10, Cb 3336-00-11, Cb 337-100, Cb 3342-00-21.

USED ON:-

Ⓒ Cb 406-12-44
Cb 406-13-44
Cb 20-27-00-4
Cb 20-15-663-4
Cb 3342-00-8cb
Cb 334-73-1
Cb 3334-02-3
Cb 327-145-10
Cb 327-145-15
Cb 315-663-21

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

EST. WT.
0.0055 Kg

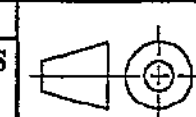
TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

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

		DRN	Sd/=
		CHD	Sd/=
		TCD	Sd/=
		APPD	Sd/=
		DATE	08-05-86
		SCALE:-	2 : 1
		DIMENSIONS IN mm	
D	18.5.09	Auth: Third Alt. Comm. Minutes Point: 5	
		Dated 27-02-2009.	
C	25.8.08	USED ON NUMBER ADDED	
B	24-12-07	ALT. COMMITTEE MEETING MINUTES.	
		POINT No. 2.18 Dt. 18-12-2007.	
A	15-03-04	AUTHY. Lt. No.110094/IND-III /577,	
		Dt. 19-02-04.	
ISSUE	DATE	NATURE OF AMENDMENTS	

MATERIAL :-
Ⓒ 14-4 GOST 8560-78
45-5 GOST 1051-73

CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
AVADI



TITLE:-

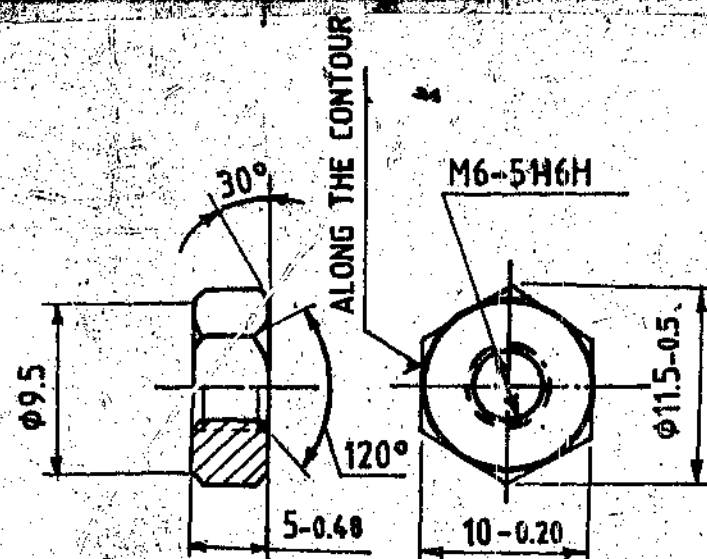
NUT M8

D S CAT NUMBER

DRAWING NUMBER

351 - 02

DRAWING NUMBER
351-06



M 1:1

EXPLANATORY NOTE

6. REFERENCE MATERIAL QUOTED:

BRIGHT STEEL HEXAGON BAR 10 mm A/F CLASS OF ACCURACY 4 (± 0.000)
TO GOST 8560-78, FROM HIGH GRADE SIZED STEEL 45, SURFACE QUALITY B
TO GOST 1051-73 AND MANUFACTURED IN ACCORDANCE WITH QUALITY CARBON
STRUCTURAL STEEL GRADE 45 AND REFERENCE NOTE 4, ON ALTERNATE
MATERIALS STEEL GRADES 40 AND 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	
				M A X I M U M			
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 BHN MAX	RE-MARKS
45	61	36	16	40	5	289	Ref Matl
40	58	34	19	45	6	217	Alt Matl
50	64	38	14	40	4	241	Alt Matl

① Cb 20-27-00-4	Cb 3338-00-16	Cb 3338-401-10
	Cb 447-00-1	Cb 3338-404-7
		Cb 3335-00-30

1. }
2. } DELETED

THE THREAD MAY BE CHECKED BEFORE COATING.

DELETED

COATING: Cd9, CHROMATIZING, AS PER 4429-104 WITH
ELIMINATION OF HYDROGEN EMBRITTLEMENT.

THE REST OF THE TECHNICAL REQUIREMENTS AS PER STANDARD
82052-00.

ALTERNATE MATERIAL: STEEL GRADES 40 AND 50 GOST 1050-74.
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.

© ~~XXXXXXXXXX~~ MATERIAL: STEEL 709 M40 (EN 19)
TO BS: 970-PT-I-1983

Cb 20-05-47-4, Cb 20-01-00-8, Cb 20-06-12-6, Cb 20-06-13-6, Cb 20-09-07, Cb 20-11-01-9, Cb 20-12-01-13
Cb 20-22-00-7, Cb 20-23-33-6, Cb 20-23-34-6, Cb 20-32-00-4, Cb 20-08-00-7

Cb 3301-00-37, Cb 406-12-44, Cb 406-13-44, Cb 3308-00-17, Cb 3320-00-33, Cb 407-7, Cb 401-10

Cb 3301-00-44, Cb 406-12-75, Cb 408-13-75, Cb 3308-00-23
Cb 3308-15-2, Cb 310-00-14, Cb 3320-00-43, Cb 315-606-12
Cb 327-00-73, Cb 315-777-2, Cb 3334-00-47, Cb 3335-00-9,
Cb 337-100

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

EST WT	TO BE STAMPED OR MARKED WHERE
0.0025 Kg	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: 2 : 1

DIMENSIONS IN mm

TOLERANCE ON DIMNS
UNLESS OTHERWISE
STATED IS: 2102-69

ALL THREADS TO
CONFORM TO

MATERIAL: ~~HEXAGON BAR~~
~~10-4 GOST 8560-78~~
 (C) ~~45-B GOST 1051-73~~

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
AVADI

TITLE:

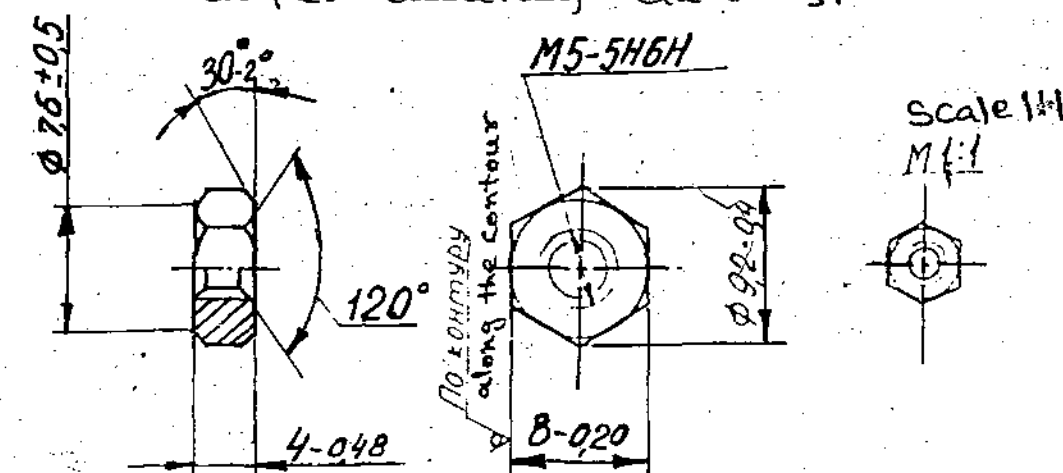
NUT M6

Q S CAT NUMBER

DRAWING NUMBER

1351.06

Roller 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 roller stock with decrease of dimension as per accuracy class - 5.



- The component may be manufactured from Steel GOST 1050-74.
- Chamfer 120° should be made up to the major diameter of thread.
- Shift of hole axis up to 0.25 mm. is permitted.
- The thread may be checked before coating.
- Coating: - Cd 9, Chromating as per 241-104 with elimination of Hydrogen embrittlement.
- The rest of the technical requirements as per standard 82052-00.
- ~~Alternate material: Steel, grades 40 and 50 GOST 1050-74.~~

EXPLANATORY NOTE

9. i) REFERENCE MATERIAL QUOTED:

GAUGED HEXAGONAL STEEL BAR CLASS OF ACCURACY 4, 0.01-0.100 mm A/F TO GOST 8560-78 FROM HIGH GRADE SIZED STEEL SURFACE QUALITY 'B' TO GOST 1051-73 AND MANUFACTURED IN ACCORDANCE WITH QUALITY CARBON STRUCTURAL STEEL GRADE 45 TO GOST 1050-74.

ii) REFERENCE NOTE ON ALTERNATE MATERIAL: QUALITY CARBON STRUCTURAL STEEL GRADES 40 AND 50 TO GOST 1050-74

a) CHEMICAL COMPOSITION: AS PER 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: AS PER GOST 1050-74

GRADE OF STEEL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	YIELD POINT Kgf/mm ²	ELONGATION %	REDUCTION IN AREA %	IMPACT STRENGTH Kgf/cm ²	HARDNESS B H N MAX	REMARKS
45	61	36	16	40	5	229	REF MATL
40	58	34	19	45	6	217	ALT MATL
50	64	38	14	40	4	241	ALT MATL

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

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

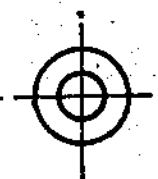
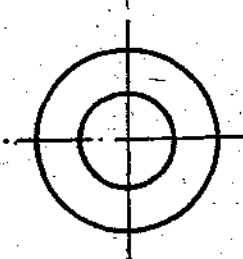
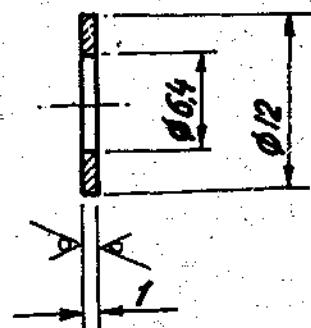
EST. MASS 0.0012 Kg TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)

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

DRN	CHD	TCD	APPD	DATE	SCALE - 2 : 1	MATERIAL: HEXAGON BAR 45 GOST 8560-78 45 GOST 1051-73	USED ON: C5-20-35-00-5 C5 3335 00 24
DIMENSIONS IN mm. TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.						CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
TITLE: NUT M5						D S CAT NUMBER	
ALL THREADS CONFORM TO						DRAWING NUMBER 351 13	
ISSUE	DATE	NATURE OF AMENDMENTS					

DRAWING NUMBER

353-04-1



M 1 : 1

1. DIMENSIONS WITH UNSPECIFIED TOLERANCES - AS PER STANDARD 82050-16.
2. THE COMPONENT SHOULD BE STRAIGHTENED AFTER STAMPING.
3. BURRS ARE NOT ALLOWED.
4. COATING: CADMIUM 9, CHROMATIZING AS PER 431-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
5. ALTERNATE MATERIAL: STEEL GRADES 15, 08nc GOST 1050-74.
6. REQUIRED FINISHING OF SURFACES BEING STAMPED SHOULD BE ENSURED BY TOOL.

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

EXPLANATORY NOTE

Rz80/✓(✓)

7. REFERENCE MATERIAL QUOTED:

COLD ROLLED LOW CARBON STEEL STRIP HIGHLY COLD WORKED 'BH' CONDITION. SURFACE QUALITY '2' 1mm THICK TO GOST 503-81 AND MANUFACTURED IN ACCORDANCE WITH QUALITY CARBON STRUCTURAL STEEL GRADE 10 AND REFERENCE NOTE 5. ON ALTERNATE MATERIAL STEEL GRADES 15 AND 08nc TO GOST 1050-74.

a) CHEMICAL COMPOSITION:

GRADE OF STEEL	CONTENT OF ELEMENTS %						REMARKS
	C	Si	Mn	Cr	S	P	
	MAXIMUM						
10	0.07-0.14	0.17-0.37	0.35-0.65	0.15	0.040	0.035	Ref; Matl
15	0.12-0.19	0.17-0.37	0.35-0.65	0.25	0.040	0.035	Alt; Matl
08nc	0.05-0.11	0.05-0.17	0.35-0.65	0.10	0.040	0.035	Alt; Matl

RESIDUAL CONTENT OF COPPER AND NICKEL SHOULD NOT EXCEED 0.25% EACH. MANGANESE CONTENT UPTO 0.25% AS REGARDS LOWER LIMIT IS ALLOWED IN THE STEEL OF GRADE 08nc MEANT FOR PRODUCTION OF SHEET STEEL FOR COLD STAMPING.

b) MECHANICAL PROPERTIES AS PER GOST 503-81

GRADE OF STEEL	CONDITION OF MATERIAL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	ELONGATION
10	BH	55 MIN	—

c) MECHANICAL PROPERTIES AS PER GOST 16523-70 FOR ALTERNATE MATERIAL QUOTED.

GRADE OF STEEL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	ELONGATION %
15	34 - 47	24
08nc	28 - 40	25

cb 20-01-00-8
cb 20-11-05-2
cb 20-06-00-4
cb Y 36-11-07-01
cb 3338-00-16
cb 3338-401-10
cb 3338-404-7

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

EST WT
0.00063 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

DRN

CHD

TCD

APPD

DATE

SCALE: 2 : 1

DIMENSIONS IN mm

TOLERANCE ON DIMNS

UNLESS OTHERWISE

STATED IS : 2102-69

ALL THREADS TO

CONFORM TO

MATERIAL:

STRIP 10 - BH - 2 - 1

GOST 503-71

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)

AVADI

TITLE:

D S CAT NUMBER

DRAWING NUMBER

353 04 1

WASHER BRIGHT 6

353 04 1

353 04 1

SIZE A3

8

7

6

A

19-5-10

DATE

NATURE OF AMENDMENTS

4th Alt. Comm. Mt. Minutes Pt. No. 2 Dt. 26.10.09



DRAWING NUMBER

353-21

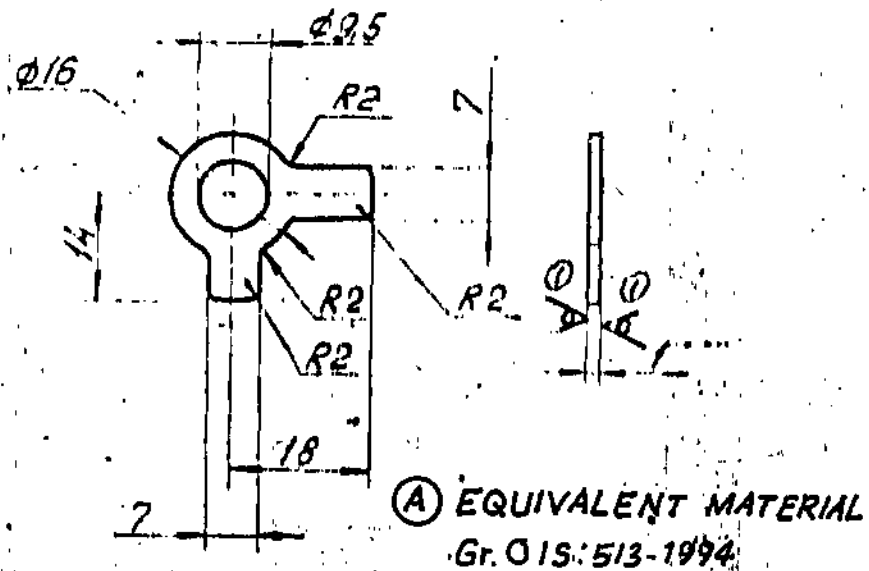
R280/ (V)

F

E

D

C



① EQUIVALENT MATERIAL
Gr. OIS: 513-1994

2. Requirements for stamping as per Standard 32050-16
3. The component should be straightened after stamping.
4. Burrs are not allowed.
6. Coating :- Cd 9, Chromating as per 11251-104 with elimination of Hydrogen embrittlement.
7. Required finishing of surfaces being stamped should be ensured by tool.

A-11
69

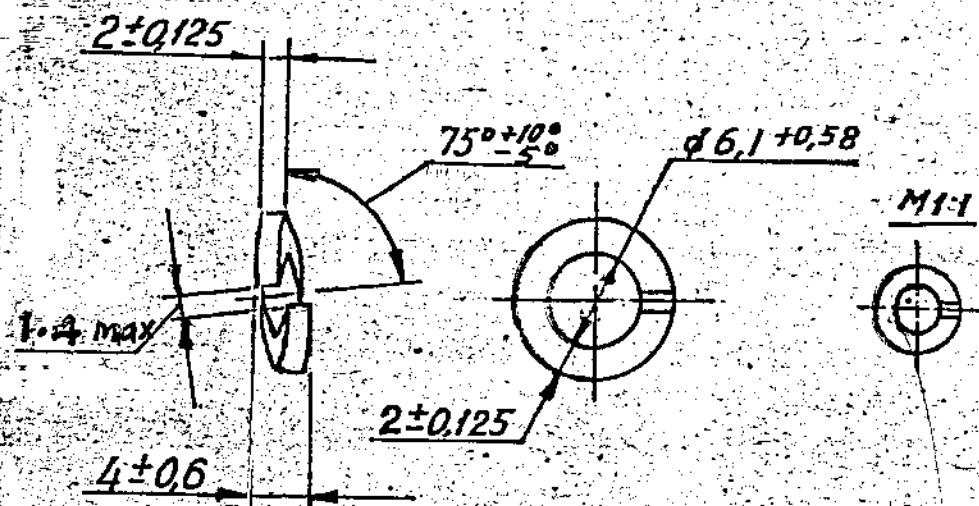
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

		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 QOST 505-71	USED ON CB 306-01-20, CB 20-06-01-5 CB 306-02-20 CB 20-06-02-5
ISSUE	DATE	NATURE OF AMENDMENTS		
DRN	18	SCALE:- 1:1 DIMENSIONS IN mm		
CHD	18	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102 -69		
TCD	18	ALL THREADS CONFORM TO		
APPO	15-2-89	U S CAT NUMBER		DRAWING NUMBER 353-21

SIZE A4



353 23



1. COATING: CADMIUM CHROMATIZING AS PER 4.3.104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
2. WASHER 6T.65G 09 GOST 6402-70 MAY BE USED.

(B) EQUIVALENT MATERIAL
75 C6 TO IS:2507/EN42 J BS:970

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

EST. WT 0.001 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

(A)

Cb 327-00-73 Cb 3301-00-44, Eb 406-12-75 Cb 406-12-44, Cb 406-13-44
Cb 3334-00-47 Cb 406-13-75, Cb 3308-15-2 Cb 3300-00-27 CX, Cb 3301-00-37
Cb 3335-00-9 Cb 310-00-14, Cb 411-00-56 Cb 3308-00-17, Cb 3320-00-33
Cb 337-100 Cb 3320-00-43, Cb 315-606-12 Cb 3335-00-24

USED ON *

Cb 3338-00-16

Cb 3338-401-10

Cb 3338-406-7

Cb 3342-00-805

Cb 3342-188-7 Cb 3315-606

Cb 3327-00-45 Cb 411-00-41

Cb 407-00-1 Cb 402-93-1

MATERIAL
65G 06
GOST 6402-70

DATE 25-3-86 CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
SCALE: 2:1 AVADI

DIMENSIONS IN mm
TOLERANCE ON DIMS
UNLESS OTHERWISE
STATED IS: ±102-69



TITLE

WASHER 6T

ALL THREADS TO
CONFORM TO

D S CAT NUMBER

DRAWING NUMBER

353 23

EXPLANATORY NOTE

3. REFERENCE MATERIAL QUOTED

SPRING WASHER, NOMINAL THREAD DIA 6mm, HEAVY WASHER 'T' PARKERISED AND OILED '0,6' AND REFERENCE NOTE 'Z' ON ALTERNATE MATERIAL ZINC PLATED '09' TO GOST 6402-70 AND MANUFACTURED IN ACCORDANCE WITH CARBON STRUCTURAL HOT ROLLED STEEL GRADE 65 G TO GOST 1050-74.

a) CHEMICAL COMPOSITION:

GRADE OF STEEL	CONTENT OF ELEMENTS %					
	C	SI	Mn	G	S	P
65G	0.62 - 0.70	0.17 - 0.37	0.90 - 1.20	0.25	0.040	0.35

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

b) MECHANICAL PROPERTIES UNDER NORMALISED CONDITION: AS PER GRADE 65G, 1050-74.

GRADE OF STEEL	ULTIMATE TENSILE STRENGTH Kgf/mm ²	YIELD POINT Kgf/mm ²	ELONGATION %	HARDNESS		
				B	H	N
65G	75	44	9			

COMMON TO V-92S2 & UTD-20 ENGINES

KVD NO 63632

(A1)

SIZE A3

B 16-08-10 4th Alt. Comm. Meeting Minutes

Point No.12 Dt:26-10-09

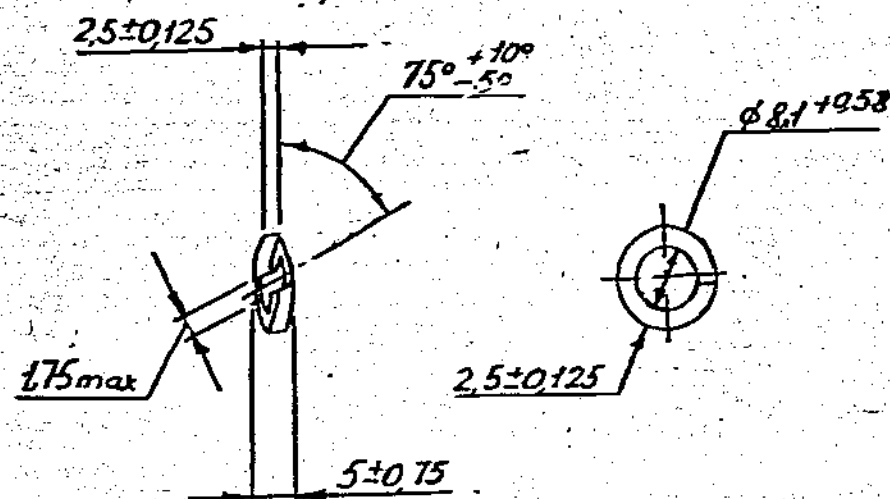
A 28.8.08 USED ON NUMBER ADDED

ISSUE DATE NATURE OF AMENDMENTS



DRAWING NUMBER

353-24



2. COATING ; CADMIUM 9, CHROMATIZING, AS PER UTS A-104
WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
3. WASHER 8T 65Г 09 GOST 6402-70 MAY BE USED.

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

EXPLANATORY NOTE:

MATERIAL QUOTED: WASHER 8T, 65Г, 06 GOST 6402-70.
ALT. MAT. QUOTED: WASHER 8T, 65Г, 09 GOST 6402-70.
CORRESPONDS DESIGN AND DIMENSIONS OF SPRING (LOCK) WASHERS.
06 = CONVENTIONAL SYMBOL OF FINISH. (PARKERISING FOLLOWED BY OILING).
09 = ZINC PLATING
T = HEAVY ; 65Г = GRADE OF STEEL AS PER GOST 1050-74. (656)

CHEMICAL COMPOSITION: AS PER GOST 1050-74.

CONTENT OF ELEMENTS %							
C	Si	Mn	Cr	S	P	Cu	Ni
MAXIMUM							
0.62-0.70	0.17-0.37	0.90-1.20	0.25	0.040	0.035	0.25	0.25

WEIGHT OF STEEL WASHERS AND THEIR RESILIENCE PROPERTIES
AS PER GOST 6402-70.

THEORETICAL WEIGHT OF 1000 STEEL WASHERS IN kg = 1.638

ESTIMATED RESILIENCE OF WASHERS FROM STEEL GRADE 65G = 66.4 IN kg

MECHANICAL PROPERTIES: AS PER GRADE 65G GOST 1050-74.

YIELD POINT kgf/mm² (MIN) = 44ULTIMATE TENSILE STRENGTH (MIN) = 75 kgf/mm²

ELONGATION % (MIN) = 9

(B) EQUIVALENT MATERIAL
75 C6 TO IS:2507/EN42 J BS:970

EST WT
T-630 Kg
1000 PIECES

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

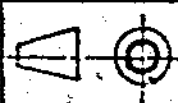
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS
OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-
SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

MATERIAL 65Г06
GOST 6402-70

USED ON Cb 334-2-00-8

Cb 334-73-1, Cb 3334-02-3
Cb 3338-401-10

CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
AVADI



TITLE

WASHER 8 T

D S CAT NUMBER

DRAWING NUMBER

353-24

Cb 303-00-16, Cb 406-12-44
Cb 406-13-44, Cb 3301-00-37
Cb 3301-15-30, Cb 3308-00-17
Cb 3312-90-9, Cb 3320-00-33
Cb 3321-00-16
Cb 3301-00-44, Cb 3301-15-44
Cb 406-12-75, Cb 406-13-75
Cb 3308-15-2, Cb 3312-00-22
Cb 3320-00-43, Cb 3321-00-26
Cb 3334-00-47, Cb 3334-02-10
Cb 3336-00-11, Cb 3342-00-21

Cb 345-00-4
Cb 447-00-1

VARIOUS ASSEMBLIES
OF UTD-20

Cb 20-01-00-8, Cb 20-01-08-7
Cb 20-06-12-6, Cb 20-06-13-6
Cb 20-13-01-8, Cb 20-19-00-1
Cb 20-20-00-10, Cb 20-22-00-7
Cb 20-63-00-5

(A)

COMMON TO V-92S2 & UTD-20 ENGINES

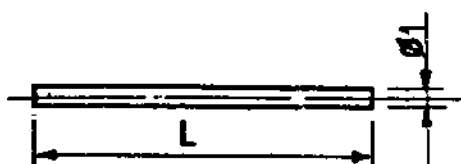
A-8

B	16.8.10	4 th Alt. Comm. Meeting Minutes Point No:12 Dt: 26-10-09
A	28-8-08	USED ON NUMBER ADDED
ISSUE	DATE	NATURE OF AMENDMENTS
DRN	SCALE: 1:1	
CHKD	DIMENSIONS IN mm	
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	
APPD	ALL THREADS CONFORM TO	
DATE		



DRAWING NUMBER

354-22



KVD NO	L mm	LTG DEVIATIONS mm	USED ON
78705	60	±1.5	CB 3338-401-10 CB 530-200
78706	80	±2	CB 3334-00-39 CB 327-00-45
78707	100	±2	CB 3338-00-16 CB 327-00-45 CB 3335-00-24 CB 3342-00-86 CB 20-22-00-7
78708 (5) (C)	120	±2	CB 419-00-4, CB 310-00-7 CB 322-00-406
78709	160	±2	CB 327-00-45 CB 3335-00-24 CB 3334-00-27
78710	200	±2	CB 327-00-45 CB 3334-00-27
78711 (A)	260	±3	CB 3334-00-27, CB 20-29-00-8
78712	300	±3	CB 3338-407-4, CB 3329-00-13
78713	350	±3	
78714	420	±3	CB 411-00-41
	500	±3	CB 327 00 45
	600	±3.5	
	800	±5	

ADDITIONAL REQUIREMENTS

FOR MANUFACTURE OF LOCK WIRE AS PER DRAWING 354-22

1. THE WIRE SHOULD BE PROVIDED WITH ZINC COATING. DIAMETER OF WIRE AFTER COATING SHOULD BE 1.1 ± 0.05 mm.
2. QUALITY OF WIRE SHOULD NOT EXCEED HALF OF THE TOLERANCE ON DIAMETER.
3. THE WIRE SHOULD BE MANUFACTURED FROM LOW CARBON ROLLED STEEL AS PER GOST 1050-74.
4. ULTIMATE RUPTURE STRENGTH OF ZINC PLATED WIRE SHOULD NOT BE LESS THAN MPa (37 Kg/mm²).
5. THE WIRE SHOULD WITHSTAND NOT LESS THAN 7 BENDINGS THROUGH 180° AND NOT LESS THAN 35 TWISTINGS THROUGH 360°.
6. THE SURFACE OF WIRE SHOULD NOT HAVE BLOW HOLES, CRACKS, MARKS, BLACK FILMS, OXIDE SPOTS, BURS AND RUST. THERE SHOULD NOT BE ANY UNCOATED AREAS ON THE WIRE.
7. ON WIRE FRACTURE, THERE SHOULD NOT BE ANY CRACKS, BADGINS, FISSURES, BUSTERS, AND SHRINKAGE CAVITIES.
8. WIRE ZINC COATING SHOULD BE BOUND TO THE STEEL WHEN WOUND ON CYLINDER WITH DIAMETER EQUAL TO WIRE FIVE FOLD DIAMETER. THE WIRE SHOULD NOT HAVE ANY PEELINGS AND FISSURES OF ZINC COATING.

EXPLANATORY NOTE:-

REFERENCE MATERIAL QUOTED:- LOW CARBON STEEL
To GOST 1050-74.

CHEMICAL COMPOSITION %

GRADE	C	Si	Mn	Cr	P	S	Cu	Ni
				MAXIMUM				
15	0.12-0.19	0.17-0.37	0.35-0.65	0.25	0.035	0.040	0.25	0.25

MECHANICAL PROPERTIES

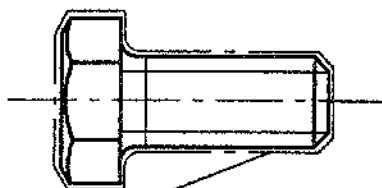
1. ULTIMATE TENSILE STRENGTH Kg/mm² (min) = 38
2. YIELD POINT Kg/mm² (min) = 23
3. PERCENTAGE ELONGATION % (min) = 27
4. REDUCTION IN AREA % (min) = 55
5. HARDNESS BHN (MAX) = 149

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	

DRN	15.1.02	MATERIAL	CB 20-06-00-2
CHD	15.1.02	USED ON	CB 20-35-00-5
TCO	15.1.02		CB 3338-402-4 CB
APPD	15.1.02		SEE TABLE
DATE	18-3-86	CONTROL RATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
SCALE		A V A D I	
DIMENSIONS IN mm		TITLE	LOCK WIRE
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 2107-69		D S CAT NUMBER	
ALL THREADS TO CONFORM TO		DRAWING NUMBER	354-22
ISSUE	DATE	NATURE OF AMENDMENTS	

1-91-955



Покрытие Ц6.хр по ИЛ-749-88

с удалением водородной хрупкости

Coating: zinc coating followed by chrome plating having thickness 6 micron as per ИЛ-749-88 with removal of acid brittleness.

1. В тропическом исполнении покрытие Кд 9. хр по ИЛ-569-84 с удалением водородной хрупкости.

2. Заготовка должна соответствовать требованиям ГОСТ 1759.0-87 для класса точности В.

1. In tropical version of coating cadmium plating followed by chrome plating having thickness 9 micron as per ИЛ-569-84 with removal of acid brittleness.

2. Blank should correspond to the requirements of GOST 1759.0-87 for class of accuracy B.

356-16-1

						356-16-1						
5	-	2000-73				BOLT Болт M6×14				Лист	Масса	Масштаб
Изм.	Лист	№ докум.	Подп.	Дата							Weight	Scale
Trans. & Ckd. by : M/s SWYAZ										Б	0,006	2:1
Authenticated by :										Лист	Листов	1
Approved by :						Blank Заготовка				Sheet		Sheets
Engine Factory, Avadi						Bolt Болт M6-6g×14.88.35				F 5/94		
						GOST ГОСТ 7798-70						

44367

Подп. и дата

Инв. № докл.

Взам. инв. №

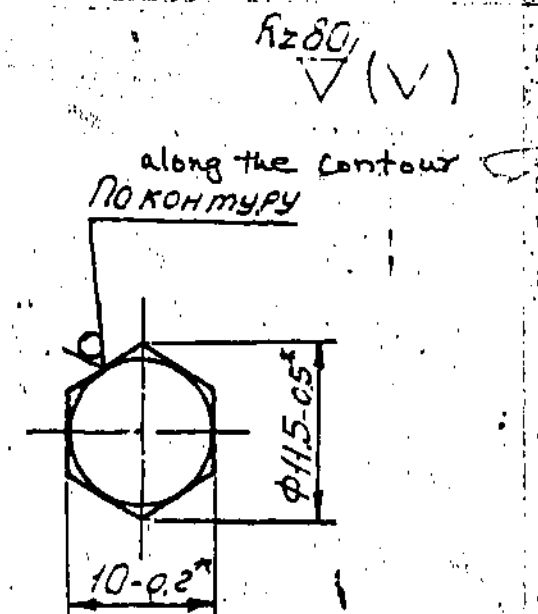
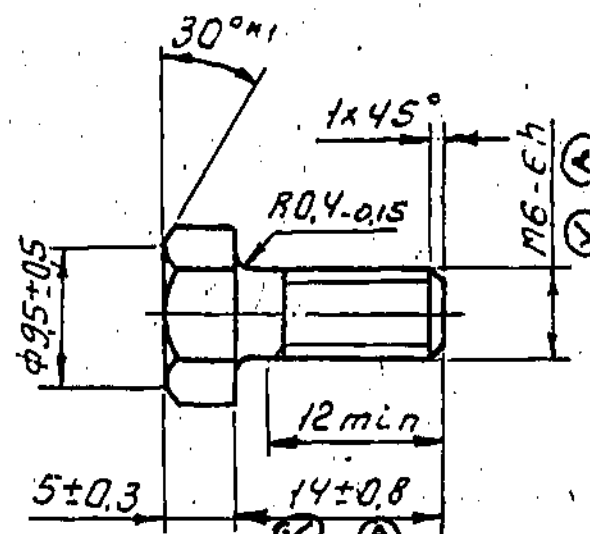
Подп. и дата

Инв. № подл.

DRAWING NUMBER

356 16A

- F 9. REPAIR SIZE DIMENSIONS ARE
 (A) ADDED WHERE INDICATED.
 THUS (✓) BASED ON OVERHAUL
 SPECIFICATION PART III REPAIR
 DRGS. * *



1. 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.
2. Alternate material:- Steel, grades 40 and 50 GOST 1050-74.
3. The rest of the technical requirements - as per standard 82052-00
5. Coating:- Cd 9, Chromatizing as per 4902-104 with elimination of Hydrogen embrittlement.
6. There may be no zinc coating on the thread.
- 7* Dimensions for reference.
- 8* Dimension is to be ensured by tool.

* * (A)

SN	R	R ₁	REMARKS
1	M8-6h	-	ALL OTHER CONDITIONS AS PER STD DRG.
2	-	L=18	

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

USED ON

CB-20-23-33-6

CB-20-23-34-6

CB 3342 00.8 CB

CB 3342 100.3 CB

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

EST. MASS 0.00652 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	12-8-10	4 th Alt. Comm. Meeting Minutes	MATERIAL: HEXAGON BAR	10-4 GOST 8560-78
CHD	1-1-96	Point No. 11 Dt: 26-10-09	45 - 5 GOST 1051-73	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)
TCD				AVADI
APPO				
DATE				
SCALE				
DIMENSIONS IN mm				
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.				
ALL THREADS CONFORM TO				
ISSUE				
DATE				
NATURE OF AMENDMENTS				

TITLE:-

BOLT M6 x 14

D S CAT NUMBER

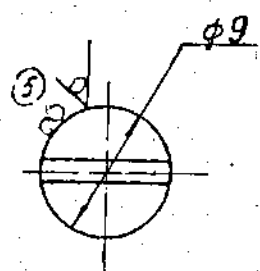
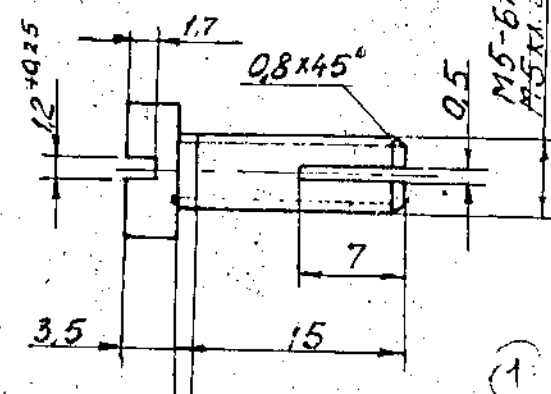
DRAWING NUMBER

356 16A

A-11

SIZE A3

356-22-1

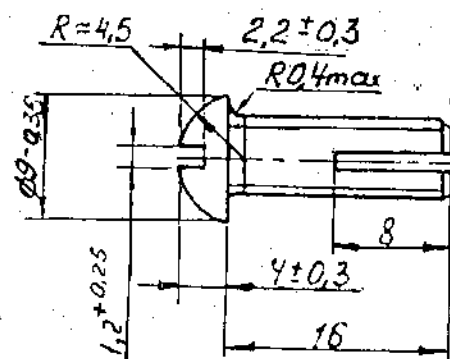


Absence of thread or incomplete thread on a length not exceeding 2 mm. is allowed.

7:1



Sketch A
JCRUS A



EQUIVALENT MATERIAL
STEEL 070M20 (EN 3A) BS: 970

3. Shift of Shank Slot axis relative to the axis of thread should not exceed 0.2 mm.
4. The radius from milling cutter $R \geq 30$ mm. is allowed, to be left after cutting of slot for screw driver.
5. The position of slot for screw driver relative to the Shank Slot is arbitrary.
6. It is allowed to manufacture the head of screw according to sketch "A".
7. Sharp edges should be blunted.
8. The thread may be made, by rolling with the diameter of unthreaded portion within the pitch diameter of thread.
9. The rest of the technical requirements - as per Standard 82052-00.
10. Alternate Material:- Steel, grades 15, 20 and 25 GOST 1050-74.
11. Coating:- Cd 9, chromating as per 482-104 with elimination of Hydrogen embrittlement.
12. Dimensions should be checked before coating.
13. 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.

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

EST. MASS
0.0044Kg

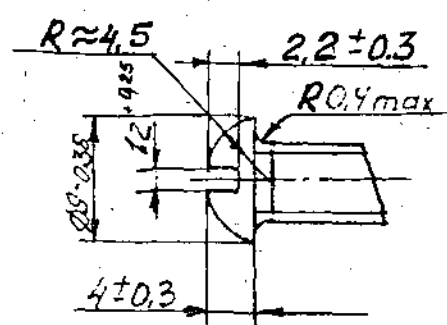
TO BE STAMPED OR MARKED WHERE
INDICATED THUS # LETTERS)

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

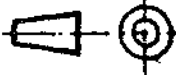
			DRN	<i>de Jongh</i>	MATERIAL	ROUND BAR	
			CHD	<i>De Jongh</i>	9-4 GOST 7417-75		cb 3342-00-8Cb
			TCO	<i>De Jongh</i>	20 GOST 1051-73		
			APPD	<i>De Jongh</i>	CONTROLLERATE OF INSPECTION HEAVY VEHIC		
			DATE	26-6-86	AVADI		
			SCALE	2:1			
			DIMENSIONS IN mm.		TITLE:-		
B	9-7-10	4 1/2 ALT. COMM. Mtg. MINUTES POINT No 5 DT. 26-10-09	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.		 SCREW M5 x 15 (A)		
(A)	PSco	TITLE WAS M5x5. AUTHY. LETTER 81152/CHV/DB IV/A DT. 5-1-1987	ALL THREADS CONFORM TO		D S CAT NUMBER		DRAWING NUMBER 356-22-1
IS SUE	AMDT APPD	NATURE OF AMENDMENTS					

A.11
114

SIZE A3



- | 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
M A X | REMARKS |
|----------------------|--|---------------------------------------|-----------------|---------------------------|---|----------------------------|----------|
| 20 | 42 | 25 | 25 | 55 | - | 163 | Ref,Matl |
| 15 | 38 | 23 | 27 | 55 | - | 149 | Alt,Matl |
| 25 | 46 | 28 | 23 | 50 | 9 | 170 | Alt,Matl |

DRN	18121-8	MATERIAL:- ROUND BAR	USED ON: CB 3352-06-8-01
CHD	David R. Brown	9-4-GOST 7417-75	CB 3352-06-8-01 373-34
TCD	Norman Bulge	20 GOST 1051-73	CB 3352-06-8-01 373-34
APPD	2	CONTROLLERATE OF INSPECTION	CB 3352-06-8-01 373-34
DATE	09/10	AVADI	
SCALE	-2 : 1	TITLE:-	
DIMENSIONS IN	mm.		SCREW M5 x 12
TOLERANCE ON DIMNS	UNLESS OTHERWISE STATED.		
ALL THREADS	CONFORM TO	D S CAT NUMBER	DRAWING NUMBER
ISSUE	DATE		356 22
NATURE OF AMENDMENTS			

As per the item list SB 3342-00-8,
the drawing 356-138 can be used in place of 356-138-1

DRAWING NUMBER 356 138		Rz40 ✓
1. Inspection group <u>IV</u> - TT - 11 2. HRC, 35-39 3. The thread may be made by rolling with the diameter of unthreaded portion within the pitch diameter of thread. 4. The rest of the technical requirements - as per standard 82052-00. 5. Coating: Cu 6 - as per 92421-124 6* Dimensions for reference.		
A-11 PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION		

		EST. WT 0.014 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	
(A)	25/11/87 PSCD AMDT APPD	TITLE WAS M8x25, AUTHY. Dt LETTER 81152/CIHV/DB IV 5/1/87	MATERIAL: HEXAGON BAR 14-5 GOST 8560-78 38xA GOST 1051-73
ISSUE	AMDT	NATURE OF AMENDMENTS	USED ON: CB 3342 00 8 CB
DRN	SCALE: 1 : 1		CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI
CHD	DIMENSIONS IN mm		
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED		TITLE: BOLT M8 x 20 (A)
APPD	ALL THREADS TO CONFORM TO		D S CAT NUMBER
DATE			DRAWING NUMBER 356 138

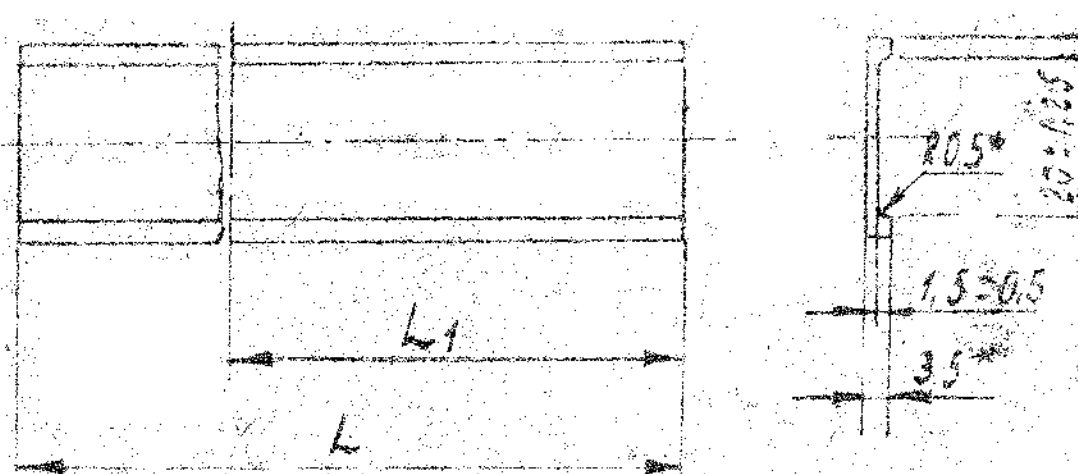
As per the item list SB 3342-00-8 , the drawing 356-138 can be used in place of 356-138-1

As per the item list SB 3342-00-8,
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DRAWING NUMBER 356 138		Rz40 ✓
1. Inspection group <u>IV</u> - TT - 11 2. HRC, 35-39 3. The thread may be made by rolling with the diameter of unthreaded portion within the pitch diameter of thread. 4. The rest of the technical requirements - as per standard 82052-00. 5. Coating: Cu 6 - as per 92421-124 6* Dimensions for reference.		
A-11 PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION		

		EST. WT 0.014 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	
(A)	25/11/87 PSCD AMDT APPD	TITLE WAS M8x25, AUTHY. Dt LETTER 81152/CIHV/DB IV 5/1/87	MATERIAL: HEXAGON BAR 14-5 GOST 8560-78 38xA GOST 1051-73
ISSUE	AMDT	NATURE OF AMENDMENTS	USED ON: CB 3342 00 8 CB
DRN		SCALE: 1 : 1	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI
CHD		DIMENSIONS IN mm	
TCD		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	TITLE: BOLT M8 x 20 (A)
APPD		ALL THREADS TO CONFORM TO	D S CAT NUMBER
DATE			DRAWING NUMBER 356 138

As per the item list SB 3342-00-8 , the drawing 356-138 can be used in place of 356-138-1



EXPLANATORY NOTE:

6. REFERENCE MATERIAL QUOTED :

UNVULCANISED OIL AND PETROL RESISTANT RUBBER CODE OF CLASSIFIED

IS - 1231, RUBBER GRADE NO- 40-1 TO TY 005-216-75.

7. MECHANICAL PARAMETERS :

i) RUPTURE STRENGTH Kg/cm² - - - - - 90 Min.

ii) ELONGATION OF RUPTURE % - - - - - 250 Min.

iii) RESIDUAL ELONGATION AFTER RUPTURE % - - - - - 12 Max.

iv) HARDNESS No DP TO TM P DEVICE ARBITRARY - - - - - 55 - 70

7. LIKELY EQUIVALENT GRADE / SPECIFICATION FOR NITRILE CHLOROPRENE

BASE TO BA 60 BS 2751-82 AND C 60 BS 2752-82.

KVD-No	PART NO	L ₁ mm	MASS Kg	USED ON
78558	420-149-1	37±2	0.0028	CB 3335 00 24 30
78234	420-149-2	42±2	0.0029	CB 3335 00 24 30 CB 3342-00-8 CB
78235	420-149-3	60±2	0.0042	
②	420-149-4	104±2	0.0073	
78236	420-149-5	135±2	0.01	CB 3342-00-8 CB

- *DIMENSIONS SHOULD BE ENSURED WITH TOOL.
- LENGTH OF STRIP L₁ BEING SUPPLIED SHOULD NOT BE LESS THAN 1000 mm.
- TO BE MANUFACTURED AS PER -T III H:100 GOST 15152-59
- CO 420-149-1 SHOULD BE MARKED ON LABEL OF GASKETS BEING DELIVERED.
- THE REST OF THE REQUIREMENTS AS PER SPECIFICATIONS 005216-75.

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

EST. MASS SEE ABOVE	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	

DRW	CHK	TCD	APPD	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	ALL THREADS CONFORM TO	ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL RUBBER HO-68-1 SPECIFICATIONS 005216-75	USED ON SEE ABOVE
												CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
												TITLE - GASKET	
												D S CAT NUMBER	DRAWING NUMBER 420-149-1 TO 5