

RUSSIAN ORIGINAL ISSUE - NIL

~~Допускается изготовление из паронита ПМБ ГОСТ 481-80~~

① Заменитель материала паронит ПМБ ГОСТ 481-80

Резин

1. Alternate material: Rubberized asbestos Fabric ПМБ Т. GOST 481-80. [** RUBBERIZED ASBESTOS
2. IN TROPICAL DESIGN, TO BE MANUFACTURED FROM RUBBERIZED ASBESTOS FABRIC ПМБ Т. ГМБТ, GOST 481-80 AND LETTER 'T' IS TO BE MARKED WITH YELLOW PAINT.

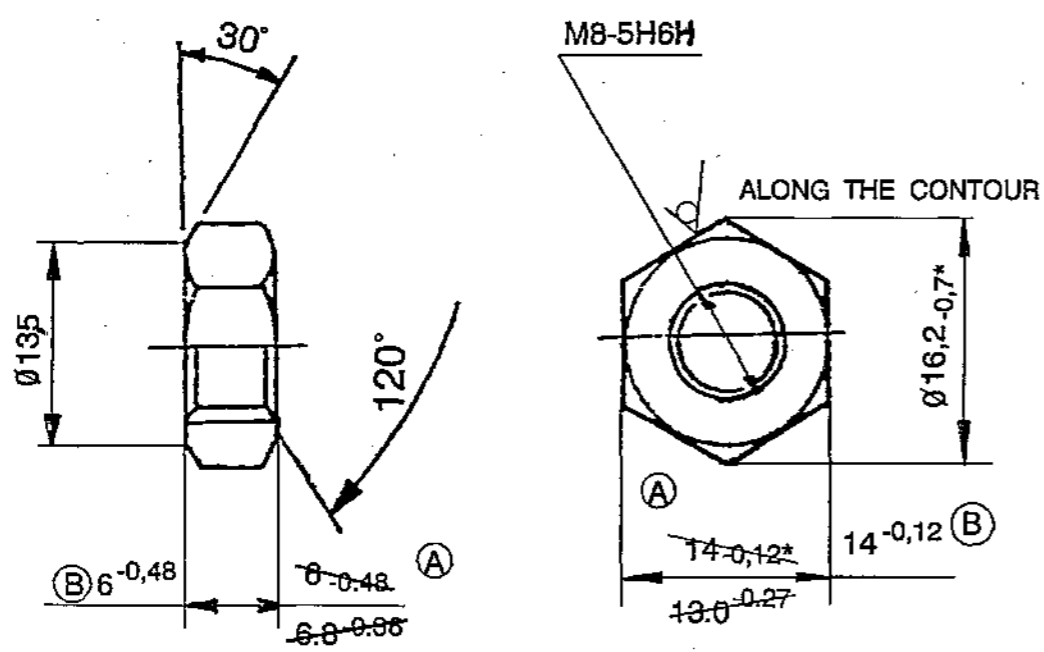
(A) PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION

		EST. MASS 0.0009 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	26.10.89	Authy. No. BK 86-195.	
ISSUE	DATE	NATURE OF AMENDMENTS	MATERIAL:- **SEE ABOVE USED ON:- СБ 3301-00-37 СБ 3342-00-8
DHN	<i>Ornifol</i>	SCALE: 1 : 1	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI
CHD	<i>Ornifol</i>	DIMENSIONS IN mm	
TCD	<i>Ornifol</i>	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	TITLE :- GASKET
APPD	<i>Ornifol</i>		
DATE 7-4-88	ALL THREADS TO CONFORM TO		D S CAT NUMBER
			DRAWING NUMBER 301-97-1

COMMON TO V-9252 & UTB-20 ENGINES
 DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE -NIL
 (B. JAYAVELU)
 JTO (D)

DRAWING NUMBER
351 - 02

Rz40 (✓)



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 5 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 Kgf/m ² (min)
40	34	58	19	45	6
45	36	61	16	40	5
50	38	64	14	40	4

- 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.
- ~~ALTERNATE MATERIAL - STEEL GRADES 40 AND 50 GOST 1050-74~~
- THE REST OF THE TECHNICAL REQUIREMENTS AS PER STANDARD 82052 - 00.
- COATING :- Cd3, CHROMATIZING AS PER UUL-104 WITH ELIMINATION OF HYDROGEN EMBRITTEMENT.
- *DIMENSIONS FOR REFERENCE.

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

USED ON:-
 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.

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.

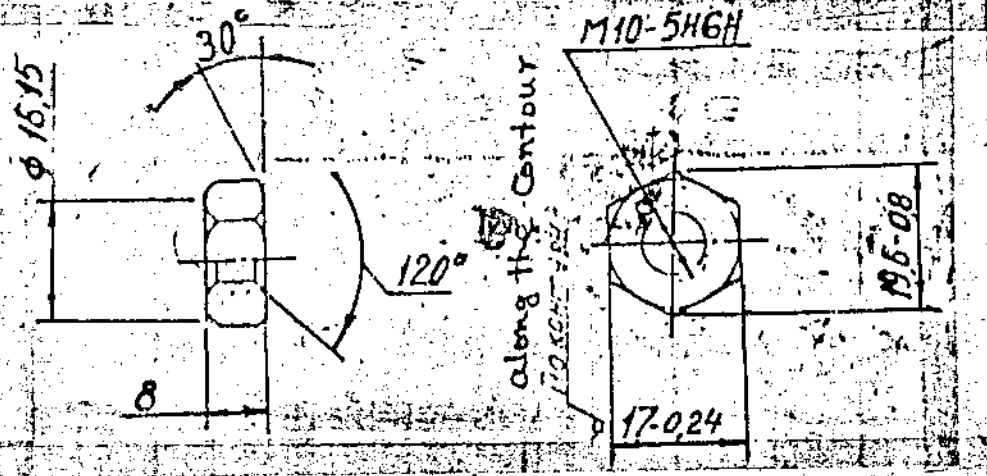
ISSUE	DATE	NATURE OF AMENDMENTS
D	18.5.09	Authy: Third Alt. Comm. Minutes Point: 5 Dated 27-02-2009.
C	25.8.08	USED ON NUMBER ADDED
B	24-12-07	ALT. COMMITTEE MEETING MINUTES. POINT No. 2.18 Dt. 18-12-2007.
A	15-03-04	AUTHY. Lt. No.110094/IND-III /577, Dt. 19-02-04.

DRN Sd/= CHD Sd/= TCD Sd/= APPD Sd/= DATE 08-05-86 SCALE:- 2 : 1 DIMENSIONS IN mm TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69 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

351-50



1. CHAMFER 120° SHOULD BE MADE UPTO THE MAJOR DIAMETER OF THREAD.
2. THE THREAD MAY BE CHECKED BEFORE COATING.
3. COATING : CADMIUM 9, CHROMATIZING AS PER 349-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
4. THE REST OF THE TECHNICAL REQUIREMENTS - AS PER STANDARD 82052-00.
5. ALTERNATE MATERIAL : STEEL, GRADES 40 AND 50 GOST 1050-74.
6. 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.

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

EXPLANATORY NOTE:

HEXAGONAL BAR: 17-4GOST 8560-78 (B)
 45GOST 1051-73
 ALTERNATE MATERIAL QUOTED: 40 & 50, GOST. 1050-74
 BRIGHT, STEEL HEXAGONAL BAR 17mm ACROSS FLATS,
 CLASS OF ACCURACY-4, TO GOST 8560-78. GRADE 45, GOST. 1051-73
 B = WITH SURFACE QUALITY

Rz40/ (1)

(a) CHEMICAL COMPOSITION:

GRADE OF STEEL	CONTENTS OF ELEMENTS %							
	C	Si	Mn	Cr	P	S	Cu	Ni
	MAXIMUM							
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

(b) MECHANICAL PROPERTIES

GRADE OF STEEL	TENSILE STRENGTH Kgf/mm ² (min)	YIELD POINT Kgf/mm ² (min)	ELONGATION % (min)	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

(A) CB 3335-00-9, CB 3336-00-11, CB 3301-15-30, CB 3320-00-33, CB 3301-00-44, CB 3342-00-21, CB 3301-15-44, CB 3320-00-43, CB 329-75-1

MATERIAL: (B) 17-4 GOST 8560-78
 45-5 GOST 1051-73
 USED ON: CB 20-35-00-5
 CB 20-06-01-5, CB 306-04-2,
 CB 20-06-02-5, CB 20-06-04

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

EST. WT. 0.012 Kg TO BE STAMPED OR MARKED WHERE INDICATED THIS # LETTERS

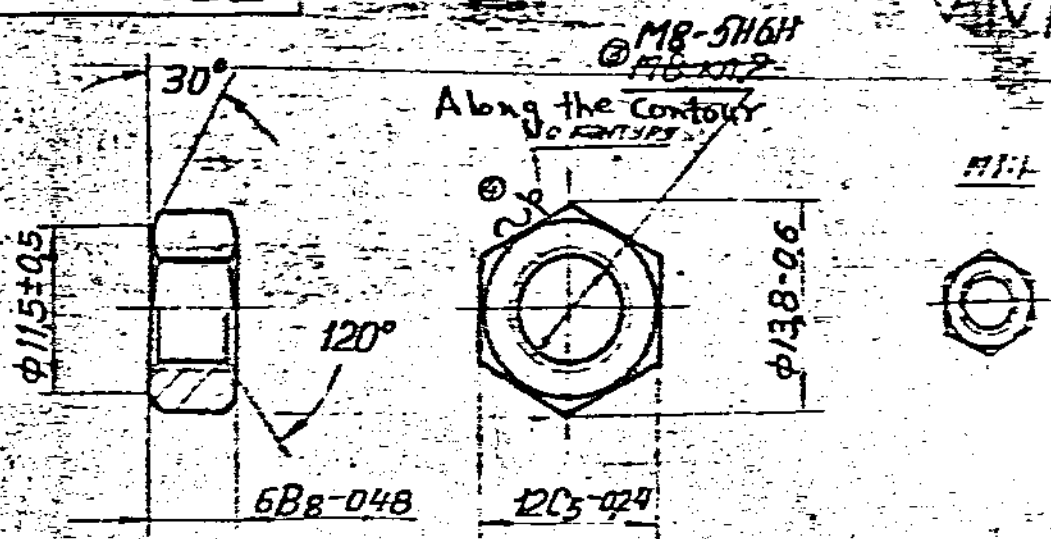
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

DRM	CHD	TCD	APPO	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMS UNLESS OTHERWISE STATED IS: 2102-69	TITLE	D S CAT NUMBER	DRAWING NUMBER
				15-7-89	1:1			NUT M10		351-50
B	18.5.09	Authy: Third Alt. Comm. Minutes Point: 5 Dated 27-02-2009.				ALL THREADS TO CONFORM TO				
A	25.8.08	USED ON NUMBER ADDED								
ISSUE DATE		NATURE OF AMENDMENTS								

COMMON TO V-92S2 & UTD-20 ENGINES

A-11
42
SIZE A3

351-67



EXPLANATORY NOTE:

Material Quoted: Hexagon bar 12-5 GOST 8560-78
45 GOST 1051-73

Bright steel Hexagon bar from grade 45 to GOST 1050-74 with across flats 12 mm, of accuracy class 5.

Chemical composition

Carbon = 0.42-0.50 Chromium = 0.25 max.
 Silicon = 0.17-0.37 Sulphur = 0.040 max.
 Manganese = 0.50-0.80 Phosphorus = 0.035 max.
 Copper = 0.25 max. Nickel = 0.25 max.

Mechanical Properties:

yield point kgf/mm² = 36 (min)
 ultimate tensile strength = 61 (min)
 Elongation % = 16 (min)
 Reduction in area % = 40 (min)
 Impact strength kgf/cm² = 5 (min)

4. The thread may be checked before coating.
5. The rest of the technical requirements as per standard 82052-00.
6. Coating: - Cadmium & Chromating as per 434-104 with elimination of hydrogen embrittlement.

HEXAGON BAR 12-5 GOST 8560-78
45 GOST 1051-73

Ⓐ EQUIVALENT MATERIAL STEEL
 45C8 TO IS:1570

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

		EST. MASS	TO BE STAMPED OR MARKED WHERE INDICATED THIS #
		0.004 Kg	(LETTERS)
A	13.8.10	4 th All. Com. Meeting Minute Point No.11 Dt: 26-10-09	ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.
ISSUE	DATE	NATURE OF AMENDMENTS	
DRN		SCALE: 2:1	MATERIAL: * SEE ABOVE
CHD		DIMENSIONS IN mm	USED ON: C53338-401-10
TCB		TOLERANCE ON DIMS UNLESS OTHERWISE STATED	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AYAD
APPROV		ALL THREADS CONFORM TO	TITLE: NUT M8
DATE: 11/57			D/S CAT NUMBER: DRAWING NUMBER: 351-67



DRAWING NUMBER

353-21

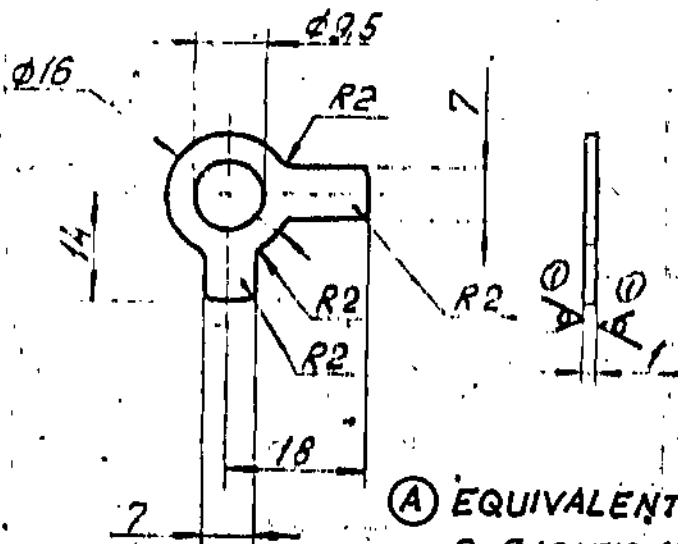
Rz80 (V)

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.

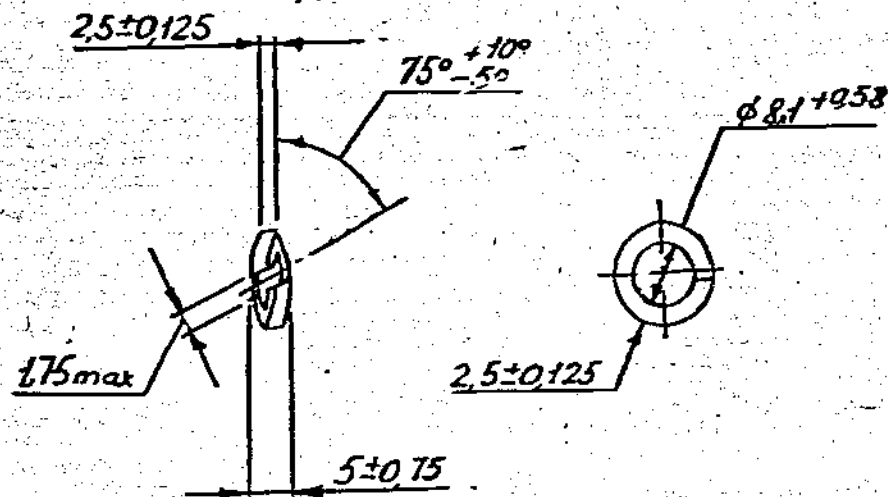
		EST. WT. 0.0016 kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # 1 LETTERS)
		ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
A	17-3-10	4 th Alt. Comm. Meet. Minutes Point No.1 Dt:26-10-09.	MATERIAL:- 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	Dwy	ALL THREADS CONFORM TO	
APPO	208		U S CAT NUMBER
DATE	15-2-89		DRAWING NUMBER 353-21

SIZE A4



DRAWING NUMBER

353-24



- 2. COATING ; CADMIUM 9, CHROMATIZING, AS PER UZ 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.

COMMON TO V-92S2 & UTD-20 ENGINES

A-8

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. (65G)

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) = 44
- ULTIMATE TENSILE STRENGTH (MIN) = 75 kgf/mm²
- ELONGATION % (MIN) = 9

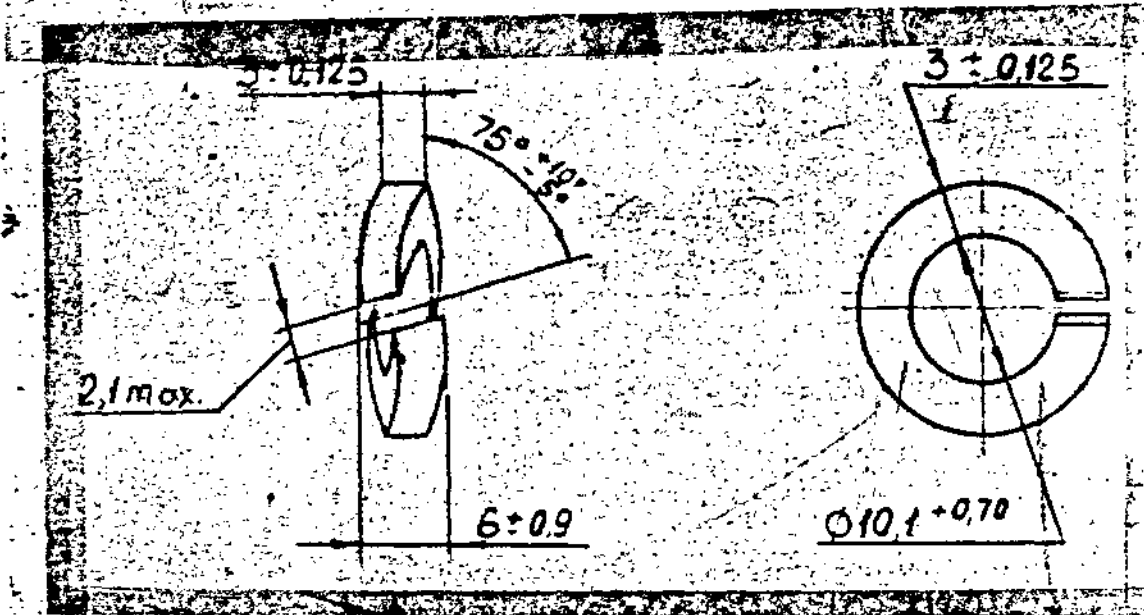
(B) EQUIVALENT MATERIAL
 75 C6 TO IS:2507/EN42 J BS:970

		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 OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	
B	16.8.10 4 th Alt. Comm. Meeting Minutes Point No:12 Dt: 26-10-09	MATERIAL 65Г06 GOST 6402-70	USED ON Cb 334-2-00-8 Cb 334-73-1, Cb 3334-02-3 Cb 3338-401-10
A	28-8-08 USED ON NUMBER ADDED		
ISSUE DATE	NATURE OF AMENDMENTS		
DRN	SCALE: 1:1	CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI	
CHKD	DIMENSIONS IN mm	TITLE WASHER 8 T	
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED		
APPD	ALL THREADS CONFORM TO	D S CAT NUMBER	DRAWING NUMBER
DATE			353-24

- Cb 303-00-16, Cb 406-12-44, Cb 345-00-4, Cb 447-00-1
 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, Eb 3334-02-10
 Cb 3336-00-11, Cb 3342-00-21
- VARIOUS ASSEMBLIES OF UTD-20
 Cb 20-01-00-8, Cb 20-01-08-7
 Eb 20-06-12-6, Cb 20-06-13-6
 Eb 20-13-01-8, Cb 20-19-00-1
 Cb 20-20-00-10, Cb 20-22-00-7
 Cb 20-63-00-5



DRAWING NUMBER
353-26



1. Washer 10 TO 65Г 06 GOST 6402-70
may be used.

EXPLANATORY NOTE:

Material Quoted: 65Г 06 GOST 6402-70

Alternate material quoted: washer 10 TO 65Г 06 GOST 6402-70

65Г : Spring (lock) washers (Heavy washer) manufactured from
Steel grade of 65Г to GOST 1050-74.

06 : Parkerising followed by oiling

washer 10: oxy-anodizing followed by chromate passivation.

Chemical Composition: as per GOST 1050-74

C	Si	Mn.	Cr	S	P	Cu	Ni
			MAXIMUM				
0.62-0.70	0.17-0.37	0.70-1.00	0.25	0.040	0.035	0.25	0.25

(i) General Properties: as per GOST 6402-70.

1. Theoretical weight of 1000 washers in kg \approx 2.914

2. Estimated resilience of washers from steel of
grade 65 G in kg \approx } = 87.0

(ii) Mechanical Properties: for 65Г, as per GOST 1050-74

1. yield point kgf/mm^2 (min) = 44

2. ultimate tensile strength kgf/mm^2 (min) = 75

3. Elongation % (min) = 9

4. Hardness BHN (max) = 229

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

EST. WT. 1000 PIECES 2.914 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
INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	<i>Subraha</i>	MATERIAL:-	USED ON C53338-00-16
CHD	<i>see P/number</i>	65Г.06 GOST 6402-70	CE 20-09-01-6
TCD	<i>Devendra</i>		
APPD	<i>S.E.</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
DATE	20-4-89	AVADI	
SCALE:-	2:1	TITLE	
DIMENSIONS IN mm		WASHER 10T	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69		D S CAT NUMBER	
ALL THREADS TO CONFORM TO		DRAWING NUMBER	
ISSUE DATE		353-26	
NATURE OF AMENDMENTS			

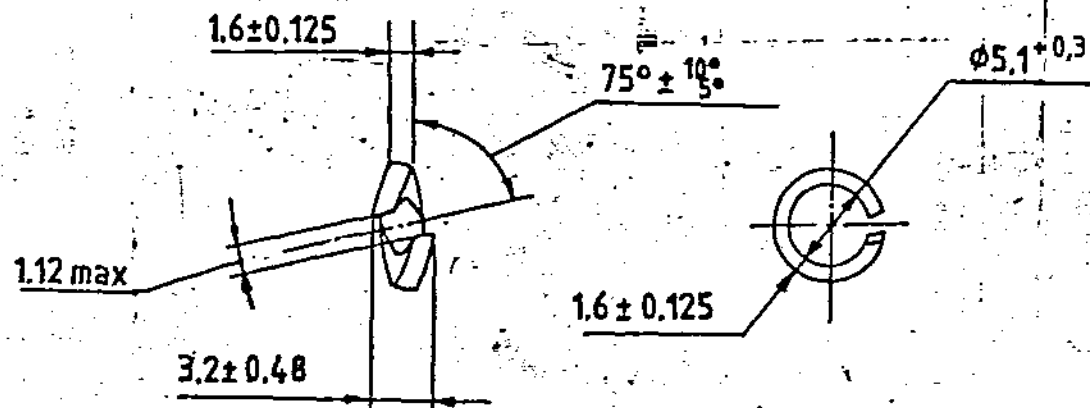
KVD No. 78687
(V-46)

KVD No. 63634
(UTD)

SIZE A3

KVD.No. 78696

DRAWING NUMBER
353-93-1



1. IN TROPICAL MANUFACTURE, COATING Cd 9 Cr AS PER UCL-104 WITH REMOVAL OF HYDROGEN EMBRITTLEMENT.
2. WASHER ST65Γ09 GOST 6402-70 MAY BE USED, IN VISUAL AND TROPICAL MANUFACTURE.

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

		EST. WT. ¹⁰⁰⁰ / _{Pcs} 0.424 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	16.8.10	1 st Alt. Comm. Meeting Minutes Point No.12 Dt: 26-10-09	MATERIAL:- ST 65 Γ 06 GOST 6402-70
ISSUE DATE		NATURE OF AMENDMENTS	USED ON Cb 311-10-4 Cb 311-10-4
DRN	<i>Ughle</i>	SCALE:- 2 : 1 DIMENSIONS IN mm	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI.
CHOC	<i>S. S. S.</i>	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS 2102 -69	TITLE WASHER
APPO	<i>S. S. S.</i>	ALL THREADS CONFORM TO	D S CAT NUMBER
DATE	<i>28.5.01</i>		DRAWING NUMBER 353-93-1
SIZE A4			

EXPLANATORY NOTE:

MATERIAL QUOTED: WASHER 5T, 65Γ, 06 GOST 6402-70.

CORRESPONDS DESIGN AND DIMENSIONS OF SPRING (LOCK) WASHERS.

06 = CONVENTIONAL SYMBOL OF FINISH. (PARKERISING FOLLOWED

5 = NOMINAL THREAD DIA OF BOLT OR SCREW BY OILING).

T = HEAVY ; 65Γ = GRADE OF STEEL AS PER GOST 1050-74.
(65G)

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.

THEORITICAL WEIGHT OF 1000 STEEL WASHERS IN kg = 0.424.

ESTIMATED RESILIENCE OF WASHERS FROM STEEL GRADE 65G = 28.7.
IN kg

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

YIELD POINT kgf/mm² (MIN) = 44

ULTIMATE TENSILE STRENGTH (MIN) = 75
kgf/mm².

ELONGATION % (MIN) = 9

REFERENCE NOTE: 09 = ZINC PLATING (CONVENTIONAL SYMBOLOF FINISH)

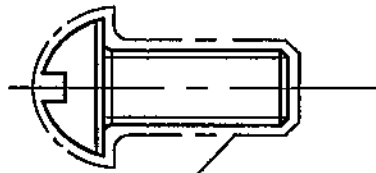
Ⓐ EQUIVALENT MATERIAL
75 C6 TO IS: 2507/EN 42 J BS: 970



DRAWING INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 7



DRAWING NUMBER
356-22-2



Coating : Zinc-6 microns, chromium-1micron as per
ИЛ-749-88 by removing hydrogen embrittlement.

1. In tropical construction, plating cadmium-9microns, chromium-1 micron as per ИЛ-569-84 with removal of hydrogen embrittlement.
2. Blank should match with requirement Gost 1759.0-87 for class of accuracy B.

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

		EST. WT. (Kg) 0.003		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 :- <i>Blank</i> Screw M5-6gx12.58 GOST 17473-80		USED ON :- CB 322-14-9 CB 322-15-9 CB 323-00-10 CB 3320-00-43	
ISSUE	DATE	NATURE OF AMENDMENTS			
DRN	<i>[Signature]</i>	SCALE :- 2:1		CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
		DIMENSIONS IN mm			
CHD	<i>[Signature]</i>	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS : 2102 - 69		TITLE :- SCREW M5x12	
APPD	<i>[Signature]</i>	ALL THREADS TO CONFORM TO			
DATE	<i>25/11/07</i>	D S CAT NUMBER		DRAWING NUMBER 356-22-2	

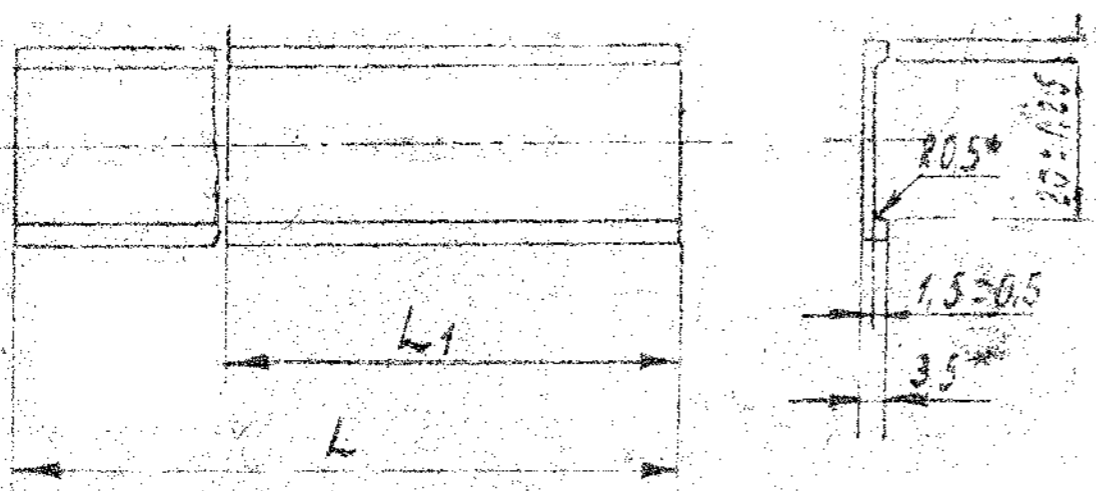
SIZE A4

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
D		
C		
B	<ol style="list-style-type: none"> 1. Inspection group <u>IV</u> - TT - U 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		
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 OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	
(A)	25/118 P.S.C.D.	TITLE WAS M8x25, AUTHY. dt LETTER 81152/CIHV/DB IV 5/1/87	MATERIAL: HEXAGON BAR 14-5 GOST 8560-78	USED ON: CB 3342 00 8 CB
ISSUE	AMDT	NATURE OF AMENDMENTS	38xA GOST 1051-73	
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	DRAWING NUMBER 356 138
DATE	20/1/86			

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 CLASSIFIER
IS - 1231, RUBBER GRADE HO- 68-1 TO TY DMS-216-75.

7. MECHANICAL PARAMETERS :
- i) RUPTURE STRENGTH Kgf/cm² - - - - - 90 Min.
 - ii) ELONGATION OF RUPTURE % - - - - - 250 Min.
 - iii) RESIDUAL ELONGATION AFTER RUPTURE % - - - - - 12 Max.
 - iv) HARDNESS No DP TO TM P DEVIE ARBITORY - - - - - 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	0.0026	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		
78236	420-149-5	135±2	0.01	CB 3342-00-8 CB

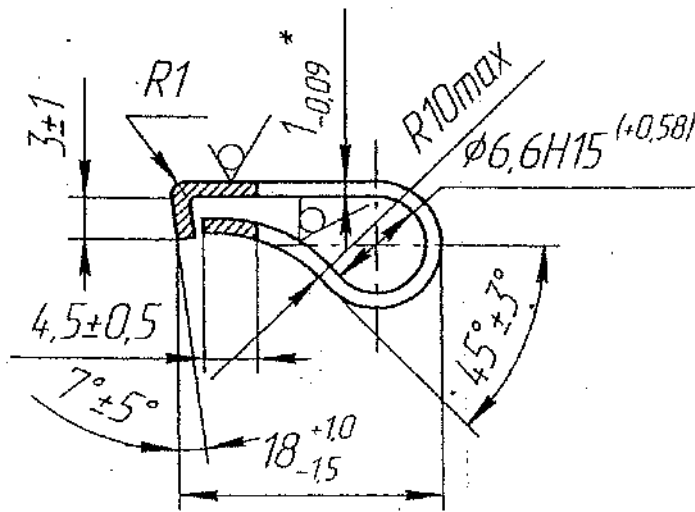
1. *DIMENSIONS SHOULD BE ENSURED WITH TOOL.
2. LENGTH OF STRIP L₁ BEING SUPPLIED SHOULD NOT BE LESS THAN 1000 mm.
3. TO BE MANUFACTURED AS PER -T III H:100 GOST 15152-59
4. CO 420-149-1 SHOULD BE MARKED ON LABEL OF GASKETS BEING DELIVERED.
5. THE REST OF THE REQUIREMENTS AS PER SPECIFICATIONS 005216-75.

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

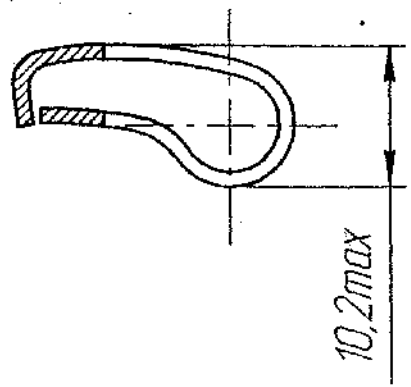
EST MASS TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

DRW	CHK	TCD	APPL	DATE	SCALE	DIMENSIONS IN mm	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.	ALL THREADS CONFORM TO	ISSUE	DATE	NATURE OF AMENDMENTS
					1:1						
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			

700-41-3442

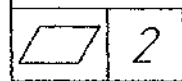
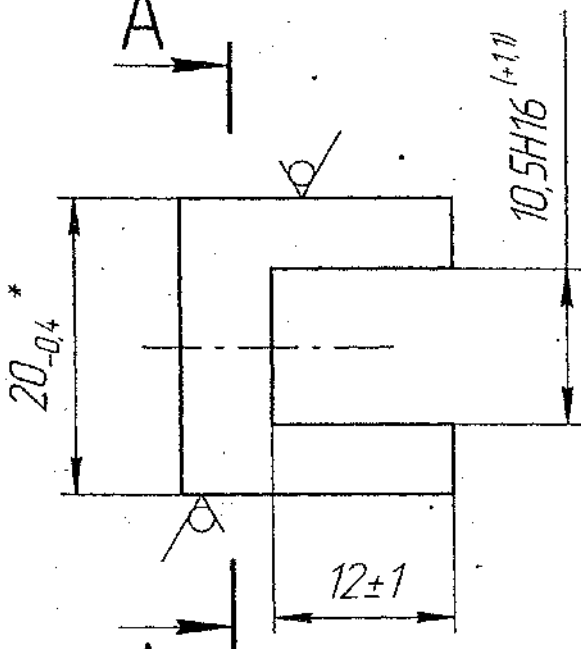


variant
Вариант



A

A-A



62
76

ТРІПЛІКАТЕ
T-905.

1. Remarks: steel grade 08nc, 10nc GOST 1058-88 is Allowed

1. Допускается применение сталей марок 08nc, 10nc ГОСТ 1050-88.
2. Трещины и вмятины не допускаются.

3. *Размеры для справок.
2. Cracks and dents are not Allowed
3. * Dimensions for reference

Обозначение (A)	Покрытие (B)
700-41-3442	Zn-Zn9 с/тн
-01	© Ц9.хр.т.

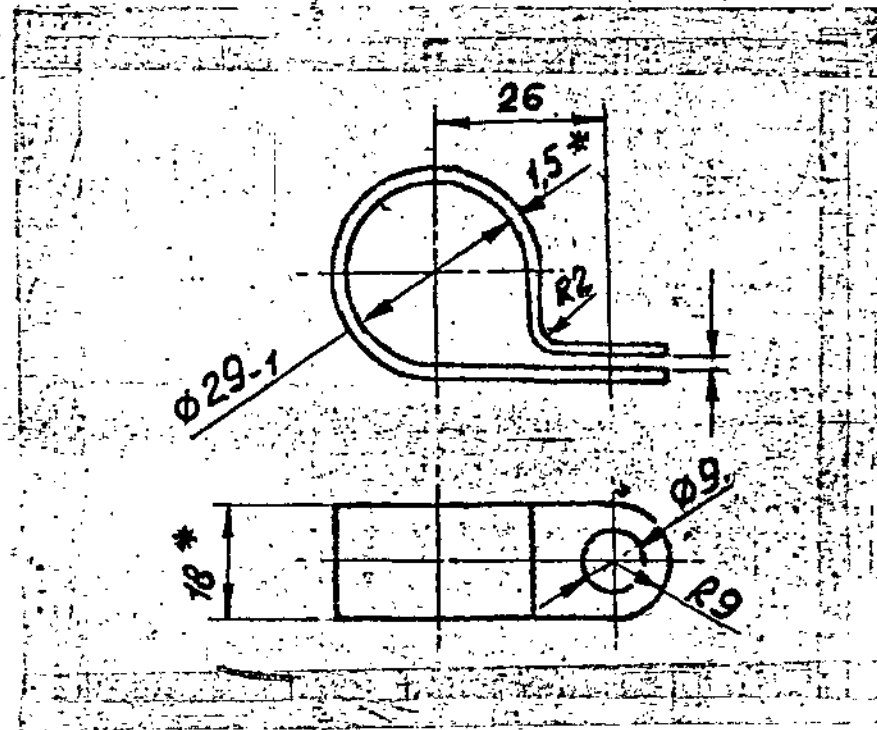
FRAME 700-41-3442 88/8
Рамка

2	-	95-791		
Изм.	Лист	№ докум	Подп.	Дата
Разраб.				
Проб.				
Т.контр.				
Н.контр.				
Чтв				

РАМКА	Лист	Масса	Масштаб
	A	0,004	2:1
BAND Лента 10 М-3-1×20 ГОСТ 503-81	Лист	Листов	1
		F	6/58

DRAWING NUMBER

3320-140



1. REQUIREMENTS PLACED UPON STAMPING ARE AS PER STANDARD 82050-16.
2. ALTERNATE MATERIAL IS 08KN 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.DD 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 # (LETTERS)
0.0235 kg.

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

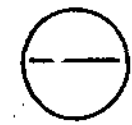
NICKEL 0.25

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

RELATIVE ELONGATION % = 17 (MIN)

KVD NO. 63357

EXPLANATORY NOTE ADDED ON 16-4-91.



SIZE A3

			DRN		MATERIAL: STRIP 08ΠC-M-2-1.5x18 GOST 503-71.	USED ON CB20-20-00-10 CB 3342-00-8
			CHK	<i>Pathan</i>		
			TCD	<i>Pathan</i>		
			APPO	<i>Pathan</i>		
			DATE	19-8-87	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
			SCALE:-	1:1	AVADI	
			DIMENSIONS IN mm		TITLE SUSPENSION CLAMP	D S. CAT NUMBER
			TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69			
			ALL THREADS TO CONFORM TO		DRAWING NUMBER 3320-140	
	A	18.03.10	4 th Alt. Comm. Mt. Minutes Pt. No. 1 Dt. 26.10.09		ISSUE DATE NATURE OF AMENDMENTS	

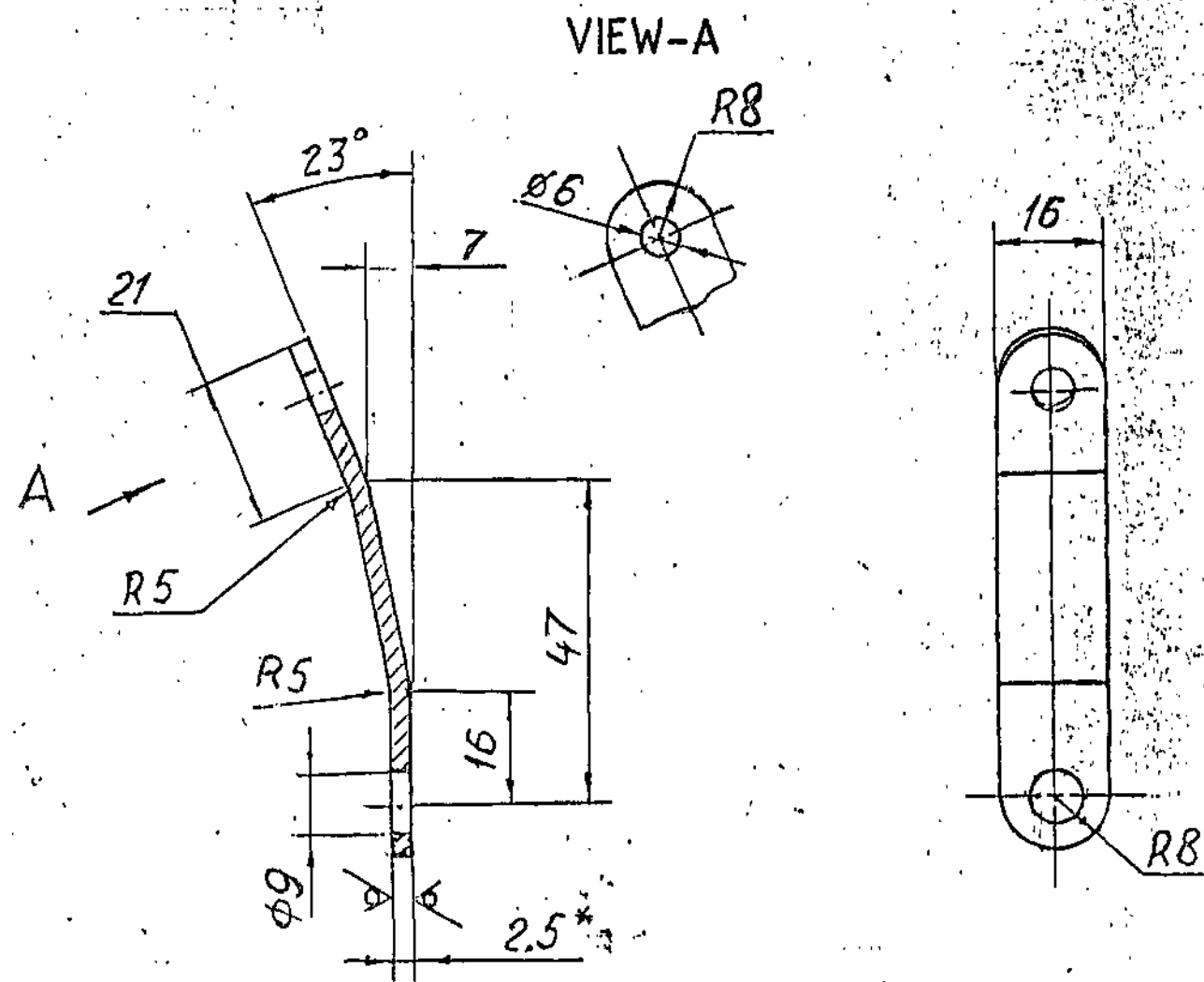
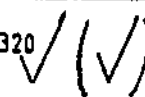


DRAWING NUMBER

3320 - 386

ECKA

Rz 320



1. LENGTH OF STRAIGHTENED COMPONENT L = 77mm.
2. TOLERANCE UNLESS OTHERWISE STATED ± 0,5mm.
3. *DIMENSION FOR REFERENCE.

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

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

EST WT 0,022 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

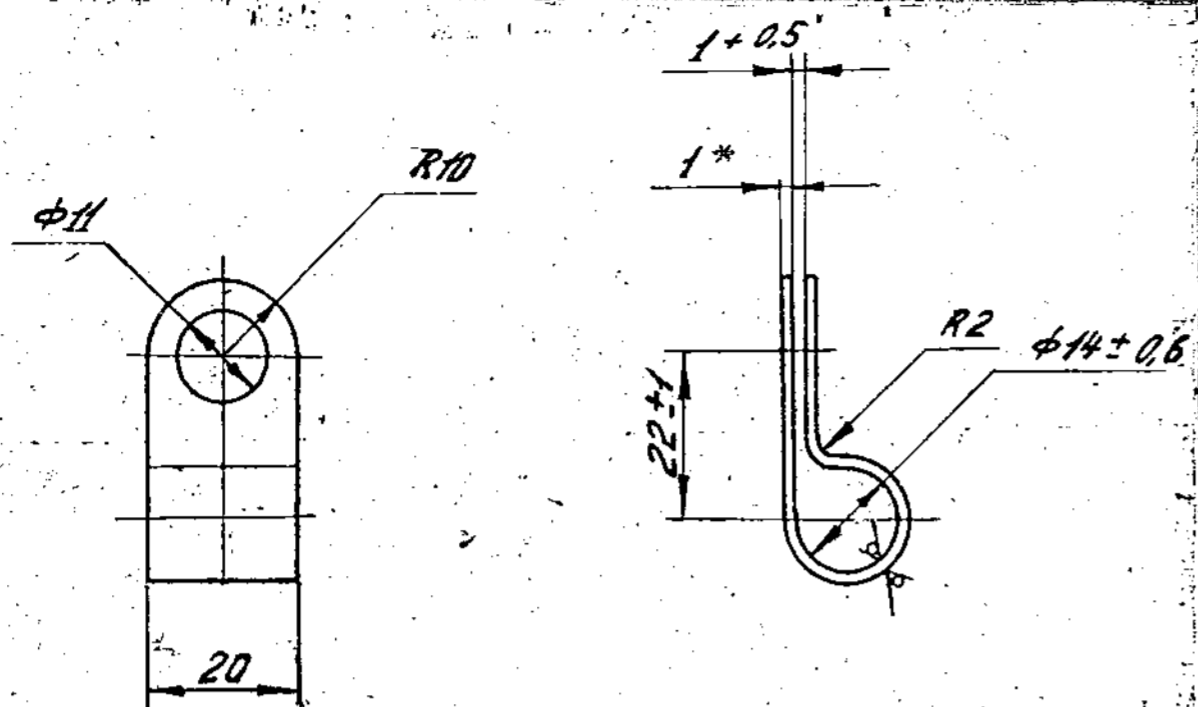
DRN		MATERIAL :-	USED ON :-
CHO		SHEET A 2,5 GOST 19904-74	Cb 3320-385
TCD		IV 10 GOST 16523-70.	
APPO		CONTROLLERATE OF INSPECTION (HEAVY VEHICLES)	
DATE	31-08-87	AVADI	
SCALE :-	1 : 1	TITLE	
DIMENSIONS IN MM		PLATE	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69		D S CAT NUMBER	
ALL THREADS TO CONFORM TO		DRAWING NUMBER	
- A	1-7-10	3320 - 386	
ISSUE	DATE	NATURE OF AMENOMENTS	

A-7
81

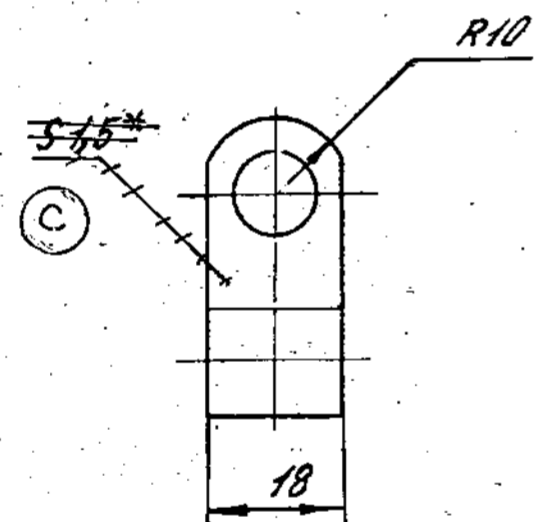
SIZE A3



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 ER INSTRUCTIONS ЦУЛ-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
5. * DIMENSIONS FOR REFERENCE.
6. IN TROPICAL DESIGN COATING Cd.9, CHROMATIZING AS PER ЦУЛ-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

Ⓓ EQUIVALENT MATERIAL
GOST 15:513-1994

DRN	CHD	TCD	APPD	DATE	SCALE - 1:1	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED.	ALL THREADS CONFORM TO	D S CAT NUMBER	DRAWING NUMBER
				02/20					3335 77 3
MATERIAL:- STRIP 08nc-M-2-1 GOST 503-71 81					USED ON:- C 33342-00-805 C 5 3335 00 2430 C 5 3342-				
CONTROLLERATE OF INSPECTION (HEAVY VEHICLES) AVADI					TITLE:- CLAMP				
EST. MASS 0.012 Kg					PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.				
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.				
EST. MASS 0.012 Kg					PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.				
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.				
EST. MASS 0.012 Kg					PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.				
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.				

1. *Chlorophyll a* (Chl a) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue-violet and red-orange regions of the visible spectrum. Chl a is essential for the light-dependent reactions of photosynthesis, where it converts light energy into chemical energy in the form of ATP and NADPH.

2. *Chlorophyll b* (Chl b) is an accessory pigment that absorbs light energy in the blue and orange-red regions. It transfers the energy it absorbs to Chl a, which then uses it for photosynthesis. Chl b is found in higher plants and green algae.

3. *Carotenoids* are a group of pigments that absorb light energy in the blue and green regions. They include carotenes (orange) and xanthophylls (yellow). Carotenoids act as accessory pigments, transferring energy to Chl a. They also play a role in photoprotection, helping to dissipate excess light energy and prevent damage to the photosynthetic apparatus.

4. *Xanthophylls* are a subclass of carotenoids that absorb light energy in the blue and green regions. They are involved in energy transfer to Chl a and also play a role in photoprotection, particularly in the form of the xanthophyll cycle, which helps to dissipate excess energy as heat.

5. *Anthocyanins* are water-soluble pigments that absorb light energy in the blue and green regions. They are responsible for the red, purple, and blue colors in many plants. While they are not directly involved in photosynthesis, they can protect the plant from damage by absorbing excess light energy and acting as antioxidants.

6. *Phycobilins* are a group of pigments found in cyanobacteria and red algae. They absorb light energy in the blue and green regions and transfer the energy to Chl a. Phycobilins are essential for photosynthesis in these organisms, particularly in aquatic environments where light penetration is limited.

7. *Peridinin* is a carotenoid pigment found in the dinoflagellates. It absorbs light energy in the blue and green regions and transfers the energy to Chl a. Peridinin is essential for photosynthesis in these organisms.

8. *Alloxanthin* is a xanthophyll pigment found in the cryptophytes. It absorbs light energy in the blue and green regions and transfers the energy to Chl a. Alloxanthin is essential for photosynthesis in these organisms.

9. *Chlorophyll d* (Chl d) is a pigment found in cyanobacteria and red algae. It absorbs light energy in the blue and green regions and transfers the energy to Chl a. Chl d is essential for photosynthesis in these organisms, particularly in aquatic environments where light penetration is limited.

10. *Phaeophytin* is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeophytin absorbs light energy in the blue and green regions and transfers the energy to Chl a.

11. *Phaeoerythrin* is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeoerythrin absorbs light energy in the blue and green regions and transfers the energy to Chl a.

12. *Phaeoxanthin* is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeoxanthin absorbs light energy in the blue and green regions and transfers the energy to Chl a.

13. *Phaeo-*a** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*a* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

14. *Phaeo-*b** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*b* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

15. *Phaeo-*c** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*c* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

16. *Phaeo-*d** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*d* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

17. *Phaeo-*e** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*e* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

18. *Phaeo-*f** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*f* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

19. *Phaeo-*g** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*g* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

20. *Phaeo-*h** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*h* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

21. *Phaeo-*i** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*i* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

22. *Phaeo-*j** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*j* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

23. *Phaeo-*k** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*k* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

24. *Phaeo-*l** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*l* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

25. *Phaeo-*m** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*m* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

26. *Phaeo-*n** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*n* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

27. *Phaeo-*o** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*o* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

28. *Phaeo-*p** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*p* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

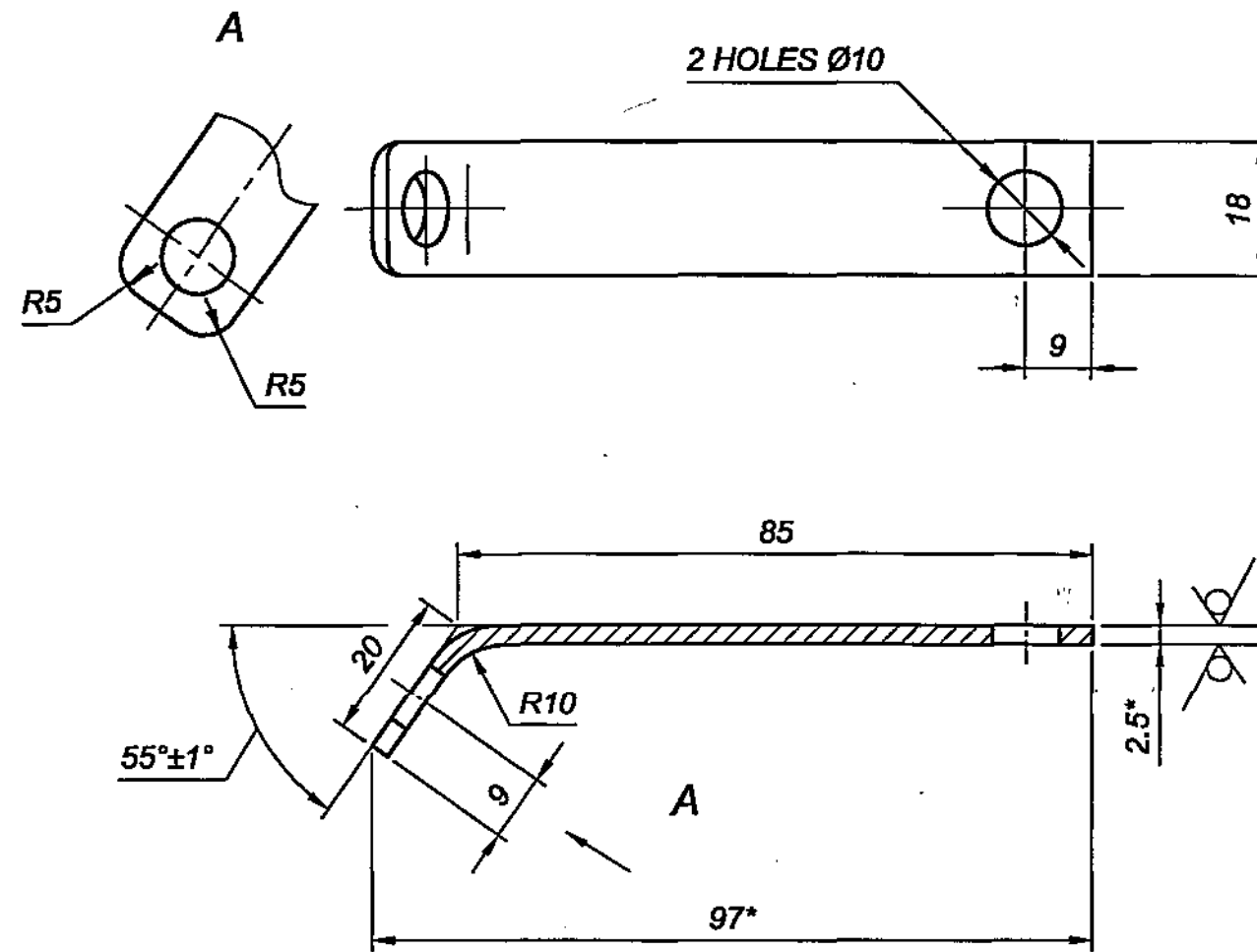
29. *Phaeo-*q** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*q* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

30. *Phaeo-*r** is a pigment found in brown algae and diatoms. It is a derivative of Chl a, where the central magnesium atom has been replaced by a hydrogen atom. Phaeo-*r* absorbs light energy in the blue and green regions and transfers the energy to Chl a.

DRAWING NUMBER
3342-27-2

SHEET No. 1 OF 1

80/ (✓)



1. Allowed to make Roll AT-2.5 GOST 19904-90
5-II-CB-08nc GOST 9045-93
2. Straightened length $L \approx 105\text{mm}$.
3. Coating to be carried out with thickness of Zinc-6microns, chromium-1micron as per instructions ИП-749-88.
4. Unspecified limit deviations of dimensions are $\pm 0.5\text{mm}$.
5. *Dimension is given for reference.
6. In tropical use, coating of cadium - 9microns, chromium - 1micron, Titanium - 1micron is allowed as per instruction ИП-569-84.

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

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

EST. WT. (kg) **0.023** 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		MATERIAL :- SHEET	USED ON :-
CHD		AT-2.5 GOST 19904-90	CB 3342-00-21
APPD		5-II-CB-08nc GOST 9045-93	
DATE	09.5.07	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
SCALE:-	1:1	AVADI	
DIMENSIONS IN mm		TITLE :-	STRIP
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69		D S CAT NUMBER	DRAWING NUMBER
ALL THREADS TO CONFORM TO			3342-27-2

ISSUE	DATE	NATURE OF AMENDMENTS
A	17-3-10	6 th Alt.Comm.Mt.Minutes Pt.No.1 Dt.26.10.09

DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - NIL

F-6
30
106

SIZE A3



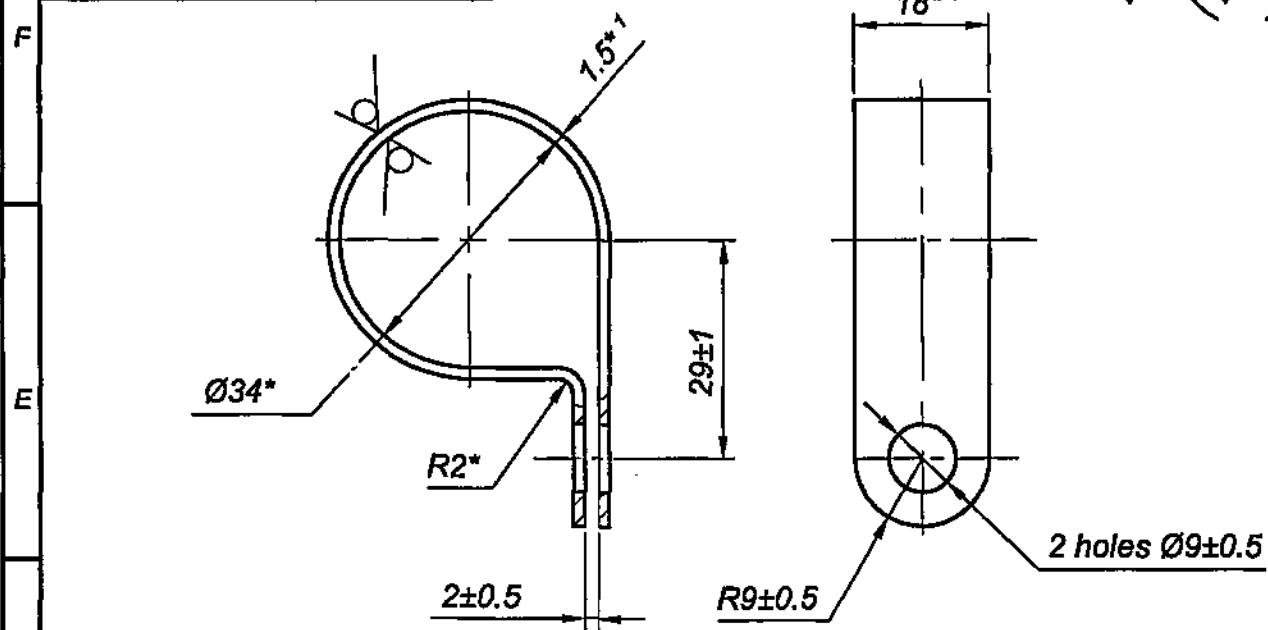
DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - NIL

F-6
31
106

DRAWING NUMBER
3342-28

SHEET No. 1 OF 1

80 / (✓)



1. Straightened length L = 157mm.
2. Alternate material is steel 08 K17 Gost 1050-88.
3. Coating to be carried out with thickness of Zinc-6microns, Chromium-1micron, tungsten-1micron as per instruction ВЛ-749-88.
4. Coating for tropical use : Cadium-9microns, chromium-1micron, Titanium-1micron is allowed as per instruction ВЛ-569-84.
5. *Dimensions are ensured by tool.
6. *Dimensions are given for reference.

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

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

			EST. WT. 0.03	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 :- BAND 08nc-M-2-1.5x18 GOST 503-81	USED ON :- Cb 3342-00-21
A	17.3.10	*Alt.Comm.Mf.Minutes Pf.No.1Dt.26.10.09		
ISSUE	DATE	NATURE OF AMENDMENTS		
DRN		SCALE :- 1:1	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
CHD		DIMENSIONS IN mm		
APPD		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS : 2102 - 69		TITLE :- CLIP
DATE	09.5.07	ALL THREADS TO CONFORM TO	D S CAT NUMBER	DRAWING NUMBER 3342-28
SIZE A4				

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 439

LECTURE 1