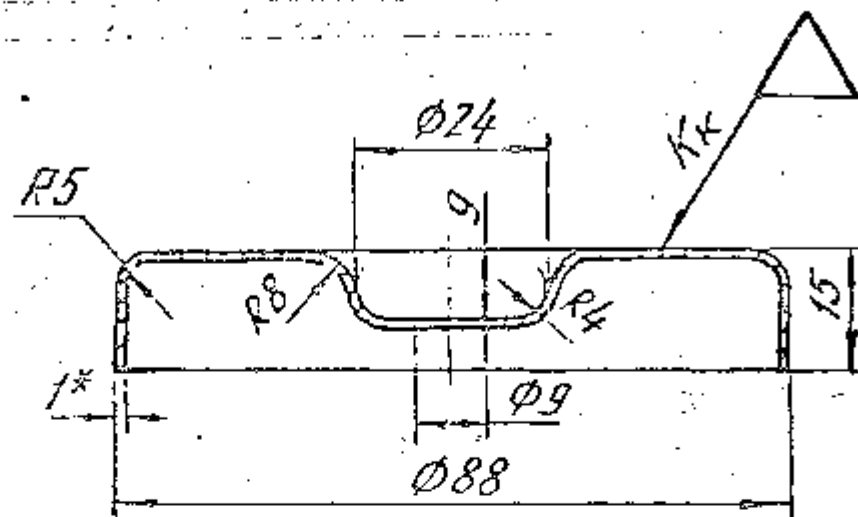


DRAWING NUMBER

20-01-31-1



1. REQUIREMENTS PLACED UPON STAMPING ARE AS PER STANDARD 82050-16 ISSUE 2.
2. ALTERNATE MATERIAL IS STEEL 08nC, 08, 10KП, 10nC, 10, 15, 20, GOST 1050-74
3. COATING :VARNISH φ-95, GOST 8018-70 IV-6-C1
- 4.* DIMENSION IS GIVEN FOR REFERENCE.

EXPLANATORY NOTE:-

MATERIAL QUOTED:

Б 1.0 GOST 19904-74
III H08KП GOST 16523-70

ALT. MATERIAL QUOTED: 08ПC; 08; 10KП; 10ПC; 10,15,20 GOST 1050-74
Б = STANDARD ACCURACY ; III = GROUP OF SURFACE FINISH ; H = HARDENED;
1.0 = THICKNESS OF THE SHEET.

08KП; 08ПC; 08; 10KП; 10ПC; 10,15,20 GRADES OF STEEL.

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

GRADE OF STEEL	CONTENTS OF ELEMENTS %							
	C	SI	Mn	Cr	P	S	Cu	Ni
08KП	0.05 - 0.11	0.037 MAX.	0.25 - 0.50	MAXIMUM				
08ПC	0.05-0.11	0.5 - 0.17	0.35-0.65	0.10	0.035	0.040	0.25	0.25
08	0.05-0.12	0.17-0.37	0.35-0.65	0.10	0.035	0.040	0.25	0.25
10KП	0.07- 0.14	0.07 MAX.	0.25-0.50	0.15	0.035	0.040	0.25	0.25
10ПC	0.07-0.14	0.5 - 0.17	0.35-0.65	0.15	0.035	0.040	0.25	0.25
10	0.07-0.14	0.17-0.37	0.35-0.65	0.15	0.035	0.040	0.25	0.25
15	0.12-0.19	0.17-0.37	0.35-0.65	0.25	0.035	0.040	0.25	0.25
20	0.17-0.24	0.17-0.37	0.35-0.65	0.25	0.035	0.040	0.25	0.25

MECHANICAL PROPERTIES :- (AS PER GOST 16523-70 & GOST 1050-74)

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)
08KП	27 - 39	—	26	—	—
08ПC	28 - 40	—	25	—	—
08	33	20	33	60	—
10KП	28 - 40	—	25	—	—
10ПC	30 - 42	—	25	—	—
10	34	21	31	55	—
15	38	23	27	55	—
20	42	25	25	55	—

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

EST. WT. 0.075 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.

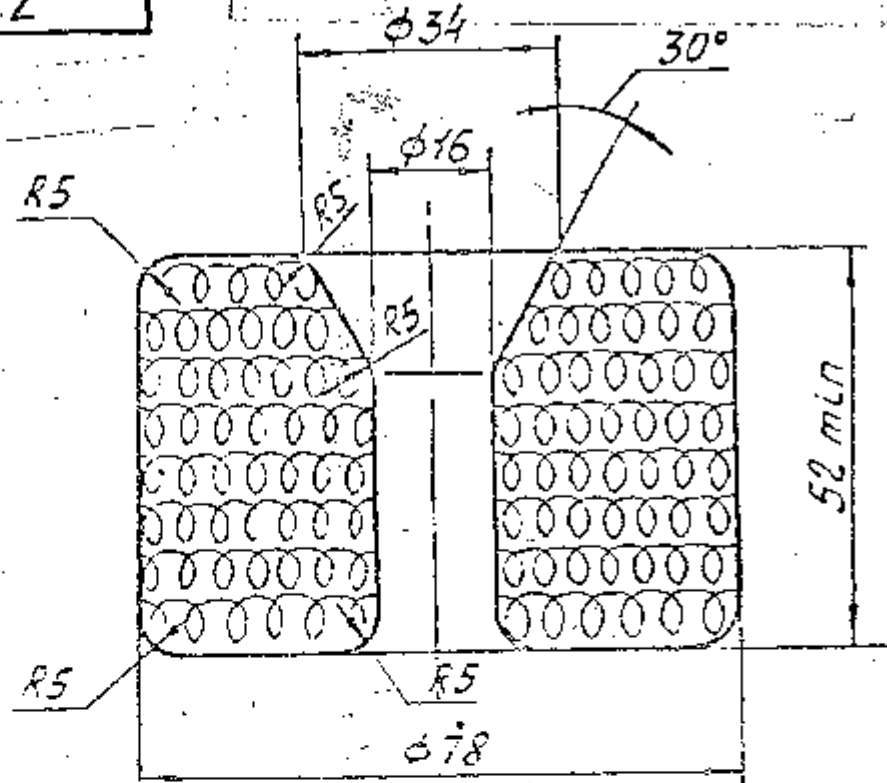
DRN	<i>Drish</i>	MATERIAL:-	USED ON
CHK	<i>Drish</i>	Б 1.0 GOST 19904-74	СБ.20-01-08-7
TCD	<i>Drish</i>	III H08KП GOST 16523-70	
APPD	<i>Drish</i>	CONTROLLERATE OF QUALITY ASSURANCE(HEAVY VEHICLES)	
DATE	10-7-90	AVADI	
SCALE:-	1:1	TITLE	
DIMENSIONS IN mm. TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS:2102-69		COVER	
ALL THREADS TO CONFORM TO		D S CAT NUMBER	DRAWING NUMBER
ISSUE DATE			20-01-31-1
NATURE OF AMENDMENTS			



SIZE A3

DRAWING NUMBER

20-01-33-2

**EXPLANATORY NOTE:-**

MATERIAL QUOTED: STEEL WIRE 'O', 0.3 GOST 3282-74

ALT. MATERIAL QUOTED: STEEL 10,15 GOST 1050-74

STEEL WIRE = 0.3 mm DIA; 'O' = HEAT TREATED.

CHEMICAL COMPOSITION (AS PER GOST 1050-74)

GRADE OF STEEL	CONTENTS OF ELEMENTS %							
	C	Si	Mn	Cr	P	S	Ni	Cu
10	0.07-	0.17-	0.35-	MAXIMUM				
	0.14	0.37	0.65	0.15	0.035	0.040	0.25	0.25
15	0.12-	0.17-	0.35-	MAXIMUM				
	0.19	0.37	0.65	0.25	0.035	0.040	0.25	0.25

MECHANICAL PROPERTIES: (AS PER GOST 3282-74)ULTIMATE TENSILE STRENGTH $\text{kgf/cm}^2 = 140$ (min)

RELATIVE ELONGATION: %

(a) WITHOUT COVERING = 15

(b) GALVANISED = 12

1. MAKE THE PACKING OF WIRE ENDS, 0.3 MM IN DIAMETER AND APPROXIMATELY 650 MM LONG.
2. ALTERNATE MATERIAL IS STEEL 10, 15 GOST 1050-74
3. PACKING MASS IS 130 ± 5 GM.
4. PACKING DENSITY SHOULD BE UNIFORM
5. IT IS PERMITTED TO FIX UP WITH WIRE, 0.5 MM IN DIAMETER, GOST 3282-74 IN 4 POINTS AT 90° TWIST AND BEND THE END.
6. COATING: CHEMICALLY OXIDIZED, OILED.

KVD NO. 63012



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

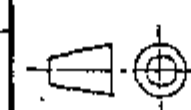
EST. WT. 0.130 kg. TO BE STAMPED OR MARKED WHERE INDICATED THUS # 1 LETTERS)

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

 DRN
 CHD
 TED
 APPD
 DATE 12-7-90
 SCALE: 1:1

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

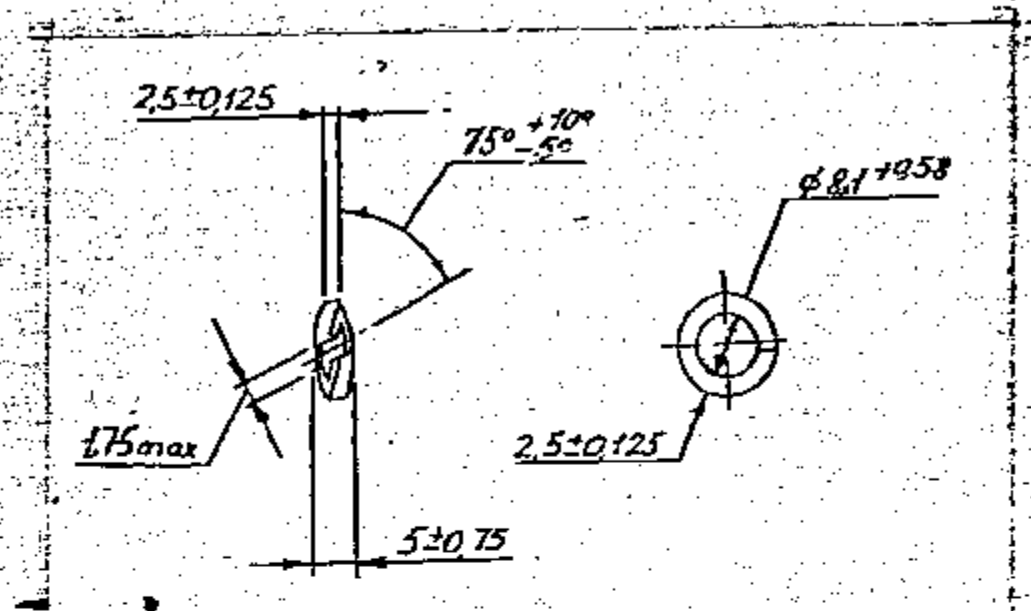
ALL THREADS TO CONFORM TO

MATERIAL: STEEL WIRE
O, 0.3 GOST 3282-74USED ON
CS 20-01-08-7CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
AVADITITLE
BREATHER PACKING

D S CAT NUMBER

DRAWING NUMBER
20-01-33-2

DRAWING NUMBER
353-24



- 2. COATING ; CADMIUM 9, CHROMATIZING, AS PER U 13 A-104 WITH ELIMINATION OF HYDROGEN EMBRITTLEMENT.
- 3. WASHER 8T 65Γ 09 GOST 6402-70 MAY BE USED.

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

COMMON TO V-9252 & UTD-20 ENGINES

(A-8)

EXPLANATORY NOTE:

MATERIAL QUOTED: WASHER 8T, 65Γ, 06 GOST 6402-70.
ALT. MAT. QUOTED: WASHER 8T, 65Γ, 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 ; 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	0.11-0.37	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

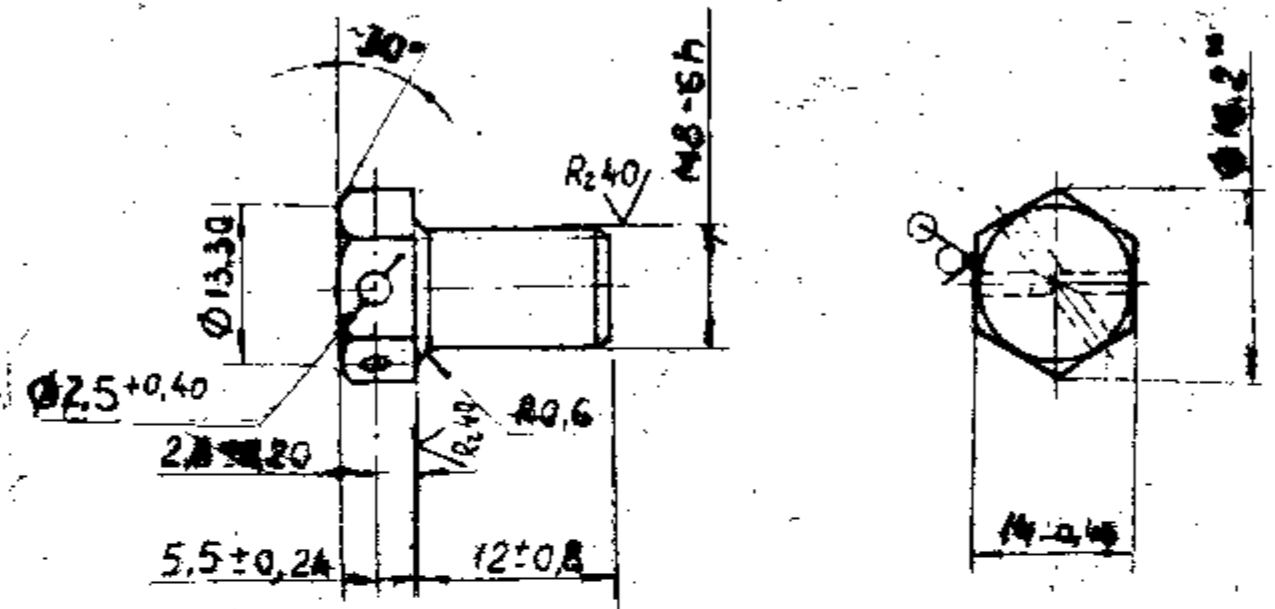
(B) EQUIVALENT MATERIAL
75 C6 TO IS:2507/EN 42 J BS:970

EST WT 1.630 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. 1 st Alt. Comm. Meeting Minutes Point No:12-DF:26-10-09	MATERIAL 65Γ06 GOST 6402-70	USED ON Cb 334-2-00-8 Cb 334-73-1, Cb 3336-02-3 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	
CHD	DIMENSIONS IN mm	TITLE WASHER 8 T	
TCD	TOLERANCE ON DIMNS UNLESS OTHERWISE STATED	DRAWING NUMBER 353-24	
APPD	ALL THREADS CONFORM TO	D S CAT NUMBER	
DATE			

- Cb 303-00-16, Cb 406-12-44, Cb 345-00-4
- Cb 406-13-44, Cb 3301-00-37, Cb 447-00-1
- Cb 3301-15-30, Cb 3308-00-17, VARIOUS ASSEMBLIES OF UTD-20
- Cb 3312-90-9, Cb 3320-00-33, Cb 20-01-00-8, Cb 20-01-08-7
- Cb 3321-00-16, Cb 20-06-12-6, Cb 20-06-13-6
- Cb 3301-00-44, Cb 3301-15-44, Cb 20-13-01-8, Cb 20-19-00-1
- Cb 406-12-75, Cb 406-13-75, Cb 20-20-00-10, Cb 20-22-00-7
- Cb 3308-15-2, Cb 3312-00-22, Cb 20-63-00-5
- Cb 3320-00-43, Cb 3321-00-26
- Cb 3334-00-47, Cb 3334-02-10
- Cb 3336-00-11, Cb 3342-00-21

(A)

R2.80



ALTERNATE



1. ALTERNATE MATERIAL IS STEEL 40, 50, GOST 1050-74.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE AS FOLLOWS: FOR SHAFTS - AS PER B7, HOLES - AS PER A7, OTHERS - AS PER CM7.
3. COATING: ZINC-PLATED, 6 MICRONS THICK, OILED.
4. THREAD MAY BE MADE BY ROLLING WITH THE DIAMETER OF THE UNTHREADED PORTION BEING WITH IN THE LIMITS OF THE ANGLE DIAMETER OF THE THREAD.
5. * DIMENSIONS ARE GIVEN FOR REFERENCE.
6. TECHNICAL REQUIREMENTS FOR BOLTS ARE AS PER GOST 1759-70.

TECHNICAL CONDITIONS-INDIANISED

1. BOLT SHALL BE MACHINED FROM STEEL BRIGHT BAR TO IS: 9550-80 AND MATERIAL C-45 TO IS: 1570-61 OR EN8 D TO BS 970.
2. UNSPECIFIED TOLERANCES ON DIMENSIONS SHALL BE AS PER IS: 919-60 AS UNDER:-
 HOLES _____ H 14
 SHAFT _____ h 14
 LINEAR _____ JS 14
3. THREADS OF THE BOLT MAY BE MADE BY ROLLING. UNTHREADED PORTION SHALL BE WITHIN THE LIMITS OF PITCH CIRCLE DIAMETER OF THE THREADS.
4. BOLT SHALL BE ZINC PLATED TO 6 MICRON THICK AND OILED.
5. TECHNICAL SUPPLY CONDITION OF BOLT SHALL CONFORM TO GRADE 'P' TO IS: 1367-67
6. MARK PART No. 556-13 & MANUFACTURER'S CODE OR SYMBOL ON THE LABEL.

NOTE:-

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. PILOT SAMPLE SHOULD BE GOT APPROVED BY AHSR.

26	1761-81	556-13		
SL NO	SHT.	DOC. NO	SIGN.	DATE
DRAWN		P.R.BABU		17.12.85
EDIT & CHKD		A.K. SHAIK		19.12.85
AF, DC		S.R. NAIR		10.1.86
DIV. OFFR.		P.R. BABU		1.1.86
			SIGN.	DATE
BOLT M8X12				
45 OCT 1050-74				
ORDNANCE FACTORY PROJECT HYDERABAD				

556-13
(K/D-63670)

BOLT M8x12

AMENDMENTS		
INDIANISED	<i>[Signature]</i>	
INSCRIBED	<i>[Signature]</i>	25-10-85
CHECKED	<i>[Signature]</i>	
APPROVED	<i>[Signature]</i>	25-10-85
	SIGN	DATE

CONTROLLERATE OF INSPECTION SPECIAL VEHICLES

USED ON

CB 20-01-00-8

ITEM	DRAWING NUMBER	D S CAT NUMBER	DESCRIPTION	No. OFF	REMARKS
	CB. 20-01-08-7		BREATHER ASSY.		
			ASSEMBLY UNITS		
1	CB. 20-01-14-4 & ITEM LIST		BREATHER ASSY	1	
			PARTS		
2.	20-01-31-1		COVER	1	
3.	20-01-33-2		BREATHER PACKING	1	
4.	556-13		BOLT M8	1	
			STANDARD ARTICLES		
5.	353-24		SPRING WASHER		
			BT 65 r 06 GOST 6402-70	1	

ISSUE	DATE	NATURE OF AMENDMENTS	ISSUE	DATE	NATURE OF AMENDMENTS
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DRN	<i>Greenberg</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI			
CHD	<i>Greenberg</i>	TITLE: BREATHER ASSY. /			
TCD	<i>Greenberg</i>				
APPD	<i>Greenberg</i>	D S CAT NUMBER		ITEM LIST FOR	
DATE	17-2-89	SHT. No. 1 OF 1		CB. 20-01-08-7	



