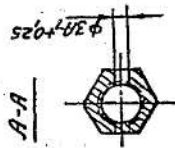
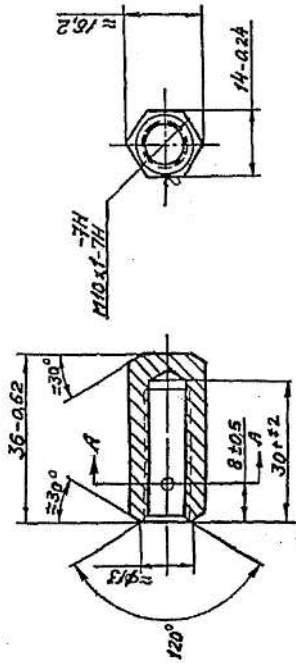


DRAWING NUMBER
166.29.936

SHEET No. 1 OF 1



▽3 UNLESS OTHERWISE SPECIFIED

1. THREAD GAUGE SHOULD BE SCREWED IN FOR A DEPTH OF NOT LESS THAN 26mm.
2. MAY BE MANUFACTURED FROM OPEN HEARTH STEEL 20, 40, GOST 1050-74 AND OPEN HEARTH STEEL 20ПC, GOST 10702-63
3. SHIFT OF THREAD AXIS RELATIVE TO COMPONENT AXIS SHOULD NOT BE MORE THAN 0.3mm
4. THREADS SHOULD BE COUNTERSUNK AT AN ANGLE OF 120° TO MAJOR DIAMETER OF THREAD.
5. COATING: Zn6, CHROMATIZING PRESENCE OF COATING IN THREADED HOLES IS NOT TO BE CHECKED.

EXPLANATORY NOTE (1)

a) REFERENCE MATERIAL QUOTED:-

CARBON STRUCTURAL OPEN HEARTH STEEL GRADE 15 GOST 1050-74.

b) REFERENCE NOTE 2 ON ALTERNATIVE MATERIAL:

CARBON STRUCTURAL OPEN HEARTH STEEL GRADE 20, 40, GOST 1050-74 AND OPEN HEARTH STEEL 20 ПC GOST 10702-63.

7. a) CHEMICAL COMPOSITION:- AS PER STEEL GRADES 15 & 20 GOST 1050-74

GRADE OF STEEL	CONTENT OF ELEMENTS %				
	C	Si	Mn	Cr	S P
15	0.12-0.19	0.17-0.37	0.35-0.65	0.25	MAX 0.040 0.035
20	0.17-0.24	0.17-0.37	0.35-0.65	0.25	0.040 0.035

MECHANICAL CONTENT OF COPPER & NICKEL SHOULD NOT EXCEED 0.25% EACH.

b) MECHANICAL PROPERTIES:- AS PER STEEL GRADES 15 & 20 GOST 1050-74

GRADE OF STEEL	TENSILE STRENGTH Kg/mm ²	YIELD POINT Kg/mm ²	ELONGATION %	REDUCTION IN AREA %
15	38	23	27	55
20	42	25	25	55

USED ON:-
172.02.212CbCb
172.02.213CbCb
172.02.103Cb-1Cb
172.02.191CbCb
172.02.006CbCb

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

EST. WT. (KG) 0.04
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.

ISSUE	DATE	NATURE OF AMENDMENTS
L1	03.08.88	EXPLANATORY NOTE ADDED.

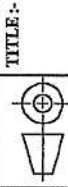
MATERIAL:-
OPEN HEARTH STEEL
15, GOST 1050-74.

CONTROLLEDATE OF QUALITY ASSURANCE (HEAVY VEHICLES)
AVADI

SCALE:- 1 : 1

TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69

ALL THREADS TO CONFORM TO



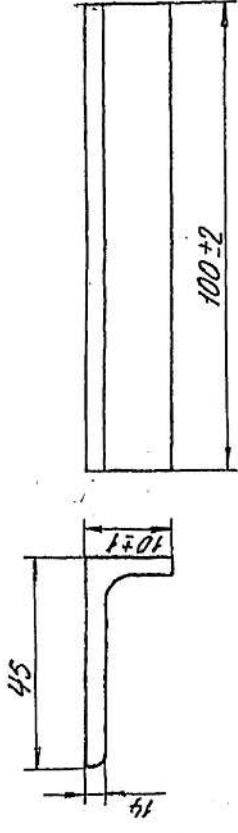
TITLE:-
NUT

D S CAT NUMBER

DRAWING NUMBER
166.29.936

DRAWING NUMBER
172.02.212

SHEET No 1 OF 1



1. COMPONENT SHOULD BE MANUFACTURED FROM ANGLE BAR 45 x 28 x 4 GOST 8510 - 72.
2. MAY BE MANUFACTURED FROM OPEN - HEARTH STEEL 15 AND 20 GOST 1050 - 74.
3. DRAFTS AND SHRINKAGE OF EDGES ARE ALLOWED.
4. BUCKLING OF ANGLE PIECE MAY BE NOT MORE THAN 1 mm.

EXPLANATORY NOTE:-

5. a) REFERENCE MATERIAL QUOTED:
STEEL 09Г2-2 GOST 19281-73. SHAPED ANGLE BAR TO GOST 8510-72 MADE OF STEEL GRADE 09Г2 CATEGORY 2 TO GOST 19281-73 AND MANUFACTURED IN ACCORDANCE WITH GOST 19282-73.
- b) REFERENCE NOTE 2 ON ALTERNATIVE MATERIAL:-
CARBON STRUCTURAL STEEL GRADE 15 & 20 GOST 1050-74.
6. a) CHEMICAL COMPOSITION:-
AS PER STEEL GRADE 09Г2 SPECIFICATION GOST 19282-73 AND STEEL GRADES 15 & 20 GOST 1050-74.

SPECN. No.	GRADE OF STEEL	CONTENT OF ELEMENTS %					
		C	Si	Mn	Cr	S P	
GOST 19282-73	09Г2	0.12 MAX	0.17-0.37	1.42-1.80	0.30	0.040	0.035
GOST 1050-74	15	0.12-0.19	0.17-0.37	0.35-0.65	0.25	0.040	0.035
	20	0.17-0.24	0.17-0.37	0.35-0.65	0.25	0.040	0.035

RESIDUAL CONTENT OF COPPER & NICKEL SHOULD NOT EXCEED 0.30% EACH FOR STEEL GRADE 09Г2 AND 0.25% EACH IN STEEL GRADES 15 & 20.

b) MECHANICAL PROPERTIES:- AS PER STEEL GRADE 09Г2 GOST 19281-73 AND STEEL GRADES 15 & 20 GOST 1050-74.

SPECN. No.	GRADE OF STEEL	TENSILE STRENGTH Kgf/mm ²	YIELD POINT Kgf/mm ²	ELONGATION %	REDUCTION IN AREA %
GOST 19281-73	09Г2	45 MIN	31 MIN	21 MIN	—
GOST 1050-74	15	38 MIN	23 MIN	27 MIN	55
	20	42 MIN	25 MIN	25 MIN	55

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

EST. WT. (KG) 0.12 TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

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

DRN	Sd/=	MATERIAL:-	USED ON:-
CHD	Sd/=	STEEL 09Г2 - 2	172.02.212cb
APPD	Sd/=	GOST 19281 - 73	172.02.213cb
DATE	28-07-88	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
SCALE: 1 : 1			
DIMENSIONS IN mm			
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS: 2102-69			
ALL THREADS TO CONFORM TO IS: 4218 Pt. IV			
ISSUE		DATE	
NATURE OF AMENDMENTS			

TITLE:-



ANGLE PIECE

D S CAT NUMBER
DRAWING NUMBER
172.02.212

SIZE A4

DATE 18.6.86

APPD Sd/=

CHD Sd/=

DRN Sd/=

ISSUE DATE

NATURE OF AMENDMENTS

L1 3.8.88

EXPLANATORY NOTE ADDED

F-15

Approved

B. JAYAVELU, J1010

27-04-06

"COMMON TO T-90" & BLT

DRAWING RE-INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - NIL

ALL THREADS TO CONFORM TO

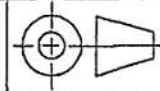
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE STATED IS: 2102-69

DIMENSIONS IN mm

SCALE: 1:1

NATURE OF AMENDMENTS

EXPLANATORY NOTE ADDED



TITLE:

CLAMP

D S CAT NUMBER 172.02.718
DRAWING NUMBER

CONTROL RATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI

MATERIAL:- WIRE 4.0-4 GOST 3282-74
USED ON:- 172.01.236cbcb

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

EST. WT. (kg) 0.0076
TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

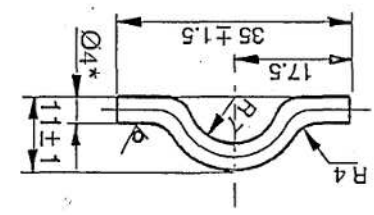
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

GENERAL PURPOSE LOW CARBON ROUND STEEL WIRE 4 ± 0.08 mm DIA HEAT TREATED (O) BLACK-4 (WITH SCALES AFTER HEAT TREATMENT) TO GOST 3282-74 AND MANUFACTURED OUT OF STEEL AS PER GOST 14085-68, GOST 1050-74 AND GOST 4231-70. MECHANICAL PROPERTIES OF WIRE AS PER GOST 3282-74 ULTIMATE TENSILE STRENGTH - 30-50 Kgf/mm² RELATIVE ELONGATION - 20%

REFERENCE MATERIAL-QUOTED:

EXPLANATORY NOTE: (L1)

- 3. * DIMENSION FOR REFERENCE. NOT MORE THAN 1.5 mm.
- 2. DEVIATION OF COMPONENT PROFILE FROM TEMPLT. CONSTRUCTED AS PER NOMINAL DIMENSIONS, MAY BE
- 1. METAL THINNING IN BENDINGS IS ALLOWED.



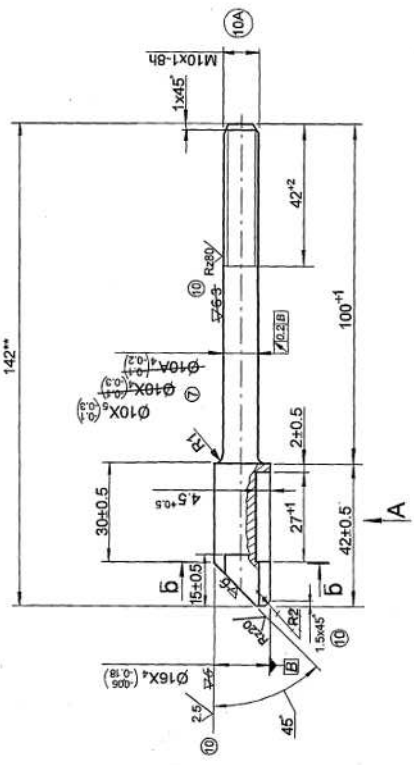
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SHEET No. 1 OF 1

DRAWING NUMBER 172.02.718

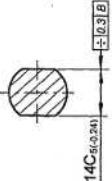
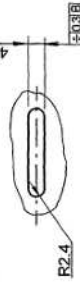
1 2 3 4

Redy (V) 73 (V) 10



VIEW-A

B-B



1. MAY BE MADE FROM STEEL 38XC GOST 4543-71.
2. BHN 285-229 (ρ OF IND. 3.6-4).
3. IF THE COMPONENT IS MADE FROM STEEL 38XC GOST 4543-71.
 - ① HARDNESS SHOULD BE BHN 302-255 (ρ OF IND. 3.5-3.8) TO BE CHECKED ON THE BLANK
 - ② COATING OF THE SHANK AND THREAD Zn-6-CHROMATIZING-COATING OF $\phi 16 \times 4$ HARD-CHROMIUM-CHROMIUM-ON- $\phi 10$ SLOT AND FACES IS ALLOWED.
 - ③ DIMENSIONS FOR REFERENCE
 - ④ COATING OF SURFACE $\phi 16 \times 4$ HOLES INCREASING OF COATING THICKNESS TO 48μ IS ALLOWED
 - ⑤ COATING OF OTHER SURFACES Zn-6-CHROMATIZING OF SURFACES $\phi 16 \times 4$ (UPTO THREAD), GROOVE END-FACE IS ALLOWED.
 - ⑥ COATING OF SURFACE $\phi 16 \times 4$ HARD-CHROMIUM-PLATING 30-THICKNESS MAY BE INCREASED UPTO 48μ MICRON.
 - ⑦ COATING OF REMAINING SURFACES Zn-6-CHROMATIZING-CHROMIUM-PLATING OF SURFACES $\phi 10 \times 5$ (UPTO THREAD);
 - ⑧ OF AND FACES IS ALLOWED.
5. ALL THE SURFACE EXCEPT THREADS OF COMPONENT 175.02.522 SHOULD HAVE HARD CHROMIUM COATING THICKNESS OF COATING 30...48 MICRONS. COATING OF THREADS SHOULD BE DONE BY CHEMICAL OXIDOPHOSPHATING WITH OILING. PRESENCE OF CHROMIUM IS ALLOWED AT THE LAST 2 TO 3 THREADS OF A SCREW.

EXPLANATORY NOTE :-

- 7.a) REFERENCE MATERIAL QUOTED :-
CARBON STRUCTURAL STEEL GRADE 40 GOST 1050-80 OPEN HEARTH.
- b) REFERENCE NOTE 1 ON ALTERNATIVE MATERIAL :-
STRUCTURAL CHROMIUM SILICON ALLOY STEEL GOOD QUALITY GRADE 38XC GOST 4543-71.

8.a) CHEMICAL COMPOSITION :-

AS PER STEEL GRADES 40 GOST 1050-74 OPEN HEARTH AND STEEL GRADE 38XC GOST 4543-71. RESIDUAL CONTENT OF COPPER & NICKEL SHOULD NOT EXCEED 0.75% EACH FOR STEEL GRADE 40 AND 0.30% EACH IN STEEL GRADE 38XC.

SPECIM No.	GRADE OF STEEL	CONTENT OF ELEMENTS					
		C	Si	Mn	Cr	S	P
0027	40	0.37±0.48	0.17±0.37	0.66±0.10	0.28	0.040	0.025
0027	38XC	0.34±0.42	0.15±0.14	0.30±0.10	1.35	0.025	0.025
4543-71					1.10		

b) MECHANICAL PROPERTIES :-

AS PER STEEL PROPERTIES 40 GOST 1050-74 OPEN HEARTH AND STEEL GRADE 38XC GOST 4543-71.

SPECIM No.	GRADE OF STEEL	TENSILE STRENGTH Agt, MPa	YIELD POINT Agt, MPa	ELONGATION Agt, %	REDUCTION IN AREA Agt, %	IMPACT Agt, J/cm ²
0027	40	58	34	19	46	6
0027	38XC	95	75	12	50	7
4543-71						

10C	USED ON:-
188.02.102CB	172.02.181CB
188.02.103CB	172.02.212CB
188.02.104CB	172.02.213CB
188.02.105CB	172.02.182CB
188.02.105CB	176.02.095CB

DRN	Sd/=	USED ON :-	SEE ABOVE
APPD	Sd/=	MATERIAL :-	STEEL 40 GOST 1050-74.
DATE	29-08-88	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	AVADI
SCALE:-	1 : 1	TITLE :-	STOPPER
DIMENSIONS IN mm		D S CAT NUMBER	
10C 19.06.12 AUTHV Lf. No. 57992/ AE & S/		DRAWING NUMBER	
10B 01.11.83 R.C.T. CORRECTION		175 02 522	
10A 16.03.83 D.O. CORRECTION			
10 14.07.82 172M 487/A'-89 (A/L 13V1)			
9 04.07.88 AMMT LIST NO.61/BOOK-2			
ISSUE	DATE	NATURE OF AMENDMENTS	

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.
EST. WT. TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)
0.1 Kg
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED. MACHINED CORNERS TO HAVE R. OUT-SIDE R. INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.