

**INCH-POUND**

MS21255N

30 October 1999

Superseding

MS21255M

22 FEBRUARY 1999

## MILITARY SPECIFICATION SHEET

## EYE END, TURNBUCKLE, CLIP LOCKING (FOR WIRE ROPE)

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-DTL-8878.

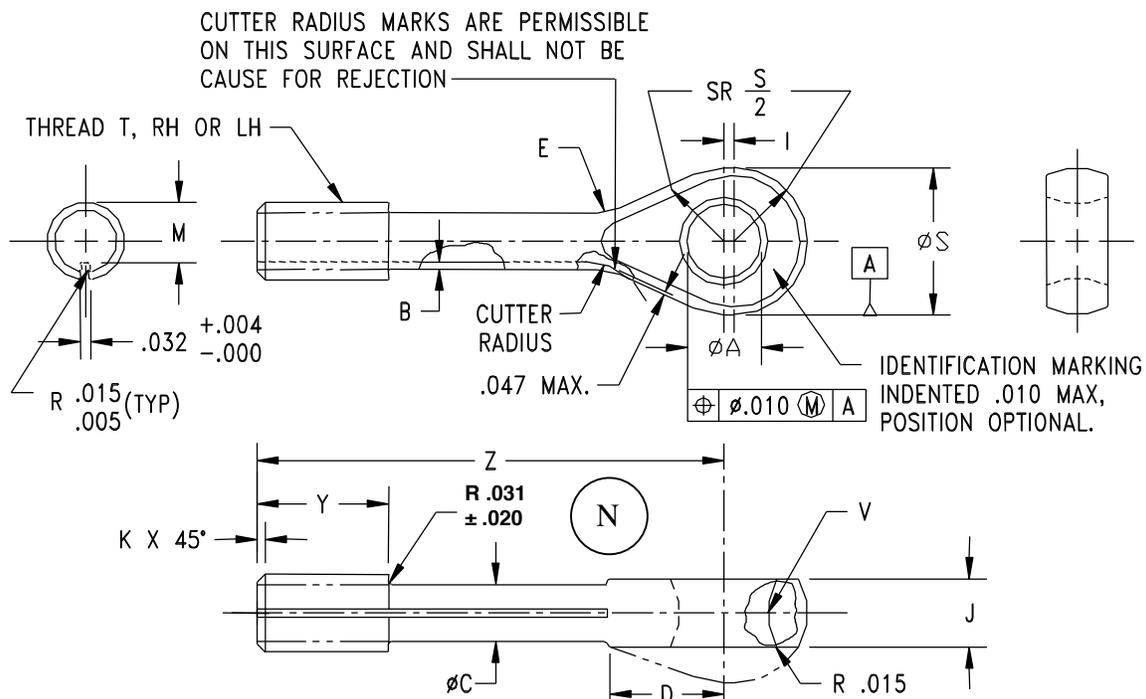


FIGURE 1. Eye end, turnbuckle, clip locking (for wire rope).

(N) Entire document revised

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TABLE I. Dimensions and dash numbers

DASH NO. DIRECTION OF THREAD		WIRE ROPE DIA		MIN BREAKING STRENGTH LB	THREAD T UNF-3A	ØA +.010 -.000	B MAX	ØC +.006 -.000	D ±.031
		NOM REF	MIN						
RH	LH								
-2RS	-2LS	1/16	.062	800	.1380 (#-6)-40	.188	.0096	.094	.325
-2RL	-2LL								
-3RS	-3LS	3/32	.093	1600	.1900 (#10)-32	.219	.0077	.133	.416
-3RL	-3LL								
-5RS	-5LS	5/32	.156	3200	.2500(1/4)-28	.281	.0103	.189	.512
-5RL	-5LL								
-6RS	-6LS	3/16	.187	4600	.3125 (5/16)-24	.313	.0064	.243	.527
-6RL	-6LL								
-8RL	-8LL	1/4	.250	8000	.3750 (3/8)-24	.375	.0057	.306	.678
-9RL	-9LL	9/32	.281	12500	.4375 (7/16)-20	.469	.0056	.362	.831
-10RL	-10LL	5/16	.312	17500	.5000 (1/2)-20	.563	.0058	.425	.900

TABLE I. Dimensions and dash numbers - Continued.

DASH NO. DIRECTION OF THREAD		E ±.031 RAD	I +.010 -.000	J ±.005	K +.000 -.015	M		ØS	V ±.016 RAD	Y ±.047	Z +.031 -.015
						MAX	MIN				
RH	LH										
-2RS	-2LS	.125	.031	.125	.031	.1139	.1094	.375	.094	.375	1.500
-2RL	-2LL										2.375
-3RS	-3LS	.156	.031	.188	.031	.1638	.1568	.500	.172	.500	1.625
-3RL	-3LL										2.500
-5RS	-5LS	.219	.047	.219	.047	.2224	.2152	.625	.203	.625	1.750
-5RL	-5LL										2.625
-6RS	-6LS	.250	.047	.281	.047	.2830	.2754	.688	.250	.750	1.875
-6RL	-6LL										2.750
-8RL	-8LL	.281	.063	.328		.3454	.3378	.875	.375	.875	2.875
-9RL	-9LL	.359	.078	.375		.4052	.3972	1.063	.453	1.000	3.375
-10RL	-10LL	.406		.469	.063	.4678	.4597	1.188	.500		3.625

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## REQUIREMENTS:

1. Material: 17-4PH stainless steel in accordance with AMS 5643 or ASTM A 564. Steel, carbon or alloy in accordance with MIL-DTL-8878
2. Protective treatment: None for 17-4PH. Cadmium plate, QQ-P-416, Type II, Class 2 for carbon or alloy steel.
3. Heat treatment: Steel, carbon or alloy shall be heat treated to 125 to 145 KSI in accordance with MIL-H-6875. 17-4PH shall be in accordance with MIL-DTL-8878.
4. Finish: Finish in accordance with MIL-DTL-8878.
5. Threads: Threads shall be in accordance with FED-STD-H28/20.
6. The OD of the "I" dimension may be a flat area.
7. Tolerances: Unless otherwise specified, tolerances: decimals  $\pm .010$ , angles  $\pm .5^\circ$ .
8. MS33736 for locking clip.
9. Part numbering: C in lieu of dash indicates 17-4PH (dash indicates carbon or alloy steel); first letter following dash number or letter C indicates direction of thread (left or right hand); second letter following dash number indicates length (short or long).

.Example of part number: MS21255C2LS = eye, turnbuckle, 17-4PH, .1380 (#6)-40, left hand thread, short.  
MS21255-2RL = eye, turnbuckle, steel, .1380 (#6)-40, right hand thread, long.

## NOTES:

- 1 Dimensions in inches.
2. Remove all burrs and sharp edges. (See procurement specification for definition.) (N)
3. Interpret drawing in accordance with ASME Y14.5M.
4. In the event of a conflict between the text of this document and the references cited herein the text of this document takes precedence.
5. Unless otherwise specified, issues of referenced documents are those in effect at the time of solicitation.
6. For 1/8 inch diameter wire rope use –5 parts minimum breaking strength 2200 pounds (ref). (N)
7. Steel, Carbon and Alloy eye end turnbuckles are inactive for new design. 17-4PH stainless eye end turnbuckles shall be used for new design and can be used to replace comparable steel parts..

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8. The parts covered by dash numbers shown on AN170 are cancelled after 25 November 1963. Use the dash numbers given on page 2. The cancelled parts cannot replace the new parts and should be used until existing stock is depleted. Use only the MS21255 parts for new design and substitution. Substitution shall be in accordance with table II.

9. Dash 4 and 7 are inactive for new design, and are to be used only for replacement of the old cancelled AN170 superseded parts.

## SUBSTITUTION TABLE

TABLE II

Part numbers	
Cancelled AN170 Dash Number	New MS21255 Dash Number
5	No replacement
8	2
16	3
22	5
32	5
46	6
61	8
80	8
125	9
175	10

## MILITARY INTEREST

Custodians:  
Army – AV  
Navy - AS  
Air Force – 99

Review:  
Air Force – 82



Preparing activity:  
DLA - GS

(Project 1560-0254)