INCH-POUND

MS21255U
w/AMENDMENT 3
9 February 2011
SUPERSEDING
MS21255U
w/AMENDMENT 2
14 January 2010

DETAIL SPECIFICATION SHEET

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

This specification 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, MIL-DTL-8878, and QPL-8878.

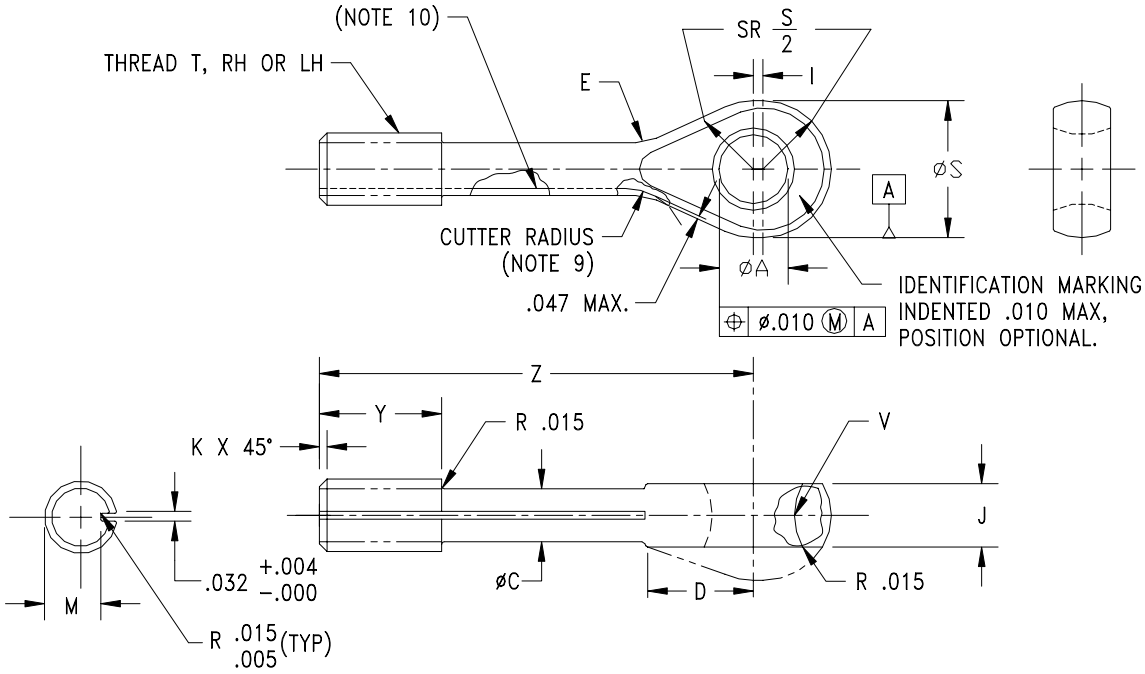


FIGURE 1. Eye end, turnbuckle, clip locking (for wire rope).

TABLE I. Dash numbers and dimensions.

Dash number		Wire rope diameter		Minimum breaking strength lbs.	Thread T UNF-3A	∅A +0.010 -0.000	∅C +0.006 -0.000	D ±0.031
Direction of thread								
RH	LH	Nominal reference	Minimum					
-2RS	-2LS	1/16	0.062	800	0.1380 (#-6)-40	0.188	0.094	0.325
-2RL	-2LL							
-3RS	-3LS	3/32	0.093	1,600	0.1900 (#10)-32	0.219	0.133	0.416
-3RL	-3LL							
-5RS	-5LS	5/32 1/	0.156	3,200	0.2500(1/4)-28	0.281	0.189	0.512
-5RL	-5LL							
-6RS	-6LS	3/16	0.187	4,600	0.3125 (5/16)-24	0.313	0.243	0.527
-6RL	-6LL							
-8RL	-8LL	1/4	0.250	8,000	0.3750 (3/8)-24	0.375	0.306	0.678
-9RL	-9LL	9/32	0.281	12,500	0.4375 (7/16)-20	0.469	0.362	0.831
-10RL	-10LL	5/16	0.312	17,500	0.5000 (1/2)-20	0.563	0.425	0.900

1/ See Note 7.

TABLE I. Dash numbers and dimensions - Continued.

Dash number		E ±0.031 radius	I +0.010 -0.000	J ±0.005	K +0.000 -0.015	M		∅S +0.025 -0.010	V ±0.016 radius	Y ±0.047 2/	Z +0.031 -0.015
Direction of thread											
RH	LH					Maximum	Minimum				
-2RS	-2LS	0.125	0.031	0.125	0.031	0.1139	0.1094	0.375	0.094	0.375	1.500
-2RL	-2LL										2.375
-3RS	-3LS	0.156		0.188		0.1638	0.1568	0.500	0.172	0.500	1.625
-3RL	-3LL										2.500
-5RS	-5LS	0.219	0.047	0.219		0.2224	0.2152	0.625	0.203	0.625	1.750
-5RL	-5LL										2.625
-6RS	-6LS	0.250		0.281	0.047	0.2830	0.2754	0.688	0.250	0.750	1.875
-6RL	-6LL										2.750
-8RL	-8LL	0.281	0.063	0.328		0.3454	0.3378	0.875	0.375	0.875	2.875
-9RL	-9LL	0.359	0.078	0.375		0.4052	0.3972	1.063	0.453	1.000	3.375
-10RL	-10LL	0.406		0.469	0.063	0.4678	0.4597	1.188	0.500		3.625

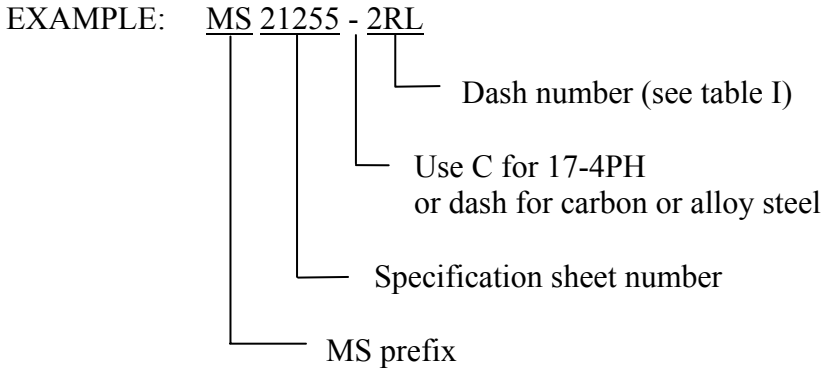
2/ Includes last full thread engagement.

REQUIREMENTS:

1. Material: Material shall be in accordance with MIL-DTL-8878.
2. Protective treatment: Protective treatment shall be in accordance with MIL-DTL-8878.
3. Heat treatment: Heat treatment shall be in accordance with MIL-DTL-8878.
4. Finish: Finish shall be in accordance with MIL-DTL-8878.
5. Threads: Threads shall be in accordance with FED-STD-H28/20.
6. Outside diameter (O.D.): O.D. of the "I" dimension may be a flat area.
7. Tolerances: Unless otherwise specified, tolerances: decimals ±0.010, angles ±0.5°.

NOTES:

1. The part or identifying number (PIN) consists of the letters MS, the specification sheet number, and a dash number taken from table I. A "C" in lieu of dash indicates 17-4PH; a dash indicates carbon or alloy steel. The first letter following the dash number or letter C indicates direction of thread (left or right hand) and the second letter indicates length (short or long).



MS21255C2LS Indicates - Eye, turnbuckle, 17-4PH, 0.1380 (#6)-40, left hand thread, short.
MS21255-2RL Indicates - Eye, turnbuckle, steel, 0.1380 (#6)-40, right hand thread, long.

2. Dimensions are in inches.

3. Remove burrs and sharp edges. (See MIL-DTL-8878.)

4. Interpret drawing in accordance with ASME Y14.5.

5. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence.

6. Unless otherwise specified, issues of referenced documents are those in effect at the time of solicitation.

7. For 0.125 (1/8) inch diameter wire rope use -5 parts, minimum breaking strength 2,200 pounds (lbs.) (reference).

8. For clip locking of turnbuckles, see MS33736 and MIL-DTL-8878.

9. Cutter radius mark, which is used as a clip slot alignment indicator, must be present on this surface.

10. During fabrication of the clip slot groove, operation of the cutter shall be maintained for the length of the terminal shank until engagement of the curved surface occurs (see Note 9). Depending upon the part tolerance conditions, the cutter radius marks may or may not appear on the shank surface and shall not be cause for rejection.

11. The parts covered by dash numbers shown on AN170 are canceled after 10 December 1971. Steel, carbon and alloy MS21255 parts are inactive for new design. Use only 17-4 PH stainless steel parts for new design and replacement for comparable alloy and carbon steel MS21255 parts and AN170 parts. The canceled AN170 parts and alloy and carbon steel MS21255 parts cannot replace comparable 17-4 PH stainless parts and should be used until existing stock is depleted. Substitution shall be in accordance with table II.

TABLE II. Substitution table.

PART NUMBERS		
Canceled part AN170	Inactive part MS21255	17.4 PH Stainless steel part
Dash number	Dash number	Dash number
5LS	None	None
5RS	None	None
8LS	2LS	C2LS
8RS	2RS	C2RS
None	2LL	C2LL
None	2RL	C2RL
16LS	3LS	C3LS
16RS	3RS	C3RS
16LL	3LL	C3LL
16RL	3RL	C3RL
22LS	5LS	C5LS
22RS	5RS	C5RS
22LL	5LL	C5LL
22RL	5RL	C5RL
32LS	5LS	C5LS
32RS	5RS	C5RS
32LL	5LL	C5LL
32RL	5RL	C5RL
46LS	6LS	C6LS
46RS	6RS	C6RS
46LL	6LL	C6LL
46RL	6RL	C6RL
61LL	8LL	C8LL
61RL	8RL	C8RL
80LL	8LL	C8LL
80RL	8RL	C8RL
125LL	9LL	C9LL
125RL	9RL	C9RL
175LL	10LL	C10LL
175RL	10RL	C10RL

AMENDMENT NOTATIONS: The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

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Review Activity:
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(Project 1640-2011-004)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST database at https://assist.daps.dla.mil/.