

INCH-POUND

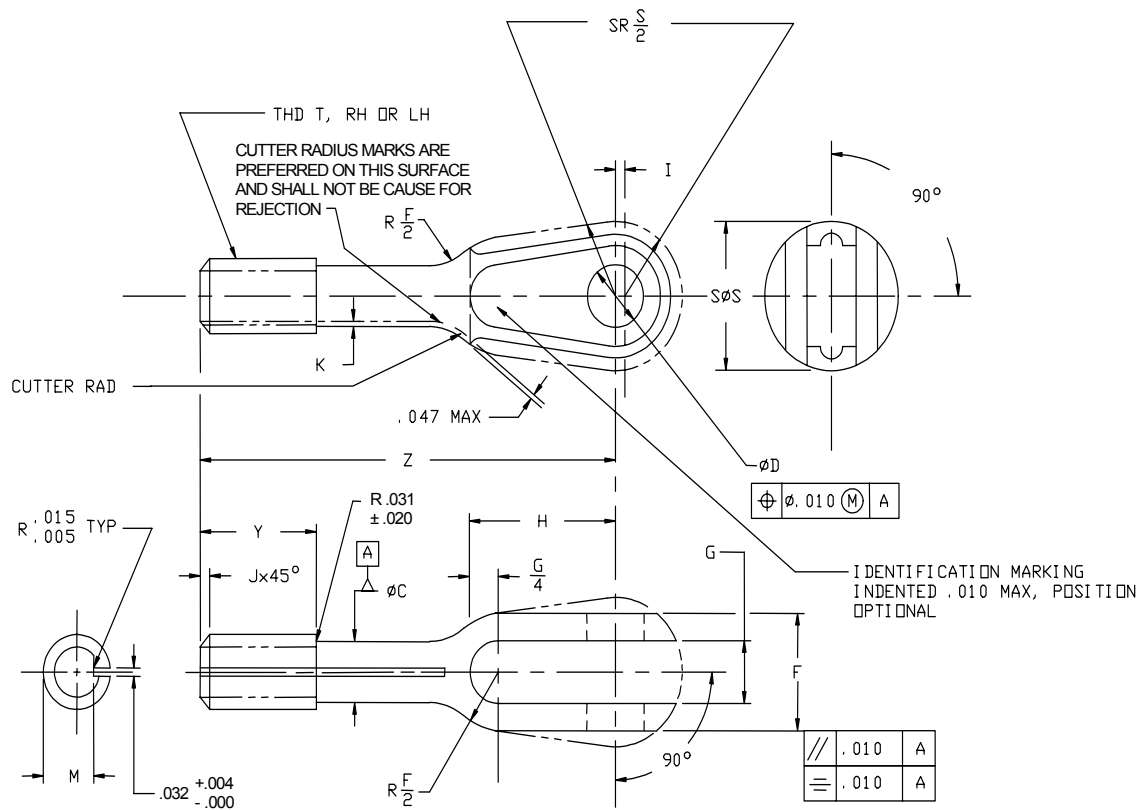
MS21252N
 20 November 2002
 SUPERSEDING
 MS21252M
 5 November 2001

DETAIL SPECIFICATION SHEET

CLEVIS END, TURNBUCKLE, CLIP LOCKING

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 and the issue of MIL-DTL-8878 and QPL-8878 listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation.



NOTES:

1. G dimension should be inspected below cross-hole.

FIGURE 1. Clevis end, turnbuckle, clip locking.

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TABLE I. Dash numbers and dimensions.

Dash number		Wire rope diameter		Minimum breaking strength lbs.	Thread T UNF-3A	ØC +0.006 -0.000	ØD +0.002 -0.000	F +0.010 -0.005	G +0.010 -0.000	H
Direction of thread										
RH	LH	Nominal reference	Minimum							
-2RS	-2LS	1/16	0.062	800	0.1380(#6)-40	0.094	0.190	0.250	0.109	0.375
-3RS	-3LS	3/32	0.093	1,600	0.1900(#10)-32	0.133	0.190	0.319	0.156	
-3RL	-3LL	3/32	0.093							
-4RS	-4LS	1/8	0.125	2,200	0.2500(1/4)-28	0.189	0.190	0.383	0.195	0.531
-4RL	-4LL	1/8	0.125							
-5RS	-5LS	5/32	0.156	3,200	0.2500(1/4)-28	0.189	0.250	0.452	0.218	0.531
-5RL	-5LL	5/32	0.156							
-6RS	-6LS	3/16	0.187	4600	0.3125(5/16)-24	0.243	0.313	0.547	0.250	0.656
-6RL	-6LL	3/16	0.187							
-8RL	-8LL	1/4	0.250	8,000	0.3750(3/8)-24	0.306	0.375	0.687	0.312	0.875
-9RL	-9LL	9/32	0.281	12,500	0.4375(7/16)-20	0.362	0.438	0.750	0.375	1,000
-10RL	-10LL	5/16	0.312	17,500	0.5000(1/2)-20	0.425	0.500	0.844	0.437	1,188

TABLE I. Dash numbers and dimensions - Continued.

Dash number		I +0.010 -0.000	J +0.000 -0.015	K	M		SØS ±0.010 reference 1/	Y ±0.047 2/	Z ±0.047
Direction of thread					Maximum	Maximum			
RH	LH			0.031	0.031	0.0096			
-2RS	-2LS	0.0077	0.1638			0.1568	0.500	0.500	1.625
-3RS	-3LS	0.0103	0.2224			0.2152	0.547	0.563	2.500
-3RL	-3LL								1.844
-4RS	-4LS								2.734
-4RL	-4LL	0.047	0.047	0.0103	0.2224	0.2152	0.641	0.625	1.844
-5RS	-5LS			0.0064	0.2830	0.2754	0.734	0.750	2.734
-5RL	-5LL								2.031
-6RS	-6LS								2.906
-6RL	-6LL			0.063	0.063	0.0057	0.3454	0.3378	0.922
-8RL	-8LL	0.0056	0.4052			0.3972	1.094	1.000	3.438
-9RL	-9LL	0.0058	0.4678			0.4597	1.219		3.688
-10RL	-10LL	0.078	0.078	0.0058	0.4678	0.4597	1.219		

1/ Reference dimensions are for design purposes only and are not an inspection requirement.

2/ Includes last full thread engagement.

REQUIREMENTS:

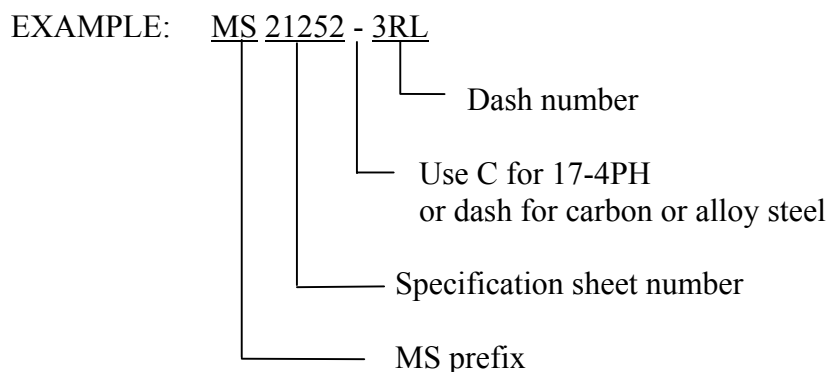
1. Material: Material shall be in accordance with MIL-DTL-8878.
2. Protective treatment: Protective treatment shall be in accordance with MIL-DTL-8878.
3. Heat treatment: Heat treatment shall be in accordance with MIL-DTL-8878.
4. Finish: Finish shall be in accordance with MIL-DTL-8878.
5. Threads: Threads shall be in accordance with FED-STD-H28/20.
6. Tolerances: Unless otherwise specified, tolerances: decimals ± 0.010 , angles $\pm 0.5^\circ$.

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7. Outside diameter (O.D.): O.D. of the "I" dimension may be a flat area.

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).



MS21252C3LS Indicates - Clevis end, 17-4PH, 0.1900 (#10)-32 left hand thread, short.

MS21252-3RL Indicates - Clevis end, steel, 0.1900 (#10)-32 right hand thread, long.

2. Remove burrs and sharp edges. (See MIL-DTL-8878.)
3. Dimensions are in inches.
4. Interpret drawing in accordance with ASME Y14.5M.
5. For clip locking of the turnbuckles, see MS33736 and MIL-DTL-8878.
6. Steel, carbon, and alloy clevis end turnbuckles are inactive for new design. 17-4PH stainless steel clevis end turnbuckles shall be used for new design and can be used to replace comparable steel parts.
7. Unless otherwise specified, issues of referenced documents are those in effect at the time of solicitation.
8. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence.
9. MS21252 items can replace AN161 items of like thread size and material.
10. The parts covered by dash numbers shown on AN161 are inactivated and canceled after 10 December 1971. Use the dash numbers given in table I. The canceled parts should be

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used until stock is deleted. Use only the MS21252 parts for new design and substitution. Substitution shall be in accordance with table II.

TABLE II. Substitution table.

PART NUMBERS	
Canceled part AN161	New part MS21252
Dash numbers	Dash numbers
5	None
8	2
16	3
22	4
32	5
46	6
61	8
80	8
125	9
175	10

CHANGES FROM PREVIOUS ISSUE: The margins of this specification sheet are marked with asterisks to indicate where changes from the previous issue 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 and relationship to the previous issue.

Custodians:
Navy - AS
Air Force - 99

Preparing Activity:
DLA - GS5

(Project 1560-0020)

Review Activities:
Navy - MC
Air Force - 71