

INCH-POUND

MS21252P
 12 October 2007
 SUPERSEDING
 MS21252N
 20 November 2002

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

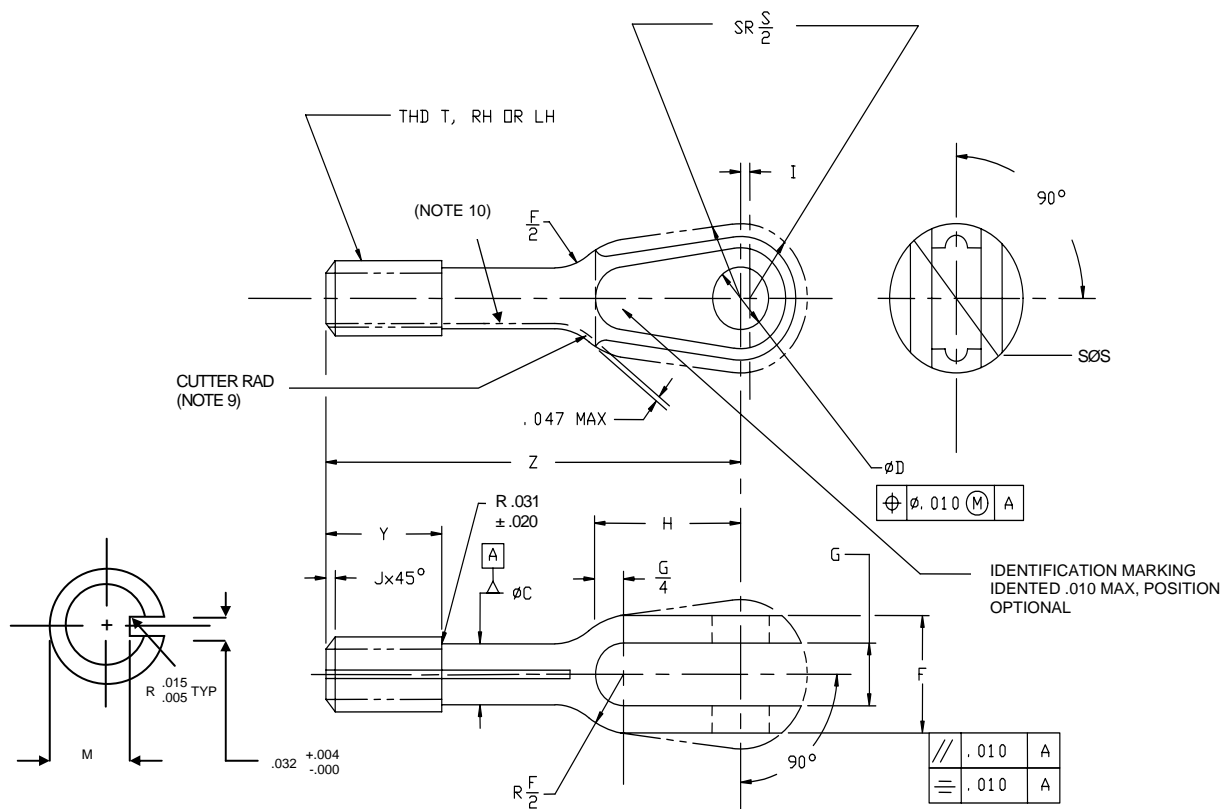


FIGURE 1. Clevis, end, turnbuckle, clip locking.

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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 | M | | SØS ±0.010 reference 1/ | Y ±0.047 2/ | Z ±0.047 |
|---------------------|-------|-----------------------|-----------------------|---------|---------|----------------------------------|-------------------|-------------|
| Direction of thread | | | | Maximum | Minimum | | | |
| RH | LH | | | | | | | |
| -2RS | -2LS | 0.031 | 0.031 | 0.1139 | 0.1094 | 0.375 | 0.375 | 1.500 |
| -3RS | -3LS | | | 0.1638 | 0.1568 | 0.500 | 0.500 | 1.625 |
| -3RL | -3LL | | | | | | | 2.500 |
| -4RS | -4LS | | | 0.2224 | 0.2152 | 0.547 | 0.563 | 1.844 |
| -4RL | -4LL | | | | | | | 2.734 |
| -5RS | -5LS | 0.047 | 0.047 | 0.2224 | 0.2152 | 0.641 | 0.625 | 1.844 |
| -5RL | -5LL | | | | | | | 2.734 |
| -6RS | -6LS | | | 0.2830 | 0.2754 | 0.734 | 0.750 | 2.031 |
| -6RL | -6LL | | | | | | | 2.906 |
| -8RL | -8LL | 0.063 | 0.063 | 0.3454 | 0.3378 | 0.922 | 0.875 | 3.188 |
| -9RL | -9LL | 0.078 | | 0.4052 | 0.3972 | 1.094 | 1.000 | 3.438 |
| -10RL | -10LL | | | 0.4678 | 0.4597 | 1.219 | | 3.688 |

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

2/ Includes last full thread engagement.

REQUIREMENTS:

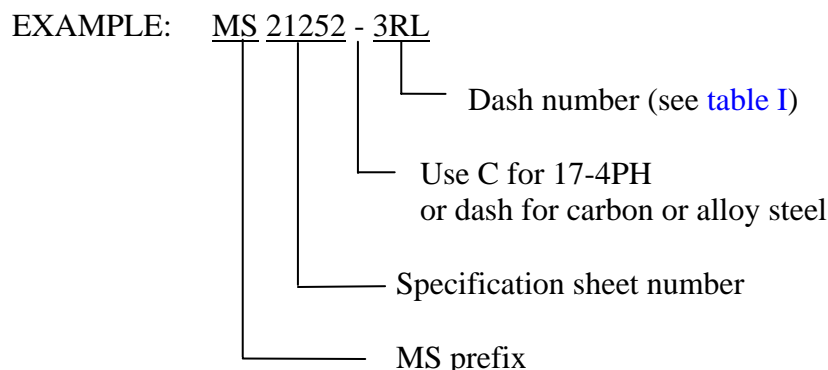
1. Material: Material shall be in accordance with MIL-DTL-8878.
2. Protective treatment: Protective treatment shall be in accordance with MIL-DTL-8878.
3. Heat treatment: Heat treatment shall be in accordance with MIL-DTL-8878.
4. Finish: Finish shall be in accordance with MIL-DTL-8878.
5. Threads: Threads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

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NOTES:

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

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. Unless otherwise specified, issues of referenced documents are those in effect at the time of solicitation.
7. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence.
8. MS21252 items can replace AN161 items of like thread size and material.
9. Cutter radius mark, which is used as a clip slot alignment indicator, must be present on this surface.
10. Cutter radius marks are permitted on this surface and shall not be cause for rejection.

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11. The parts covered by dash numbers shown on AN161 are canceled after 10 December 1971. Steel, carbon and alloy MS21252 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 MS21252 parts and AN161 parts. The canceled AN161 parts and alloy and carbon steel MS21252 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 AN161 | Inactive part MS21252 | 17.4 PH Stainless steel part |
| Dash number | Dash number | Dash number |
| 5LS | None | None |
| 5RS | None | None |
| 8LS | 2LS | C2LS |
| 8RS | 2RS | C2RS |
| 16LS | 3LS | C3LS |
| 16RS | 3RS | C3RS |
| 16LL | 3LL | C3LL |
| 16RL | 3RL | C3RL |
| 22LS | 4LS | C4LS |
| 22RS | 4RS | C4RS |
| 22LL | 4LL | C4LL |
| 22RL | 4RL | C4RL |
| 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 |

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CHANGES FROM PREVIOUS ISSUE: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

Navy - AS

Air Force - 99

Preparing Activity:

DLA - GS5

(Project 1640-2005-005)

Review Activities:

Navy - MC

Air Force - 71

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 <http://assist.daps.dla.mil/>.