

MIL-P-13630B(ME)  
13 April 1971  
SUPERSEDING  
MIL-P-13630A(ME)  
2 September 1966

## MILITARY SPECIFICATION

### PELICAN HOOK AND TURNBUCKLE ASSEMBLY

#### 1. SCOPE

1.1 This specification covers a turnbuckle assembly equipped with a pelican hook on one end and a grab link on the other end for use with 5/8- or 3/4-inch chain.

#### 2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein:

#### SPECIFICATIONS

##### Federal

- |           |   |
|-----------|---|
| FF-T-791  | - Turnbuckle.   |
| RR-C-271  | - Chains and Attachments, Welded, Weldless, and Roller Chain. |
| PPP-B-601 | - Boxes, Wood, Cleated-Plywood.                               |

#### STANDARDS

##### Military

- |             |  |
|-------------|--|
| MIL-STD-105 | - Sampling Procedures and Tables for Inspection by Attributes. |
| MIL-STD-129 | - Marking for Shipment and Storage.                            |
| MIL-STD-130 | - Identification Marking of U. S. Military Property.           |

(Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS

A153 - Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification.

(Application for copies should be addressed to the Tariff Publishing Officer, Room 202, Union Station, 516 West Jackson Boulevard, Chicago, Illinois 60606.)

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., ATTN: Tariff Order Section, 1616 P Street NW, Washington, D. C. 20036.)

3. REQUIREMENTS

3.1 Description. The pelican hook and turnbuckle assembly shall be as shown in figure 1 and as specified herein.

3.2 First article.

3.2.1 Preproduction model. The supplier shall furnish a pelican hook and turnbuckle assembly for examination and test within the time frame specified to prove, prior to starting production, that his production methods and choice of design detail will produce pelican hook and turnbuckle assemblies that comply with the requirements of this specification. Examination and tests shall be as specified in section 4 and shall be subject to surveillance and approval by the Government. (see 6.3).

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3.3 Materials. Materials shall be as specified herein. Materials not specified shall be selected by the supplier and shall be subject to all provisions of this specification. All materials shall be new and unused.

3.4 Turnbuckle body. The turnbuckle body shall be 1-1/4-inch nominal thread size with 18-inch clear opening conforming to FF-T-791, type I, form 1, class 2.

3.4.1 End pull. The end pull of the turnbuckle body for attachment to the grab link shall be 1-1/4 inch nominal diameter and shall have left-hand threads. The end pull shall be forged, round eye, conforming to FF-T-791.

3.5 Grab link. The grab link shall conform to RR-C-271, type XII, and shall have an overall length of 8-1/4 inches.

3.6 Pelican hook. The pelican hook shall conform to the shape and dimensions shown in figure 1. The parts shall be forged from open hearth or electric furnace steel, heat treated to meet the strength requirements specified in 3.7.

3.7 Strength requirements. The pelican hook and turnbuckle assembly shall withstand 14,000 pounds proof load without evidence of elongation, permanent set, deformation, rupture, or cracks.

3.8 Galvanizing. The pelican hook and turnbuckle assembly shall be zinc coated in accordance with ASTM A153. Zinc coating shall be applied after the body has been tapped and the end pull threaded.

3.9 Identification marking. The pelican hook and turnbuckle assembly shall be identified in accordance with MIL-STD-130.

3.10 Workmanship. The pelican hook and turnbuckle assembly shall be free from fins, cracks, seams, sharp edges, corrosion, or other imperfections which affect appearance or serviceability.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier

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may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Component and material inspection. The supplier is responsible for insuring that components and materials used are manufactured, examined, and tested in accordance with referenced specifications and standards.

4.2 Classification of inspection. Inspection shall be classified as follows:

- (a) Preproduction inspection (see 4.3).
- (b) Quality conformance inspection (see 4.4).
- (c) Inspection of preparation for delivery (see 4.6).

#### 4.3 Preproduction inspection.

4.3.1 Examination. The preproduction pelican hook and turnbuckle assembly shall be examined as specified in 4.5.1. Presence of one or more defects shall be cause for rejection.

4.3.2 Test. The preproduction pelican hook and turnbuckle assembly shall be tested as specified in 4.5.2. Failure of the test shall be cause for rejection.

#### 4.4 Quality conformance inspection.

4.4.1 Sampling. Sampling for examination and test shall be in accordance with MIL-STD-105.

4.4.2 Examination. Samples selected in accordance with 4.4.1 shall be examined as specified in 4.5.1. AQL shall be 2.5 percent defective.

4.4.3 Test. Samples selected in accordance with 4.4.1 shall be tested as specified in 4.5.2. AQL shall be 2.5 percent defective.

#### 4.5 Inspection procedure.

4.5.1 Examination. The assembly shall be examined for the following defects:

- 101. Dimensions not as specified.
- 102. Materials not as specified.

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- 103. Threads not as specified.
- 104. Assembly not zinc coated as specified.
- 105. Identification marking not as specified.
- 106. Workmanship not as specified.

4.5.2 Proof test. The pelican hook and turnbuckle assembly shall be tested as a unit on a tensile testing machine. Steadily apply the load to the assembly through connections on the grab link and on the pelican hook until a proof load of 14,000 pounds has been reached. Release the load and visually inspect the assembly for signs of elongation, permanent set, deformation, rupture, or cracks. Nonconformance to 3.7 shall constitute failure of this test.

#### 4.6 Inspection of preparation for delivery.

##### 4.6.1 Quality conformance inspection of pack.

4.6.1.1 Unit of product. For the purpose of this inspection, a completed pack prepared for shipment shall be considered a unit of product.

4.6.1.2 Sampling. Sampling for examination shall be in accordance with MIL-STD-105.

4.6.1.3 Examination. Samples selected in accordance with 4.6.1.2 shall be examined for the following defects. AQL shall be 4.0 percent defective.

- 107. Each pelican hook and turnbuckle assembly not prepared as specified for level A or B.
- 108. Ends of each twist-tied wire not positioned as specified for level A or B.
- 109. Shipping container not as specified for level A or B.
- 110. Strapping not zinc coated for level A.
- 111. Marking incorrect, illegible, incomplete, or missing.

#### 5. PREPARATION FOR DELIVERY

##### 5.1 Packaging. Packaging shall be level A, B, or C as specified.

5.1.1 Level A. Each pelican hook and turnbuckle assembly shall be prepared by fully screwing the end pulls into the body. The grab link and the pelican hook shall be secured with zinc-coated annealed steel wire. The ends of the wire shall be twist-tied and be positioned so that they shall not be a hazard.

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5.1.2 Level B. Each pelican hook and turnbuckle assembly shall be prepared as specified in 5.1.1 except that the wire may be uncoated annealed steel wire.

5.1.3 Level C. The pelican hook and turnbuckle assemblies shall be packaged to afford protection against deterioration and damage during shipment from the supplier to the initial destination.

5.2. Packing. Packing shall be level A, B, or C as specified.

5.2.1 Level A. The pelican hook and turnbuckle assemblies shall be packed in close-fitting boxes conforming to PPP-B-601, overseas type, style optional. Strapping shall be zinc coated. The contents shall be blocked, braced, and cushioned, as required, to prevent damage to the shipping container.

5.2.2 Level B. Pelican hook and turnbuckle assemblies shall be packed as specified in 5.2.1 except that boxes shall be domestic type, and strapping will not be required to be zinc coated.

5.2.3 Level C. Pelican hook and turnbuckle assemblies shall be packed to assure carrier acceptance and safe delivery to destination at lowest rates in compliance with Uniform Freight Classification rules or National Motor Freight Classification rules.

5.3 Marking. Marking shall be in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The pelican hook and turnbuckle assembly is intended to be used for lashing cargo and vehicles to decks of ships, and also in ship standing rigging such as radio antenna and mast stays where quick adjustment and detachability are required.

6.2 Ordering data: Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Time frame required for submission of preproduction model (see 3.2.1).
- (c) Level of packaging and level of packing required (see 5.1 and 5.2).

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6.3 Preproduction model. Any changes or deviations of production pelican hook and turnbuckle assemblies from the approved preproduction model during production will be subject to the approval of the contracting officer. Approval of the preproduction model will not relieve the supplier of his obligation to furnish pelican hook and turnbuckle assemblies conforming to this specification.

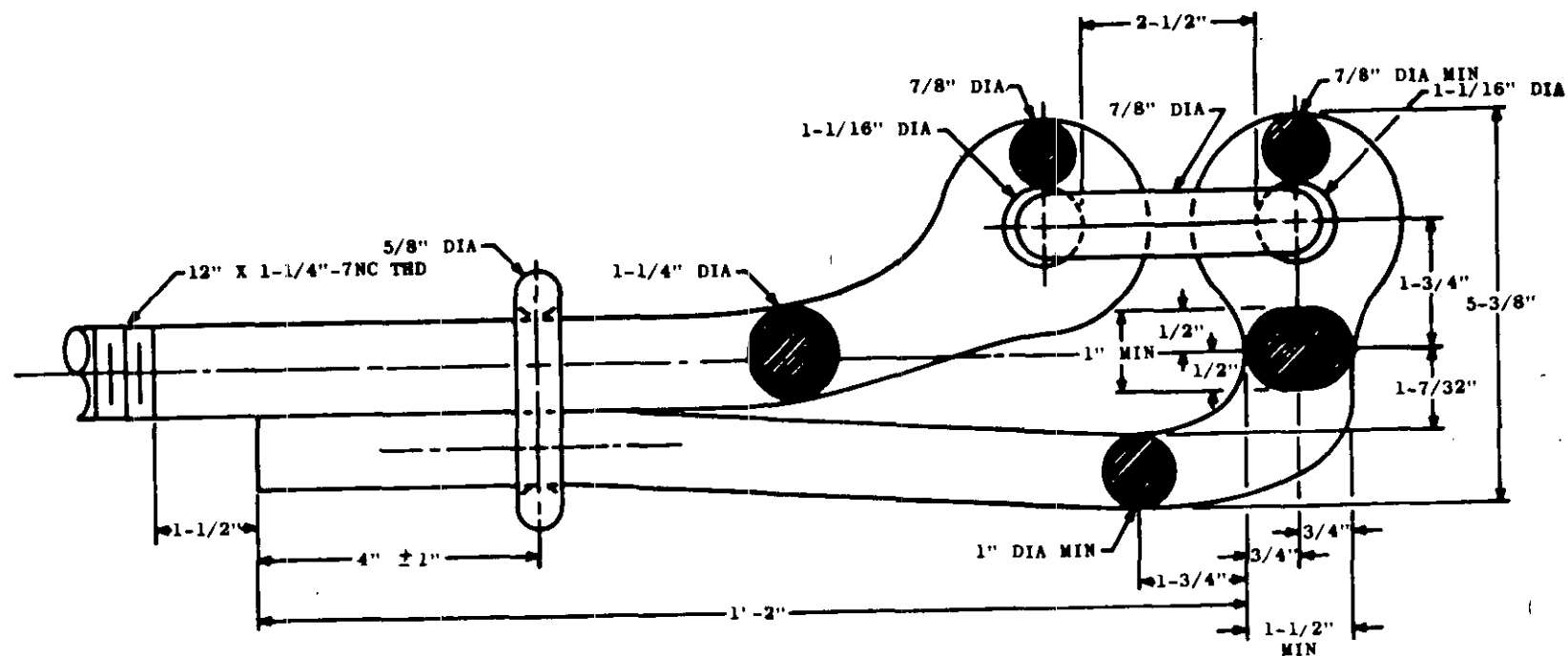
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