MIL-J-26016C(USAF) 23 Apr 84

SUPERSEDING MIL-J-26016B(USAF) 23 June 1970

MILITARY SPECIFICATION

JACK, AIRCRAFT LANDING GEAR, 10 TON CAPACITY, TYPE A-6

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

- 1. SCOPE
- *1.1 Scope. This specification covers one type of hydraulic, aircraft landing gear jack, 10-ton capacity, designated type A-6.
- 2. APPLICABLE DOCUMENTS
- *2.1 Government documents.
- 2.1.1 Specifications and standards. Unless otherwise specified (see 6.2), the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

PPP-B-601

Boxes, Wood, Cleated-Plywood

MILITARY

MIL-P-116

MIL 1 110

MIL-H-5606

Preservation, Methods of Hydraulic Fluid, Petrolcum Base, Aircraft, Missile and Ordnance

STANDARDS

FEDERAL

FED-STD-595

Color

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 US Military

Property

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: the Engineering Division, San Antonio ALC/MMEDO, Kelly AFB, Texas 78241 by using the self addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

MIL-STD-794

Parts and Equipment, Procedures for Packaging and Packing of

MIL-STD-808

Finish, Materials and Processes for Corrosion Prevention and Control in Support Equipment

MIL-STD-831

Test Reports, Preparation of
Cushioning, Anchoring, Bracing, Blocking and Waterproofing, with Appropriate Test Methods

DRAWINGS

AIR FORCE

Jack-Hand, Hydraulic Axle, 10-Ton Capacity, Type A-6, Assembly of

7545352 Requirements for Finishes, Protective and Codes for San Antonio ALC Ground and Ground

Support Equipment

- * (Copies of specifications and standards required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)
- *2.1.2 Other publications. The following document(s) form a part of this specification to the extent specified herein. The issues of the documents which are indicated as DoD adopted shall be the issue listed in the current DoDISS and the supplement thereto, if applicable.
- * AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3951-82

Packaging, Commercial

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

UNIFORM CLASSIFICATION COMMITTEE

Uniform Freight Classification Ratings, Rules and Regulations

(Applications for copies should be addressed to the Uniform Classification Committee, 202 Union Station, 516 West Jackson Boulevard, Chicago IL 60606.)

2.1.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

*3. REQUIREMENTS

3.1 First article. Before production is commenced, one (1) jack covered by this specification shall be submitted or made available to the contracting officer or his authorized representative for approval in accordance with Section 4. Approval of the preproduction sample authorizes the commencement of production, but does not relieve the contractor of responsibility for compliance with all provisions of this specification. The preproduction sample shall be manufactured in the same facilities to be used for the manufacture of the production item.

3.2 General. The requirements specified on Drawing 53D22004 are applicable as requirements of this specification. When the requirements of the drawing and this specification conflict, the requirements of this specification shall govern.

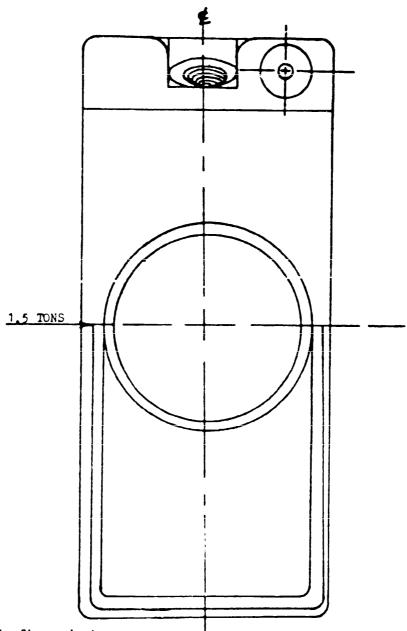
3.3 Performance.

- 3.3.1 Static proof. The jack shall be capable of raising a 15-ton load vertically from the lowest position to the fully extended position. At the fully extended position, while supporting a 10-ton load, the jack shall be capable of withstanding a horizontal load of 1.5 tons, applied perpendicular to the major axis of the jack pad. (See Figure 1).
- 3.3.2 <u>Life</u>. The jack shall be capable of satisfactory operation after 200 cycles of raising a 10-ton load vertically, and 50 cycles of raising a 10-ton load vertically while being subjected to a horizontal load of 1.5 tons.
- 3.3.3 <u>Leakage</u>. The cylinder and ram assembly shall not leak when subjected to a hydraulic pressure of 7,500 pounds per square inch.
- 3.3.4 By-pass valve. The by-pass valve shall be adjusted to the value specified on the drawing.
- 3.4 <u>Identification of product</u>. Equipment, assemblies, and parts shall be marked for identification in accordance with MIL-STD-130.
- 3.5 <u>Treatment and painting</u>. Treatment and painting shall be per MIL-STD-808 as supplemented by AF drawing 7545352. Final film shall be color 24052 per FED-STD-595.

4. QUALITY ASSURANCE PROVISIONS

- 4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the contractor 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.
- 4.2 Classification of inspection. The inspection requirements specified herein are classified as follows:
 - a. First article inspection (see 4.3)
 - b. Quality conformance inspection (see 4.4)
- 4.3 First article inspection. First article inspection shall be conducted in accordance with 3.1. Failure of the first article to pass the examination or one or more first article test shall be cause for rejection. Unless otherwise specified (see 6.2), first article inspection shall consist of the examination and all tests in 4.5.

MAJOR AXIS OF JACK PAD



NOTE: This figure is to be used for determining direction of horizontally applied load only.

FIGURE 1 Jack pad.

- 4.4 Quality conformance inspection. Quality conformance inspection shall consist of:
 - a. Individual tests
 - b. Sampling tests
- 4.4.1 <u>Individual tests</u>. The jack shall be subjected to the following tests as described under 4.5:
 - a. Examination of product
 - b. Leakage test
 - c. By-pass valve test
- 4.4.2 <u>Sampling plans and tests</u>. Sampling shall be in accordance with the Appendix to MIL-STD-105. Inspection level S-4 shall be used for normal inspection and inspection level S-3 shall be used for reduced inspection. The acceptable quality level (AQL) shall be 2.5 percent defective. Samples selected shall be subjected to the test described under 4.5.4.
- 4.5 Test methods.
- 4.5.1 Examination of product. The jack shall be inspected to determine compliance with the requirements specified herein with respect to workmanship, marking, and compliance with the drawings.
- 4.5.2 <u>Leakage test</u>. The cylinder and ram assembly of the assembled jack shall be tested by applying a minimum hydraulic pressure of 7,500 pounds per square inch. This test shall be performed with an appropriate load on the ram assembly to proclude damage to ram stops. Any leaking of hydraulic fluid shall be cause for rejection.
- 4.5.3 By-pass valve test. The pump shall be tested by sealing the pump outlet and operating the pump until the by-pass valve opens. The by-pass valve shall be adjusted to the value specified on the drawing.
- 4.5.4 Static proof test. After the by-pass valve has been adjusted, the jack shall be tested by raising a 15-ton load vertically from the lowest position to the fully extended position. At the fully extended position, under a 10-ton load, a horizontal load of 1.5 tons shall be applied to the top of the extended screw extension, perpendicular to the major axis of the jack pad. (See Figure 1).
- 4.5.5 <u>Life test</u>. The life test shall consist of 200 cycles of raising a 10-ton vertical load from the fully collapsed to the fully extended position. Also, 50 cycles of raising a 10-ton load vertically with a horizontal load of 1.5 tons applied to the top of the extended screw extension, perpendicular to the major axis of the jack pad. (See Figure 1). The horizontal load shall be graduated from 1 in the collapsed position to 1.5 tons in the fully extended position. Failure of any part of the jack during this test shall be cause for rejection.
- 4.6 Preproduction test report. If the testing is accomplished by the contractor, he shall prepare a preproduction test report according to MIL-STD-831 and furnish three copies of the test report to the procuring activity.

4.7 Inspection of the preservation, packaging, packing and marking for shipment and storage. Sample items or packs and the inspection of the preservation, packaging, packing and marking for shipment and storage shall be in accordance with the requirements of Section 5, or the documents specified therein.

PACKAGING

- *5.1 Preservation. Preservation shall be level A, C or standard practice for commercial packaging (see 6.2).
- *5.1.1 <u>Level A</u>. The jack shall be preserved in accordance with MIL-P-116, Method I.
- *5.1.2 Level C. The level C preservation for the jack shall conform to the MIL-STD-794 requirements for this level.
- *5.1.3 Commercial. Commercial packaging shall be in accordance with ASTM D 3951.
- *5.2 Packing. Packing shall be level A, B, C. or commercial (see 6.2).
- 5.2.1 <u>Level A.</u> The packaged jacks shall be packed in wooden containers contorming to PPP-B-601, overseas type. Closures shall be in accordance with the appendix thereto.
- 5.2.2 <u>Level B</u>. The packaged jacks shall be packed in wooden containers conforming to PPP-B-601, type domestic. Closures shall be in accordance with the appendix thereto.
- 5.2.3 <u>Level C</u>. The level C packing for jacks shall conform to the MIL-STD-794 requirements for this level.
- 5.2.4 Commercial. The jack shall be packed in accordance with the requirements of ASTM D 3951-82.
- 5.3 Physical protection. All cushioning, blocking, bracing and bolting shall be in accordance with MIL-STD-1186.

5.4 Marking.

- 5.4.1 <u>Levels A, B and C</u>. In addition to any special marking required by the contract (see 6.2), interior and shipping containers shall be marked in accordance with the requirements of MIL-STD-129.
- 5.4.2 Commercial. Commercial marking shall be in accordance with the requirements of ASTM D 3951-82.

6. NOTES

- 6.1 Intended use. The type A-6 jack covered by this specification is intended for use as an aircraft axle jack.
- *6.2 Ordering data.

- 6.2.1 Acquisition requirements. Acquisition documents should specify the following:
 - a. Title, number and date of this specification.
 - b. When first article sample is required (see 3.1).
 - c. First article inspection, if different (see 4.3).
- d. Selection of applicable levels of preservation and packaging and packing (see Section 5).
- 6.3 Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) 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 last previous issue.

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(Project 1730-F271)

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