

MIL-C-6497C(USAF)
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 Superseding
 MIL-C-6497B
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MILITARY SPECIFICATION

CRANE, ENGINE OR TURRET, PORTABLE, 5000 LB CAPACITY TYPE J-1B

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

1. SCOPE

1.1 This specification covers one type of portable, 5000 pound capacity engine or turret crane, designated Type J-1B.

2. APPLICABLE DOCUMENTS

2.1 Government Documents

2.1.1 Specifications, standards, and handbooks. Unless otherwise specified, the following specifications, standards, and handbooks of the issue listed in 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

Military

MIL-C-104	Crates, Wood; Lumber and Plywood Sheathed, Nailed and Bolted
MIL-P-116	Preservation, Methods of
MIL-C-3774	Crates; Wood, Open 12,000 and 16,000 Lb capacity
MIL-W-6496	Winch, Drum, Engine or Turret Hoist, Type A-1

STANDARDS

Federal

FED-STD-595	Colors
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Military

MIL-STD-129	Marking for Shipment and Storage
MIL-STD-130	Identification Marking of U.S. Military Property
MIL-STD-808	Finishes, Protective, and Codes, for Finishing Schemes for Ground and Ground Support Equipment

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: HQ AFLC CASO/LODSAC, Federal Center, Battle Creek, MI 49016 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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2.1.2 Other Government documents, drawings, and publications. The following other government documents, drawings, and publications form a part of this specification to the extent specified herein.

DRAWINGS

U.S. Air Force

53J6186

Crane Assembly, Engine or Turret, Portable, 5000
Lb Capacity, Type J-1B

(Copies of specifications, standards, handbooks, drawings, and publications required by manufacturers in connection with specific acquisition function should be obtained from the contracting activity, or as directed by the contracting officer.)

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

3. REQUIREMENTS

3.1 Preproduction sample. The contractor shall furnish a complete crane for preproduction inspection in accordance with Section 4. The sample may be a preproduction item or a production item which meets the requirements of this specification. In either case, the sample shall be identical with the proposed items and shall be made or shall have been made by the methods that are to be used or were used in production of items to fulfill the terms of the contract. Approval of a preproduction sample shall not relieve the contractor of the responsibility to furnish equipment in accordance with the requirements of this specification.

3.2 General requirements. The requirements of Drawing 53J6186 shall apply as requirements of this specification with the exceptions and additions specified herein.

3.2.1 Winch. The winch unit shall be in accordance with MIL-W-6496.

3.2.2 Tubing. Steel tubing shall be commercial high strength steel tubing. With maximum rated load on the crane, stress levels in any structural member shall not exceed 1/3 of the elastic limit of the material. Marking of tubing shall be in accordance with the manufacturer's standard practices.

3.2.3 Casters. Commercial casters which are equal to and interchangeable with casters specified on drawing 53J6186 are acceptable.

3.2.4 Materials. Recycled and recovered raw material should be used to the maximum extent possible in lieu of virgin raw material as long as these materials do not jeopardize the intended use and fully comply with all contract requirements. Materials used shall be free from defects which would adversely affect the performance or maintainability of individual components or the overall assembly. Materials not specified herein shall be of the same quality used for the intended purpose in commercial practice. None of the above shall be interpreted to mean that the use of used or rebuilt products will be allowed.

3.3 Erection diagram. An erection diagram shall be furnished with each crane

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showing at least 2 views of the assembled crane. The subassemblies of the crane shall be clearly marked in black paint and shall be noted on the erection diagram. The net weight of the crane and the cubic displacement shall be printed on the erection diagram.

3.4 Marking. The following shall be marked in black letters 1-1/2 inches high on one leg of the crane:

MAX. CAPACITY - 5000 LB AT 45 DEGREES BOOM ANGLE
MAX. CAPACITY - 3800 LB AT 30 DEGREES BOOM ANGLE

3.4.1 Finishes and protective coatings. Crane shall be cleaned, treated and painted in accordance with MIL-STD-808. Color shall conform to color Nr. 13538 of FED-STD-595.

3.5 Identification of product. Equipment, assemblies, and parts shall be marked for identification in accordance with MIL-STD-130.

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, the supplier may utilize his own or any other inspection facilities and services acceptable to 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 tests. Inspection of cranes shall be classified as follows:

- a. Preproduction inspection.
- b. Quality conformance inspection.

4.2.1 Preproduction inspection. Preproduction inspection shall be applied to the preproduction sample submitted in accordance with 3.1. Failure of the preproduction sample to pass the examination or one or more preproduction tests shall be cause for rejection. Preproduction inspection shall consist of the examination in 4.3 and all tests in 4.4.

4.2.2 Quality conformance inspection. Quality conformance inspection shall be applied to each item prior to being offered for acceptance under the contract. Failure of the item to pass the examination in 4.3 and tests in 4.4.1, 4.4.2, 4.4.3 and 4.5 shall be cause for rejection.

4.3 Examination. Each crane shall be examined to determine compliance with the specification with respect to materials, workmanship and dimensions.

4.4 Tests.

4.4.1 Load. The crane shall be completely assembled and a load of 10,000 pounds lifted to a hook height of 4 feet, remain there for 5 minutes, and then lowered to ground level.

4.4.2 Swinging load. The crane shall be tested by hoisting a 5000 pound

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load on the cable hook to a ground clearance of 4 feet. The load shall be swung 2 feet fore, aft, and sideways to check defects and set in the structure. The load shall be swung for not less than 10 minutes in each direction, and no damage or permanent deformation of any part of the crane shall occur as a result of this test.

4.4.3 Tow test. With a load of 5000 pounds suspended from the cable hook, the crane shall be towed for a distance of 300 feet over smooth concrete or macadam paving at a speed of not less than 2 mph. Inspection of the crane shall reveal no evidence of damage or deformation of any part of the crane as a result of this test.

4.4.4 Road test. The unloaded crane shall be towed for a distance of 3 miles over concrete or macadam paving at a speed of not less than 8 mph. After completion of this test, there shall be no evidence of damage or permanent deformation of any part of the crane.

4.4.5 Immobilization. With the unloaded crane resting upon smooth concrete paving, wheel brakes shall be tested by applying a horizontal drawbar pull of 700 pounds. There shall be no slippage of brakes as a result of this test.

4.4.6 Endurance test. With a load of 5000 pounds suspended from the cable hook, the load shall be raised to a hook height of not less than 18 feet and then lowered to ground level for a total of 100 cycles. After completion of this test, there shall be no evidence of damage or permanent deformation of any part of the crane.

4.5 Inspection of Preparation for delivery. Preservation, packaging, packing and marking shall be inspected to verify conformance to Section 5 herein.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging.

5.1.1 Levels A and B. All exposed, bare metal parts or surfaces shall be preserved and packaged in accordance with MIL-P-116, Method I (see 6.2.1).

5.1.2 Level C. Each crane shall be preserved and packaged in accordance with the manufacturer's practice (see 6.2.1).

5.2 Packing.

5.2.1 Level A. The crane shall be disassembled to the extent that when packed in a crate in accordance with MIL-C-104, the crate shall be compact and held to a minimum cubage (see 6.2.1).

5.2.2 Level B. The crane shall be disassembled as specified in 5.2.1 and packed in a crate conforming to MIL-C-3774 (see 6.2.1).

5.2.3 Level C. Disassembled components which require packing for acceptance by the carrier shall be packed in exterior type shipping containers in a manner that will insure safe transportation at the lowest rate to the point of delivery. Containers shall meet Consolidated Freight Classification Rules or Regulations of other common carriers as applicable to the mode of transportation (see 6.2.1).

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5.3 Marking of Shipments. The crane shall be marked for shipment in accordance with MIL-STD-129. The nomenclature shall be as follows:

Crane, Engine or Turret, Portable, 5000 Lb Capacity
Type J-1B
Specification MIL-C-6497C
Mfr's Part No. _____ *

* Applicable data to be entered by the contractor.

6. NOTES

6.1 Use. The Type J-1B crane covered by this specification is intended for use in the removal and installation of aircraft engines and turrets.

6.2 Ordering data. Invitations for bids, contracts, and purchase orders should state the conditions for the following:

6.2.1 Preparation for delivery. Level of preservation, packaging and packing required (see 5.1.1, 5.1.2, 5.2.1, 5.2.2 and 5.2.3).

CUSTODIANS:
Air Force - 99

PREPARING ACTIVITY:
Air Force - 99

PROJECT NR. 3950-0225

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS: This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.

NOTE: This form shall not be used to submit requests for waivers, deviations or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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MIL C- 6497 C

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A. GIVE PARAGRAPH NUMBER AND WORDING

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C. REASON FOR RECOMMENDED CHANGE(S)

2. REMARKS

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DD FORM 1426
1 OCT 76

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