[INCH-POUND]
A-A-59170
27 March 1998
SUPERSEDING
MIL-B-2424D
6 October 1983

COMMERCIAL ITEM DESCRIPTION

BLOCK AND TACKLE WITH LOAD-LOCKING DEVICE

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This commercial item description (CID) covers a double-sheaved, single-reeved, nylon rope block and tackle with a locking device commonly used to lift and move objects. The block and tackle is intended for use in rigging, construction, and other military operations to gain a mechanical advantage when hoisting, pulling, or moving heavy objects and to hold loads in place through use of a safety locking device.

2. CLASSIFICATION. Block and tackle sets with load-locking devices shall be the following sizes. Size is determined by the working load limit (WLL)of the block and tackle assembly. The size to be furnished shall be as specified (see 7.2(b)).

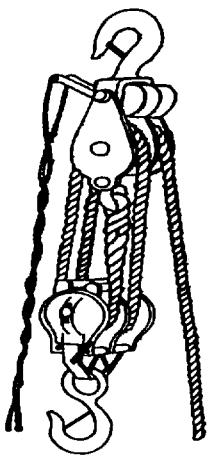
Size 1 - 480-pound WLL
Size 2 - 800-pound WLL
Size 3 - 2240-pound WLL
Size 4 - 4000-pound WLL
Size 5 - 6160-pound WLL

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: Defense Supply Center Richmond, ATTN: DSCR-VBD, 8000 Jefferson Davis Highway, Richmond, VA 23297-5610.

AMSC N/A FSC 3940

3. SALIENT CHARACTERISTICS

3.1 General requirements. The block and tackle shall consist of two double-sheaved blocks, one fixed and one moveable, reeved with a single nylon rope with one end of the rope spliced to the becket of the fixed block. The block and tackle assembly and components shall meet the requirements shown in figure 1 and section 3.2 herein. All parts subject to wear, breakage, or distortion shall be accessible for inspection, adjustment, replacement, and repair.



Size (block number)	Sheave diameter, inches	Rope diameter, inches	Fixed block WLL, pounds	Moving block WLL, pounds	Maximum load, pounds
1	1 1/2	1/4	600	480	480
2	2 1/4	1/2	1000	800	800
3	3 1/2	3/4	2800	2240	2240
4	4 1/2	1	5000	4000	4000
5	6 1/4	1 1/4	7700	6160	6160

FIGURE 1. Block and tackle requirements.

3.2 Components. The block and tackle shall include, as a minimum, the following components:

3.2.1 Blocks. The fixed and movable blocks shall be fabricated from compatible metallic materials that are inherently corrosion and deterioration resistant or treated to provide protection against corrosion and deterioration. Sheave bearings shall be oil-self-lubricating bronze conforming to ASTM B 438. If required, special materials, material finish, or surface treatment of components or subcomponents shall be as specified (see 7.2(c)). The block and shelves shall be designed to prevent jamming of the rope and shall have smooth edges and surfaces to prevent damage to the rope. Each block shall be equipped with a loose side hook. The fixed block shall be equipped with a load-locking device and a becket.

3.2.2 Hook. The hoist style hooks shall be marked and constructed in accordance with ASME B30.10. Unless otherwise specified (see 7.2 (d)), size and throat clearance shall be determined by standard commercial practice to meet load and size requirements for the size of block and tackle specified. Unless otherwise specified (see 7.2 (e)), hooks shall be equipped with a with safety latch.

3.2.3 Rope. Unless otherwise specified (see 7.2 (f)), the rope shall be 3-strand nylon rope conforming to Cordage Institute (CI) publication CI-1303. The rope shall contain no cuts, kinks, soft spots, chafed or damaged sections, or broken or loose projecting ends in the rope or strands. The rope diameter shall fit the block as specified in figure 1. One end shall have an eye splice made in accordance with CI publication CIB-7 around the becket of the fixed block. The free end shall be cut off squarely and securely whipped or taped and heat sealed. The rope length shall be as specified (see 7.2 (g)).

3.3 Safety and health requirements. The manufacturer shall ensure that the block and tackle and all components used shall be in compliance with Occupational Safety and Health Administration (OSHA) 29 CFR PART 1926.251. If a conflict arises between this document and OSHA standards, the OSHA standards shall apply.

3.4 Identification marking. The blocks shall be permanently and legibly marked with the manufacturer's name or trademark and the maximum load the block and tackle assembly is designed to lift.

4. REGULATORY REQUIREMENTS

4.1 Environmental protection. The item shall meet all applicable Environmental Protection Agency (EPA) restrictions in effect on the date of the contract. These regulations apply to the emission of materials hazardous to the environment or the user's health and shall be adhered to during the manufacturing, service, transportation, storage, and operation/use of the item.

5. QUALITY ASSURANCE

5.1 Product conformance. The products shall meet the salient characteristics of this commercial item description; conform to the manufacturer's own drawings, specifications, standards, and quality assurance practices; and be the same product offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Inspection. The block and tackle shall be inspected to determine compliance with all requirements specified in this CID.

5.3 Testing. Unless otherwise specified (see 7.2 (h)), the block and tackle shall be tested in accordance with sections 5.3.1 through 5.3.3.

5.3.1 Operational test., The block and tackle set with load locking device shall be tested by

hoisting a load at 125 percent of the maximum load specified in figure 1 in accordance with OSHA 29 CFR PART 1926.251. At the conclusion of this test, the block and tackle shall be visually examined for evidence of damage.

5.3.2 Blocks. The individual blocks shall show no evidence of deformation, distortion, cracks, or permanent set when subjected to a proof load twice the WLL specified in figure 1. The manufacturer shall certify that the blocks shall withstand five times their WLL without failure.

5.3.3 Locking mechanism. The locking mechanism shall grip the rope immediately upon removal of the hoisting strain. The locking mechanism shall cause minimum rope wear and shall securely lock the rope under 125 percent of the maximum load specified in figure 1. The locking mechanism shall have a release feature which allows release of the load by the operator.

5.4 Acceptance. Preliminary and final acceptance tests shall be conducted at the manufacturer's site. Failure of the block and tackle to meet the test requirements of section 5.3 shall be cause for rejection. The manufacturer shall provide certification that each block meets the proof load and the block and tackle assembly and locking mechanism meets the 125 percent maximum load test.

6. PACKAGING. Preservation, packing, and marking shall be as specified (7.2 (i)).

7. NOTES

7.1 Sources of documents.

7.1.1 Government documents. Copies of Federal documents may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

7.1.2 Industry standards. Copies of industry standards referenced in this CID may be obtained from the following addresses:

Occupational Safety and Health Administration (OSHA)

OSHA 29 CFR PART 1926.251 Rigging equipment for material handling

Applications for copies should be sent to the U.S. Department of Labor, 200 Constitution Avenue NW, Room 423, Washington, DC 20210.

Cordage Institute (CI)

CI-1303 Nylon Fiber Rope 3-Strand and 8-Strand Constructions

CIB-7 Splicing Instructions

Applications for copies should be sent to the Cordage Institute, 350 Lincoln Street, Hingham, MA 02043.

ASTM (Formerly the American Society of Testing and Materials)

ASTM B 438 Standard Specification for Sintered Bronze Bearings (Oil-impregnated)

Applications for copies should be sent to the ASTM, Inc. 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

7.2 Ordering data. Acquisition documents must specify the following:

a. Title, number, and date of this document.
b. Size of block and tackle required (see 2).
c. Block materials and finish, if different (see 3.2.1).
d. Size and throat clearance, if different (see 3.2.2).
e. Safety latch, if different (see 3.2.2).
f. Type of rope, if different (see 3.2.3).
g. Length of rope required (see 3.2.3).
h. Testing, if different (see 5.3).
i. Packaging requirements (see 6).

7.3 Part identification number (PIN). The following part identification numbering procedure is for government purposes and does not constitute a requirement for the contractor.

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Size: See figure 1 for size.

CID number

MILITARY INTERESTS:

Custodians
Air Force - 99
Army - CR4

Reviewers
Air Force - 84
Navy - SH, YD1

PREPARING ACTIVITY:
DLA-GS

(Project 3940-0007)