

METRIC

A-A-59848
November 20, 2009

COMMERCIAL ITEM DESCRIPTION

PULLEY, MOUNTAINEERING

This commercial item description is approved for use by the Defense Supply Center, Philadelphia and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE. This commercial item description covers the requirements for mountaineering pulleys which are used to ease the act of hauling heavy items on rope systems.

2. CLASSIFICATION. The pulleys will be furnished in the following types and sizes:

2.1 Types.

Type I – Prusik Minding

Type II – Self Jamming

Type III – Standard

2.2 Sizing. The pulleys will conform to the sizes and characteristics as specified in Table I while meeting the standards in this description.

TABLE I. Physical characteristics

Type	Minimum Breaking strength, kN	Weight, grams
I	17	80
II	20	165
III	22	226

Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of this address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database at <http://assist.daps.dla.mil/>.

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2.2.1 Type I. The pulley will accommodate ropes between 8 millimeters and 11 millimeters while minding 6 millimeters to 9 millimeters prusik cord. The carabiner hole will be sized to fit two of each type of carabiners in accordance with A-A-59836.

2.2.2 Type II. The pulley will accommodate ropes between 8 millimeters and 11 millimeters. The carabiner hole will be sized to fit each type of carabiner in accordance with A-A-59836.

2.2.3 Type III. The pulley wheel will have roller bearings and be large enough, to accommodate a 1/2 inch diameter rope and meet the salient characteristics of 3.1.2. The center bolt will have a 3/8 inch diameter shaft fabricated from steel. The carabiner hole will be large enough to accommodate each type of carabiner in accordance with A-A-59836.

3. SALIENT CHARACTERISTICS. The pulley side parts and sheave shall be made of 6061-T6 aluminum. The self-jamming mechanism (Type II only) shall be made of chrome plated steel. The pulley design shall provide ease of use with typical combat gloves while meeting the standards in this description.

3.1 Type I. The prusik minding pulley shall be designed to haul items while preventing a tied prusik, being used for backup, from slipping through and becoming wedged in the pulley. The pulley shall be able to be opened via the side plates to allow for ease of access to the rope channel without having to thread the rope through the pulley. The sheave shall be mounted on sealed bearings.

3.1.1 Type II. The self jamming pulley shall be designed to be used as an automatically jamming pulley that will lock the load off when tension is applied. The pulley shall have an anti-return cam (stop) which will cause the pulley wheel to lock when the pulley goes backwards. The anti-return cam shall have a catch to set the cam in the on or off position so the device can be used as a simple pulley. The anti-return cam shall be self cleaning and function with dry, wet, frozen or muddy ropes. The pulley shall include markings on the body to identify direction of operations and rope sizes.

3.1.2 Type III. The standard pulley shall have split halves that enable the user to put the rope in the pulley without having to thread the rope through the pulley. The pulley sides and wheel shall be fabricated from aluminum. The shaft nut shall have a self-locking nylon insert. Minimum breaking strength shall be 5000 pounds. Maximum weight shall be 0.5 pounds. Finish shall be black anodized. The manufacturer's identification symbol shall be stamped on each pulley assembly.

3.2 Color. The pulley exterior (all types) shall be provided in a low reflectance finish and provide low contrast with typical use terrain.

3.3 Tests.

3.3.1 Type I and Type III. The pulley shall meet the International Mountaineering and Climbing Federation (Union Internationale des Associations d'Alpinisme -UIAA) Standard 127.

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3.3.2 Type II. The pulley shall meet UIAA Standard 127 and UIAA Standard 126.

3.4 Workmanship. The finished pulley, mountaineering shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the contractors own quality assurance standards and the quality assurance standards defined in the technical data in the solicitation and/or contract.

3.5 Service life. The pulley shall have no unexpected material or component failures during a continuous one-year cycle. The pulley shall have no unexpected material or component failures during periodic use over a five year period or unless stated in the contract when tested in accordance with industry standards

3.6 Labels/barcoding/instruction slip. If applicable, all labeling, barcoding and instruction slip requirements shall be as specified in the solicitation or contract (see 7.2).

4. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

4.1 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements and promotes economically advantageous life cycle costs.

5. PRODUCT CONFORMANCE PROVISIONS.

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

5.2 Visual examination. Each pulley shall be examined for the following defects as listed in Table II:

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TABLE II. End item examination

Examine	Defect Description
Finish	Not smooth and adherent
Construction	Not free of burrs, rough spots, slivers, flat areas or projections
	Any component loose, missing or not specified type
	Any component fractured, slit, punctured, dented, bowed, malformed or damaged
	Marking etched or indented, contains rough or sharp edges
Labels/barcoding/instruction slip (if applicable)	Incorrect, illegible, omitted or misplaced
Marking	Omitted, missing information or illegible
Function	Doesn't function as specified

5.3 Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order (see 7.2).

6. PACKAGING.

6.1 Preservation, packing and marking. The preservation, packing and marking shall be as specified in the contract or order (see 7.2).

7. NOTES.

7.1 Sources of documents.

7.1.1 Government documents. Copies of Government documents are available online at <http://assist.daps.dla.mil/quicksearch/> or from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

DRAWINGS

U.S. ARMY NATICK SOLDIER CENTER

3-3-0100 Pulley, Mountaineering, Type I
3-3-0101 Pulley, Mountaineering, Type II

(Copies of drawings are available from the U.S. Army Natick Research Development and Engineering Center, Natick Soldier Center, ATTN: NSRDEC-RDNS-WPW-C, Natick, MA 01760)

7.1.2 Federal Acquisition Regulations are available online at <http://acquisition.gov/far/index.html> or by contacting the Superintendent of Documents at 202-512-1800.

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7.1.3 Non-Government documents. Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents may be available in or through libraries or other informational services.

INTERNATIONAL MOUNTAINEERING AND CLIMBING FEDERATION
UNION INTERNATIONALE DES ASSOCIATIONS D'ALPINISME (UIAA)

UIAA Safety Standard 127 Mountaineering and Climbing Equipment, Pulleys
UIAA Safety Standard 126 Mountaineering and Climbing Equipment, Rope Clamps

(Copies are available online at www.theuiaa.org or from the Union Internationale Des Associations D'Alpinisme (UIAA) Monbijoustrasse 61 Postfach CH-3000 Bern 23 Switzerland

7.2 Ordering Data. The contract or order should specify the following:

- a. Title, number, and date of this Commercial Item Description.
- b. Type and size required (see 2.1).
- c. When required, labeling, barcoding, and instruction slip (see 3.6)
- d. Acceptance criteria (see 5.3).
- e. Packaging (see 6.1).

7.3 Subject term (key word) listing.

Rescue

MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITY:
GSA - FSS

Custodian:
Army - GL
Marine Corps – MC

PREPARING ACTIVITY:
DLA-CT

(Project number: 8465-2009-021)

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