

INCH-POUND

A-A-50111B

February 21, 1990

SUPERSEDING

A-A-50111A

February 24, 1988

COMMERCIAL ITEM DESCRIPTION

PITON, MOUNTAIN, FLAT

The General Services Administration has authorized the use of this commercial item description in preference to type I of MIL-P-1474.

1. CLASSIFICATION

1.1 Classification. This commercial item description covers flat pitons of the following types:

Type I - 3-1/4 inches
 Type II - 3-3/8 inches
 Type III - 3-1/2 inches
 Type IV - 6 inches

2. SALIENT CHARACTERISTICS

2.1 Design and construction. The pitons shall be chromium-molybdenum alloy 4130 steel. The pitons shall be capable of withstanding a force of 2000 pounds when tested as specified in 3.4. The finish shall be black oxide. The manufacturer's identification symbol shall be permanently marked on the pitons. Pitons shall be similar to figure 1, which is for illustrative purposes only and is not intended to preclude procurement of pitons otherwise meeting all the requirements of this document.

2.2 Type I. Type I pitons shall have a blade length of $3\text{-}1/4 \pm 1/8$ inches, a thickness of $3/16 \pm 1/32$ inch at blade length midpoint, and a width of $7/8 \pm 1/16$ inch at blade length midpoint. The eye hole shall be $11/16 \pm 1/16$ inch in diameter. The piton shall weigh $3 \pm 1/2$ ounces.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: Commander, U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014.

AMSC N/A

FSC 8465

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2.3 Type II. Type II pitons shall have a blade length of $3\text{-}3/8 \pm 1/8$ inches, a thickness of $1/4 \pm 1/32$ inch at blade length midpoint, and a width of $13/16 \pm 1/16$ inch at blade length midpoint. The eye hole shall be $11/16 \pm 1/16$ inch in diameter. The piton shall weigh $3\text{-}1/2 \pm 1/2$ ounces.

2.4 Type III. Type III pitons shall have a blade length of $3\text{-}1/2 \pm 1/8$ inches, a thickness of $5/16 \pm 1/32$ inch at blade length midpoint, and a width of $11/16 \pm 1/16$ inch at blade length midpoint. The eye hole shall be $11/16 \pm 1/16$ inch in diameter. The piton shall weigh $4 \pm 1/2$ ounces.

2.5 Type IV. Type IV pitons shall have a blade length of $6 \pm 1/8$ inches, a thickness of $5/32 \pm 1/32$ inch at blade length midpoint, and a width of $11/16 \pm 1/16$ inch at blade length midpoint. The eye hole shall be $11/16 \pm 1/16$ inch in diameter. The piton shall have $3/16 \pm 1/32$ inch radius hook cut into the side of the blade at a distance of $3/8 \pm 1/16$ inch from the blade tip end of the piton. The piton shall weigh $4\text{-}1/2 \pm 1/2$ ounces.

3. QUALITY ASSURANCE

3.1 Certification. The contractor shall certify, and maintain substantiating evidence, that the product offered meets the salient characteristics and requirements of this Commercial Item Description, and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices. The Government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

3.2 Visual examination. Each lot of pitons shall be inspected in accordance with MIL-STD-105. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 4.0. The lot size shall be expressed in units of pitons. The sample unit shall be one piton. The pitons shall be examined for the defects listed below:

Finish not smooth and adherent; not free of burrs, rough spots, sharp edges, slivers, flat areas or projections; any component missing or not specified type; any component fractured, split, dented, bowed, malformed, damaged or loose; markings in wrong location, incomplete, illegible, incomplete, or not as specified.

3.3 Dimensional examination. The pitons shall be examined without damaging or disassembling the pitons. Any dimension not within the specified tolerances shall be classified as a defect. The lot size shall be expressed in units of pitons. The sample unit shall be one piton. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

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3.4 Testing. All four types of flat pitons shall be pull tested in a clamping block with the top edges of the blocks having a 1/8-inch radius. Eighty percent of the blade length of the piton shall be held firmly in the clamp. A 2000-pound minimum force shall be applied using a steel hook or link with a diameter of $1/2 \pm 1/32$ inch at a right angle to the gripping surface of the clamp. Any piton that fails to withstand a minimum force of 2000 pounds without permanent deformation shall be classified as a defect. The lot size shall be all pitons of one type offered for delivery at one time. The inspection level shall be S-2. Any test failure shall be cause for rejection of the lot. The test shall be performed at room temperature. Any industrial testing machine may be used to determine compliance with this requirement.

4. PACKAGING

4.1 Preservation. Pitons that are not furnished with a protective finish, shall be cleaned by process C-1, dried and then coated with type P-1 preservative in accordance with MIL-P-116.

4.2 Packaging. Six type I, II, or III, or four type IV pitons shall be packaged in an intermediate box. The intermediate box shall be snug-fitting and fabricated from 200-pound test corrugated fiberboard.

4.3 Packing. One hundred and twenty pitons of one type, packaged as specified, shall be packed in a close-fitting corrugated fiberboard shipping container conforming to style RSC, type CF, class domestic, grade 275 of PPP-B-636. The shipping container shall be completely filled with no voids and of a size that can be palletized in accordance with MIL-STD-147. Each shipping container shall be closed in accordance with the appendix of PPP-B-636.

4.4 Palletization. When specified (see 5.2), pitons, packed as specified, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means C and D, or film bonding means F or G, in accordance with MIL-STD-147.

4.5 Marking. In addition to any special markings required by the contract or purchase order, intermediate boxes, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129.

5. NOTES

5.1 Intended use. The pitons are intended to be used to provide security for men or equipment in operations involving steep ascents by driving the pitons into cracks in rock. The type IV pitons can also be used to remove dirt and vegetation from cracks and to aid in removing wired stoppers from cracks with the hook cut into the piton blade.

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5.2 Ordering data. Acquisition documents should specify the following:

- a. Title, number, and date of this document.
- b. Type required (see 1.1).
- c. When palletization is required (see 4.4).

5.3 Sources of documents.

5.3.1 Source of government documents. Copies of military and Federal documents are available from:

Standardization Documents Order Desk
Bldg. 4D, 700 Robbins Avenue
Philadelphia, PA 19111-5094

MILITARY INTERESTS:

Custodians

Army - GL
Air Force - 99

Review activities

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User activity

Navy - MC

CIVIL AGENCY COORDINATING ACTIVITY:

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PREPARING ACTIVITY:

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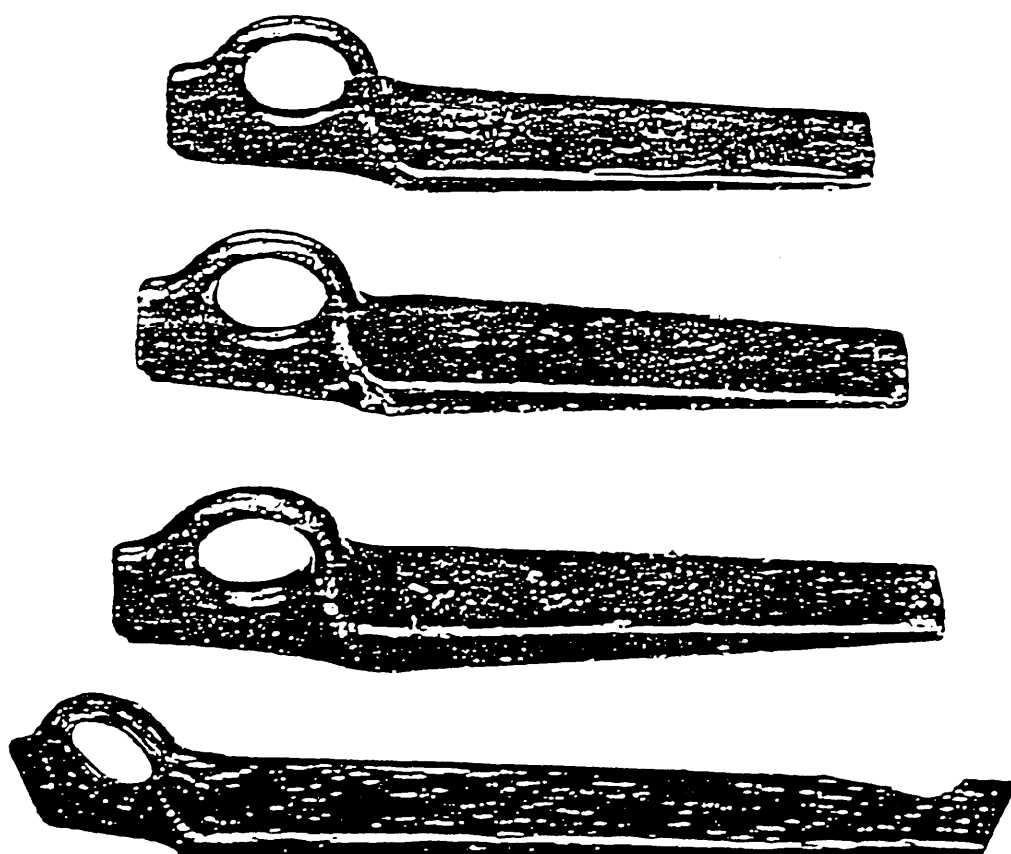


FIGURE 1. Piton, Mountain, Flat.