INCH-POUND

A-A-50371C
June 10, 2024
SUPERSEDING
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July 28, 2001

COMMERCIAL ITEM DESCRIPTION

BOOTS, FIREMEN'S

The General Services Administration has authorized the use of this Commercial Item Description (CID) for all Federal agencies.

1. SCOPE. This CID covers the requirements for firemen's boots. Type I boots are intended to be worn by damage control personnel in shipboard environments, and the Type II boots are intended to be worn with the damage control fire protective gear and the combination structural/proximity coat and trousers.

2. CLASSIFICATION. The boots shall be available in the following types and whole sizes:

2.1 Types.

Type I - Three quarter length.
Type II - Knee length.

Schedule of sizes.

5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

Beneficial comments, recommendations, additions, deletions, clarifications, and any data that may improve this document should be sent to: Attn: DLA Troop Support, 700 Robbins Avenue Philadelphia, PA 19111-5096. Since contact information can change, verify the currency of the address information using Acquisition Streamlining and Standardization Information System ASSIST online database https://assist.dla.mil.

FSC 8430

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3. SALIENT CHARACTERISTICS.

3.1 Description. The firemen's boots shall have a three-quarter length and a knee (bunker) length standard vulcanized construction. The boots shall have a steel box toe, spike-resistant insole, calendared or molded slip resistant lug outsole and heel, and a shin reinforcement. The Type I boots shall be fitted with a horizontal top strap and buckle assembly, and the Type II boots shall have pull-on leg loops (see (Figure 1). The boots shall meet the requirements of "National Fire Protection Association (NFPA) 1971 Standard Protective Ensemble for Structural Fire Fighting 2000 Edition", except for 6 6.10.8– Product Label Requirements, and 4-4.8, Protective Footwear Sizing shall not apply for the Type I boot.

3.2 Materials.

3.2.1 Upper compounds. The rubber compounds used on the boots shall be natural, synthetic, or a blend of both. The upper part of the boot shall be black with white or yellow bumper toe caps and foxing. The tensile strength of the upper compounds shall be not less than 1100 pounds per square inch (psi) as specified in ASTM D412. The ultimate elongation of the upper compounds shall be not less than 350 percent when tested as specified in ASTM D412. After aging, the tensile strength and ultimate elongation shall each be not less than 75 percent of the original minimum required.

3.2.2 Sole and heel compounds. The abrasive index of the sole and heel shall be not less than 45 before aging as specified in ASTM D1630. After aging the abrasive index shall be not less than 75 percent of the original minimum required. The hardness of the sole and heel compounds shall be 64 (± 5) before aging as specified in ASTM D2240. After aging the hardness shall be not more than 75 percent of the original minimum required.

3.2.3 Linings.

3.2.3.1 Leg and top lining material. The leg and top linings shall consist of a para-aramid/aramid blend containing 35 to 50 percent para-aramid. The remaining percentage shall be aramid with the following characteristics:

Weight (minimum)	5.5 oz./sq. yd.
Warp (gauge, minimum)	11 per inch
Weft (stitches, minimum)	14 per inch

3.2.3.2 Alternate leg and top lining material. The alternate lining material for the leg and top shall be a blend of 35 to 50 percent para-aramid with the remaining percentage aramid.

The fabric shall be stitched-bonded fleece with the following characteristics:

Weight (minimum)	4.5 oz./sq. yd.
Warp (gauge, minimum)	18 per inch
Weft (stitches, minimum)	16 inch

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3.3 Metal parts.

3.3.1 Steel box toe. The steel box toe for the Type I boot only shall conform to the toe of the last and shall be fabricated from cold-rolled carbon steel. After heat treatment, as specified and tested in accordance with ASTM F2412 the steel box toe shall conform to the requirements in Table I.

TABLE I. Physical requirements - Steel box toe

Characteristic	Requirement	Test method
Hardness (Rockwell C)	42 - 52	ASTM E18
Carbon content	0.50 to 0.82	ASTM E18
Thickness (inch)	0.058 + (.0025)	ASTM E18

3.3.2 Buckle. The Type I boot buckle shall be made of aluminum, brass, bronze, or steel. The buckle shall have two (2) strap slots 3/4 (±1/16)-inch wide and a lever eye or stay slot 9/16 (±1/32)-inch wide.

3.3.3 Shanks. Steel shanks shall be used.

3.4 Shin reinforcement. The shin reinforcement shall be either an inner shin guard made of a minimum100 hardened rag, or an exterior shin protector made of heavy knurled rubber.

3.5 Leakage test for finished boot. Boots shall be tested for leakage by inserting a hose or pipe into the boot and applying an air pressure of 1(+) 0.1 psi. The top of the boot shall be closed in a manner to prevent the escape of air and the boot shall be immersed in a tank of water so that the top of the boot is 3 (±1/8)-inches above the water level. Evidence of leakage shall be indicated by bubbles of air that form below the water level and rise to the surface of the water.

3.5.1 Safety box toe test for the finished boot. The steel toe cap shall meet or exceed ANSI Z41 PT 99, for impact 1/75 and compression C/75, Class 75. The safety toe shall be made in sufficient size range to cover boot 5 through 15.

3.6 Construction. The boots shall be constructed in accordance with the contractor's patterns and lasts. All overlapped parts shall be firmly rolled or pressed before vulcanization.

3.6.1 Height measurements. The inside height of the Type I boots shall be not less than 29-inches. The inside height of the Type II boots (excluding leg loops) shall be not less than 13-inches. The height, using a finished boot, shall be measured at the inside heel area to the top, back of the boot.

3.7 Marking and labeling

3.7.1 Size marking. The size of each boot shall be embossed or branded into the breast of the heel or into the outsole in the shank area close to the heel breast. Marking shall be not less than 1/2-inch in height.

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3.7.2 Contractual marking. The contractual marking shall be either legibly stamped or printed with indelible ink (of a contrasting color) on the inside of the boot 1 (±1/8)-inch below the top edge, with letters a minimum of 1/2-inch in height, and shall contain the following information:

BOOTS, FIREMEN'S
CONTRACT NUMBER: SP0-100-00-0-0000
(Example) NAME OF CONTRACTOR:
STOCK NO.: 8340-00-000-0000
UPC CODE

As an alternate on the Type II boot, the contractual marking may be located on the outside of the boot just below the inside leg loop.

3.7.3 Labels and other identification. The Type II boot shall have a NFPA label stating it conforms to the requirements stated in 3.1. The Type I boot shall have a commercial label to indicate item nomenclature, maintenance and cleaning information. The contractor's label or trademark, and other identifying markings such as leg bands may be used. However, the height of the label shall be not more than 1-1/2 inches in height or width, and not more than one (1) label per boot shall be used.

3.7.4 Bar code label. Each pair of boots shall be individually bar-coded. The bar-coding element shall be a 13 digit National Stock Number (NSN), and there shall be a 12 digit UPC symbol for each NSN. The "UPC" must appear beneath the NSN. The bar-code for NSN type shall be a medium to high code density and shall be located so that it is completely visible when packaged and causes no damage to the item. This UPC code must also be placed on all shipping cartons on which the NSN appears.

4. REGULATORY REQUIREMENTS. Unless otherwise specified, the offeror/contractor is encouraged to use recovered, recycled, bio based, and environmentally preferable materials to the maximum extent practicable, in accordance with paragraph 23.403, 23.404(b) of the Federal Acquisition Regulation FAR, or the sustainable acquisition of EO 13693; as applicable. (See 7.1.3).

5. QUALITY ASSURANCE PROVISIONS.

5.1 Product conformance. The products offered 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 a similar product that is offered for sale in the commercial market. The Government reserves the right to require proof of such conformance.

5.2 Market acceptance criteria. The item offered, or a generic equivalent, must have been sold to the commercial market or to the Government.

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5.3 Defects. The product shall be examined for pairing; color not as specified; wrong style; any missing components; workmanship defects which would affect serviceability, distortion of product; wrinkles, pleats or excess fullness in the linings; any hole, cut, tear, spot, or stain; any leakage; label missing; required markings missing, incorrect, or illegible; measurements (when required) not as specified; bar code or UPC number omitted or not readable by scanner; human-readable interpretation (HRI) omitted or illegible; bar code or UPC number not visible on packaged item; bar code causes damage to the item; any items not packaged in accordance with the contract or purchase order.

5.4 Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order.

6. PACKAGING. The preservation, packing, and marking shall be as specified in the contract or purchase order. (See 7.5).

7. NOTES.

7.1 Source of Government documents:

7.1.1 Copies of Government documents are available online at https://quicksearch.dla.mil.

7.1.2 EPA and EO 13693 information is available online at https://www.epa.gov.

7.1.3 Federal Acquisition Regulations (FAR) are available online at https://acquistion.gov.

7.1.4 Toxicity testing. If dermal toxicity testing is required, it will be conducted in accordance with Title 40, Protection of Environment, Code of Federal Regulations current edition and applicable sections, which are also consistent with the following OECD tests:

Skin Sensitization 406 and Dermal Irritation 404 (https://www.oecd-ilibrary.org/environment/oecd-guidelines-for-the-testing-of-chemicals-section-4-health-effects_20745788?page=1).
Dermal Sensitization (https://www.law.cornell.edu/cfr/text/40/798.4100).
Dermal Toxicity (https://www.law.cornell.edu/cfr/text/40/798.2250).

7.2 Source of non-Government documents.

7.2.1 ASQ/ANSI Z1.4 is available online at https://asq.org.

7.2.2 ASTM Standards are available for purchase online at https://www.astm.org.

7.2.3 National Fire Protection Association (NFPA) documents are available online at https://www.nfpa.org/.

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7.3 Intended use. The firemen's boots are intended to be used to be worn by damage control personnel in shipboard environments, and to be worn with the damage control fire protective gear and the combination structural/proximity coat and trousers.

(Applications for copies should be addressed to National Safety Council, 1121 Spring Lake Dr. Itasca, IL 60143, Phone number: 800-621-7615.

7.4 Additional sizes. The approved suppliers may also commercially supply boots in additional sizes to those listed in this document.

7.5 Ordering data. Acquisition documents should specify the following:

a. Title, number, and date of this CID.
b. Type and size required (see 2.).
c. Color required (see 3.2.1).
e. Product conformance (see 5.1).
f. Acceptance criteria (see 5.4).
g. Packaging requirements (see 6.).

7.6 Known source. The following company is known to meet the characteristics of the Boot styles in this CID document.

LaCrosse Footwear, Inc.
(877) 432-6637
LaCrossefootwear.com

7.7 Key words.

Footwear
Rubber

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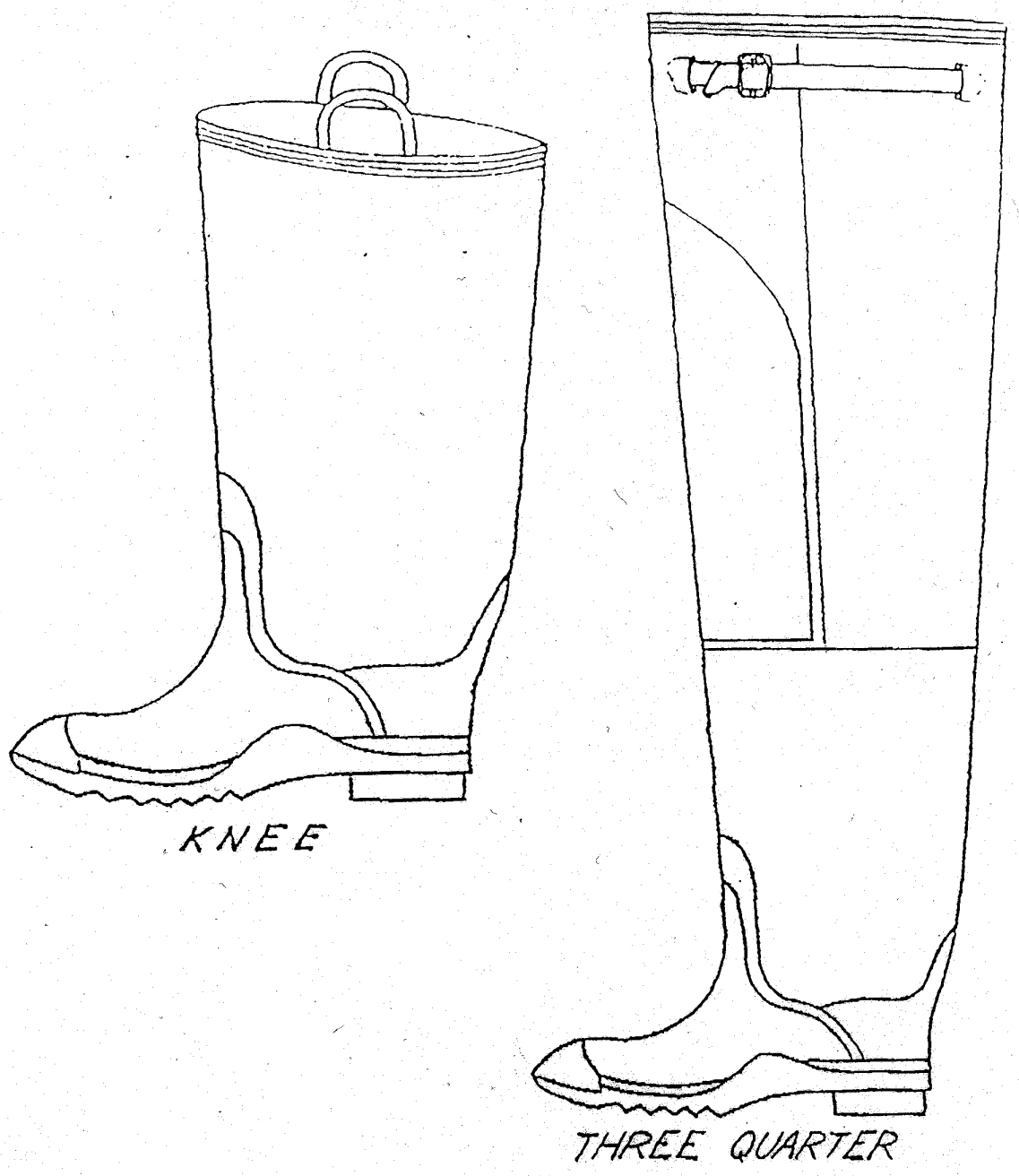

FIGURE 1. <u>BOOTS, FIREMEN'S.</u>

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MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITY:
GSA-FAS

Custodians:
Navy - NU
Army - GL

Preparing Activity
DLA - CT

Review activities:
Army - MD

(Project: 8430-2024-001)

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