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INCH-POUND

A-A-52078B
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SUPERSEDING
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COMMERCIAL ITEM DESCRIPTION

LANTERN, GASOLINE, NONLEADED FUEL, WITH CASE

The General Services Administration has authorized the use of this commercial item description in preference to Military Specification MIL-L-1594.

1. ABSTRACT

1.1 Abstract. This commercial item description covers one type and size of lantern, having a double mantle, that burns nonleaded gasoline, and shall be provided with a carrying case.

2. SALIENT CHARACTERISTICS

2.1 Design and construction. The lantern shall be a double mantle design, capable of burning nonleaded gasoline. The lantern shall burn with a minimum output of 290 candle power. The lantern shall have a maximum height of 16 inches, a maximum diameter of 7-1/2 inches, and a maximum weight of 2-1/2 pounds when empty. Unless otherwise specified (see 5.2), the lantern paint or coating shall be Olive Drab or Dark Green in color, and shall not crack, peel, chip or discolor under normal operation of the lantern. The fuel tank shall be painted or coated internally to provide corrosion protection. The self cleaner burner feature shall allow for the unclogging of the burner tip without dismantling the lantern or requiring use of a special tool. The lantern shall be equipped with a bail (handle). The spring tension of the bail, after installation on the frame assembly, shall be capable of retaining the bail in a position parallel to the axis of the lantern when the lantern is held at an angle of 45 degrees. A carrying case with the capacity to store the lantern and accessories shall be provided. A complete list of replacement parts, one wrench suitable for use in replacing the generating tube, one funnel, and one set of two mantles shall be provided with each lantern. A complete list of lighting and safety instructions shall be listed on the lantern.

Beneficial comments (Recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: Commander, U.S. Army Natick Research, Development and Engineering Center, ATTN: SATNC-WEE, Natick, MA 01760-5018 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 6260

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2.2 Accessories.

2.2.1 Wrench. A wrench, small enough to fit in the carrying case, shall be provided for removing and attaching the generating tube.

2.2.2 Funnel. A funnel suitable for filling the lantern shall be provided.

2.2.3 Mantles. A set of two mantles conforming to A-A-52079 shall be provided.

2.3 Carrying case. Unless otherwise specified (see 5.2), the carrying case whall be Olive Drab or Dark Green in color. The carrying case shall have a maximum weight of 2 pounds. The case shall function without cracking at -40°F. The case shall have a handle suitable for carrying. The case shall be made of a material which is capable of protecting the lantern from rain or other such water damage.

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 Bid samples. One complete lantern with carrying case and accessories shall be submitted for bid sample testing.

3.2.1 Bid sample tests. Failure of any of the tests listed shall be cause for rejection of the bid sample.

3.2.1.1 Durability test. Using standard commercial unleaded gasoline, the lantern shall run at maximum output for a minimum of 40 hours of continuous operation without requiring any maintenance or parts replacement. Mantles may be replaced if they are defective or damaged. The lantern may be repressurized no more than once every 4 hours. The lanterns shall be pressurized per the manufacturers instructions.

3.2.1.2 Candle power test. After 40 hours of operation, a candle power test shall be taken. The lantern shall not be cleaned and no parts replaced. Mantles may be replaced only if they become damaged (if a tear appears in the fabric). The candle power shall be tested with a light meter, using the light meter manufacturers instructions. The lantern brightness shall be a minimum of 250 candle power. The lantern shall be repressurized prior to the candle power test.

3.2.1.3 Burner tip cleaner test. The burner tip cleaning device shall be manipulated a minimum of 10 times during and after durability testing. Inability to unclog the burner tip shall constitute failure of this test.

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3.2.1.4 Low temperature test.

3.2.1.4.1 Lantern. The lantern shall be filled per the manufacturers instructions. The lantern shall then be placed in a low temperature chamber. The temperature shall then be lowered to -60°F. The lantern shall remain in the chamber at -60°F for 8 hours. The lantern shall then be lit per the manufacturers instructions and remain in the chamber for 1 hour. No more than three attempts shall be made to light the lantern. Inability to light the lantern or inability of the lantern to remain lit shall constitute failure of this test.

3.2.1.4.2 Carrying case. The carrying case shall be placed in a low temperature chamber. The temperature shall then be lowered to -40°F. The carrying case shall remain in the chamber at -40°F for 8 hours. The sides of the carrying case shall then be opened and closed ten times. After the ninth time the lantern shall be placed in the case. Failure of the case to close or to function as a carrying case shall constitute a failure of this test.

3.2.1.5 Safety and operational instructions. The safety and operational instructions shall be inspected for legibility. The safety and operational instructions shall provide enough information to safely operate the lantern.

3.2.1.6 Packaging. The packaging shall be inspected to determine if proper protection is provided. Particular attention shall be paid to the cushioning for the globe.

3.3 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of Federal Standard No. 376, and all other requirements of this Commercial Item Description are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

3.4 Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

4. PACKAGING

4.1 Packaging. Each globe portion of each lantern shall be wrapped in cushioning material including the top circumference of the globe. Each lantern with spare parts and tools shall be put in its carrying case and placed in a snug-fitting corrugated fiberboard box.

4.2 Packing. Eight complete lanterns shall be packed upright in a snug-fitting fiberboard shipping container conforming to style RSC, type CF (variety SW) or SF, class domestic, grade 275 of ASTM D 5118. Each shipping container shall be of a size palletizable in accordance with MIL-STD-147. Box closure shall be in accordance with ASTM D 1974.

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4.3 Palletization. When specified (see 5.2), lanterns packed as specified shall be palletized 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. Pallet pattern shall be in accordance with the appendix of MIL-STD-147.

4.4 Marking. Marking shall be in accordance with MIL-STD-129. In addition to the fragility markings specified in MIL-STD-129, the top of each container shall be plainly marked in capital letters, not less than 3/4-inch in height as follows:

GLASS
HANDLE WITH CARE

5. NOTES

5.1 Intended use. The lantern is intended to furnish illumination in the field.

5.2 Ordering data. Acquisition documents must specify the following:

a. Title, number, and date of this document.
b. Color of lantern required, when other than specified (see 2.1).
c. Color of carrying case required, when other than specified (see 2.3).
d. When palletization is required (see 4.3).

5.3 Sources for documents.

5.3.1 Sources for non-government association documents.

ASTM D 1974 - Standard Practice for Methods of Closing, Sealing, and Reinforcing Fiberboard Shipping Containers
ASTM D 5118 - Standard Practice for Fabrication of Fiberboard Shipping Containers

ASTM documents are available from:

The American Society for Testing and Materials (ASTM)
1916 Race Street
Philadelphia, PA 19103-1187

5.3.2 Source for government documents. Copies of military and federal documents are available from:

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

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MILITARY INTERESTS:

Custodians

Army - GL
Air Force - 99

Review Activities

Army - MD
Air Force - 82
DLA - GS

User Activities

Army - ME
Navy - CG, MC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

PREPARING ACTIVITY:

Army - GL

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