INCH-POUND
A-A-52032B
May 19, 2003
SUPERSEDING
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10 February 1994

COMMERCIAL ITEM DESCRIPTION

CONTAINER, CARGO, END OPENING

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 20 foot (ft) (6.1 meters (m)), reusable, International Organization of Standardization (ISO) 668 lCC, end opening, cargo containers for the transportation, distribution, and storage of military supplies.

2. SALIENT CHARACTERISTICS.

2.1 Materials. Unless specified herein (see 7.1), materials shall be in accordance with the manufacturer's material specifications. The use of recovered material made in compliance with regulatory requirements is acceptable providing that all requirements of this CID are met (see 4).

2.1.1 Materials deterioration prevention and control. The container shall be fabricated from compatible materials, inherently corrosion resistant or treated to provide protection against the various forms of corrosion and deterioration that may be encountered in any of the applicable operating or storage environments to which the container may be exposed.

2.1.2 Steel requirement. The container shall be constructed of a high-strength low alloy (HSLA) structural steel conforming to ASTM A588 grade A, or equivalent, HSLA structural tubing conforming to ASTM A847, or equivalent, and sheet steel conforming to ASTM A606, type 4, or equivalent (see 7.2.1).

2.1.3 Dissimilar metals. Dissimilar metals shall not be used in intimate contact with each other unless protected against galvanic corrosion.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent by letter to: U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-TR-E/ESA, 6501 E. 11 Mile Road, Warren, MI 48397-5000

AMSC N/A FSC 8115

2.1.4 Identification of materials and finishes. The contractor shall identify the specific materials, material finishes or treatments for use with component or subcomponents, and shall make information available upon request to the contracting officer or designated representative. Materials not specified shall be in accordance with federal, military, National Technical Society, association or institute specifications or standards.

2.2 Description. The container shall be noncollapsible, of a permanent character and suitable for repeated use. The container shall be a steel 8 ft 6 inch (in.) (2.6 m) in external height ISO lCC container with end opening doors. The container shall comply with the requirements of ISO 1496/1 (see 7.2.4).

2.2.1 Standard product. Except as otherwise specified herein (see 7.1), the container shall be the standard product of the contractor. The container shall be new and unused.

2.2.2 Weight, ratings and dimensions. The tare weight of the container shall be the minimum practical and shall not exceed 5500 pounds (lb) (2495 kilograms (kg)). The gross weight rating shall be 52 910 lb (23 999 kg). Dimensions, tolerances, and diagonal differences of the container shall meet the requirements for a 20 ft nominal length container as specified in ISO 668 (see 7.2.4).

2.3 Construction. The container shall be constructed so as to be free of any recesses or voids in which contraband can be concealed or where moisture can accumulate. No part of the container (when empty) shall protrude beyond the outside surfaces of the corner fittings.

2.3.1 Doors. Two doors shall be hung within the rear end frame and shall provide a clear opening conforming to the dimensions of ISO 668. Welded heavy duty pin hinges (see 2.3.10) recessed within the corner post shall be provided on each door, allowing the door to fold back against the side of the body. Steel hinges shall have corrosion resistant steel pins. Each door shall be provided with not less than two heavy duty, handle operated cam locking devices with anti-rack provisions, which through lever type action, aid in releasing the door seal from the door frame. Each locking device handle shall be capable of accepting a padlock and security seal. Means shall be provided to hold the doors in the full open position and shall be of a material, which will not scrape or chafe the container when the doors are closed. The doors, when closed, shall be sealed in such a manner as to prevent moisture entry into the container. All moving parts of the door locking mechanism and door hinges shall be capable of being lubricated.

2.3.2 Load retainers. When specified (see 7.1), two load retainers, one left and one right, shall be welded to the interior of the door end corner posts as specified in figure 1. Each retainer shall be fabricated from 1-1/4 in. (3.2 centimeters (cm)) by 1-1/4 in. by 1/4 in. (0.64 cm) thick structural steel angle. Each retainer shall be a minimum of 89 in. (226 cm) in length and shall extend from the top of the door sill to the base of the top corner fitting. The left load retainer shall be welded to the interior of the left door end corner post and the right load retainer shall be

welded to the interior of the right door end corner post. The door opening width shall be a minimum of 89-1/2 in. (227.3 cm) after installation of the retainers. The reduced interior clearance shall not be cause for rejection of the container in complying with ISO standards as long as the container satisfies ISO standards prior to the retainer installation.

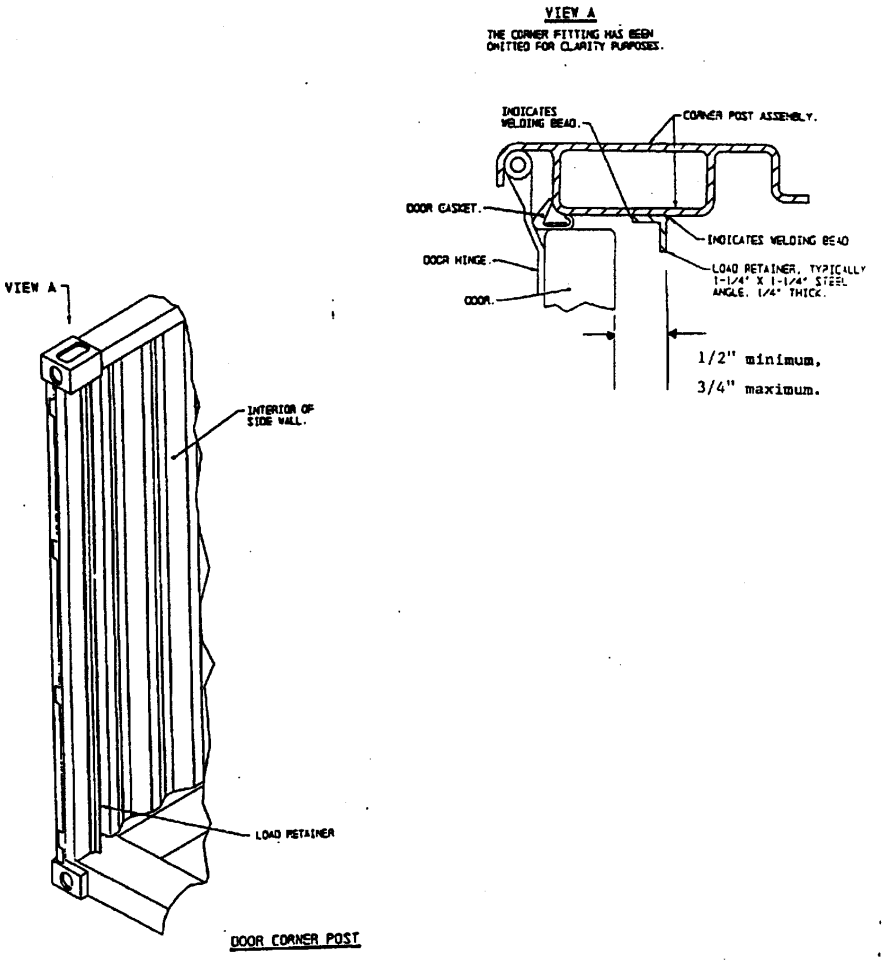

FIGURE 1. Load retainer.

2.3.3 Side walls and end walls. The steel side walls and end walls may be of the interior or exterior post type, corrugated or of smooth skin construction. The end walls and side walls shall withstand loading in accordance with ISO 1496/1, except each end wall shall withstand an internal loading equal to the full payload uniformly distributed over the surface of the end wall.

2.3.4 Floor. The floor shall be fabricated of 3/4 in. (1.9 cm) hardwood or marine grade plywood. A maximum of six sheets of marine grade plywood shall be used. The floor shall be attached to the crossmembers by countersunk fasteners, 1/4 in. minimum shank diameter, either of the self-tapping screw type, or machine screws with self-locking nuts and shall be installed so that each head is 0 to 1/16 in. (1.6 millimeters (mm)) below the board surface and at least 1 in. (2.54 cm) from the board edge. The floor boards shall be attached to each crossmember by means of at least three fasteners per board, for boards equal to or over 7 in. (17.8 cm) wide, and two fasteners per board, per crossmember, for boards less than 7 in. wide. Fasteners shall not exceed 10 in. (25.4 cm) center to center distance. The floor shall be installed to permit lateral variations in floor board width due to swelling. The floor shall be watertight. All wood components shall be chemically treated in accordance with the regulations as stated by the Commonwealth of Australia Department of Health (see 7.2.8), or equivalent. A data plate shall be affixed to the container indicating the immunization code used in the treating process.

2.3.5 Understructure. After painting of the metal surfaces, the entire underside of the container floor, including floor boards, crossmembers, corner fittings, side rails, and end frame members, shall be coated with a bituminous undercoat applied to a minimum dry film thickness of 6 mils (150 microns).

2.3.6 Bottom rail protection. An open recess shall be provided for protection against damage of the bottom side rails and bottom end rails in the vicinity of the bottom corner fittings or optional equivalent construction that meets all performance requirements. The open recesses shall be a minimum of 2 in. (5.08 cm) in height by 6 in. (15.2 cm) in length.

2.3.7 Forklift pockets. Optional forklift pockets for handling loaded and unloaded containers shall be furnished if specified in contract or purchase order (see 7.1). Forklift pockets shall conform to the requirements of ISO 1496/1, Annex C. Above the inside of the “unload pockets”, the following warning shall be letter stenciled or letter decals in minimum 3 in. (7.6 cm) letters:

"EMPTY LIFT ONLY"

2.3.8 Roof. The roof shall be of corrugated construction, self-draining and shall conform to ISO 1496/1 (see 7.2.4). A reinforced zone shall be provided for protection of the roof against damage in the vicinity of the top corner fittings. The reinforced zone shall extend a minimum of 18 in. (45.7 cm) from the outside faces of each top corner fitting. The metal thickness of the reinforced zone shall be 1/4-in. Optional construction that meets all performance requirements is acceptable with the approval of the Contracting Officer.

2.3.9 Lashings. Five (5) lashings shall be provide and located within the corrugations on each top and bottom side rails. Pull strength shall withstand a minimum of 3000 lbs (1500 kg) in any direction. Each corner post shall incorporate a minimum of three (3) 0.5 in. (12.7 (mm) diameter lashing points and a similar number of restraint bars in the rear post shoring slot.

2.3.10 Corner fittings. Corner fittings shall conform to the requirements of ISO 1161 (see 7.2.4).

2.3.11 Anti-pilferage provisions. Hinge-pins, screws, bolts, and other fasteners used for securing the hinges and closing devices to the container and for holding the essential parts of the sides, ends and roof, shall be welded or otherwise secured in such a manner as to prevent access to the interior of container without leaving visible signs of tampering. Where such welding destroys protective coating on the items being welded or on other container parts, the weld and surrounding area shall be thoroughly cleaned, treated, and painted. All locking device handles shall be furnished with provisions for padlocking and customs sealing.

2.3.12 Metal fabrication. Metal used in the fabrication of equipment shall be free from kinks and sharp bends. The straightening of material shall be done by methods that will not cause injury to the metal. Shearing and clipping shall be done neatly and accurately. Corners shall be square and true. Flame cutting, using a tip suitable for the thickness of the metal, may be employed instead of shearing or sawing. Burned surfaces or flame-cut material shall be free of slag. All bends of a major character shall be made with controlled means in order to insure uniformity of size and shape. Precautions shall be taken to avoid overheating, and heated metal shall be allowed to cool slowly.

2.3.13 Bolted and riveted connection. Bolt and rivet holes shall be accurately punched or drilled and shall have the burrs removed. Washers, lock washers, or lock nuts shall be provided where necessary, and all bolts, nuts, and screws shall be tight. Rivet heads, when not countersunk or flattened, shall be uniform in size and shape for the same diameter of rivet concentric with the rivet holes, and in full contact with the surface of the member.

2.3.14 Placard holder. When specified (see 7.1), four stainless steel placard holders conforming to Department of Transportation (DOT), Bureau of Explosives (BOE) 6000, part 172, appendix C, shall be provided (see 7.2.2). One placard holder shall be located on each end and each side of the container. Placard holders shall be permanently attached and shall not protrude beyond the outer surfaces of the corner fittings. The holders shall be located a minimum of 3 in. away from all other container markings. When design permits, the placard holders shall be located within a recessed area of the container.

2.3.15 Surface preparation. All steel components both inside and out, shall be abrasively blasted to a near white per Society for Protective Coatings (SSPC) Guide-10 (see 7.2.5). Equivalent chemical cleaning may be proposed. The cleaned surface shall be free from oil, grease, dirt,

mill scale, rust, corrosion products, oxides, paint or any other foreign matter. Very light shadows or very slight streaks caused by mill scale, oxides or other slight discolorations on the finished surface shall be acceptable. At least 95 percent of each square inch (2.54 cm^2) of surface area shall be free of all visible residues and the remainder shall be limited to the slight discoloration mentioned above.

2.3.15.1 Primer coat. The primer coat shall be that which is commercially offered by the container manufacturer. The primer shall contain anticorrosive properties, which shall retard the corrosion of the steel. The primer coat shall be applied to the dry film thickness recommended by the primer manufacturer.

2.3.15.2 Top coat. The top coat shall be compatible with the applied primer coat. The exterior finish color shall be in accordance with FED-STD-595 (see 7.2.3), color number 33446 (tan) or as specified in 7.1. Interior finish color shall be light gray or white. The final coating thickness shall be in accordance with the manufacturer's recommendation.

2.3.16 Identification and markings. Identification and markings shall be permanent and legible and shall include as a minimum, the manufacturer’s identification code (CAGE), the contract number, and the part number (see 7.1).

2.3.16.1 Interior marking. The owner's code and serial number shall be stamped or bead welded in characters not less than 1/2 in. (12.7 mm) high on the interior surface of the door end top rail (header) (see 7.1). The number shall be located on either the top left corner fitting or within an area of 18 in. (45.7 cm) from the left corner post where it will not be obscured.

2.3.16.2 Exterior marking. The container shall be marked in accordance with ISO 6346 (see 7.2.4). Each exterior wall of the container shall be marked with a minimum 3 in. high letters:

"PROPERTY OF U.S. ARMY"

The upper quadrant of each exterior wall shall be marked with a United States flag, with minimum dimensions of 8 in. (20.3 cm) in height by 12 in. (30.5 cm) in length. All markings shall have a minimum five year life.

2.3.16.3 Approval plates. Approval plates for the International Convention for Safe Containers (CSC) (see 7.2.6) and Transport International des Routiers (TIR) plates or plaques (see 7.2.7) shall be applied for and obtained from a designated approval authority, attached and displayed as required by the convention in accordance with CFR 49, parts 450 and 451 (see 7.2.2). Any additional requirements of the approval authority shall be met. Each container shall be affixed with the seal of the approval authority.

3. Performance. The container shall conform to the requirements specified in ISO 1496/1 without damage or permanent deformation.

3.1 Workmanship. All parts, components, and assemblies of the container including castings, forgings, molded parts, stampings, seals and sealing agents, machined surfaces, and welded parts shall be clean and free from any defects that will reduce the capability of the container to meet the requirements specified herein. Any components and assemblies, which have been repaired or modified to overcome deficiencies shall not be used without prior specific approval of the contracting officer. External surfaces shall be free from burrs, slag, sharp edges, and corners except where sharp edges and corners are required. The internal cargo space shall be free from sharp protrusions that could damage cargo or personnel.

3.2 Metric products. Products manufactured to metric dimensions shall 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 FED-STD-376 (see 7.2.3), and all other requirements of this CID are met.

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) (see 2.1 and 7.2.2).

5. PRODUCT CONFORMANCE. The products provided shall meet the salient characteristics of this CID, 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 (see 7.1).

5.1 Responsibility for inspection. The contractor is responsible for the performance of all inspections (examinations and tests).

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order (see 7.1).

7. NOTES.

7.1 Ordering data. The contract or order should specify the following:

a. CID document number and revision.
b. If materials (includes color) are other than that used in commercial manufacture (see 2.1 and 2.3.14).
c. If standard container is as otherwise specified (see 2.2.1).
d. When load retainers are required (see 2.3.2).
e. If forklift pockets are required (see 2.3.7).
f. When placard holders are required (see 2.3.14).

g. Owner's CAGE identification, contract, serial and part numbers on each container (see 2.3.16 and 2.3.16.1).
h. Product conformance provisions (see 5).
i. Packaging requirements (see 6).

7.2 Source of documents.

7.2.1 ASTM A588, "Standard Specification for High-Strength Low-Alloy Structural Steel with 50 ksi (345 MPa) Minimum Yield Point to 4-in. (100-mm) Thick" (DoD adopted); ASTM A606, "Standard Specification for Steel, Sheet or Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance" (DoD adopted); and ASTM A847, "Standard Specification for Cold-Formed Welded and Seamless High Strength Low Alloy Structural Tubing with Improved Atmospheric Corrosion Resistance" may be obtained from ASTM International, PO Box C700, 100 Barr Harbor Dr., West Conshohocken, PA 19428-2959 or website: www.astm.org

7.2.2 Code of Federal Regulations 49, parts 450 and 451, Federal Acquisition Regulation (FAR), paragraph 23.403 and BOE 6000, part 172, appendix C may be obtained from the Superintendent of Documents, US Government Printing Office, Washington, DC 20402 or website: http://www.access.gpo.gov

7.2.3 FED-STD-376, "Preferred Metric Units for General Use by Federal Government" and FED-STD-595, "Colors Used in Government Procurement", may be obtained from the Document Automation and Production Service, 700 Robins Avenue, Building 4D, Philadelphia, PA 19111-5094 or website: http://assist.daps.dla.mil/quicksearch/

7.2.4 ISO 668, "Series 1 Freight Containers - Classification, Dimensions and Ratings"; ISO 1161, "Series 1 Freight Containers - Corner Fittings Specification"; ISO 1496/1, "Containers, Series 1 Freight - Specification and Testing-Part 1: General Cargo Containers for General Purposes"; and ISO 6346, "Freight Containers - Coding, Identification and Marking" may be obtained from the American National Standards Institute (ANSI), 11 West 42nd Street, New York, NY 10036 or website: www.ansi.org

7.2.5 SSPC Guide-10 may be obtained from the Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburgh, PA 15222-4645 or website: www.sspc.org

7.2.6 International Convention for Safe Containers (CSC) may be obtained from Maryland Nautical Sales, Inc., 1400 E. Clement Street, Baltimore, MD 21230 or website: www.mdnautical.com

7.2.7 Transport International des Routiers (TIR) may be obtained from United Nations Economic Commission for Europe (UNECE) ,Transport Division, Dangerous Goods and Special Cargoes Section, Palais des Nations, 1211 Geneva 10, Switzerland or website: www.unece.org

7.2.8 Commonwealth of Australian Department of Health may be obtained from the Commonwealth of Australian Department of Health, Central Office, GPO Box 9848, Canberra ACT 2601, Australia, Telephone: 1800 020 103, Fax: 02 6281 6946.

7.3 Key words.

Cargo
Containerization
Packaging
Storage

MILITARY INTERESTS:

Custodians:
Army - AT
Navy - AS
Air Force - 99

Review Activities:
Army - MT, SM
Navy - CG, SA
Air Force - 03, 11
Civ. - FCOE, FGI, 2FYE
DLA - DH

CIVIL AGENCY COORDINATING ACTIVITY:
GSA-FSS

Preparing Activity:
Army - AT

(Project 8115-0614)