

INCH-POUND

MIL-C-7554F

19 May 1993

SUPERSEDING

MIL-C-7554E

15 December 1978

## MILITARY SPECIFICATION

## CONTAINER KITS, AIRDROP

This specification is approved for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This specification covers a group of airdrop container kits required for use in the airdrop system.

1.2 Classification. Container kits for airdrop shall be of the following types and load capacities as specified. Specific components may be procured separately (see 6.2):

<u>Types</u>	<u>Load capacity</u>
A-7A, Sling	500 pounds
A-21, Bag	500 pounds
A-22, Bag	2200 pounds
A-23, Container, High Altitude	2200 pounds

## 2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development and Engineering Center, Natick, MA 01760-5017 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 1670

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are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

## SPECIFICATIONS

## FEDERAL

- DDD-L-20 - Label: For Clothing, Equipage and Tentage,  
(General Use)

## STANDARDS

## MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection  
by Attributes  
MIL-STD-2073-1 - DoD Materiel Procedures for Development and  
Application of Packaging Requirements

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

## DRAWINGS

## U.S. ARMY NATICK RESEARCH, DEVELOPMENT AND ENGINEERING CENTER

- 11-1-2616 - Container, High Altitude, A-23 Assembly  
51C6716 - Container, Kit Assembly-Sling Type A-7A,  
500 lb. Capacity  
51C6739 - Container Kit Assembly Bag, Cargo, Aerial  
Delivery Type A-21 500 lb. Capacity  
50B7702 - Container Kit Assembly-Bag, Cargo, Aerial  
Delivery Type A-22 2200 lb. Capacity

(Copies of drawings are available from the U.S. Army Natick Research, Development and Engineering Center, ATIN: SATNC-UX, Natick, MA 01760-5017.)

2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

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## 3. REQUIREMENTS

3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 Materials and components. Materials and components shall be as specified on the applicable drawings. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

3.3 Construction. The construction shall conform in all respects to the applicable drawings and all subsidiary drawings pertaining thereto and as specified herein.

3.3.1 Type 301 stitching. Ends of all type 301 stitching shall be backstitched or overstitched not less than 1/2 inch in accordance with the required stitch pattern.

3.3.1.1 Repairs of type 301 stitching. Repairs of type 301 stitching shall be as follows:

a. When thread breaks or bobbin run-outs occur during the stitching, the stitching shall be repaired by restarting the stitching a minimum of 1 inch (1/2 inch for box-x and W-W stitching) from the end of the stitching. 1/

b. Thread breaks or two or more consecutive skipped or run-off stitches noted during inspection of the item (in-process or end item) shall be repaired by overstitching. The stitching shall start a minimum of 1 inch from the defective area, (1/2 inch for box-x and W-W stitching), continue over the defective area, and continue a minimum of 1 inch (1/2 inch for box-x and W-W stitching) beyond the defective area onto the existing stitching. Loose or excessively tight stitching shall be repaired by removing the defective stitching without damaging the materials, and restitching in the required manner. 1/

1/ When making the above repairs, the ends of the stitching are not required to be backstitched.

3.3.2 Automatic stitching. Automatic stitching machines may be used to perform any of the required stitch patterns provided the requirements for the stitch pattern, stitches per inch, and size and type of thread are met, and at least three or more tying, overlapping, or back stitches are used to secure the ends of stitching.

3.4 Cotton tape and webbing.

3.4.1 Wax-dipping. All ends of cotton tape and webbing, which will be exposed in the finished item, shall be dipped a minimum of 1/2 inch in a 50-50 mixture of beeswax and paraffin. During the dipping operation, the temperature of the wax mixture shall be maintained at  $180^{\circ}\text{F} \pm 20^{\circ}\text{F}$ .

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3.4.2 Searing. All exposed ends of nylon webbing and cord shall be seared smooth and even.

3.5 Marking. Unless otherwise specified herein or on the drawings, all marking on container kits or components shall conform to type IV, class II of DDD-L-20, except that fastness to accelerated laundering shall not apply. In lieu thereof, marking shall show fair fastness to weathering after 40 fading hours when tested in accordance with DDD-L-20.

3.6 Workmanship. All components and assemblies of the container kits shall be free from dirt, grease, oil or other foreign matter. External surfaces shall be free from sharp edges or burrs. Components shall not be fractured, cracked, buckled, loose, dented, missing, malformed or misaligned. Seams and stitching shall be free of needle damage (cuts or chews), omitted and unrelated stitching, open and broken seams and loose threads. The end item shall conform to the quality of product established by this specification and the occurrence of defects shall not exceed the applicable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

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4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), it shall be examined for the defects specified in 4.4.2 and 4.4.3. Any nonconformance shall be cause for the rejection of the first article.

4.4 Quality conformance inspection. Unless otherwise specified, sampling inspection shall be performed in accordance with MIL-STD-105.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.4.2 End item visual examination. The end items shall be examined for the defects listed in table I. The lot size shall be expressed in units of complete container kits or components of one type only. The sample unit shall be one completely assembled container kit or component. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5 for major defects and 6.5 for total (major and minor combined) defects.

TABLE I. End item visual defects

Examine	Defect	Classification	
		Major	Minor
Materials	Wrong color		201
Construction and assembly	Any component missing, loose or not securely retained	101	
Cleanness	Dirt, grease, oil, or foreign matter		202
	Thread ends not trimmed throughout		203
Stitches and stitching	Not type of stitch specified	102	
	Stitching pattern not as specified	103	
	One stitch per inch under minimum specified		204
	Two or more stitches per inch under minimum specified	104	
	One stitch per inch over the maximum specified		205
	Two or more stitches per inch over maximum specified	105	

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TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification		
		Major	Minor	
Stitches and stitching (cont'd)	NOTE: Variation in the number of stitches per inch cause by the operator speeding up the machine and pulling fabric to sew over heavy places, heavy seams, or in turning corners shall be classified as follows:			
	a. Within the major defect classification - Minor defect			
	b. Within the minor defect classification - No defect			
	Thread breaks and two or more consecutive skipped stitches not overstitched as specified		206	
	Ends of stitching not secured as specified		207	
	Any row of stitching missing	106		
	Needle damage (cuts or chews)	107		
	Stitch margin or gage not as specified		208	
	Stitching runoffs not restitched in accordance with the applicable stitch pattern		209	
	Loose tension, resulting in loose top or bobbin thread; or tight tension resulting in tightness or puckering of material at stitch line		210	
	Cloth, webbing, tape, thread (as applicable)	Not type or size specified	108	
		Cut, hole, abrasion or frays, thin or weak area	109	
		Edge beaded or corded		211
Exposed ends not waxed or seared, as specified			212	
Hardware	Component fractured, malformed, bent or otherwise damaged; protective finish omitted; corroded areas; burrs or sharp edges	110		
	D-ring not assembled as specified	111		
	Snaphook not assembled as specified		213	

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TABLE I. End item visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Hardware (cont'd)	Adaptor assembled with protruding lip exposed		214
Plywood skid (when required)	Not grade or type specified	112	
	Surfaces not painted as required	113	
	Grain direction of top and bottom ply not as specified	114	
	Gaps and voids at edges and bevel not filled as specified	115	
	Plugged areas not sanded flush		215
Identification marking (including U.S. and special marking)	Missing, illegible, incorrect, wrong color, improper location or not applied as specified		216

4.4.3 End item dimensional examination. The end items shall be examined for conformance to the dimensions specified on the drawings. Only those dimensions that can be evaluated without damaging or disassembling the end items shall be examined. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of complete container kits or components of one type only. The sample unit shall be one completely assembled container kit or component. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 40 for completely assembled container kits and 15 for components that are procured separately.

4.4.4 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application
Materials	Any component missing, damaged, or not as specified
Workmanship	Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping, or inadequate stapling Bulged or distorted container

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<u>Examine</u>	<u>Defect</u> (cont'd)
Content	Number per container is more or less than required

4.4.5 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirement
Palletization	Pallet pattern not as specified Load not bonded as specified
Weight	Exceeds maximum load limits
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

## 5. PACKAGING

5.1 Preservation. Level of Preservation shall be as required by the procuring activity in accordance with MIL-STD-2073-1 (see 6.2).

5.2 Packing. Level of Packing shall be as required by the procuring activity in accordance with MIL-STD-2073-1 (see 6.2).

## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The container kits are intended for use in the airdrop of miscellaneous equipment and bulky supplies from aircraft in flight to ground.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this specification.
- b. Type of airdrop container kit required (see 1.2).
- c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1).
- d. When a first article is required (see 3.1, 4.3 and 6.3).
- e. Levels of preservation and packing required (see 5.1 and 5.2).
- f. Components, when procured separately (see 6.4).



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6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of Federal Acquisition Regulation (FAR) 52.209-3 or 52.209-4. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Components. The following components may be procured separately:

Quick release strap for: type A-21  
Suspension webs for: type A-22 and A-23  
Skids for: type A-22 and A-23  
Covers for: type A-22 and A-23

6.5 Subject term (key word) listing.

Air delivery

6.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - GL  
Air Force - 99

Preparing activity:

Army - GL  
(Project 1670-0801)

Review activities:

Army - AV  
Air Force - 11, 82

User activity:

Navy - MC

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

**NOTE:** This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

<b>1. RECOMMEND A CHANGE:</b>	1. DOCUMENT NUMBER MIL-C-7554F	2. DOCUMENT DATE (YYMMDD) 1993 May 19
3. DOCUMENT TITLE CONTAINER KITS, AIRDROP		
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
5. REASON FOR RECOMMENDATION		
6. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (if applicable)	e. DATE SUBMITTED (YYMMDD)
7. PREPARING ACTIVITY		
a. NAME U.S. Army Natick RD&E Center	b. TELEPHONE (Include Area Code) (1) Commercial 508-651-4531	(2) AUTOVON/DSN 256-4531
c. ADDRESS (Include Zip Code) Commander, U.S. Army Natick RD&E Center ATTN: SATNC-UXT Natick, MA 01760-5017	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2360 AUTOVON 289-2340	