

MIL-B-21332E(SA)  
15 September 1978  
SUPERSEDING  
MIL-B-21332D(SA)

MILITARY SPECIFICATION  
BAG, LAUNDRY, NYLON

This specification is approved for use by the Naval Supply Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. - This specification covers the requirements for one type of laundry bag fabricated from nylon duck material.

2. APPLICABLE DOCUMENTS

\*2.1 Issue of Documents. - The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

SPECIFICATIONS

FEDERAL

V-T-295 - Thread, Nylon  
DDD-L-20 - Label; For Clothing, Equipage, and Tentage  
(General Use)

MILITARY

MIL-C-7219 - Cloth, Duck, Nylon, Parachute Packs  
MIL-G-16491 - Grommet, Metallic  
MIL-R-17343 - Rope, Nylon  
MIL-B-17757 - Boxes, Shipping, Fiberboard (Modular Sizes)

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Officer in Charge, Navy Clothing and Textile Research Facility, 21 Strathmore Road, Natick, MA 01760, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 8465

MIL-B-21332(SA)

STANDARDS

FEDERAL

FED-STD-751 - Stitches, Seams, and Stitchings

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection  
by Attributes

MIL-STD-129 - Marking for Shipment and Storage

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurements functions should be obtained from the procuring activity or as directed by the contracting officer.)

LAWS AND REGULATIONS

U.S. POSTAL SERVICE MANUAL

(Copies of the manual may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.)

2.2 Other publications. - The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issues in effect on date of invitation for bids or request for proposal shall apply:

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT  
National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Attn: Traffic Department, 1616 P Street N.W., Washington, D.C. 20036.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT  
Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, Illinois 60606.)

3. REQUIREMENTS

3.1 Guide sample. - Samples, when furnished, are solely for guidance and information to the contractor (see 6.3). Variations from this specification may appear in the samples in which case the specification shall govern.

3.2 First article. - When specified, the contractor shall furnish sample unit(s) for first article inspection and approval (see 4.3. and 6.2).

### 3.3 Materials. -

3.3.1 Cloth, nylon.- The nylon cloth shall conform to type III, class 1 of MIL-C-7219 and shall be natural color.

3.3.2 Draw-string. - The draw-string shall be 1/4 inch (0.6 cm) diameter nylon rope conforming to MIL-R-17343.

\*3.3.3 Grommets.- The grommets shall conform to type III, class 1, size 2 or 3 of MIL-G-16491.

\*3.3.4 Thread. - The thread shall conform to types I or II, class A of V-T-295. The size shall be as specified in Table I. The color shall be natural white AG, Cable No. 66049.

\*3.3.5 Marking. - Each bag shall have an identification label conforming to type III or IV, class 5 of DDD-L-20. The printing shall be clearly legible after accelerated laundering. The label shall bear the following inscription:

BAG, LAUNDRY (100% NYLON)  
NAME OF CONTRACTOR:  
CONTRACT NO.: DLA-100-00-0-0000 (Example)  
STOCK NO.: 8465-00-000-0000 (Example)

\*3.4 Design. - The laundry bag shall be cylindrical in shape with a draw-string closure, and two carry handles, one on the side wall and the other on the bottom of the bag (see Figure 1).

3.4.1 Figure. - The figure is furnished for information purposes only. To the extent of any inconsistencies between the written specification and the figure, the written specification shall govern.

### 3.5 Construction. -

\*3.5.1 Stitch, seam, and stitching types. - Stitch, seam, and stitching types as specified in Table I shall conform to FED-STD-751. Whenever two or more methods for seams or stitches are given for the same part of the operation, either one may be used. Unless otherwise specified, seam allowances shall be as specified in Table I and shall be maintained with seams properly sewn so that no raw edges, runoffs, twists, pleats or open seams will result. When stitch type 401 is used, the chain portion of the stitching shall be on the inside of the bag.

3.5.2 Thread breaks, skipped stitches, run-off stitches and ends of seams. - Ends of all seams and stitching, when not caught in other seams or stitching, shall be backtacked not less than 1/2 inch (1.3 cm). Thread breaks and two or more consecutive skipped or run-off stitches shall be overstitched not less than 1/2 inch (1.3 cm) or more than 1 inch (2.5 cm) beyond the defective stitching area. Skipped stitches or thread breaks, including 401 stitch type, may be repaired by using 301 stitch type.

MIL-B-21332E(SA)

3.5.3 Stitches per inch.— The minimum and maximum number of stitches per inch (2.5 cm) shall be as specified in Table I.

3.6 Manufacturing operations requirements. — The bags shall be manufactured in accordance with all operation requirements as specified. The contractor is not required to follow the exact sequence of operations as specified, provided the finished bags are identical to those produced by following the sequence of operations as specified.

Table I - Construction of Bag

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
1.	<u>Cutting</u> Cut all component parts on strict accordance with dimensions specified.					
2.	<u>Replacement of defective components</u> During the spreading, cutting and manufacturing process, components having material defects or damages that are classified as defects in section 4 of this specification shall be removed from production and replaced with non-defective components.					
3.	<u>Cut component parts and make bag</u> a. Cut a piece of nylon cloth 53 inches (134.6 cm) $\pm$ 1/2 inch (12.7 mm) long in the warp direction, and 54 inches (135.0 cm) $\pm$ 1/2 inch (12.7 mm) wide in the filling direction; b. Stitch the short sides (warp direction) together to form tube of bag, 3/8 to 1/2 inch (9.5 to 12.7 mm) gauge and 1/16 to 1/8 inch (1.6 to 3.2 mm) from edge. OR When selvages are included in width overlap the selvages 1/2 inch (12.7 mm) and stitch the side together to form tube of bag, 3/8 to 1/2 inch (9.5 to 12.7 mm) gauge and 1/16 to 1/8 inch (1.6 to 3.2 mm) from edge.	301 or 401          301 or 401	LSc-2          LSa-2	6-8          6-8	E          E	E          E

MIL-B-21332E(SA)

MIL-B-21332E(SA)

Table I - Construction of bag

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
	<p>Cut component parts and make bag (cont'd)</p> <p>c. Turn under twice one raw end of the bag forming a three ply hem 1 7/8 to 2 inches (4.7 to 5.1cm) wide and stitch through all plies 1/8 to 3/16 inch (3.2 to 4.8mm) from the inside folded edge of hem.</p> <p>Attach grommets to top hem</p> <p>d. Attach 8 grommets with washers, each to be centered on hem and equally spaced round circumference.</p> <p>NOTE: 1. Grommet washer shall finish on the inside of bag.</p> <p>2. Holes punched to receive the grommets shall be smaller than the outside diameter of grommet barrel.</p> <p>3. Grommets shall be securely clinched without cutting the materials.</p> <p>Make handles</p> <p>e. Cut a piece of nylon cloth 12 inches (30.6cm) <math>\pm</math> 1/4 inch (6.4mm) long by 5 inches (12.7cm) <math>\pm</math> 1/4 inch (6.4mm) wide for one bag handle. Fold the piece in half lengthwise. Turn under raw edges and stitch each lengthwise edge, 1/8 inch (3.2mm) <math>\pm</math> 1/16 inch (1.6mm) from edge.</p> <p>OR</p>	301 or 401	EFb-1	6-8	E	E
		301 or 401	EFp-2	6-8	E	E

NCIR Form 1, 15 Sep 1967

Table I - Construction of Bag

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
	<u>Cut component parts and make bag (cont'd)</u>					
	<u>Make handles (cont'd)</u>					
	Cut two pieces of nylon cloth 12 inches (30.6 cm) $\pm$ 1/4 inch (6.4 mm) long by 3 inches (7.6 mm) $\pm$ 1/4 inch (6.4 mm) wide for one bag handle. Turn under the lengthwise raw edges of each piece and join together by stitching each lengthwise edge, 1/8 inch (3.2 mm) $\pm$ 1/16 inch (1.6 mm) from edge.	301 or 401	EFn-2	6-8	E	E
	<u>f. Position main body handle</u>					
	Center a prepared handle lengthwise over the bag body seam, so that (1) end of the handle is 11 inches (27.9 cm) $\pm$ 1/4 inch (3.2 mm) from top edge of bag, and the other end of handle is 20 inches (50.8 cm) $\pm$ 1/4 inch (3.2 mm) from top edge of bag. Turn under raw edges of handle and stitch with a square crossbox stitch 1 to 1 1/4 inch (2.5 to 3.1 cm) 1/4 to 3/8 inch (6.4 to 9.5 mm) from edges (each end).	301	crossbox stitch	6-8	E	E
	<u>NOTE:</u> Handle free opening shall be 6 inch (15.24 cm) $\pm$ 1/2 inch (12.7 mm), measured from inner box stitching along handle. (Operation 3f& 3h).					
	<u>g. Cut bag bottom</u>					
	Cut a piece of base fabric, to accommodate the diameter of the tubular body formed in operation 3b and 3j (see 3.7).					

NCTR Form 1, 15 Sep 1967

Table I - Construction of Bag

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
	<u>Cut component parts and make bag (cont'd)</u>					
	h. <u>Position bag bottom handle to bag bottom</u>  Center a prepared handle lengthwise across the diameter of the bag bottom, so that each end of the handle is 4 inches (10.4cm) $\pm$ 1/4 inch (3.2 mm) from the raw edge of the bag bottom. Turn under raw edges of handle and stitch with a square crossbox stitch 1 to 1 1/2 inches (2.5 to 3.1 cm), 1/4 to 3/8 inch (6.4 to 9.5 mm) from edges (each end), with reinforcement (made of base fabric) pieces on the underside.	301	crossbox stitch	6-8	E	E
∞	i. Double stitch together the bag body and bottom piece. The 401 stitch shall be approximately 3/8 inch (9.5 mm) from the edge from the edge of the fabric.	515 or 516 or 517 or 518	SSa-2	6-8	B	B cover edge E chain stitch
	OR					
	Stitch together the bag body and bottom piece with one row of stitching approximately 3/8 inch (9.5 mm) from the raw edge of fabric. Overedge entire circumference of bag bottom.	401 or 503	SSa-1	6-8	E	E
	j. Turn finished seam (operation i) to inside of bag and stitch to body piece with one row of stitching approximately 1/4 inch (6.3 mm) from fold.	301	similar to Lsg-2	6-8	E	E

NCTR Form 1, 15 Sep 1967



MIL-B-21332E(SA)

Table I - Construction of Bag

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
	<u>Cut component parts and make bag (cont'd)</u> <u>Install drawstring</u> k. Thread through 8 grommets an 8 foot (2.44 meters) length of rope (minimum) that has been seared and knotted at each end.					
4.	<u>Mark bags</u> Mark bags on inside approximately 3 inches (7.6 cm) below top edges of bag.					
5.	<u>Clean bag</u> Trim all thread ends and remove loose threads Remove all spots and stains.					

MIL-B-21332E(SA)

\*3.7 Finished dimensions. - The finished dimensions shall be as follows:

- a. Length - 48 inches (121.9 cm ) minimum (inclusive of bottom seam).
- b. Bottom diameter - 16 inches (40.6 cm) minimum (exclusive of bottom seam).
- c. Width - 25 inches (63.5 cm) minimum (at top opening with bag laid flat).

3.8 Workmanship. - The finished bags shall conform to the quality of product established by this specification. The occurrence of defects shall no exceed the applicable acceptable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. - Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may utilize 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Certificate of compliance. - Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

\* 4.2 Classification of inspections. - The inspection requirements specified are classified as follows:

1. First article inspection (see 4.3)
2. Quality conformance inspection (see 4.4)

4.3 First article inspection. - When required (see 6.2), the first article submitted in accordance with 3.2 shall be visually inspected as specified in 4.4.2 for compliance with design, construction, workmanship and dimensional requirements.

4.4 Quality conformance inspection. - Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.

4.4.1 Component and material inspection. - In accordance with 4.1, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified or qualified in this specification or applicable purchase document, Certificate of compliance will be accepted for the requirements specified in 3.3.2.

4.4.2 Examination of the end item. - Examination of the end item shall be in accordance with 4.4.2.1 and 4.4.2.2. The applicable inspection levels and acceptable quality levels (AQL's) shall be as indicated in 4.4.2.3. The sample unit shall be one completely fabricated bag. The lot size shall be expressed in units of bags.

MIL-B-21332E(SA)

4.4.2.1 Visual examination. - The bags shall be examined for defects classified in accordance with the list below.

Defects	Classification	
	Major	Minor
<u>CLEANNESS</u>		
One or more spots or stains		X
Thread ends not trimmed or loose thread not removed		X
<u>COMPONENTS AND ASSEMBLY</u>		
Any component part or required operation omitted (unless otherwise classified herein)	X	
<u>CUTTING</u>		
Any component part not cut in accordance with specification requirements	X	
<u>MATERIAL DEFECTS AND WORKMANSHIP</u>		
Any weakening defects such as smash, float	X	
Any hole, needle chew, cut, tear, mend, burn or drill hole	X	
Not natural color		X
<u>SEAMS AND STITCHING</u>		
<u>Accuracy of seaming</u>		
Seams twisted, puckered or pleated (unless otherwise classified herein)		X
Part of bag caught in any unrelated operation or stitching	X	
Ends of all seams or stitchings when not caught in other seams or stitching backtacked less than 1/2 inch (1.3 cm)		X
Ends of a continuous line of stitching overlapped less than 1/2 inch (1.3 cm)		X

MIL-B-21332E(SA)

Defects	Classification	
	Major	Minor
SEAMS AND STITCHING (cont'd)		
Thread breaks, two or more skipped or run-off stitches overstitched less than 1/2 inch (1.3 cm) or more than 1 inch (2.5 cm) beyond defective stitching area		X
<u>Gauge of stitching and stitching margin</u>		X
Irregular, i.e., unevenly gauged, not uniform		X
Beyond range specified		
<u>Open seams or run-offs</u>		X
Up to 1/4 inch (0.6 cm) inclusive		
More than 1/4 inch (0.6 cm)	X	
NOTE: One or more broken stitches or two or more continuous skipped or run-off stitches constitute an open seam.		
<u>Raw edges</u> (securely caught in seam)		X
More than 1/4 inch (0.6 cm) to and including 1 inch (2.5 cm)		
More than 1 inch (2.5 cm)	X	
NOTE: Use open seam classification for any raw edge not securely caught in seam.		
<u>Seam and stitch types</u>		
Not specified seam or stitch type	X	
Chain portion of 401 stitch on outside of bag.	X	
<u>Stitch tension</u>		
Loose tension resulting in loose seam	X	
Tight tension (stitches break when normal strain is applied to the seam or stitching)	X	
<u>Stitches per inch</u> (score only when condition exists on major portion of a seam)		
One stitch less than the minimum or any number in excess of the maximum specified		X
Two or more stitches less than the minimum specified	X	
<u>Crossboxstitch</u>		
One or more missing, loose or misplaced	X	
Not size specified		X

MIL-B-21332E(SA)

Defects	Classification	
	Major	Minor
<u>MARKING</u>		
Missing, incorrect or illegible		X
Misplaced		X
Strike-through of marking medium to bag face		X
<u>HANDLES</u>		
Missing or misplaced	X	
Free opening less than 5-1/2 inches (14.0 cm) or more than 6-1/2 inches (16.5 cm)		X
<u>GROMMETS</u>		
Any omitted, malformed, damaged or misplaced	X	
Not size, style or finish specified		X
Clinched too tight cutting fabric or insecurely attached		X
<u>ROPE</u>		
Omitted	X	
Any end not seared		X
Not material specified		X
Not minimum length specified		X
Ends of rope not knotted		X

4.4.2.2 Diminsional examination. - The bags shall be examined for dimensional defects. Any measurement deviation from the dimensions and tolerances specified shall be scored as a defect.

MIL-B-21332E(SA)

4.4.2.3 Inspection levels and acceptable quality levels The inspection levels and acceptable quality levels (AQL's), expressed as defects per 100 units, for the visual and dimensional examinations shall be as follows:

	<u>AQL's</u>	<u>Inspection Level</u>
For examination in 4.4.2.1:		
Major	4.0	II
Total (Major and Minor combined)	10.0	II
For examination in 4.4.2.2:	4.0	S-3

4.4.3 Examination of preparation for delivery requirements - An examination shall be made to determine that packaging, packing and marking comply with Section 5 requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery with the exception that it need not be sealed. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 defects per one hundred units.

<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 closure of container flaps, loose strapping, inadequate stapling, incorrect application of tape.
Content	Number of bundles per container more or less than specified. Number of bags per bundle more or less than specified. <u>1/</u>

1/ For this defect only one bundle shall be examined.

## 5. PACKAGING

5.1 Preservation-packaging Packaging shall be level A or C as specified (see 6.2).

MIL-B-21332E(SA)

5.1.1 Level A. - Each bag shall be laid flat, the drawstring ends tucked inside the bag and the bottom folded in half and positioned between the bag walls. Each bag shall be folded in half lengthwise, then folded across the length so that each folded bag measures approximately 13 inches (33.0 cm) by 24 inches (60.0 cm). Six folded bags shall be evenly stacked in a bundle reversed end for end. Each bundle shall be securely tied at each end with cotton tape or twine.

5.1.2 Level C (Commercial packaging). - Bags shall be packaged to afford adequate protection against physical damage during shipment from the contractor to the first receiving activity. The package and the quantity per package shall be the same as that normally used by the contractor for retail distribution.

5.2 Packing.- Packing shall be level A, B, or C as specified (see 6.2).

5.2.1 Level A. Thirty-six bags (6 bundles), packaged as specified in 5.1 shall be packed in a fiberboard shipping container assembled and closed conforming to class weather-resistant, type CF, variety SW, grade V3c, size 3A of MIL-B-17757. The fiberboard for the box liner shall conform to type CF, class weather resistant, variety DW, grade V15c of MIL-B-17757. Level A packages shall be packed flat, alternated end for end, and stacked one on top of the other within the shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper.

5.2.2 Level B. Thirty-six bags (6 bundles), packaged as specified in 5.1 shall be packed in a fiberboard shipping container assembled and closed conforming to type CF, class domestic, variety SW, grade 275 size 3A of MIL-B-17757. The fiberboard for the box liner shall conform to type CF, class domestic, variety DW, grade 275 of MIL-B-17757. Level A packages shall be packed flat, alternated end for end, and stacked one on top of the other within the shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper.

5.2.2.1 When specified (see 6.2) the shipping container shall be a grade V3c, W5c, or W6c fiberboard box fabricated in accordance with MIL-B-17757 and closed in accordance with the appendix of the box specification.

5.2.3 Level C (Commercial packaging). - Bags, packaged as specified in 5.1 shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. The quantity per shipping container shall be the same as that used by the contractor for retail distribution. Container shall comply with the U.S. Postal Service Classification Rules, Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

5.3 Marking.- In addition to any special marking required by the contract or order, interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

MIL-B-21332 E(9A)

## 6. NOTES

6.1 Intended use. - The bags are intended for use by Naval personnel serving aboard ship for storing bedding, linens and clothing to be laundered.

6.2 Ordering data.- Procurement documents should specify the following:

- a. Title, number and date of this specification.
- b. When first article sample is required (see 3.2).
- c. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- d. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).

6.3 Samples. - For access to samples, address the procuring activity issuing the invitation for bids.

\*6.4 Changes from previous issue. - The margins of this specification are marked with an asterisk to indicated where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodian:  
Navy - SA

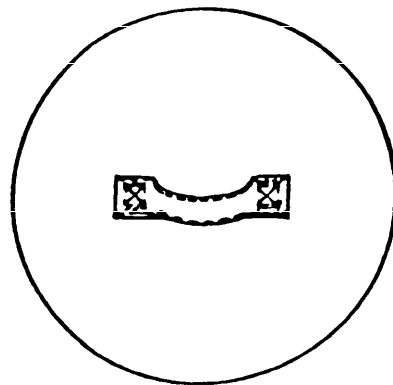
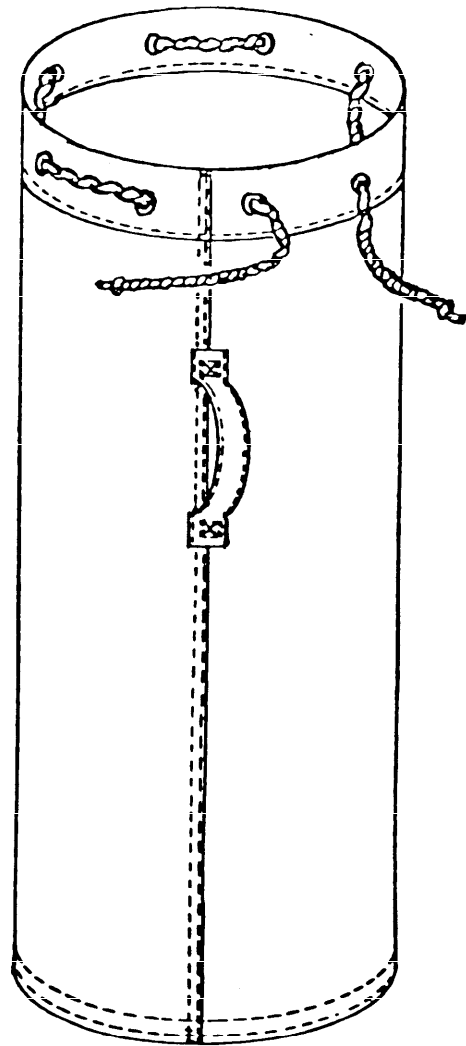
Preparing activity:  
Navy - SA

Review  
DLA - CT

Project No. 8465-N670



MIL-B-21322E(SA)



*BOTTOM VIEW*

*FIG. 1*

BAG, LAUNDRY, NYLON

S/N 0102-LF-001-4260

FOLD

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OFFICER IN CHARGE  
NAVY CLOTHING & TEXTILE RESEARCH FACILITY  
21 STRATHMORE ROAD  
NATICK, MA 01760

**OFFICIAL BUSINESS**  
PENALTY FOR PRIVATE USE \$300

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