

MILITARY SPECIFICATION

COVER, HELMET, CAMOUFLAGE

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

1. SCOPE

*1.1 This specification covers requirements for one type and size cotton duck helmet cover printed in the Environmental Research and Development Laboratories (ERDL) camouflage pattern.

2. APPLICABLE DOCUMENTS

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

SPECIFICATIONS

FEDERAL

- | | |
|-----------|--|
| V-T-276 | - Thread, Cotton. |
| UU-P-268 | - Paper, Kraft, Untreated, Wrapping. |
| CCC-C-419 | - Cloth, Duck, Cotton, Unbleached, Plied-Yarns, Army and Numbered. |
| DDD-L-20 | - Label, For Clothing, Equipage, And Tentage (General Use). |

MILITARY

- | | |
|-------------|---|
| MIL-B-17757 | - Boxes, Fiber, Corrugated (Modular Sizes). |
| MIL-C-43468 | - Cloth, Camouflage Pattern; Wind Resistant Poplin, Cotton. |

STANDARDS

FEDERAL

- | | |
|-------------|--------------------------------|
| FED-STD-751 | - Stitch, Seam, and Stitching. |
|-------------|--------------------------------|

MILITARY

- | | |
|-------------|--|
| MIL-STD-105 | - Sampling Procedures and Tables For Inspection By Attributes. |
| MIL-STD-129 | - Marking For Shipment And Storage. |

(Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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

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

(Application for copies should be addressed to the American Trucking Association, Inc., Tariff Order Section, 1616 P Street, N. W., Washington, D. C. 20036.)

UNIFORM CLASSIFICATION COMMITTEE
Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 202 Union Station, 516 W. Jackson Blvd. Chicago Illinois 60606.)

3. REQUIREMENTS

*3.1 Samples. Samples are furnished solely for guidance and information to the supplier (see 6.3). Variation from this specification may appear in the sample, in which case the specification shall govern.

*3.2 First article. Unless otherwise specified (see 6.2) before production is commenced, the first article consisting of the number of finished covers specified by the procuring activity (see 6.2) shall be submitted, or made available, to the contracting officer or his authorized representative for approval. The approval of the first article authorizes the commencement of production but does not relieve the supplier of responsibility for compliance with all provisions of this specification. The first article shall be manufactured by the supplier in the same facilities to be used for the manufacture of the production items.

*3.3 Materials.

*3.3.1 Cloth, cotton, duck. The cloth, before dyeing and printing, shall conform to CCC-C-419, type III, 8.25 ounces per square yard.

*3.3.1.1 Color. One side only of the cloth shall be printed in the ERDL camouflage pattern in accordance with type I of MIL-C-43468. The pattern shall be accomplished by dyeing the cloth to a ground shade using an organic colorant matching the yellow-green area of the ERDL pattern and then roller overprinting, using the required dark green, brown and black organic colorants. The pattern may be obtained by 4-roller printing on dyed or undyed cloth; each area however, shall match the specific colors of the required ERDL camouflage pattern.

*3.3.2 Thread. The thread shall be cotton, soft finish, conforming to type IA3 of V-T-276; size 40/6, left twist, for seaming and overedge stitching; and 40/6, right twist, for stitching and buttonholes. The thread shall be dyed green shade S-1, cable No. 66022. The colored thread when tested as specified in V-T-276 shall show good fastness to light, laundering, chlorine bleaching, or combined laundering and bleaching.

*3.3.3 Label. Each cover shall be provided with a cloth or marked identification label conforming to DDD-L-20, type I, III or IV, or any combination thereof; content and format of labels shall be as specified for type I, class 1 except that the stock number shall also be included. Fastness to laundering requirements of DDD-L-20 shall apply.

*3.3.3.1 Cloth label. The size of the label shall be not less than 2-1/2 by 1-1/2 inches with the required 3/16-inch margin for sewing maintained on all four sides. The size of the characters of the inscription shall conform to the requirements specified for labels conforming to class 1 of DDD-L-20, and the content and format shall be as follows:

Nomenclature (item description)
Contract number
Stock number
Name of contractor

*3.3.3.2 Marked label. The contents, size of characters of the inscription and the format for labels marked on the cover by heat transfer (decalcomania), direct printing or stamping shall be the same as specified for the cloth label.

*3.4 Design. The covers shall be the design shown in Figure 1.

3.5 Patterns. The standard pattern furnished by the Government shall not be altered in any manner and shall be used only as a guide for cutting working pattern. Pattern is marked or notched for proper cutting, placement, and assembly of component parts. The standard pattern provides 3/8 inch allowance for seaming.

*3.5.1 List of pattern parts. Covers shall be cut from the material specified herein in accordance with pattern parts indicated below:

<u>Item</u>	<u>Pattern nomenclature</u>	<u>No. of cut parts</u>
1.	Material: Cloth, cotton duck Body piece	2

3.6 Construction.

*3.6.1 Manufacturing requirements. Covers shall be manufactured in accordance with the operations and the stitch, seam and stitching types specified in Table I.

3.6.1.1 Operations. The supplier is not required to follow the exact sequence of the operations as listed in Table I, but all operations specified shall be used to manufacture the covers.

*3.6.1.2 Stitches, seams and stitching. The stitch, seam and stitching types specified in Table I shall conform to FED-STB-751. When stitch type 401 is used, the looper (underthread) shall be on the inside of the cover. The number of stitches per inch as specified in Table I indicates the minimum and maximum number permitted.

TABLE I MANUFACTURING REQUIREMENTS

OPN NO.	OPERATION	Stitch Type	Seam or Stitch'g	Stitches Per Inch	THREAD	
					Needle	Bobbin or Looper
1.	<u>Cutting.</u> a. The covers shall be cut in strict accordance with the patterns furnished by the Government. b. The material shall be cut in the direction indicated by directional lines on the pattern.					
2.	<u>Make buttonholes.</u> a. Make eight 1 +1/8 - inch-long straight type buttonholes in both sides of the cover, positioned in accordance with marks indicated on the pattern, with the ends of the buttonholes securely tacked.	Button- hole		64 min per button hole in- cluding tacks	40/6	40/6
3.	<u>Join left and right halves.</u> a. Join the left and right halves of the cover with a double lapped and double-stitched seam, 1/4 inch gage, forming the pleat across the seam at the center top of the cover in accordance with the notch indicated on the pattern. The pleat shall be secured in the stitching of the seam. The camouflage pattern shall finish on the outside of the cover or b. The left and right halves may be joined with safety stitch, turn and raise stitch 1/4 inch from seamed edge. The bottom material is not required to be turned under.	301 or 401 515 or 516 or 519 (safety stitch) 301 or 401 (raise stitch)	LSc-2 SSa-2	10-14 10-14	40/6 40/6	40/6 40/6

TABLE I MANUFACTURING REQUIREMENTS

OPN NO.	OPERATION	Stitch Type	Seam or Stitch'g	Stitches Per Inch	THREAD	
					Needle	Bobbin or Looper
4.	<u>Overedge stitch scalloped edges.</u> a. Overedge stitch the raw edges at the scalloped edges of the cover.	503 or 504	EFd-1	6-10	40/6	40/6
5.	<u>Stitch on or apply label.</u> a. The cloth, stamped, or decalcomania identification label shall be placed on the inside of the cover, positioned as shown in Figure 1. b. Stitch the cloth label to the cover 1/16 to 1/8 inch from each of the four edges. c. The stamped or decalcomania label shall be applied without smearing.	301	SSa-1	10-14	40/6	40/6
6.	<u>Clear covers.</u> a. All ends of stitching shall be trimmed and the loose threads removed from the cover. b. All spots and stains shall be removed without injury to the material.					

3.7 Finished measurements. The finished cover shall measure 20-1/2 \pm 1/2 inches from center front to center back at the bottom, and 15-1/2 \pm 1/2 inches from top to bottom at center, measured as shown in Figure 1.

***3.8 Workmanship.** The finished covers shall conform to the quality and grade of product established by this specification. The occurrence of defects shall not exceed the levels set by the applicable quality levels (AQL's).

4. QUALITY ASSURANCE PROVISIONS

***4.1 Responsibility for inspection.** Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

***4.2 Inspection.** Inspection shall be in accordance with the provisions set forth in MIL-STD-105, except where otherwise indicated herein.

***4.2.1 First article inspection.** When first article is required, inspection shall be performed on a completely fabricated cover for conformance to all provisions of this specification.

***4.2.2. In-process inspection.** Inspection shall be performed during the manufacturing of the end item to ascertain that the operations are performed as specified herein. The Government reserves the right to determine the acceptability of construction methods not performed in accordance with specified requirements for operations or subassemblies.

***4.2.3 Examination of end item.** The end item shall be examined for defects listed in 4.2.3.1 and 4.2.3.2. The sample unit shall be one cover.

***4.2.3.1 General defects.** General defects shall be as follows:

Examine	Defect
Buttonholes	<ul style="list-style-type: none"> a. One or more omitted or added. b. Stitches not securely caught in fabric, causing stitches to pull away from fabric. c. One or more broken stitches in one or more buttonholes. d. More than 2 skipped stitches in one or more buttonholes. e. Tack (bar) on one or both ends omitted or insecure on one or more buttonholes. f. Not specified type buttonholes, or uncut buttonhole. g. One or more poorly constructed.

Examine	Defect
Cleanness	<p data-bbox="655 306 1182 369">h. Length of buttonhole less than 7/8 inch or more than 1-1/8 inch.</p> <p data-bbox="655 401 1182 453">a. Spot or stain of a permanent nature.</p> <p data-bbox="655 485 1182 537">b. Removable spot or stain, clearly noticeable.</p> <p data-bbox="655 569 1182 636">c. Thread ends not trimmed, or loose threads not removed.</p>
Cutting	<p data-bbox="655 667 1142 783">Any component part not cut in accordance with directional lines indicated on pattern or specified requirements.</p>
Label	<p data-bbox="655 821 1182 848">a. Missing, incorrect, or illegible.</p> <p data-bbox="655 879 1023 905">b. Not securely attached.</p>
Material defects and workmanship damages	<p data-bbox="655 940 1219 1031">a. Any weakening defect such as a smash, multiple float, loose slub, etc., that may develop into a hole.</p> <p data-bbox="655 1062 1219 1146">b. Hole, scissors or knife cut, tear, mend or burn, or a needle chew that may develop into a hole.</p> <p data-bbox="655 1178 1219 1297">c. Ruptured fibers in the line of sewing (usually caused by broken, blunt or hooked needles) affecting appearance or serviceability.</p>
Pleats	<p data-bbox="655 1486 991 1514">a. One or both omitted.</p> <p data-bbox="655 1545 1174 1608">b. Position more than 1/2 inch from pattern marks.</p> <p data-bbox="655 1640 1094 1659">c. Staggered 1/2 inch or more.</p>

Examine

Defect

Seams and stitching

a. Accuracy of seaming:

1. Seam twisted, puckered, or pleated.
2. Thread(s) used on outside not same shade or not satisfactorily matching shade of cover.
3. Thread breaks or end(s) of stitching (when not caught in other seams or stitching) not backstitched.

b. Gage of stitching:

1. Not within range of gage specified or varies more than 1/16 inch when no range is specified.

c. Open seam:

1. On joining seam(s) 1/4 inch or more.

d. Stitches skipped or broken for 1/2 inch or more.

e. Raw edges:

1. 1/4 inch or more.

f. Not specified seam or stitch type.

g. Stitch tension (puckering is evidence of tight tension. When puckering is evident, seam shall be tested by exerting normal pull in the lengthwise direction of seam or stitching)

1. Loose tension, resulting in a loose seam.
2. Tight tension (stitches break when normal strain is applied to seam or stitching) score as open seam.

h. Stitches per inch (to be scored only when the condition exists on major portion of seam or stitching).

1. Less than minimum number permitted by minus tolerances.

2. One or more stitches in excess of maximum number permitted by plus tolerance.

1. Run-off of overedge stitching more than 1 inch.

***4.2.3.2 Finished measurements.** Any measurement deviating from the nominal dimension and tolerance in Figure 1 shall be scored as a measurement defect.

***4.2.3.3 Acceptable quality levels and inspection levels.** Inspection levels and AQL's expressed in defects per 100 units (DHU) shall be as follows:

	<u>AQL</u>	<u>Inspection Level</u>
For 4.2.3.1 (one class)	10.0	II
For 4.2.3.2 (one class)	4.0	S-2

***4.2.4 Examination of preparation for delivery requirements.** An examination shall be made to determine compliance with the packaging, packing and marking requirements of Section 5 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 in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 DHU.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted, incorrect, illegible, or improper size, location, sequence or method of application.
Materials	Any component missing. Any component damaged, affecting serviceability.
Workmanship	Inadequate application of components, such as incomplete closure of container flaps, loose strapping, or improper taping or inadequate stapling. Bulging or distortion of containers.
Weight or content (exterior or interior)	Number per bundle is more or less than required; gross/net weight exceeds requirements.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C, as specified (see 6.2).

***5.1.1 Level A.** Twenty (20) covers shall be neatly stacked in a bundle and securely tied across the width and length at the centers with strong twine or cotton tape.

***5.1.2 Level C.** Covers shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

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

5.2.1 Level A.

***5.2.1.1 Method 1.** Six bundles of covers, packaged as specified in 5.1.1, and five loose covers (125 covers total) shall be packed in a fiberboard shipping container conforming to class weather resistant, grade V2s, size 2A, of MIL-B-17757. Each container shall have the contents completely covered on top and bottom with a sheet of 60-pound minimum basis-weight kraft paper conforming to grade B of UU-P-268. Each shipping container shall be assembled, closed and reinforced as specified in the appendix to the box specification.

***5.2.1.2 Method 2.** When specified (see 6.2), six level B shipping containers (750 covers) shall be overpacked in a fiberboard shipping container conforming to class weather resistant, size 4 of MIL-B-17757 reinforced as specified in the appendix to the box specification.

*5.2.2 Level B. Six bundles of covers, packaged as specified in 5.1.1, and five loose covers (125 covers total) shall be packed in a fiberboard shipping container conforming to class domestic, grade 275, size 2A, of MIL-B-17757. The fiberboard for the box liner shall conform to type CF, class domestic, variety DW, grade 200 of MIL-B-17757. Each container shall have the contents completely covered on top and bottom with a sheet of 60-pound minimum basis-weight kraft paper conforming to grade B of UU-P-268. Each shipping container shall be assembled, and closed as specified in the appendix to the box specification.

*5.2.3 Level C. Covers, 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. Container shall be in accordance with 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, the shipping containers shall be marked in accordance with the requirements of MIL-STD-129.

6. NOTES

*6.1 Intended use. The covers are intended for the purpose of camouflaging combat helmets.

*6.2 Ordering data. Purchasers should exercise any desired options offered herein, and procurement documents should specify the following:

*6.2.1 Procurement requirements:

- (a) Title, number, and date of this specification.
- (b) Whether first article is required (see 3.2).
- (c) Number of covers in first article (see 3.2).
- (d) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- (e) When level A, method 2, packing is required (see 5.2.1.2).

*6.2.2 Contract data requirements. Data conforming to Data Item Descriptions DI-R-4803, DI-R-4805, DI-T-4901, DI-T-4902, DI-T-4903 and DI-T-4904 will usually be required for delivery in connection with this specification for Marine Corps procurements. For other than Marine Corps procurement, the cognizant procuring activity will provide comparable Data Item Descriptions. When so required, such data will be specified for delivery on a DD-1423 included in the contract.

*6.3 Samples and shade samples. For information regarding the availability of sample cover, and of standard shade specified, address inquiry to the procuring activity issuing the invitation for bids.

*6.4 First article. Examination, test and approval shall be as specified by the contracting officer (see 3.2).

***6.5 Marginal notations.** The margins of this specification are marked with an asterisk to indicate 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.

Preparing activity:
Navy - MC
Project No. 8415-0492

Custodian:
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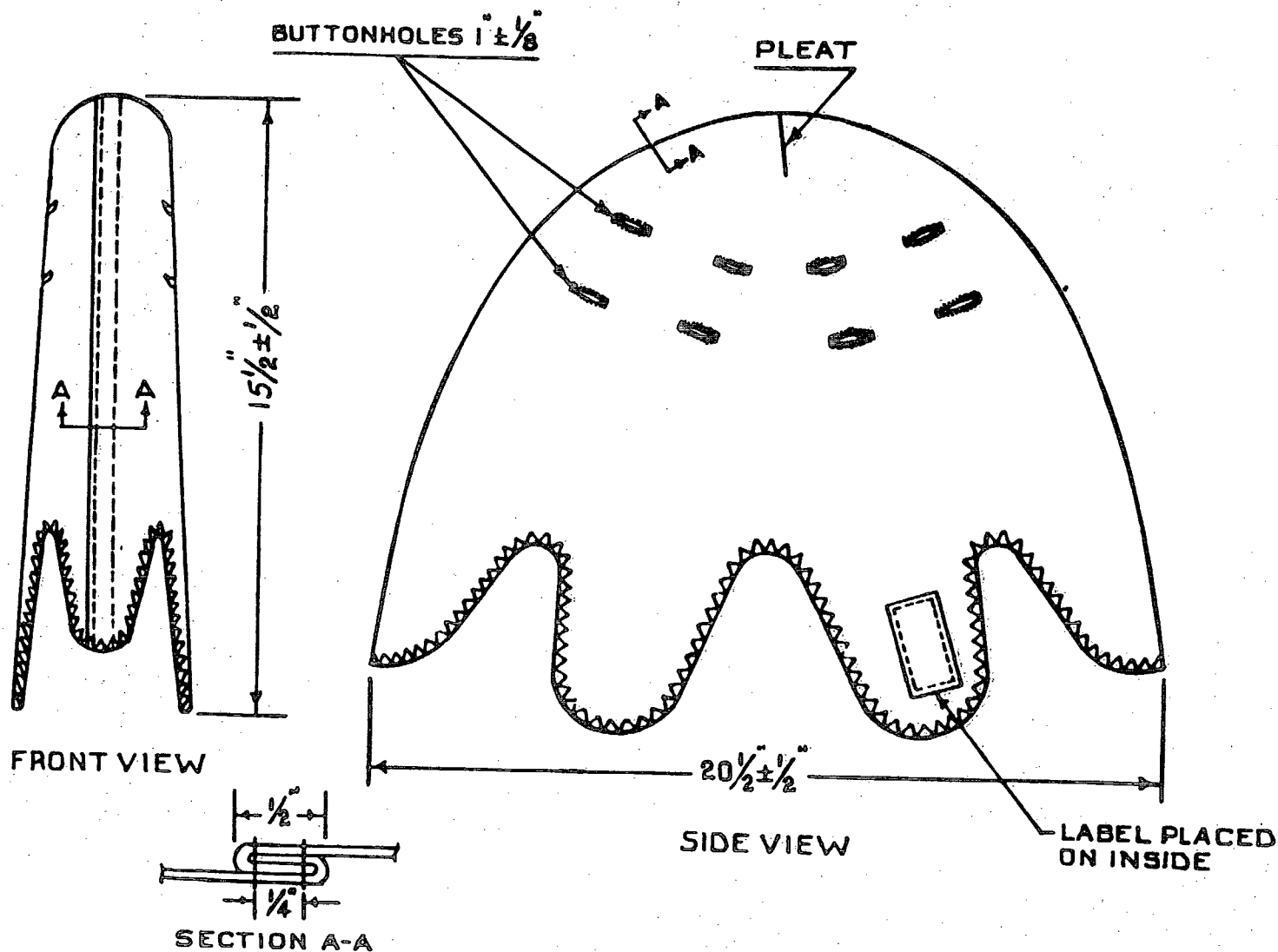


FIGURE 1. COVER, HELMET, CAMOUFLAGE
(ERDL PATTERN)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER

2. DOCUMENT TITLE

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION (Mark one)

☐

VENDOR

☐

USER

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MANUFACTURER

☐

OTHER (Specify): _____

b. ADDRESS (Street, City, State, ZIP Code)

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER (Last, First, MI) - Optional

b. WORK TELEPHONE NUMBER (Include Area Code) - Optional

c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional

8. DATE OF SUBMISSION (YYMMDD)

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