

INCH-POUND

A-A-55239

November 3, 1993

COMMERCIAL ITEM DESCRIPTION

SWEATER, SERVICE WOOL

The General Services Administration has authorized the use of this commercial item description in preference to MIL-S-29415.

Abstract. This commercial item description covers the requirements for the service wool sweater intended for use by personnel of the US Marine Corps.

Classification. The sweater shall be one type and color in the following sizes:

Schedule of sizes

28/30	38	46
32	40	48
34	42	50
36	44	

Salient characteristics. The 2 x 2 rib knit sweater shall be a pullover-type with a crew neck opening and long sleeves with elbow patches. The neckband shall be of 2 x 2 rib knitted as tightly as the lower skirt and cuff fabric. The neckband shall conform to the finished widths in Table I. The fabric shall be folded lengthwise to form a double neckband 1-1/2 inches wide.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FSSD, 2800 South 20th Street, Philadelphia, PA 19101-8419, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8405

DISTRIBUTION STATEMENT A.

Approved for public release;
distribution is unlimited.

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Material

Basic material. The sweater shall be made of 2-ply yarn, with the yarns spun on a worsted system of combed top. The sweater shall be no less than 95 percent wool, based on dry weight when tested in accordance with ASTM D-3776, consisting of fleece or pulled wool or a combination of fleece and pulled wool of not lower than 50's U.S. Standard. The use of reprocessed, reused, or waste wool is prohibited. The body and skirt (body welt), and the sleeves and cuffs shall be a continuous knit of 2 x 2 rib.

The color shall match Olive Green Shade No. 2247 and conform to the requirements listed in Table I. The sweater shall have a mothproofing compound as specified in Table II. The compound shall be applied during the dyeing process to the wool stock, top yarn, or cloth. The knitting shall be even and regular using .54 inch of yarn per stitch, but the bottom welt rib of the body is to be knitted with .46 inch of yarn per stitch, and is to commence with a knitted welt. These stitch lengths have been found to approximate 19 and 24 courses per 2 inches, respectively, in a relaxed state. The numbers of ribs required for skirt height, armhole depth and patch dimensions are as shown in Table II.

TABLE I. Sweater physical requirements

Characteristic	Requirement	Test Method
Wales/inch. (min.)		
Body and sleeves	6	ASTM D-3775
Cuffs, skirt, neckband	8	ASTM D-3775
Courses/inch (min.)		
Body and sleeves	10	ASTM D-3775
Cuffs, skirt, neckband	13	ASTM D-3775
Colorfastness to:		
Perspiration	4	AATCC-15
Laundering	4	AATCC-16-A
Dry-cleaning	4	AATCC-132
Crocking	4	AATCC-8
Dimensional stability:		
Shrinkage	13 percent	AATCC-150
Elongation	13 percent	AATCC-150

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TABLE II. Rib requirements 1/2/

Size	28/30	32/34	36	38	40	42	44	46	48	50
No. of ribs across chest (min.)	31	34	36	38	40	42	44	46	48	50
No. of body ribs reduced at each armhole	1-2	2	2	3	3-4	3-4	4	4	4	4
Body rib welt depth (skirt height)	3 - 3-1/2	3 - 3-1/2	3 - 3-1/2	3 - 3-1/2	3-1/2 - 4	3-1/2 - 4	3-1/2 - 4	3-1/2 - 4	4 - 4-1/2	4 - 4-1/2
No. of ribs in sleeve at armhole minimum	26	28	31	31	34	34	36	36	38	38
Arm-hole depth	8-1/4	8-1/2	10	10	10- 1/2	10- 1/2	11	11	11- 1/2	11- 1/2
<u>Sleeve patch</u>										
Length	9-1/4	9-1/4	9-1/4	9-1/4	11	11	11	11	11	11
Width at widest point	4-1/4	4-1/4	4-1/4	4-1/4	5	5	5	5	5	5
Width at cuff	3-1/4	3-1/4	3-1/4	3-1/4	3-3/4	3-3/4	3-3/4	3-3/4	3-3/4	3-3/4

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TABLE II. Rib requirements 1/2/(cont'd.)

Size	28/30	32/34	36	38	40	42	44	46	48	50
<u>Shoulder patch</u>										
Length	8	8	9	9	9	10	10	10	10	10
Width	AS WIDE AS PERMITTED BY THE SHOULDER WIDTH OF THE GARMENT									

- 1/ All measurements and tolerance shall be expressed in inches.
- 2/ Tolerance for number of ribs across chest (minimum), number of body ribs reduced at each armhole, and number of ribs in sleeve at armhole (minimum) shall be ± 1 inch. Tolerance for the armhole depth shall be $\pm 1/2$ inch. Tolerance for the sleeve patch and shoulder patch lengths and widths shall be $\pm 1/4$ inch.

Mothproofing treatment. Mothproofing of the sweater shall be accomplished by the application of either compound specified in Table III to wool stock, top yarn, or cloth. When white wool or colored wools are in excess of 15.0 percent, the wool shall be treated with the mothproofing compound.

TABLE III. Mothproofing compounds

Mothproofing compounds	Percent by weight to be applied to wool fiber	
	Minimum	Maximum
Sodium 5-chloro-2-{4-chloro-2-{3-3(3, 4 dichlorophenyl)-ureido} phenoxy} benzenesulfonate	0.65	1.45
Sodium {(4, 5 dichloro, 2-chloromenthane sulfonamido) 3', 4' 6', trichloro} diphenyl ether	0.26	0.60

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Patch material. The shoulder and elbow patch shall be a fiber blend of polyester, and carded or combed cotton. The polyester content is made up of polyethylene glycol terephthalate, semi-dull with a denier no greater than 2.5 and a staple length of approximately 1-1/2 inches. The material shall be a 2 up, 1 down, left-hand twill, color matching 2248, and shall meet the requirements cited in Table IV.

TABLE IV. Patch material physical requirements

Characteristic	Requirement	Test method
Poly fiber content:		
Warp yarn	50 \pm 5% poly	ASTM-D 3776
Filling yarn	50 \pm 5% poly	ASTM-D 3776
Yarn ply	2-ply	ASTM-D 3775
Non-fibrous material	2.0 max.	AATCC-20A Sec. 9.1
Weave	2 up, 1 down left hand weave	ASTM-D 3775
Yarns per inch:		
Filling	45	ASTM-D 3775
Warp	85	ASTM-D 3775
Breaking strength:		
Filling	90	ASTM-D 1445
Warp	145	ASTM-D 1445
Weight oz./sq. yd.	7.3 \pm 0.5	ASTM-D 3776

Shrinkage. The wool shall have a shrink-resistant treatment for resistance to felting shrinkage by a chlorination method approved by the procuring activity. The finished sweater shall not shrink or elongate more than 13.0 percent in length or width when tested.

Tape. The tape for reinforcing the shoulders and lower armholes at side seams shall be cotton, 5/8 inch in width, and have a tolerance of \pm 1/32 inch. The shuttle loom shall be a two up and 2 down single or multiple herringbone twill with one or more reversals of twill across the width of the tape. The tape shall have a woven edge on both sides and shall have a colored tape stock, yarn, or piece dyed to match the standard sample. The tape requirements shall be as specified in Table V.

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TABLE V. Tape physical requirements (shuttle loom)

Characteristic	Requirement	Test method
Warp total in yarns	94 22 ends left 24 ends right 20 ends left	ASTM-D 3775
Warp yarn counts and ply cotton counts ± 5.0 percent	60/2	ASTM-D 3775
Filling yarns per inch (min.)	54	ASTM-D 3775
Filling yarn counts and ply cotton counts ± 5.0 percent	30/1 or 60/2	ASTM-D 3775
Warp strength pounds (min.)	44	ASTM-D 2256

Thread. The thread shall be polyester, cotton conforming to type I, ticket no. 40 or 50, 3 ply, of A-A-52094. The yards per pound shall be at a minimum of 8267 and a maximum 9920 in accordance with ASTM-D 1907. The bursting strength shall be a minimum of 2.2 pounds in accordance with ASTM-D 2256.

Label/marking. The label/marking shall be in accordance with commercial label practices provided that an additional printed cloth label containing the contractor's name, contract number, size and National Stock Number (NSN) is caught on the stitching of the commercial label. The commercial shall include the combination size, identification and instruction care labels.

Label/tag. Each item shall be individually bar-coded with the type VIII, class 17 label/tag of DDD-L-20. This label/tag shall be located so that it is completely visible on the item when it is folded and/or packaged as specified and causes no damage to the item.

Weights. The weights of the finished sweater, expressed in pounds, shall be as follows:

Size <u>1/</u> <u>2/</u>									
28/30	32/34	36	38	40	42	44	46	48	50
11	12-3/4	14-1/4	15	17	17-3/4	8-3/4	19-1/2	20-1/4	21

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- 1/ The weight given is based on a dozen sweaters.
2/ The tolerance is -1/4 pounds.

Seams and stitchings. The sweater shall be manufactured in accordance with established operational requirements. The sweater seams shall be 10-12 stitches per inch except for the following:

Attachment of neckband, and setting label	10-14 inches per inch
Making of sleeve and attachment of elbow patch	10-14 inches per inch
Attachment of sleeve to armhole	12-14 inches per inch

The stitch types cited shall be used for the following operations:

Stitch type 504 or 505

Making the neckband; joining the shoulder seam with the front and back parts face to face with a 1/4-inch seam; attaching the neckband to neckline and joining with a minimum 1/4-inch seam; joining the sleeve seam with a minimum 1/4 inch seam, reversing the seam to the outside 3 inches from the bottom of cuff; joining the side seams with a minimum 1/4-inch seam with the edges even at the bottom of the skirt and armhole; and joining the sleeve seam and side seam to the armhole, including the shoulder patch raw edge with a minimum 1/4-inch seam.

Stitch type 301

Attaching the label to center back of neck, 1/8 inch below the cover seam; and joining the elbow patch to the sleeve with a double row of stitching 1/16 inch from the outer edge and 1/4-inch gage, and with the end neatly turned under 1/2 inch.

Stitch type 301 or 401

Attaching the reinforcement tape to the shoulder seam from the armhole opening to the neckline and joining them with a minimum 1/4-inch seam; the three sides of the patch, centered on the shoulder seam with raw edges turned in a minimum of 1/2 inch and seaming it with a double row of stitching 1/16 inch from the outer edge and 1/4-gage, to the body of the sweater; and centering the 4-inch length of the armhole tape on the side seam and joining the armhole.

Stitch type 402 or 406

Cover stitching each shoulder seam, and the front and back of the neckband; and cover stitching the sleeve seam for a distance of 3 to 3-1/2 inches from the bottom of the cuff completely covering the outside seam.

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Figure. The figure is furnished for information purposes only. If there are any inconsistencies between the written commercial item description and the figure, the written commercial item description shall govern.

Sizes and measurements. The finished sweater shall conform to the measurements in Table VI. The measurements and tolerances are expressed in inches.

TABLE VI. Finished measurements

	A	B	C	D	E	F	G
Size	1/2 chest	Back length	Skirt width	Neck depth	Shoulder-Shoulder	Neck width	Sleeve length
28/30	14	20-1/2	9	1-1/2	15	7	18-1/2
32	14-1/2	21-1/2	9-1/4	2-1/4	15-1/2	7	19
34	15	22-1/2	9-1/4	2-1/4	15-1/2	7	20
36	15-1/2	23-1/2	9-1/2	2-1/4	16-1/2	7-1/2	20
38	16-1/2	24	9-3/4	2-1/4	17	7-1/2	21
40	17	25	10	2-1/4	17-1/2	7-1/2	22
42	17-1/2	26-1/2	10-1/4	2-3/4	18	8	22
44	18-1/2	27	10-1/2	2-3/4	19	8	23
46	19-1/2	27-1/2	10-3/4	3-1/4	20	8-1/4	23
48	20	28	11	3-1/4	20-1/2	8-1/4	23
50	20-3/4	28-1/2	11-3/4	3-1/4	21	8-1/4	23
Tolerance	± 1	± 1	± 1/2	± 1/2	± 1	± 1/2	± 1

	H	I	J	K
Size	Sleeve width (at widest point of patch)	Sleeve width (at cuff end of patch)	Cuff width	Cuff length
28/30	5	4	2-3/4	5-1/2
32	5-1/4	4-1/4	3	5-1/2
34	5-1/4	4-1/4	3	5-1/2
36	5-1/2	4-1/2	3	5-1/2
38	5-1/2	4-1/2	3-1/4	5-1/2
40	5-3/4	4-3/4	3-1/2	6-1/2
42	5-3/4	4-3/4	3-1/2	6-1/2
44	6	5-1/2	4	6-1/2
46	6	5-1/2	4	6-1/2
48	6-1/4	6	4	7
50	6-1/4	6	4	7
Tolerance	± 1/2	± 1/2	± 1	± 1/2

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The sweater shall be placed smooth and flat.

A. (1/2 chest) - Measure across front, approximately 1 inch below armhole seams, folded edge to edge

B. (Back length) - The measurement shall be taken down the center back, from the bottom edge of the border at the neck to the bottom edge of the sweater.

C. (Skirt welt) - Measure on a straight line across, 1 inch from the bottom, from folded edge to folded edge.

D. (Neck depth) - Measure from folded edge of center collar seamline at bottom of collar to seamline at top of back collar

E. (Shoulder to shoulder) - Measure on a straight line, from shoulder point to shoulder point.

F. (Neck width) - Measure on a straight line, from shoulder point to shoulder point.

G. (Sleeve lengths) - The tolerance of the sleeve lengths shall be consistent. A plus tolerance in one measurement and a minus tolerance in another will not be permitted. The measurement of the sleeve length shall be taken from the armhole seam along the sleeve inseam to the bottom of the sleeve.

H. (Patch width) - Measure across sleeve at widest point of elbow patch, from folded edge to folded edge.

I. (End of patch width) - Measure across the sleeve at narrow point of elbow patch, from folded edge to folded edge.

J. (Cuff width) - Measure on a straight line across sleeve, from folded edge to folded edge.

K. (Cuff lengths) - Measure on a straight line from bottom of cuff to top of cuff.

Workmanship. The finished sweater shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the contractor's own quality assurance standards and the quality assurance standards defined by the technical data in the bid package.

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Product demonstration model. When required, offerers shall submit samples of their intended production. The product demonstration model will consist of units independently developed. Product demonstration models will be analyzed and evaluated by the Government. Evaluation criteria and basis for award are contained in the solicitation. Product demonstration models will be retained by the Government. One (1) product demonstration model approved by DPSC under the resultant contract will serve as a manufacturing standard for the corresponding production items delivered under this contract. Offerers are advised that the product demonstration model does not relieve the successful offerer of his responsibility to perform in accordance with the commercial item description specified above.

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

Quality assurance

Certification. The contractor shall certify that the product offered meets the salient characteristics of this 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 the first delivery and thereafter as may be otherwise provided for under the provisions of the contract. Reliance on contractor quality assurance systems 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.

Examination

Visual examination. The sweater shall be examined for the defects listed below. The lot size shall be expressed in units of sweaters. The sample unit is one sweater.

Defects. The sweater shall be examined for the following defects: any hole, cut, or tear; color not as specified or shaded parts when required to be cut from one piece of material; any spot or stain (outside); raw edges, open seams, thread ends not removed, tight tension resulting in broken seams, or loose tension resulting in loose seams; patches not properly shaped, or not positioned on the arm properly; any material defects, distorted parts or poor workmanship; heavy yarn or slub more than twice the diameter of the yarn; any float, broken yarn or any pulled or snagged yarn; sleeves or body improperly shaped to provide normal taper, tape tight or loose, not proper length; any component part omitted; label missing, incorrect, or illegible; measurement of item not as specified; bar code omitted or not readable by scanner; human-readable interpretation (HRI) omitted or illegible; not visible on folded, packaged item; causes damage to the item.

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Dimensional examination. The finished sweater shall conform to the dimensions specified. Any dimension that is not within the established tolerance shall be classified as a defect. The sample unit shall be one sweater.

Packaging examination. The fully packaged shipping containers shall be examined in accordance with the defects listed below. The lot size shall be the number of shipping containers in the inspection lot.

EXAMINE	DEFECT
Marking (exterior and interior)	Omitted, incorrect, illegible; of improper size, location, 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, improper taping, or inadequate stapling
Content	Number of items in container is more or less than required NSN shown on one or more items is not as specified on shipping container
Palletization	Length, width, or height exceeds specified maximum requirements Pallet type not as specified Load not bonded as specified

Preservation, packing, and marking. The preservation, packing, and marking shall be as specified in the contract or order.

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Source of Government documents. Copies of military and Federal documents are available from:

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

Source of non-Government documents

AATCC Test Methods

(Applications for copies should be addressed to American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Triangle Park, NC 27709-2215.)

ASTM Test Methods

(Applications for copies should be addressed to American Society For Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

Custodian:
Navy - MC

Civil Agency Coordinating
Activity:
GSA - FSS

Preparing Activity:
DLA - CT

Project No. 8405-0198

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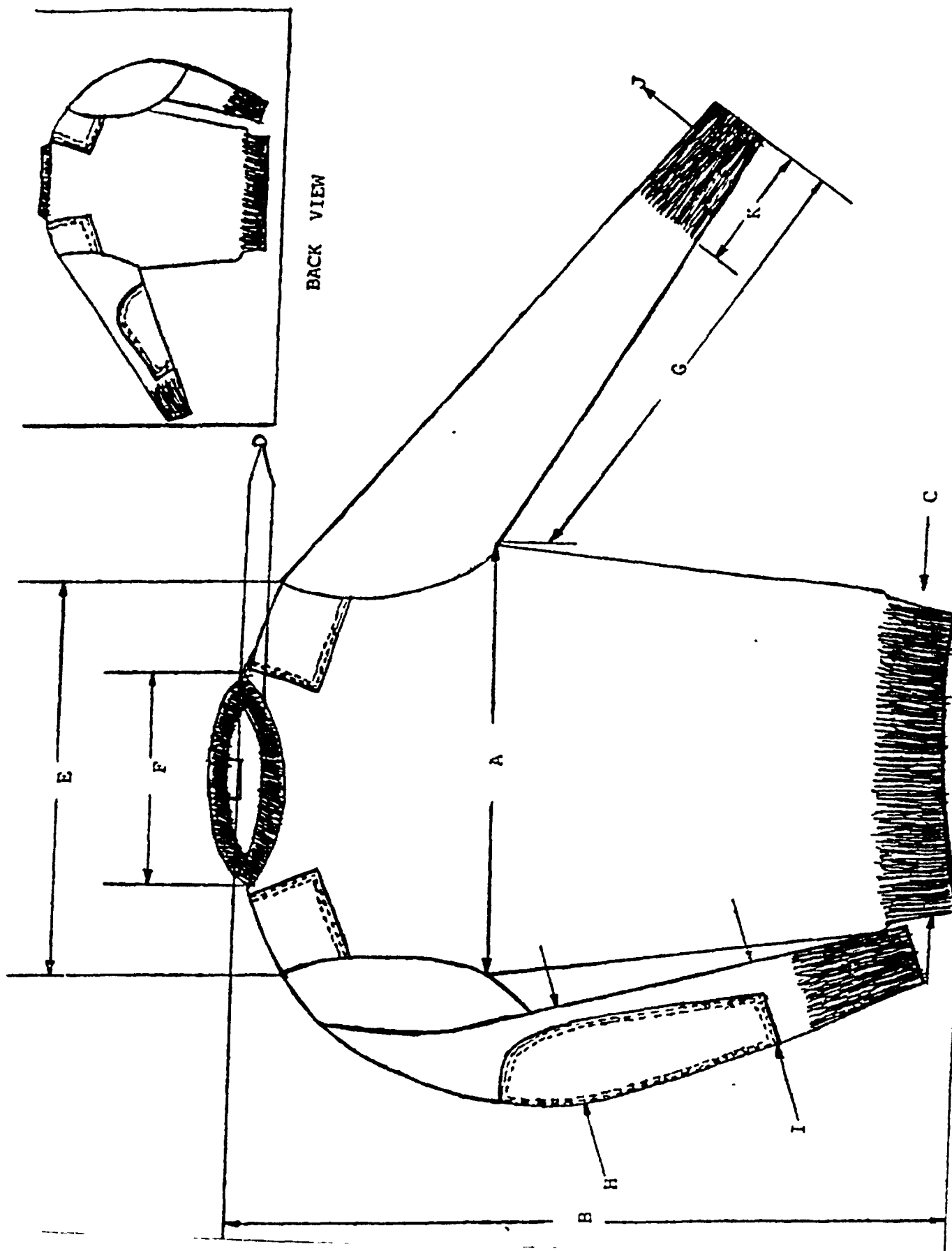


FIGURE 1. SWEATER, SERVICE WOOL

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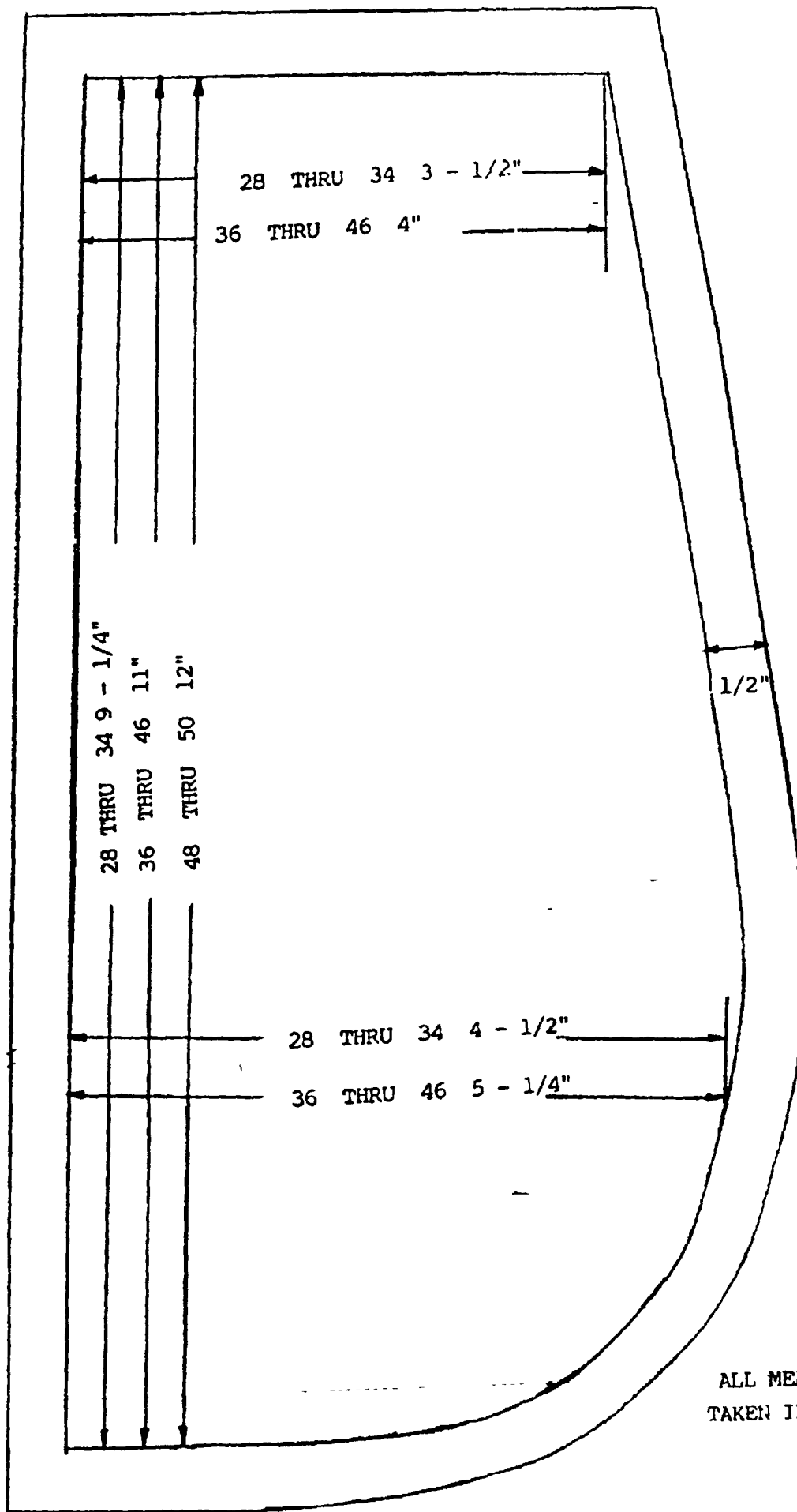


FIGURE: 2 SLEEVE PATCH SWEATER, SERVICE WOOL

ALL MEASUREMENTS ARE
TAKEN IN INCHES

a NAME Defense Personnel Support Center ATTN: DPSC-FSSD (12-3-D)	b TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON
c ADDRESS (Include Zip Code) 2800 South 20th Street P. O. Box 8419 Philadelphia, Pennsylvania 19101-8419	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 2340 AUTOVON 289 2340