

INCH-POUND

A-A-52112B
June 16, 1993
SUPERSEDING
A-A-52112A
April 30, 1992

COMMERCIAL ITEM DESCRIPTION

SHIRTS, MAN'S

The General Services Administration has authorized the use of this Commercial Item Description in preference to MIL-S-44039 and MIL-S-44041.

Abstract. This Commercial Item Description covers the requirements for long- and short-sleeve polyester/cotton broadcloth durable press shirts intended for wear by male military personnel of the Department of the Army.

Classification. The shirt shall be in the following types, and sizes:

Type I	-	Long Sleeve
Type II	-	Short Sleeve

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 self-addressed 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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Schedule of sizes - inches

Neck size (Types I and II)	Sleeve lengths (Type I only)					
	29	30/31	32/33	34/35	36/37	38
13	X	X	X	X		
13-1/2	X	X	X	X	X	
14	X	X	X	X	X	X
14-1/2	X	X	X	X	X	X
15	X	X	X	X	X	X
15-1/2	X	X	X	X	X	X
16	X	X	X	X	X	X
16-1/2		X	X	X	X	X
17			X	X	X	
17-1/2			X	X	X	
18			X	X		

Salient Characteristics. The shirt shall be a long- or short-sleeve dress style with a standup collar and yoke. The shirt shall have a seven button front and two pleated breast pockets with button through flaps. It shall also have a pen pocket inside the left breast pocket, approximately 2-1/4 inches wide, hemmed at the top, open at the bottom, and vertically stitched at the center, forming two compartments. The shirt shall have tapered shoulder loops, cuffs (Type I), and a collar with collarstand. The collar shall contain collar stays. The top plies of the shoulder loops, pocket flaps, cuffs (Type II), collar and collarstand shall have a fusible interlining. The shirt shall be of a safety stitch construction (See Figures 1 and 2).

Shoulder loops. The tapered shoulder loops shall be approximately 2 inches wide at the armhole and 1-1/2 inches wide at the pointed end and shall be stitched 3/16 to 1/4 inch from the edge. Each shoulder loop shall have a buttonhole centered not more than 1/8 inch off center and 3/8 to 1/2 inch from point of loop. The shoulder loops shall be positioned so that the loop is 1 ($\pm 1/8$) inch in front of shoulder seam at the armhole, and 1/4 ($\pm 1/8$) inch in back of shoulder seam at the neck and so that it finishes 3/8 ($\pm 1/8$) inch from the collar joining seam.

Collar. The collar points shall finish 3-1/8 ($\pm 1/16$) inches in length and shall have two unslotted, slotted or ultrasonically fused stays measuring 2-3/4 to 2-7/8 inches long and 3/8 to 1/2 inch wide. The collar ends shall be centered at equal distances from the center of the shirt front and shall open 5/8 inch to 7/8 inch when the collar is buttoned.

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Pocket and pocket flaps. The pocket flaps shall have one buttonhole. It shall be centered and $3/8$ to $1/2$ inch from bottom edge of flap. The flap shall be edge-stitched $3/16$ to $1/4$ inch from edges, and the tops of flap corners shall be tacked. The pocket depth at center for all sizes shall finish $5-7/8$ ($\pm 3/16$) inches and the finished width shall be 5 ($\pm 3/16$) inches wide with a $1-1/4$ inch wide pleat ($+ 1/16$, $- 1/8$ inch tolerance) for all sizes. The pockets and flaps shall be in parallel alignment with each other and the front edge of shirt. The ends of pocket openings shall be covered by the flap. The distance between the top of pocket and the top folded flap edge on the finished shirt shall be $3/4$ ($\pm 1/8$) inch. The pocket shall be sewn on the fronts $1/16$ to $1/8$ inch from the edge with stitching continuing $1/4$ to $3/8$ inch across the top of pockets and $1/2$ to $5/8$ inch diagonally down to the line of pocket stitching.

Sleeves. The Type II shirt sleeves shall have a 1 ($\pm 1/8$) inch wide hem. The Type I and II shirt bottoms shall have a $1/8$ to $5/16$ inch wide hem.

Material. The basic material shall be $65 \pm 5\%$ polyester, with the remaining percentage cotton. The material shall be plain weave broadcloth treated with a durable press finish, shade Army Green 415, and shall meet the following requirements:

<u>Characteristic</u>	<u>Requirement</u>	<u>Test Method</u>
Weight	3.8 - 4.3 oz.	ASTM D-3776
Yarns per inch		ASTM D-3775
Warp	100	
Filling	62	
Breaking strength		ASTM D-5034
Warp	95	
Filling	55	
Tearing strength		ASTM D-4124
Warp	4.5	
Filling	3.0	
Colorfastness:		
Laundering	"good"	AATCC 61
Perspiration	"good"	AATCC 51
Light	"good"	AATCC 16
Crocking	"good"	AATCC 8

Fusible interlining. The fusible interlining used for the collar, collarstand, shoulder straps and cuffs, where applicable, shall be a nonwoven thermal bonded substrate containing a minimum of 50% polyester with the remaining fiber being nylon. The adhesive shall be either polyester or polyethylene, depending on the type of soil release finish applied to the shirting material.

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The total weight of the fusible shall be a minimum of 1.6 ounces per square yard; the breaking strength shall be a minimum of 2 pounds in the machine direction; and the bond strength, when fused to the shell material, shall be a minimum of 32 ounces. As an alternate, the collar may be fused with a plain weave cotton substrate coated with a polyester or polyethylene adhesive. Total weight of the fusible shall be a minimum of 1.4 ounces per square yard. The substrate shall have a minimum of 44 ends and 40 picks and have a breaking strength of 10 pounds per square inch in both the warp and filling direction. If automatic creasebanding collarstand equipment is used, the fusible material shall be on a nonwoven, thermal bonded polyester substrate coated on both sides with a polyvinyl acetate co-polymer adhesive. The total weight of the fusible shall be a minimum of 1.4 ounces per square yard. As an alternate, a woven 100% cotton substrate coated on both sides with the polyvinyl acetate may be used. The total weight of the fusible shall be a minimum of 1.8 ounces per square yard. The coatings on both of the above materials shall be transitory in nature such that the adhesive shall wash out after two washings.

Collar stays. The collar stays shall be made from polyethylene-terephthalate plastic sheet, thickness 0.014 ± 0.001 inch, natural in color (clear or opaque). Either both ends shall be rounded, or both shall be pointed with the ends rounded, or one end shall be rounded and one end shall be cut at any angle with the point rounded. Unslotted collar stays shall measure $3/8 \pm 1/32$ inch wide and $2-3/4$ to $2-7/8$ inches long. Slotted stays shall measure $1/2 \pm 1/32$ wide and $2-3/4$ to $2-7/8$ inches long.

Thread. The thread for seaming and stitching shall be polyester-covered or cotton-covered polyester core, ticket nos. 70, 2 ply and 100, 2 ply conforming to A-A-50199. The thread for buttonholes and button sewing shall be 70, 2 ply only. Equally size spun polyester thread conforming to class 1 or 2 of MIL-T-43624 may be substituted for the polyester-covered or cotton-covered polyester core thread. The thread shall show "good" colorfastness to light, perspiration, and laundering.

Buttons. The buttons shall be flat, pearlescent, polyester composition, 4 hole recessed center, white and 19 line.

Buttonholes. The buttonholes shall be $1/2$ to $9/16$ inch long and shall be a straight-cut, purl or whip type construction. Six vertical buttonholes shall be positioned $3/4$ ($\pm 1/16$) inch from the left front edge. The collar buttonhole shall be placed horizontally in the left front, in the center of the collarstand

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Label. The label shall be a nonwoven, spunbonded polyester cloth or nonwoven, mildew-resistant printed, acrylic coated, impregnated, 80/20 polyester/cellulose cloth, except that the label shall be yellow in color, located on the outside right front bottom (as worn), and contain the item name, shade number, contractor's name, contract number, fiber content, and the following laundering instructions:

Laundering Instructions

1. Wash with moderately hot water (115° F) using soap or mild detergent.
 - a. For machine washing. Use wash and wear cycle.
 - b. For hand washing. Do not wring or twist.
2. DO NOT STARCH, BLEACH OR USE FABRIC SOFTENER.
3. Dry in tumble dryer at warm setting. Remove immediately at end of drying. Shape and hang.
4. To drip dry, remove from water before last spin cycle. Shape and hang.
5. If touch-up ironing is required, iron at a moderate or synthetic material heat setting.

DO NOT REMOVE THIS LABEL

As an alternate, the printed cloth label may be separated into two labels; one stating the identification information and one stating the instruction information. The labels shall be yellow and the identification label shall be located on the outside left front bottom (as worn), and the instruction label shall be located on the outside right front bottom (as worn).

The shirts shall also have a size label. The label shall be marked on the center of the collarstand by either direct printing, stamping, or stenciling, and shall not be less than 1/4 inch from the seam joining the collarstand to the neck. The label shall show "good" colorfastness to laundering in accordance with AATCC Test Method 61.

Label/tag. Each shirt 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 packaged garment and shall cause no damage to the garment.

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Patterns. The government shall furnish a single size pattern. The contractor is responsible for grading patterns for additional sizes. The patterns provide for a seam allowance of 1/4 inch for joining seams except 3/8 inch for setting the pen and breast pockets, collar setting, and seaming. The government patterns shall be used to make the contractor's working patterns. The government patterns shall not be altered in any way. The working patterns may be modified to accommodate automation; however, if the working patterns are modified, the design and measurements must be maintained as intended by government patterns.

Sizes and Measurements. The finished Types I and II shirts shall conform to the measurements below.

Table I. Finished measurements (in inches)

Shirt Size	Neck Size 1/	1/2 Chest 2/	Back Length 3/	Collar Opening 4/
13	13-1/2	18-1/2	30-1/4	5/8 to 7/8 inch (applicable to all sizes)
13-1/2	14	19-1/2	30-1/2	
14	14-1/2	20-1/2	30-3/4	
14-1/2	15	21-1/2	31	
15	15-1/2	22-1/2	31-1/4	
15-1/2	16	23-1/2	31-1/2	
16	16-1/2	24-1/2	31-3/4	
16-1/2	17	25-1/2	32	
17	17-1/2	26-1/2	32-1/4	
17-1/2	18	27-1/2	32-1/2	
18	18-1/2	28-1/2	32-3/4	
Tolerance:				
Plus:	1/8	3/8	1/2	
Minus:	1/8	3/8	1/4	

- 1/ Neck measurement shall be taken from center of button to front cut end of buttonhole, with collar in flat position.
- 2/ Chest measurement shall be taken from folded edge to folded edge at base of armhole with shirt buttoned (see A of Figures 1 and 2).
- 3/ Back length measurement shall be taken at center back from collar setting seam to bottom edge of shirt (see B of Figures 1 and 2).

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- 4/ Collar opening measurement shall be taken with the shirt buttoned and placed on a flat surface. Without distorting collar, measure across collar opening from ends of collar at joining seam.

Table II. Finished sleeve measurements (in inches)
(Type I only)

Marked sleeve length	Actual measurements 1/
29	29-1/4
30/31	31-1/4
32/33	33-1/4
34/35	35-3/8
36/37	37-3/8
38	38-1/2
Tolerance:	
Plus 1/2	
Minus 1/4	

- 1/ Sleeve length measurement taken from center back at collar-stand seam, diagonally across back along sleeve, to the center bottom edge of cuff (See C of Figure 1).

Table III. Finished sleeve measurements (in inches)
(Type II only) 1/

<u>Sleeve length</u>	<u>Measurements</u>
All sizes	6-1/2
Tolerance: Plus 1/4	
Minus 3/8	

- 1/ Sleeve length measurement taken from base of armhole along the inseam to bottom of sleeve (See C on Figure 2).

Workmanship. The finished shirts shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the applicable quality levels.

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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. Shirt lots shall be inspected in accordance with "Sampling Procedures and Tables for Inspection by Attributes", ANSI/ASQC Z1.4, published by the American Society for Quality Control.

Visual Examination. The shirts shall be examined for the defects listed below. The lot size shall be expressed in units of shirts. The sample unit is one shirt. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 6.5.

Defects. The shirts shall be examined for the following defects: any hole, cut, tear, broken, or missing thread or stitch; thread color not as specified; shaded part or shade variation; spot, stain, or woven-in waste; permanent fold, pleat, or crease; thread ends not trimmed; any component part not as specified or omitted; seam puckered, distorted, pleated, irregular or open; loose or tight stitch tension; seam allowance not as specified;

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shoulder loop not positioned as specified or attached crookedly; breast pocket or flap not uniform in size or shape; any measurement varying from pocket to pocket or flap to flap by more than $\frac{3}{8}$ inch; pocket/flap out of alignment at any point from pocket to pocket or flap to flap by $\frac{1}{4}$ inch or more; fronts uneven in length at bottom when buttoned by more than $\frac{1}{2}$ inch; button missing, broken, misplaced or not of the specified type or color; buttonhole missing, of improper size, misaligned, not clearly cut or formed, or not of the specified type; collar points uneven in length by more than $\frac{1}{8}$ inch; collar ends opening less than $\frac{5}{8}$ inch or more than $\frac{7}{8}$ inch when collar is buttoned; collar stay missing, misplaced or loose; fusible twisted, causing puckers or pleats; any evidence of bleed-through; label omitted, incorrect or illegible; bar code label/tag omitted or not scannable, human-readable interpretation (HRI) omitted or illegible; measurement of item not as specified.

Dimensional Examination. The finished shirts 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 shirt; the inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Packaging Examination. The fully packaged shipping containers shall be examined in accordance with defects listed below. The lot size shall be the number of shipping containers in the inspection lot. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

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

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EXAMINE	DEFECT
Content	Number of items in container is more or less than required
	NSN shown on one or more items 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

End Item Performance Testing

Seam appearance rating. Seam appearance rating shall be carried out according to AATCC test method 143. Prior to evaluation, the shirts shall be laundered 3 times using the following conditions from Table I of the test method:

Machine cycle 3 - permanent press

Wash temperature IV - $120 \pm 5^{\circ}\text{F}$

Drying procedure A III - tumble dry, permanent press

After laundering, the buttons shall be fastened and the shirts hung on clothes hangers to condition for a minimum of 4 hours at 70°F and 65% RH (standard conditions for textile testing). The buttoned shirts shall be hung on the viewing board in such a manner that the shirt lies flat on the surface of the board and shall then be evaluated according to 9.1, 9.2, 9.3 and 9.5 of the test method. Seams appearing to fall between the numerical values of the photographic standards may be rated 1.5, 2.5, 3.5 or 4.5.

Reporting of results. Each rating value assigned by each of the observers shall be recorded. The average of the rating values assigned by the 3 observers to the same area shall be the rating value for that area. If the rating of the same area by two observers differs by more than 1.0, the rating of all three observers made for that area shall be discarded and the area shall be re-evaluated by 3 different trained observers. Minimum seam appearance ratings for the different areas shall be as follows:

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Reporting of results. Each rating value assigned by each of the observers shall be recorded. The average of the rating values assigned by the 3 observers to the same area shall be the rating value for that area. If the rating of the same area by two observers differs by more than 1.0, the rating of all three observers made for that area shall be discarded and the area shall be re-evaluated by 3 different trained observers. Minimum seam appearance ratings for the different areas shall be as follows:

<u>Parts</u>	<u>Minimum Average of 3 observations</u>
Fused collar	3.8
Fused shoulder loops	3.8
Fused pocket flaps	3.8
Pockets	2.8
Armholes	2.8
Sleeve hems	2.8
Side seams	2.8
Underarm seams	2.8
Yoke	2.8

Fusible resistance to laundering. After the shirt has been laundered 3 times, using the same laundering conditions as for seam evaluation above, the shirt shall show no bubbling or delamination of the fused plies of material. There shall be no showing of "strike through" of the adhesive after fusing. Additionally, the shirt shall show no delamination or curling of the ultrasonically fused collar stays (when used).

Durable press and crease-resistant treatment. Approval of the durable resin for utilization under this document is the responsibility of the US Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 and is based on extensive tests, including those for toxicity which are not set forth in this document. Because of the time necessary to conduct a full evaluation (approximately 6 months), only those treatments approved and so listed in the invitation for bids or request for proposals shall be considered acceptable for related procurement.

Packaging. Each shirt shall be folded to approximately 14-1/2 by 10-1/2 inches and packaged in a plastic bag.

Packing. Seventy-two shirts shall be packed in a fiberboard box conforming to style RSC-L, type CF (variety SW) or SF, class domestic, of PPP-B-636. The box shall be closed in accordance with the appendix of PPP-B-636.

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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

Sources of Nongovernment Documents

ANSI/ASQC Z1.4 - Sampling Procedures and Tables For Inspection
By Attributes

(Applications for copies should be addressed to American
National Standards Institute, 11 West 42nd Street, New York, NY
10036.)

ASTM Test Methods

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

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)

Custodian:
Army - GL

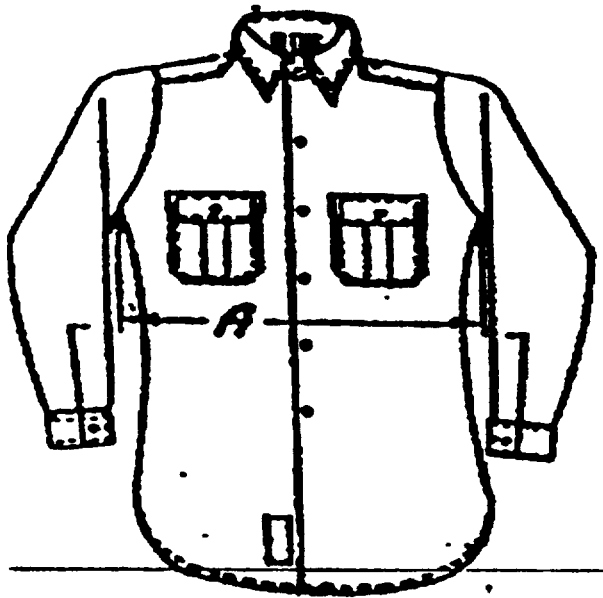
Civil Agency Coordinating
Activity:
GSA - FSS

Review Activity:
Army - MD

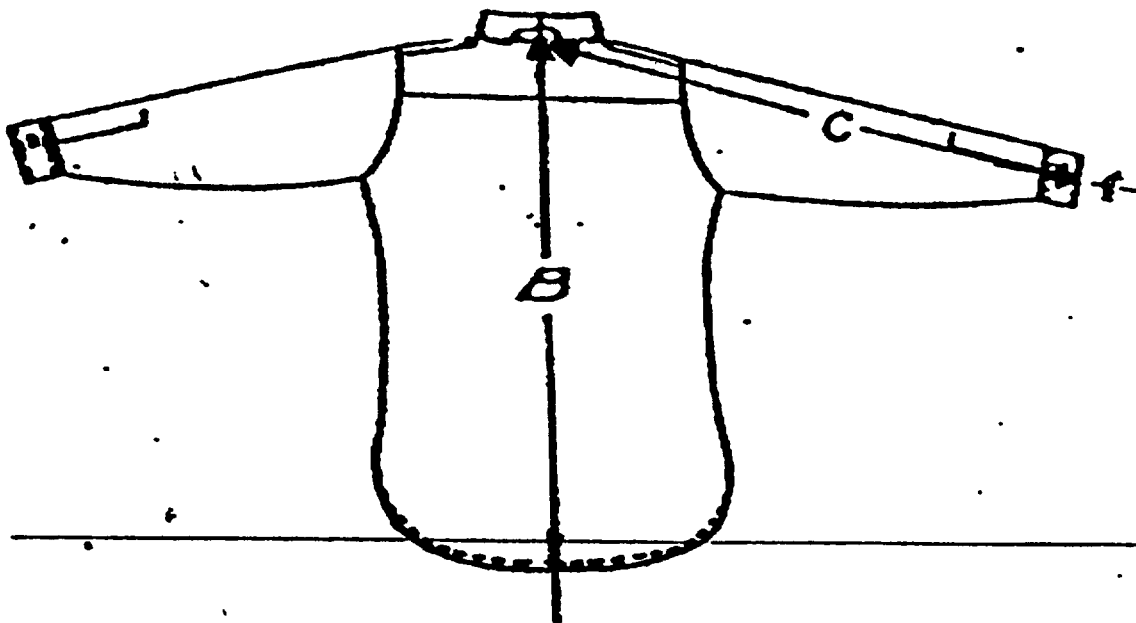
Preparing Activity:
DLA - CT

Project No. 8405-0213

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FRONT



BACK

FIGURE 1. SHIRT, MAN'S, LONG SLEEVE,
ARMY GREEN 415, DURABLE PRESS (TYPE I)

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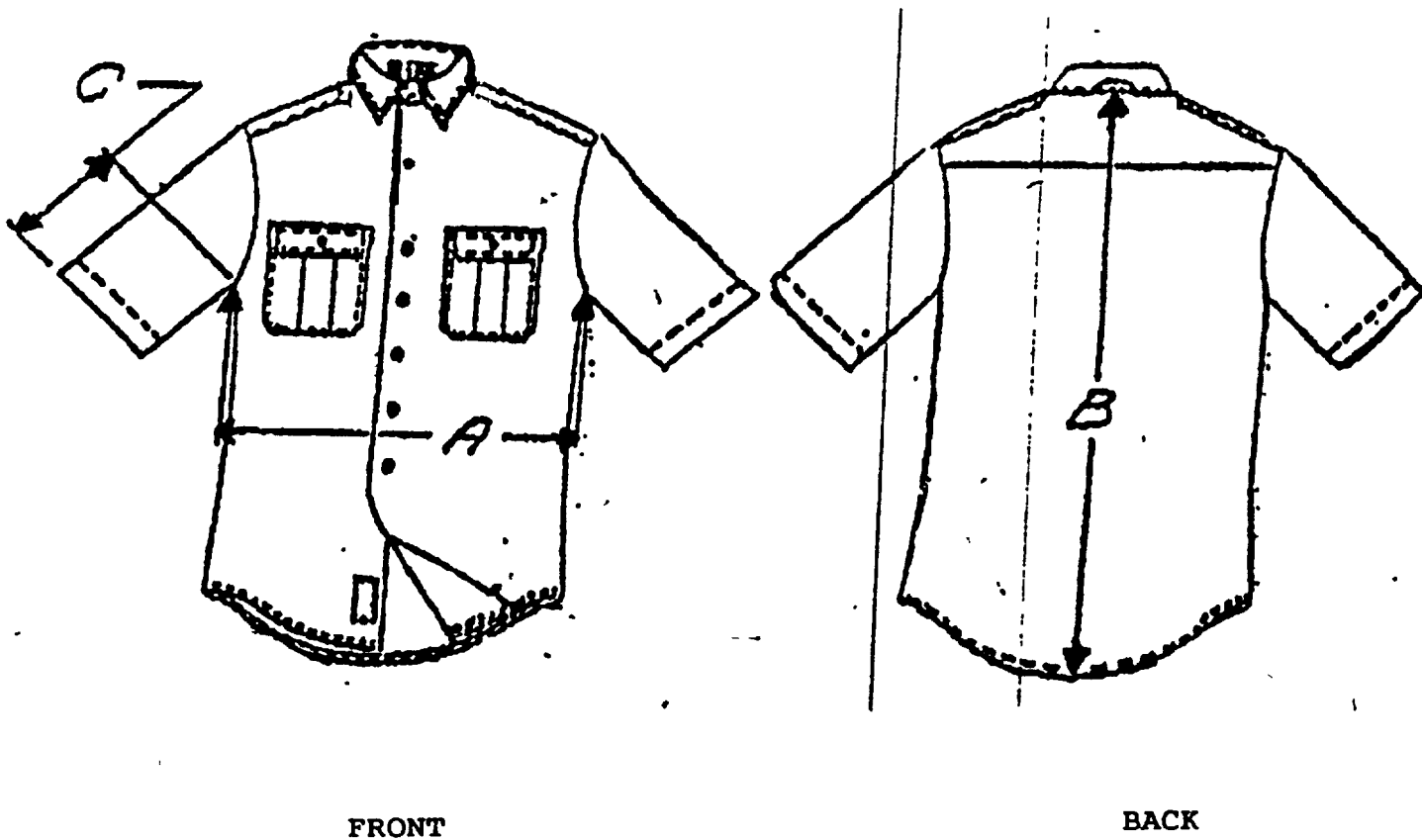


FIGURE 2. SHIRT, MAN', SHORT SLEEVE,
ARMY GREEN 415, DURABLE PRESS (TYPE II)

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.

I RECOMMEND A CHANGE:		1. DOCUMENT NUMBER A-A-52112B	2. DOCUMENT DATE (YYMMDD) 93-06-16				
3. DOCUMENT TITLE SHIRTS, MAN'S							
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)							
5. REASON FOR RECOMMENDATION							
<table border="1"> <tr> <td colspan="2">6. ADDRESS (Include Zip Code)</td> <td>7. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)</td> <td>8. DATE SUBMITTED (YYMMDD)</td> </tr> </table>				6. ADDRESS (Include Zip Code)		7. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	8. DATE SUBMITTED (YYMMDD)
6. ADDRESS (Include Zip Code)		7. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (If applicable)	8. DATE SUBMITTED (YYMMDD)				
8. PREPARING ACTIVITY							
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 22041-3465 Telephone (703) 756-2340 AUTOVON 289-2340					