

INCH POUND

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SUPERSEDING
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MILITARY SPECIFICATION

SHIRT, MAN'S: SHORT AND LONG SLEEVES POLYESTER/COTTON(DURABLE PRESS) AND LONG SLEEVES, POLYESTER/WOOL

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

1. SCOPE

*1.1 Scope This specification covers the requirements for men's blue, polyester/cotton durable press shirts, short and long sleeves, and a polyester/wool long sleeve shirt.

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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*1.2 Classification The shirts shall be of the following types and classes, as specified (see 6.2):

- Type I -Long sleeve shirt
 Class 1 - Polyester/cotton broadcloth, USAF Blue
 1550
 Class 2 - polyester/wool tropical cloth, USAF Blue
 1608
 Type II - Short sleeve shirt
 Class 1 - Polyester/cotton broadcloth, USAF Blue
 1550

1.2.1 Sizes The men's shirts, short and long sleeves, shall be furnished in the following sleeve lengths and sizes, as specified (see 6.2):

Schedule of sizes (Types I and II) and sleeve lengths (Types I)

13-1/2	29	30	31	32	33	34	35	36	37	
14	29	30	31	32	33	34	35	36	37	38
14-1/2	29	30	31	32	33	34	35	36	37	38
15	29	30	31	32	33	34	35	36	37	38
15-1/2	29	30	31	32	33	34	35	36	37	38
16	29	30	31	32	33	34	35	36	37	38
16-1/2		30	31	32	33	34	35	36	37	38
17				32	33	34	35	36	37	
17-1/2				32	33	34	35	36	37	
18					33	34	35			

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 shall be 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

PPP-B-636
 V-B-871

Boxes, Shipping, Fiberboard
 Button, Sewing Hole, and Button, Staple,
 (Plastic)

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*	A-A-50083	Bag, Plastic, Folded Garment
*	A-A-50135	Cloth, Interlining, Polyester
	DDD-L-20	Label: For Clothing, Equipage, and Tentage (General Use)
*	A-A-56021	Plastic Sheet, Polyethylene Terephthalate
*	A-A-52094	Thread, Cotton,
*	A-A-50199	Thread Polyester Core: Cotton or Polyester-Covered

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MIL-L-10547	Liners, Case, and Sheet, Overwrap; Water- Vaporproof or Waterproof, Flexible
MIL-C-21115	Cloth, Tropical: Wool, Polyester/Wool
MIL-T-43624	Thread, Polyester, Spun
MIL-C-43992	Cloth, Broadcloth, Polyester/Cotton Durable Press

STANDARDS

FEDERAL

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

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment And Storage
MIL-STD-147	Palletized Unit Loads
MIL-STD-1492	Provisions for Evaluating Quality of Men's Shirts
MIL-STD-2073-1	DoD Materiel Procedures for Development and Application of Packaging Requirements
* MIL-STD-2073-2	Packaging Requirement Codes

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

2.2 Non-Government publications The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issue of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

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THE COLOR ASSOCIATION OF THE UNITED STATES

Department of the Defense (DoD) Standard Color Card of
Official Standardized Shades For Sewing Threads

Department of Defense (DoD) Standard Shades for Buttons

(Application for copies should be addressed to The Color
Association of the United States, 409 W 44th St., New York,
NY 10016-0927).

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS
(AATCC)

AATCC TECHNICAL MANUAL

Test Method 88B Smoothness of Seams in Fabrics After
Repeated Home Laundering

(Application for copies of the AATCC Technical Manual should be
addressed to the American Association of Textile Chemists and
colorists, 1 Davis Dr., P.O. Box 12215, Research Triangle Park
NC 27709-2215).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 204 Standard Methods of Testing Sewing Threads
ASTM D 3951 Standard Practice for Commercial Packaging
(DoD adopted)

(Application for copies should be addressed to the American
Society for Testing and Materials, 1916 Race St., Philadelphia
PA 19103-1187.)

AMERICAN IRON AND STEEL INSTITUTE (AISI)

Steel Products Manual
AISI Type 304 Stainless and heat Resistant Steel
AISI Type 316 stainless and Heat resistant Steel

(Application for copies of the AISI Steel Products manual
should be addressed to the American Iron and Steel Institute,
150 East 42nd St., New York NY 10017.)

(Non-Government standards and other publications are normally
available from the organizations that prepare or distribute the
documents. These documents also may be available in or through
libraries or other informational services.)

2.3 Order of precedence In the event of a conflict between the
text of this document and the references cited herein, the text

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of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

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

3.2 Samples Guide Samples, when furnished, are solely for guidance and information to the contractor (see 6.4) Variations from the document may appear in the sample, in which case the document shall govern.

*3.3 Materials It is encouraged that recycled and reclaimed materials be used when practical as long as it meets the requirements of this document.

* 3.3.1 Basic material The basic material shall be a polyester/cotton broadcloth, USAF Blue, Shade No. 1550, conforming to class 1, 3 or 4 of MIL-C-43992 for the type I and II, class 1 shirts and polyester/wool tropical cloth, USAF Blue, Shade No. 1608 conforming to type III, class 4 of MIL-C-21115 for the type I class 2 shirt.

* 3.3.2 Interlining The material for interlining the collar, collarstand, cuffs, pocket flaps, and shoulder loops shall be polyester fiber cloth conforming to A-A-50135. The color shall be white for the type I and II, class 1 shirts and charcoal gray or black for the type II, class 2 shirt.

3.3.3 Collar stays The collar stays shall be made from polyethylene terephthalate plastic sheet conforming to A-A-56021, except the thickness shall be 0.014 ± 0.001 inch, the color shall be natural (clear or opaque), and the transparency and optical properties shall not apply. The stays shall measure $3/8 \pm 1/32$ inch wide and 3 to $3-1/4$ inches long. As an option, the stays shall have two slots $1-1/8 \pm 1/32$ inches long, centered along the length of the stay. Each slot shall be $1/8 \pm 1/32$ inch wide and spaced an equal distance across the width of the stay. Either both ends shall be rounded or pointed with the points rounded, or one end rounded and one end cut at an angle with the point rounded. Testing shall be as specified in 4.4.1.

*3.3.4 Thread The thread shall be cotton-covered polyester, Ticket No. 70, 2 ply or Ticket No. 100, 2 ply conforming to A-A-50199. Spun polyester thread, Ticket No. 100, 2 ply or Ticket No. 70, 2 ply conforming to MIL-T-43624 may be substituted for the cotton-covered polyester thread. The thread shall be stabilized so as not to shrink in boiling water more than 1.5 percent when tested as specified in table IV. In addition, when purl type buttonholes are used, thread conforming

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to type I, Ticket Nos. 40, 3 ply for the needle and 70, 3 ply for the bobbin of A-A-52094 shall be used.

* 3.3.4.1 Color The color of the thread for the type I (Class 1) and the type II (Class 1) shirt shall be white AH, C.A. 66050. The thread for the type I (Class 2) shirt shall be Navy Blue AT, C.A. 66060, in accordance with the DoD Standard Shades for Sewing Threads.

* 3.3.5 Buttons The buttons shall conform to type II, class K, style 25, 19 line for shirts of V-B-871. The color shall be white BA, C.A. 62031 for the type I (Class 1) and type II (Class 1) shirts and Blue BV, C.A. 62003 for the type I (Class 2) shirt, in accordance with the DoD standard shades for buttons.

3.3.6 Labels Each shirt shall have a size label, identification label, and instruction label or a combination identification and instruction label conforming to DDD-L-20. The fastness to laundering requirements of DDD-L-20 shall apply.

3.3.6.1 Size label The size label shall conform to type IV, class 2, of DDD-L-20.

*3.3.6.2. Identification label The identification label shall conform to type IV, class 1 and contain the following information:

SHIRT,MAN'S, LONG SLEEVE,POLY/WOOL
BLUE 1608
DLA100-00-C-0000(Example)
8405-00-000-0000(Example)
NAME OF CONTRACTOR(Example)
NAME OF MANUFACTURER(if other than contractor)

* 3.3.6.3. Instruction labels

3.3.6.3.1 Type I (Class 1) and Type II (Class 1) shirts The instruction label for the type I (Class 1) and type II (Class 1) shirts shall conform to type VI, class 3 and contain the following instructions:

WASHING INSTRUCTIONS

MACHINE WASH: Use permanent press cycle, moderately hot water (115⁰ F), and soap or mild detergent.
HAND WASH: Use moderately hot water (115⁰ F), and soap or mild detergent.

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DO NOT WRING OR TWIST

MACHINE DRY: Dry in tumble dryer at warm setting. Remove immediately at end of drying. Shape and hang.

DRIP DRY: Remove from water before last spin cycle. Shape and hang.

PRESSING: Press at moderate heat setting.

DO NOT REMOVE THIS LABEL

* 3.3.6.3.2 Type I (Class 2) shirt The instruction label for the type I (Class 2) shirt shall conform to type VI, class 3 and shall specify: DRY CLEAN ONLY.

3.3.6.4 Combination identification and instruction label The combination identification and instruction label shall conform to type VI, class 15 of DDD-L-20 and shall include the instruction specified in 3.3.6.2 and 3.3.6.3. When combined, the item nomenclature shall not be repeated.

3.4 Design The dress type shirt shall have a soft collar with stays, patch pockets with a button-down flap on each side of front, a pencil pocket under the patch pocket on left front (as worn) and buttoned shoulder loops. The collar, collarstand, cuffs (type I, classes 1 and 2), pocket flaps, and shoulder loops are interlined. The sleeves of the type I, classes 1 and 2 shirts have continuous bindings on openings and convertible cuffs with two buttonholes in each cuff so they can either be buttoned or fastened with cuff links. The shirts shall be of safety stitch construction and have a yoke (see figures 1 and 2).

* 3.5 Patterns Standard patterns to be used to cut working patterns will be furnished by the Government (see 6.4). The working patterns shall be identical to the Government patterns. Neither the Government patterns nor the working patterns shall be altered in any way, except that additional notches for use during construction are allowed on the working patterns. Also, minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification. The standard patterns provide an allowance of 1/4 inch for all seams except 3/8 inch for the bottom hem, attaching the cuffs (types I), and for setting the pockets. Unless otherwise indicated in Table II, seams shall be in accordance with these seam allowances. Minor modifications are permitted, where necessary, to permit use of automatic equipment as long as there is no effect on specified dimensions.

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3.5.1 Pattern parts The component parts shall be cut from the material as specified in accordance with pattern parts indicated in table I.

TABLE I. List of pattern parts

Material	Pattern nomenclature	Cut parts
Basic material (see 3.3.1)	Front (types I)	2
	Front (type II)	2
	Back	1
	Yoke	2
	Sleeve (types I)	2
	Sleeve (type II)	2
	Sleeve facing (binding) (types I)	2
	Cuff (types I) ^{1/}	4
	Collar leaf	2
	Collarstand	2
	Pocket	2
	Pencil pocket	1
	Pocket flap	4
	Shoulder loop	4
	Interlining cloth (see 3.3.2)	Collarstand interlining
Cuff interlining (types I)		2
Collar leaf interlining		1
Pocket flap interlining		2
Shoulder loop interlining		2
Shapers	Finished pocket	
	Finished flap	

^{1/} When optional cuff setting operation is used (see operation 20.c), 1/8 inch may be added to the patterns. However, finished cuff measurements shall be maintained.

3.6 Construction The construction of the shirt shall conform in all respects to the requirements specified in table II and herein. Figures 1 and 2 show the general style of the short and long sleeve shirts.

3.6.1 Figures The figures are furnished for information purposes only. When inconsistencies exist between the written specification and the figures, the written specification shall govern.

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3.6.2 Stitches, seams and stitching All stitches, seams and stitching types shall conform to FED-STD-751. When two or more seam or stitch types are given for the same part of an operation, any one of them may be used. When stitch type 401 is used, the looper thread shall be on the inside of the shirt. Seam allowances shall be maintained with seams sewn so that no raw edges, runoffs, twists, pleats, puckers, or open seams occur. All seams shall start and finish evenly. Thread tension shall be maintained (see 6.5) so that there is no tight or loose stitching. The gage of the safety stitch seams shall be 1/4 inch. The guides and knives on safety trimming shall not exceed 1/16 inch. The edge and top stitching shall be uniformly gaged. Seams required to be worked out, that have a depth between the fold of 1/16 inch or more, shall be considered a defect.

3.6.2.1 Type 301 stitching Ends of all stitching shall be backstitched or overstitched not less than 1/4 inch except where ends are turned under or caught in other seams or stitching. Ends of a continuous line of stitching shall overlap not less than 1/2 inch. Thread tensions shall be maintained so that there will be no loose stitching resulting in loose bobbin or top thread, or excessively tight stitching resulting in puckering of the material sewn. The lock shall be imbedded in the material sewn.

3.6.2.2 Repairs of type 301 stitching Repairs of type 301 stitching shall be as follows:

a. When thread breaks, skipped stitches, run-offs, or bobbin run-outs occur during sewing, the stitching shall be repaired by restarting the stitching a minimum of 1/4 inch back of the end of the stitching 1/

b. Except for prestitching, thread breaks, or two or more consecutively 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 1/4 inch in back of the defective area, and continue a minimum of 1/4 inch 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.

3.6.2.3 Types 401, 515, 516, and 519 stitching Thread tension shall be maintained so that there will be no loose or excessively tight stitching resulting in puckering of the materials sewn. Type 301 stitching may be used to repair type 401 stitching.

3.6.2.4 Automatic stitching Automatic machines may be used to perform any of the stitch patterns provided the requirements for the stitch pattern, stitches per inch, and size and type of

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thread are met; and at least three tying, overlapping or backstitches are used to secure the ends of the stitching. When a government finished shaper is furnished, the component shall conform to that pattern.

3.6.2.5. Thread ends All thread ends shall be trimmed to 1/4 inch maximum length.

3.6.3 Bartacks Bartacks shall be 1/2 ($\pm 1/16$) inch long, 1/8 ($\pm 1/32$) inch wide and shall contain 28 stitches (minimum). Bartacks shall be free from thread breaks and loose stitching.

3.6.4 Stitches per inch The minimum and maximum number of stitches per inch shall be as specified in table II.

3.6.5. End item seam appearance The appearance rating of the seams and stitching of the finished shirt shall be 4.0 or greater. This requirement shall be applicable to all seams including the collar, shoulder loops, armholes, side and underarm seams, sleeve cuffs and binding (Types I), and sleeve hem (Type II) (see 4.5).

3.6.6. Buttonholes The buttonholes shall be straight-cut, purl, or whip type, and the finished cut length shall be 1/2 to 9/16 inch long. The stitching shall be securely caught in the fabric and the ends shall be securely tacked. When a purl-type buttonhole is used, the purling shall be on the outside of the shirt. All loose thread ends shall be trimmed or fused to within 1/8 inch of the tack.

3.6.7 Repairs Repairs such as mends, darns, patches or splices are not permitted on the shirt.

3.7 Manufacturing operations requirements The shirt shall be manufactured in accordance with operation requirements specified in Table II. The contractor is not required to follow the exact sequence of operations listed unless otherwise specified. Any additional basting or holding stitches used to facilitate manufacture are permissible provided the thread is removed or does not show on the finished shirt. Minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the appearance, serviceability, or dimensional requirements cited in this specification.

3.7.1 Shade and size marking The component parts of the shirt shall be marked, ticketed, or bundled to insure a uniform shade and size throughout the shirt. Any method may be used except:

- a. Corrosive metal fastening devices.
- b. Sew-on type tickets.

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c. Adhesive type tickets which leave an impression or traces of paper adhesive on the material upon removal of the tickets.

d. Any marking medium which would tend to leave a permanent mark.

3.7.1.1 Ink pad numbering machine, rubber stamp, or pencil The use of ink pad numbering machine, rubber stamp, or pencil will be acceptable provided the numbers do not show through the outside of the shirt and the numbers are covered by the seam allowance

*3.8 Abbreviations in Table of Operations The abbreviations used in Table II are as follows:

Stch	-	Stitch
In	-	Inch
Ndl	-	Needle
Bob	-	Bobbin
Lpr	-	Looper
Mchne	-	Machine
Brtck	-	Bartack
Comrcl	-	Commercial
Smlr	-	Similar
Btn	-	Button
Btnhl	-	Buttonhole
Incl	-	Including
Db1	-	Double

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TABLE II Manufacturing operations.

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
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1. Cutting

a. Cut shirt in strict accordance with patterns furnished which show directional lines, size, shape, placement of pockets, flaps, darts, and notches for assembly. Directional lines shall be placed in the warp direction.

b. When fronts are cut from the uneven edge of the lay in order to utilize selvages, they shall be blocked out and relaid so that the width of the facings shall be exactly as the pattern

c. The facings of the shirt shall be cut so that both facings are on the selvage. If selvage is cut, frayed or when selvagless basic cloth is utilized (i.e., cloth woven on shuttleless looms), the facings shall be overedge stitched using 502 or 503, EFd-1, 10-14 stitches per inch, 70-2, 70-2 and blocking will not be required.

d. The use of drill holes is prohibited, except for the pencil pocket and sewn labels, providing the drill holes are covered by the outer fabrics and label respectively; otherwise, exposed drill holes shall be considered to be holes in the fabric.

e. Cut each shirt from one piece of material except bindings for sleeve openings (type I), pencil pocket,

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TABLE II Manufacturing operations. - Continued

No. Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
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1. Cutting Contd.

under collarstand (types I) collarstand (type II), the underply of the pocket flaps, cuffs, shoulder loops and yoke which may be cut from ends.

f. The bindings for sleeve openings (types I) may be roll cut providing that the finished width of the binding conforms to the measurements cited in operation 13.a.

g. Visible parts cut from ends shall approximate the shade of the shirt.

2. Replacement of defective or damaged parts

During the spreading, cutting, and manufacturing process, components having material defects or damages that are classified as defects in MIL-STD-1492 shall be removed from production and replaced with nondefective and properly matched components.

3. Component marking

Mark, ticket or bundle all components of the shirt, except those parts cut from ends, to insure correct size, proper assembly and a uniform shade throughout the shirt (see 3.7.1).

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TABLE II Manufacturing operations. - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
4. Labeling					
a.	Center size marking on top collarstand at back (1/4 inch off center tolerance allowed).				
b.	Position the instruction label on the outside left front (as worn) so that on the finished shirt the bottom of the label shall be 1/2 to 3/4 inch from the hemmed bottom and the side of the label shall be 1-1/4 to 2 inches from the front folded edge and stitch on all four sides. The stitching shall not be through the printing.	301	LSbj-1	8-14	70-2 70-2
c.	Apply identification label on outside left front (as worn) with the bottom of label 1/2 to 1 inch from top of the instruction label, and the side of the label shall be 1-1/4 to 2 inches from front folded edge.	301	LSbj-1	8-14	70-2 70-2
d.	Combination label, when applicable, shall be positioned as in Operation 4.b and stitched on all four sides. The stitching shall not be through the printing.	301	LSbj-1	8-14	70-2 70-2

5. Make cuffs (types I)

Finished appearance. The

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread	
					Ndl	Bob/ Lpr
5. <u>Make cuffs (types I)</u> - contd						
	cuffs shall finish smooth and flat without distortion and shall be uniform in shape and size. The edge stitching shall be of uniform gage. The cuffs shall finish 2-1/2 ±1/4 inches wide and shall have rounded corners. The buttonholes shall be clean cut, well made and correctly positioned, and the stitching shall be securely caught in the fabric with no loose stitching.					
a.	Fold top edge of the outer ply of cuff over and even with top edge of interlining and single stitch, 1/4 to 5/16 inch from folded edge catching interlining in the stitching.	301 or 401	SSbc-1	12-14	70-2	70-2
b.	Join plies of cuff and interlining. Turn and single stitch 3/16 to 1/4 inch from edge. The edge stitching shall finish 1/2 ±1/8 inch from top edge of finished cuff. The edge stitching may taper off the edges at the ends and need not be backstitched.	301 or 401 301	SSe-2(a) and SSe-2(a) SSe-2(b)	12-14 12-14 12-14	70-2 70-2 70-2	70-2 70-2 70-2
c.	Make two horizontal buttonholes in center of cuff (1/4 inch off center tolerance) with the end of the buttonhole 3/8 ±1/8 inch from the front and back edge. The	304 or 304	pur1 or whip	45-52 or 42-52	40-3 or 70-2	70-2 or 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
5.	<u>Make Cuff(types I)</u> - contd				
	buttonholes on each cuff shall be capable of holding cuff links.				per btnhl in- tack
	d. Press cuffs with a hot head pressing machine(see Operation 25).				
6.	<u>Hem sleeves (type II)</u>				
	a. Turn under the bottom edge of each sleeve, with the raw edge turned in and stitch 1/16 to 1/8 inch from the edge.	301 or 401	EFb-1	12-14	70-2 70-2
	NOTE: The width of the finished sleeve hem shall be 1-1/4 (+1/8) inches.				
	b. Press hem with a hot head pressing machine (see Operation 25).				
7.	<u>Make pocket flaps</u>				
	<u>Finished appearance</u> The pocket flaps shall be interlined with polyester fiber cloth and shall finish smooth and flat without puckers, pleats or raw edges. The buttonholes shall be clean cut with the stitching securely caught in				

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
7. <u>Make Pocket Flaps</u> - Contd.					
	the fabric and no loose stitching. The edge stitching shall be uniform on sides and bottom.				
a.	Seam the plies of flap along the side and bottom edges.	301 or 401	SSe-2(a)	12-14	70-2 70-2
b.	Turn, work out edges and points, and single stitch 1/4 inch from edge.	301	SSe-2(a)	12-14	70-2 70-2
c.	Make a vertical buttonhole in the center of each pocket flap, with the lower inside cut end of the buttonhole 1/2(+1/8) inch from bottom edge of flap.	304 or 304	purl or whip	42-52 per btnhl Incl tack or 42-52 per btnhl Incl tack	40-3 70-2 or 70-2 70-2

8. Make collar**Finished appearance.**

The collar shall finish smooth and flat without puckers, pleats, or raw edges. When closed both sides and points shall be equal and finish 3-1/4±1/8 inches long.

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TABLE II Manufacturing operations - Continued

No. Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
8. <u>Make Collar</u> - Contd.				
a. The stays shall be positioned so that on the finished shirt they are at a 25° to 30° angle from the front edge of the collar and the tapered ends are fitted into the collar points. the construction shall be as follows:				
(1) Spot laminate both ends of the stays to the undercollar.				
OR				
(2) If slot type stays are used, stitch stays to the undercollar on the inside. The stitching shall straddle the center bar of the stay and shall not penetrate the stay material.	101 (zig- zag)		20-24	70-2
OR				
(3) Form a tunnel for the collar stays by stitching the interlining to undercollar with two rows of stitching 3/8 inch apart. The collar points shall be aligned with the center of the two rows of stitching and the	301	SSv-2	12-14	70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
8.	<u>Make Collar</u> - Contd.				
	extend to the raw edges. Insert collar stays into the tunnels.				
	OR				
	(4) Ultrasonically fuse the collar stays to the undercollar on the inside with two rows of fusing points the full length of the stay. Each row shall contain 9 to 11 fusing points per inch.				
	NOTE: As an alternate, collar stays may be fused, laminated, or sewn to interlining rather than the outershell fabric.				
	b. Join the three plies of the collar with the outer ply and under ply face to face. For options (1), (2), and (4) the interlining shall be next to the outer ply and for option (3) it shall be next to the inner ply.	301 401	or SSe-2(a)	12-14	70-2 70-2
	c. Trim, turn and press collar points on a collar pointing machine.				
	d. Edge stitch collar 1/4 inch from edge.	301	SSe-2(b)	12-14	70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread	
					Ndl	Bob/ Lpr
9. <u>Make collarstand and attach collar</u>						
	a. Fold back the bottom edge of the undercollarstand 3/16 to 1/4 inch and stitch 1/16 to 1/8 inch from folded edge.	301	EFa-1	12-14	70-2	70-2
	b. Superimpose interlining and top collarstand and stitch 1/16 to 1/8 inch from top edge from end to end. This operation may be omitted.	301 or 401	SSa-1	12-14	70-2	70-2
	c. Place collar between the top and under collarstand (with attached interlining) as indicated by notches on pattern and stitch from end to end along top edge of collarstand, 3/16 to 1/4 inch from edge. Turn top and under collarstand to finished position and raise stitch 1/16 to 3/32 inch from turned edge. The stitching may continue around the ends of the collarstand (see Operation 21.d).	301 or 401 and 301	SSq-2(a) SSq-2(a) SSq-2(b)	12-14 12-14 12-14	70-2 70-2 70-2	70-2 70-2 70-2
	d. Press collar and collarstand with a hot head pressing machine (see Operation 25).					

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
10.	<u>Make and set pencil pocket</u>				
a.	Turn down the top edge of the pencil pocket $1(\pm 1/4)$ inch.	301	EFa-1	12-14	70-2 70-2
b.	Turn in the side edges of the pocket $1/2$ inch and stitch to the left front of the shirt as indicated on the patterns. Tack the ends of the seam by backstitching. The finished pencil pocket shall be $2\pm 1/8$ inches wide.	301	LSd-1	12-14	70-2 70-2
NOTE: The bottom of pocket shall not be stitched.					
c.	Form two compartments with a row of vertical stitching at the center ($\pm 1/8$ inch) through the shirt. The stitching shall be backstitched.	301	SSv-1	12-14	70-2 70-2

11 Make and set patch pockets and flaps

Finished appearance: The front edges of the flaps and pockets shall be parallel to the front edges of the shirt and the flaps shall cover the front and back edge of the pocket. The finished pockets and pocket flaps, when set on the shirt, shall conform to the following

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
11.	<u>Make and set patch pockets and flaps</u> - Contd.				
	measurements (the toler- ance on each measurement shall be $\pm 1/8$ inch):				
	Flaps:				
	Sizes 13 to 14-1/2				
	Top width: 4-1/2 inches Center length: 2-1/8 inches				
	Sizes 15 to 18				
	Top width: 5-1/4 inches Center length: 2-1/8 inches				
	Pockets:				
	Sizes 13 to 14-1/2				
	Width: 4-1/4 inches Depth: 5-1/4 inches				
	Sizes 15 to 18				
	Width: 5 inches Depth: 5-3/4 inches				
	a. Fold a 1-1/4 wide vertical box pleat to the outside in the center of the pocket and stitch. Press pleat open and flat with a heated pressing iron.	301	OSf-1	12-14	70-2 70-2
	b. Hem pocket(s) with the raw edge turned in. The width of the finished hem shall be $1(\pm 1/8)$ inch. As an alternate, overedge	301	EFb-1	12-14	70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
11.	<u>Make and set patch pockets and flaps - Contd.</u>				
	stitch the top raw edge of the patch pocket(s). Turn hem as indicated by marks on pattern. The hem shall finish 1-1/4(+1/8) inches wide.				
	c. Position pockets on fronts at pattern marks. Turn in the raw edges of the pockets 3/8 inch and stitch 1/16 inch from edge. Continue the stitching 3/16 to 1/4 inch across the top of the patch pockets and 1/2 to 5/8 inch diagonally down to the line of the 1/16 inch stitching. Pockets may be pre-creased.	301	LSd-1	12-14	70-2 70-2
	d. Press right and left fronts with a hot head pressing machine (see operation 25.a)				
	e. Stitch the flaps above the top of the patch pockets, as indicated by the marks on the patterns, 1/8 to 3/16 inch from the raw edge. Turn down the flaps and raise stitch 1/4 inch from the turned edge covering raw edge of flap with the ends of the flaps backtacked.	301	LSb1-2	12-14	70-2 70-2

12. Attach Yoke.Finished appearance

The finished yoke shall be without twists or puckers. There shall be no fullness between the two plies.

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
12. <u>Attach yoke</u> - Contd.					
a.	Position back of the shirt between the two plies of yoke and with the back and yoke edges even, stitch all plies together.	301 or 401	SSa-1	12-14	70-2 70-2
b.	Press back and yoke, with yoke extended, with a hot head pressing machine (see Operation 25.a).				
*13. <u>Make sleeve openings</u> (types I)					
Finished appearance. The binding of the sleeve opening shall be uniform in width and shall finish smooth and flat. Sleeve opening shall measure 5-1/2 +1/2 inches long, exclusive of cuff.					
a.	Turn raw edges of the binding (facing) to the inside, insert the edges of sleeve opening and seam. The binding shall finish 1/2 to 5/8 inch wide	301 or 401	BSc-1	12-14	70-2 70-2
b.	Turn binding to inside of sleeve and stitch or bartack through binding and sleeve 1/8 to 1/4 inch below top of opening, the full width of the binding.	301 or bartack or 301		12-14 28 per brtck 28 per brtck	70-2 70-2 70-2 70-2

OR

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread	
					Ndl	Bob/ Lpr
	c. Turn binding to inside of sleeve and stitch or bartack diagonally through binding only. An automatic straight tack may be used.	301 or bartack		12-14 28 per brtck	70-2 70-2	70-2 70-2
	<u>14. Join shoulder seam</u>					
	Position fronts between the two plies of yoke and with front and yoke edges even, stitch all plies together. The stitching shall not show on the finished shirt.	301 or 401	SSa-1	12-14	70-2	70-2
	<u>15. Make shoulder loops</u>					
	a. Join the three plies of the shoulder loop around all edges except the armhole end with 1/4 inch seam.	301 or 401	SSe-2(a)	12-14	70-2	70-2
	b. Turn, work out edges and point, and single stitch along sides and point 1/4 inch from edge.	301	SSe-2(b)	12-14	70-2	70-2
	c. Make a horizontal straight type buttonhole centered on loop. The inside cut edge of the buttonhole shall be 1/2(+1/8) inch from pointed edge of shoulder loops.	304 or 304	purl or whip	42-52 per Btnhl Incl Tack or 42-52 per Btnhl Incl tack	40-3 or 70-2	70-3 or 70-2
	d. Press shoulder					

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
	loops with a hot head pressing machine (see Operation 25.a).				
16.	<u>Setting shoulder loops</u>				
	a. The loops shall be trimmed and measured to fit the shoulder and match with the shirt. The loops shall extend to within 1/8 to 1/4 inch of the collarstand seam. The front edge of the loops shall be 1/2(+1/8) inch in front of the shoulder seam at the armhole and centered on the shoulder seam at the neck.				
	b. The loops shall be stitched to the shirt 1/16 to 3/16 inch from the armhole edge.	301	SSa-1	12-14	70-2 70-2
	<u>c. Finished dimensions:</u>				
	(1) The wide end, adjacent to the armhole, shall measure 1-13/16 (minimum) to 1-15/16 (maximum) inches in width.				
	(2) The narrow end, adjacent to the collar				

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
	shall measure 1-7/16 (minimum) to 1-9/16 (maximum) inches in width.				
17.	<u>Set sleeves</u>				
	Set sleeves by overedging and seaming the raw edges together in one operation catching the end of the shoulder loop in the operation.	515 or 516 or 519	SSa-2	10-14	70-2 70-2 (chain) and 70-2 (over-edge)
18.	<u>Join side and underarm seams</u>				
a.	Join side and underarm seams by overedging and seaming the raw edges together in one operation, with the sleeve setting seam turned toward the sleeve	515 or 516 or 519	SSa-2	10-14	70-2 70-2 (chain) and 70-2 (over-edge)
b.	<u>Type II only</u>				
	Turn sleeve seam allowance toward the back and place a bartack across the seam allowance at the end of the sleeve joining seam. The bartack shall be 1/4 inch long and 1/16 to 1/8 inch from the finished folded edge of the sleeve hem.		brtck	21 per brtck	

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
19.	<u>Hem shirt</u>				
	Hem bottom of shirt with raw edges turned in and stitching extending across the fold of the left and right fronts. The hem shall finish 3/16 to 1/4 inch wide. The side seams shall be turned in the same direction as turned at the cuff.	301	EFb-1	12-14	70-2 70-2
20.	<u>Join cuffs to sleeves (types 1)</u>				
	a. Seam the inside of cuff to bottom of sleeve on the underside with the top bound edge of the sleeve opening turned to the inside.	301 or 401	LScf-2(a)	12-14	70-2 70-2
	b. Stitch top edge of outer side of cuff, with interlining 1/16 to 1/8 inch from edge, to the bottom of sleeve on the outside.	301	LScf-2(b)	12-14	70-2 70-2
	OR				
	C. Cuffs may be attached in one operation, (see Table I, 1/) providing the finished appearance is the same as specified in Operations 20.a and 20.b, and the ends of	301	LSe-1	12-14	70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
20.	<u>Join cuffs to sleeves</u> <u>(types I)</u> - Contd.				
	the row of stitching are backtacked or crossed with another line of stitching.				
21.	<u>Join collar to shirt</u>				
	<u>Finished appearance:</u> The collar shall be carefully joined to the shirt, with notches matching without dis- torting the stand or collar. Collar ends shall not be uneven in length by more than 1/8 inch. In stitching down collarstand, the stitching shall be not more than 1/8 inch on or off the opposite stand.				
	a. Fold front of shirt to the inside as indicated by marks on the pattern. The facings shall finish 1-3/4(\pm 1/4) inches wide for the Type I shirts and 2-7/8(\pm 1/4) inches wide for the Type II shirt.				
	b. Turn in the bottom edge of the top collar- stand and stitch to shirt 1/16 to 1/8 inch from turned edge.	301	LSb-1	12-14	70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
21.	<u>Join collar to shirt</u> - Contd.				
	OR				
	c. As an alternate: stitch top collarstand to inside of shirt, turning seam allowance toward stand.	301	LScf-2(a)	12-14	70-2 70-2
	d. Stitch down the undercollar stand 1/16 to 1/8 inch from turned edge through stand and shirt. Continue the stitching around the ends of the collarstand if not previously stitched (see Operation 9.c).	301	LScf-2(b)	12-14	70-2 70-2
22.	<u>Make buttonholes in collarstand and front</u>				
	a. Mark or gage and make six vertical buttonholes in the left front of shirt 3/4 inch from front edge through the facing. The buttonholes shall be 3-1/2(+1/8) inches apart, measured from center to center. The second front buttonhole from the top (excluding the horizontal buttonhole in the collarstand) shall be in horizontal alignment with the patch pocket flap buttonholes.	304	whip	42-46 per btnhl Incl Tack	70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
22.	<u>Make buttonholes in collarstand and front</u> - Contd.				
b.	Make one horizontal buttonhole in center of collarstand with the inside cut end of buttonhole extending 1/8 inch forward of front vertical buttonholes.	304	whip	42-52 per Btnhl Incl Tack or 42 52	70-2 70-2 or 40-3 70-3
		or 304	or purl	per Btnhl Incl tack	
23.	<u>Sew on buttons</u>				
	<u>Finished appearance:</u> The buttons shall be securely sewn and properly aligned with buttonholes in collarstand, front of shirt, cuffs and pocket flaps. Collar ends shall be centered equidistant from center of shirt front and shall open not less than 1/4 inch or more than 3/4 inch when collar is buttoned.				
a.	Sew six buttons on right shirt front 3/4(+1/16) inch from front edge through front facing.	301 or 101		14-16 per button 14-16 per button	70-2 70-2 70-2
b.	Sew one button on right end of collarstand so that when collar is buttoned, center of button shall be	301 or 101		14-16 per button 14-16	70-2 70-2 70-2

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TABLE II Manufacturing operations - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
23.	<u>Sew on buttons</u> - Contd.				
	in line with vertical buttonholes on front with- out distorting left or right front.			per btn	
	c. Sew one button on back end of each cuff positioned at the outside end of the buttonhole of the type I shirts.	301 or 101		14-16 per btn 14-16 per btn	70-2 70-2 70-2
	d. Sew one button on each breast pocket of the shirt through hem to correspond with flap buttonhole.	301 or 101		14-16 per btn 14-16 per btn	70-2 70-2 70-2
	e. Sew one button on each shoulder to correspond with shoulder loop buttonholes. The shoulder loop shall lay flat with- out puckers or twists when buttoned.	301 or 101		14-16 per btn 14-16 per btn	70-2 70-2 70-2
24.	<u>Clean shirts</u>				
	a. Trim all ends of thread and remove loose threads from shirts. Remove all spots and stains.				
	b. Remove all shade tickets.				

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TABLE II Manufacturing operations. - Continued

No.	Description of operation	Stch Type	Seam/ Stch Type	Stch In	Thread Ndl Bob/ Lpr
25.	<u>Pressing</u>				
	<p>a. Press hem, back and yoke with a hot head pressing machine capable of pressing the entire shirt after fabrication may be used.</p>				
	<p>b. When the option in Operation 25.a is not exercised, press the bottom, side seams, underarm seams, and touch up fronts and back before folding and packaging with a heated iron at a permanent press (moderate) setting.</p>				
	<p>NOTE: The use of a steam inflated bag type pressing machine is prohibited for pressing the shirt. The hot head pressing machine cited in Operations 5.d, 9.d, 11.d, and 15.d shall be equipped with controls for accurate temperature (350 to 370⁰), time (minimum 10 seconds) and pressure (100 psi gauge).</p>				

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*3.9 Finished measurements The finished measurements shall conform to table III.

TABLE III. Finished measurements (inches).

Size	A Collar	B 1/2 Chest	C Back Length	D Types I Sleeve Lengths	E Type II Sleeve Length	F 1/2 Waist	G Cross Back (lower yoke seam)
13-1/2	14	18-3/4	31	over	6-7/8	16	16
14	14-1/2	19-3/4	31-1/8	marked	6-7/8	17	16-1/2
14-1/2	15	20-3/4	31-1/4	size	6-7/8	18	17
15	15-1/2	21-3/4	31-3/8	(appli-	6-7/8	19	17-1/2
15-1/2	16	22-3/4	31-1/2	cable	6-7/8	20	18
16	16-1/2	23-3/4	31-5/8	to all	6-7/8	21	18-1/2
16-1/2	17	24-3/4	31-3/4	sizes)	6-7/8	22	19
17	17-1/2	25-3/4	31-7/8		6-7/8	23	19-1/2
17-1/2	18	26-3/4	32		6-7/8	24	20
18	18-1/2	27-3/4	32-1/8		6-7/8	25	20-1/2
Tolerance	$\pm 1/8$	$\pm 1/4$	$\pm 1/2$	+1/4 -1/2	+1/4 -1/8	+1/2 -1/4	$\pm 1/4$

3.9.1 Methods of measuring Shirts shall be buttoned, laid smooth and flat and measured as follows:

Collar length

Measure from center of collar button to front cut-end of buttonhole.

1/2 Chest

Measure from folded edge to folded edge, at base of armhole.

Back length

Measure at center back from collar setting seam to bottom edge of shirt

Type I sleeve length

Measure from center back at collarstand seam, diagonally across back to lower edge of

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Type II sleeve length	back yoke and down sleeve to bottom edge of cuff. Measure from base or armhole along underarm seam to bottom edge of hem.
1/2 Waist	Measure from folded edge to folded edge at narrowest area of the waist.
Cross back (lower yoke seam)	Measure at lower yoke seam from armhole to armhole.

3.10 Workmanship The finished shirt shall confirm to the quality of product established by this specification. As a final step in the contractor's production control plan before formation of a lot, each shirt shall be examined, buttoned, pressed and laid out flat on a table prior to folding for packaging. A shirt containing a selected defect shall not be included in the end item lot. selected defects are those defects listed in MIL-STD-1492, indicated by an asterisk (*). The occurrence of defects shall not exceed the applicable point value or defect limit.

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 (examination 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 insure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance All items shall meet all requirements of section 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 insuring 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 Certificates of compliance When certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of certification.

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4.2 Classification of inspection 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) the inspection shall include the examination of 4.4.3. The presence of any defect shall be cause for rejection of the first article.

4.4 Quality conformance inspection Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105. The acceptance criteria as specified in the contract or purchase order shall be binding.

*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.

*4.4.1.1 Component testing. In addition to any testing required by 4.4.1, components listed in table IV shall be tested for the characteristics noted. The methods of testing specified in table IV shall be followed. The lot and sample sizes shall be as follows :

<u>Lot size</u>	<u>Sample size</u>
800 or less	2
801 to 22,000 inclusive	3
22,001 and over	5

The lot shall be unacceptable if one or more sample units fail to meet any test requirement specified. The lot size units and sample units shall be as follows:

<u>Component</u>	<u>Lot size unit</u>	<u>Sample unit</u>
Collar stays	Gross	4 each
Thread	Spool	3 each

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TABLE IV. Component tests

Component	Characteristic	Requirement paragraph	Test method
Collar stays	Width	3.3.3	Gage <u>1/</u>
	Length	3.3.3	Gage <u>1/</u>
Thread	Shrinkage	3.3.4	ASTM D 204 <u>2/</u>

1/ A certificate of compliance shall be submitted and will be acceptable for the stated requirement.

2/ Shrinkage in dry heat shall not apply.

4.4.2 In-process inspection Inspection shall be made at any point or during any phase of the manufacturing process to determine whether construction details which cannot be examined in the finished product are in accordance with specified requirements. This inspection shall include verification that the working patterns conform to the government patterns in all respects. Whenever nonconformance is noted, corrections shall be made to the items affected and lot in process. Items which cannot be corrected shall be removed from production.

4.4.3 Point count inspection. Sampling and inspection provisions for end item examination of dress "D" shirts, dimensional examination, and packaging inspection shall be performed in accordance with MIL-STD-1492. The occurrence of defects shall not exceed the applicable point value limit specified in MIL-STD-1492.

4.4.5 Palletization examination An examination shall be made to determine that the palletization complies with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully packaged. The lot size shall be the number of palletized unit loads in the inspection lot. The inspection level shall be S-1, and the acceptable quality level, (AQL) expressed in terms of defects per hundred units, shall be 6.5 in accordance with MIL-STD-105.

ExamineDefect

Finished dimensions

Length, width, or height exceeds specified maximum requirements.

palletization

Pallet pattern not as specified.
Interlocking of loads not as specified.
Load not bonded with required straps

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as specified.

Weight

Exceeds maximum load limits.

Marking

Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.

4.5 Methods of inspection

4.5.1 Appearance of seams Seams suspected of being puckered shall be examined at a distance of three feet in comparison with the AATCC photographic comparative ratings for single needle seams, Test Method 88B. Puckering on a major portion of a seam that is worse than a rating of 4 shall be scored as a puckered seam (see 6.5).

5. PACKAGING

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

5.1.1 Level A Each fully buttoned shirt shall be neatly folded to measure approximately 14-1/2 by 10-1/2 inches. The folded shirt shall be secured with stainless steel (AISI Type 304 or 316) pins, aluminum clips, or plastic fasteners and inserted in a snug-fitting, clear polyethylene film bag conforming to A-A-50083.

5.1.2 Level C Shirts shall be preserved in accordance with the applicable requirements of MIL-STD-2073-1 for this level.

5.1.3 Commercial Shirts shall be preserved in accordance with ASTM D 3951.

5.2 Packing. Packing shall be level C or Industrial as specified (see 6.2).

*5.2.1 Level A Shirts, of one type, class, and size, preserved and packaged as specified in 5.1, shall be packed in exterior-type shipping containers that conform to PPP-B-601, overseas type. The closure of the shipping container shall be in accordance with the appendix of the applicable shipping container specification.

5.2.2 Level B Shirts, of one type, class, and size, preserved and packaged as specified in 5.1 shall be packed in exterior-type shipping containers that conform to PPP-B-636, class weather resistant. The closure of the shipping container shall be in accordance with the appendix of the applicable shipping container specification.

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5.2.3 Level C Shirts, of one type, class, and size, preserved and packaged as specified in 5.1, shall be packed in accordance with MIL-STD-2073-1 requirements for this level.

5.3 Marking

5.3.1 Levels A, B, and C In addition to any special or other identification markings required by the contract or purchase order (see 6.2), each unit pack and exterior container shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.

5.3.2 Commercial Each unit pack and exterior container shall be marked in accordance with ASTM D 3951.

5.4 Palletization Unitized loads, commensurate with the level of packing specified in the contract or purchase order shall be palletized in accordance with MIL-STD-147. Palletized loads shall be uniform in size and quantity to the greatest extent possible. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern shall first be approved by the contracting officer.

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 type I (long sleeve) and type II (short sleeve), class 1 shirts are intended for wear by male military personnel of the department of Defense. The type 1 (Long sleeve), class 2 shirt is intended to be worn by security police as part of the dress uniform.

* 6.2 Acquisition requirements Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. Type, class, size, and sleeve length 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 and 2.2).
- d. When a first article sample is required, (see 3.1)
- e. Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
- f. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.).
- g. When palletization is required (see 5.3).
- h. When all packaging data is to be specified in MIL-STD-2073-1 and MIL-STD-2073-2.

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6.3 First article When first article inspection is required, the contracting officer should provide specific guidance to offerors whether the item should be a preproduction sample or initial production item inspected and approved under the appropriate provision of FAR 52.209. The contracting officer should specify the appropriate type of first article and the number of items to be furnished. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results and disposition of first articles. Invitations for bids should provide that the government reserves the right to waive the requirement for samples for first article inspection to those bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation.

6.4 Samples and patterns For access to shade samples and patterns address the procuring activity issuing the invitation for bids.

6.5 Seam appearance In order to avoid puckering and to produce the flattest seams possible, consideration must be given to the following:

a. The needles used for all seams should be as fine as possible, consistent with the size or diameter of the thread used.

b. The throat plate hole should be no larger than necessary to permit free entry of the needle and to prevent flagging.

c. The finest feed (approximately 18 teeth) possible should be used with a pressure foot to exactly match the shape and size of the feed. The face of the pressure foot (underside next to the feed on the machine) should be highly polished to eliminate roughness and reduce drag. Diamond shape feed teeth have been used quite successfully.

d. The lightest pressure foot pressure should be used to prevent stretching of the top ply of material.

e. In the safety stitch machine, (515, 516, and 519) the upper and lower trimming knives should be kept at peak sharpness to prevent "dragging" of the edge of the fabric.

f. In stitch type 301 sewing, the bobbin tension should be adjusted so that when a full bobbin is placed in the bobbin case and threaded through the tension spring, the bobbin and case shall ride slowly down the thread when the free end of the thread is held in the vertical position. Needle tension should be

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adjusted after the bobbin tension to provide slightly more needle thread than bobbin thread in the stitch.

g. When sewing with stitch type 401 (including the seaming row of the safety stitches), the thread ratio (needle and looper) should be adjusted to produce a stitch with 60 to 70 percent needle thread, and both needle and looper thread tension should be held to the minimum.

h. Thread take-up mechanism should be set on all machines to relieve as much tension as possible when forming the stitch. All thread contacts should be well polished and free of burrs, cuts, and rough spots.

6.6 Government-furnished property. The contracting officer should arrange to furnish the patterns listed in 3.5.

* 6.7 Subjects (key word) listing

cloth,polyester/cotton broadcloth
 cloth,polyester/wool tropical
 garment, long-sleeved
 garment, short-sleeved
 uniform,dress,security police

6.8 Changes from previous issue The margins of this specification are marked with asterisks 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.

Custodian:
 Air Force 11

Preparing activity:
 DLA-CT

Review activities:
 Coast Guard - CG
 Air Force - 45, 82, 99

Project No. 8405-0182

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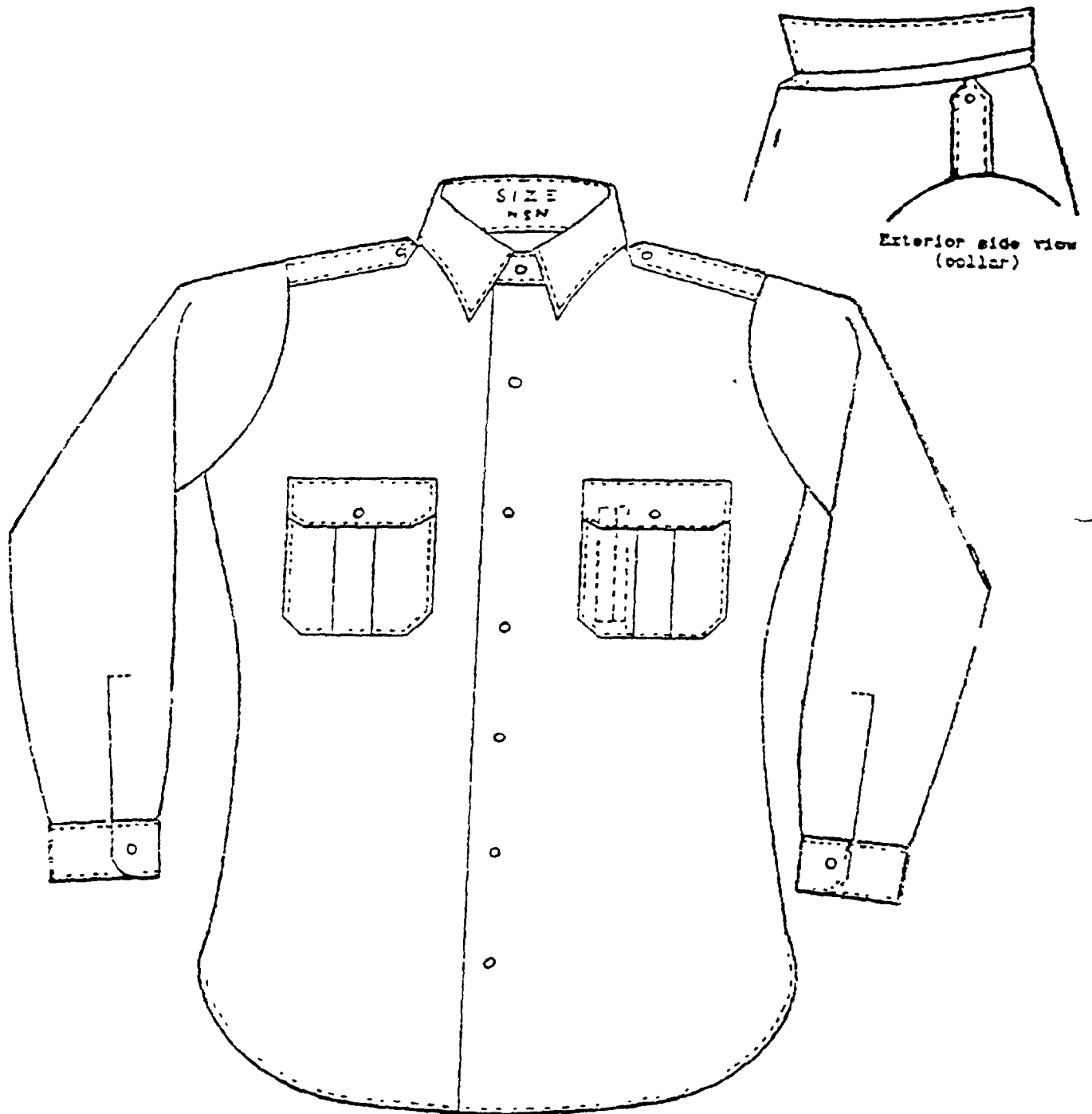


FIGURE 1. Men's long sleeve shirt, type I.

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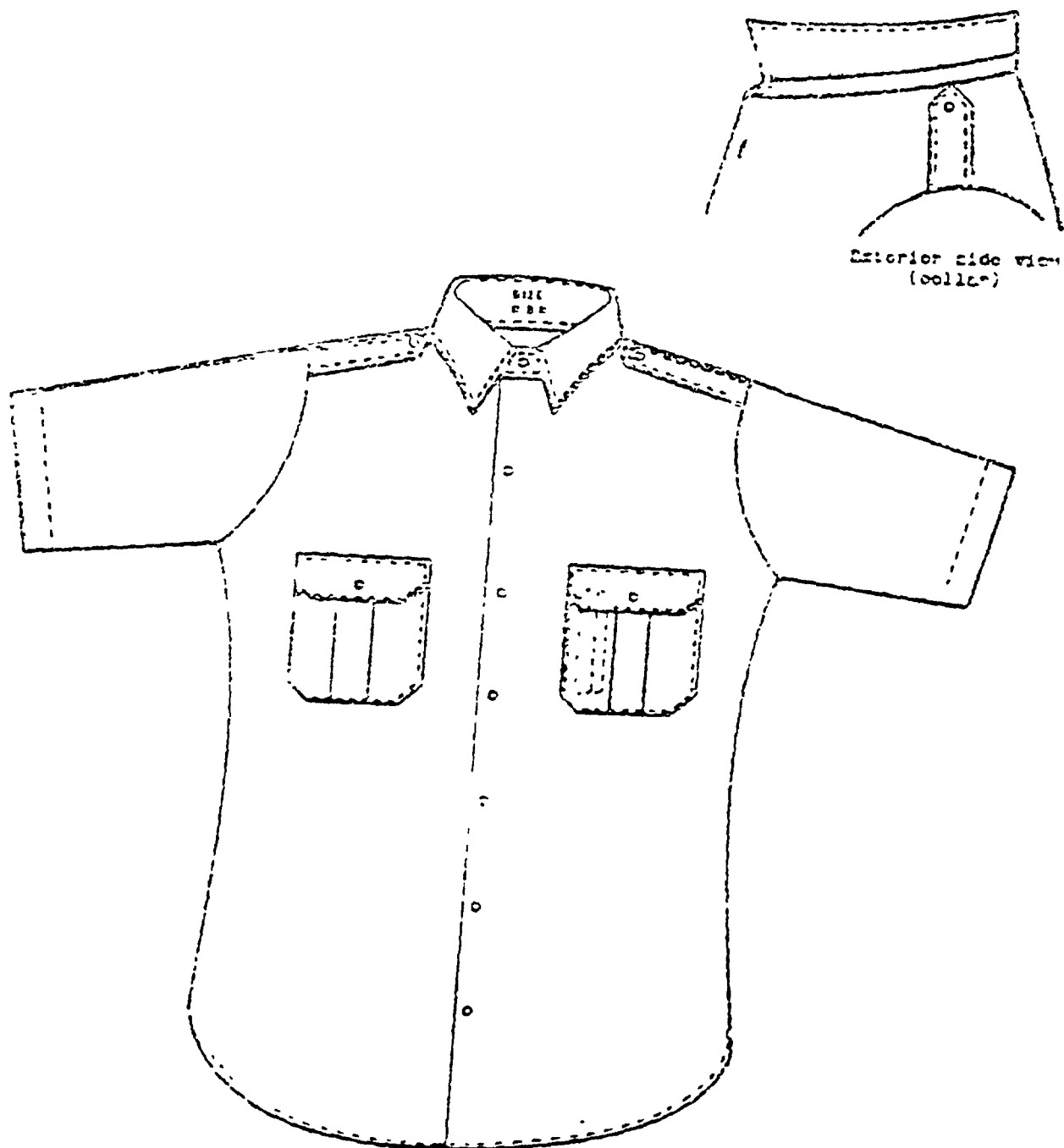


FIGURE 2. Men's short sleeve shirt, type II.

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.
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1. RECOMMEND A CHANGE:		1. DOCUMENT NUMBER Mil-S-87214B	2. DOCUMENT DATE (YYMMDD) 20 November 1992
3. DOCUMENT TITLE <u>Shirt, Man's: Short and Long Sleeves Polyester/Cotton (Durable Press) and Long Sleeves, Polyester/Wool</u>			
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)	7. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY			
a. NAME DLA-CT		d. TELEPHONE (Include Area Code) (1) Commercial (215) 737-8105	(2) AUTOVON 444-8105
c. ADDRESS (Include Zip Code) 2800 South 20th Street Philadelphia, PA 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 22041-34 Telephone (703) 756 2340 AUTOVON 289 2340	