INCH-POUND

MIL-S-87225A(USAF) <u>7 May 1990</u> SUPERSEDING MIL-S-87225 (USAF) 20 September 1985

MILITARY SPECIFICATION

* SHIFTS, WOMEN'S: SHORT AND LONG SLEEVES, POLYESTER/COTTON (DURABLE PRESS) AND LONG SLEEVES, POLYESTER/WOOL

> This specification is approved for use within the Department of the Air Force and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOFE

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

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

Type I - Short sleeve Class 1 - Polyester/cotton broadcloth, USAF Blue 1550 Type II - Long sleeve Class 1 - Polyester/cotton broadcloth, USAF Blue 1550 Class 2 - Polyester/wool tropical cloth, USAF Blue 1609

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: ASD/ENES, Wright-Patterson AFB OH 45433-6503 by using the Self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

ANEC N/A

FSC 8410

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1.2.1 <u>Sizes</u>. The women's shirts, short and long sleeves, shall be furnished in the following lengths and sizes, as specified (see 6.2):

<u>Short</u>	Short_plus	Regular	<u>Regular plus</u>	Long	Long plus
6S	6S+	6R	6R+	6L	6L+
85	8S+	8R	8R+	8L	8L+
105	105+	10R	10R+	lol	10L+
125	125+	12R	12R+	12L	12L+
145	14S+	14R	14R+	14L	14L+
165	16S+	16R	16R+	16L	16L+
185	18S+	18R	18R+	18L	18L+
205	205+	20R	20R+	20L	20L+
		22R	22R+	22L	22L+

Schedule of sizes (types I and II) and sleeve lengths (type II)

2. APPLICABLE DOCUMENTS

2.1 Government documents

* 2.1.1 <u>Specifications, standards, and handbooks</u>. 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

A-A-203	Paper, Kraft, Untreated
A-A-50083	Bag, Plastic, Folded Garment
V-B-871	Button, Sewing Hole, and Button, Staple, (Plastic)
V-T-276	Thread, Cotton
DDD-L-20	Label: For Clothing, Equipage, and Tentage, (General Use)
PPP-B-601	Boxes, Wood, Cleated-Plywood
PPP-B-636	Boxes, Shipping, Fiberboard

MILITARY

Liners, Case, and Sheet, Overwrap; Water-Vaporproof or
Waterproof, Flexible
Cloth, Tropical: Wool, Polyester/Wool
Fastener Tapes, Hook and Pile, Synthetic
Thread, Polyester Core: Cotton-, Payon-, or Polyester-
Covered
Cloth, Interlining, Polyester
Thread, Polyester Spun
Cloth, Broadcloth, Polyester/Cotton Durable Press

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MIL-S-87225A(USAF)

STANDARDS

FEDEPAL

FED-STD-751 Stitches, Seams, and Stitchings

MILITARY

MIL-STD-105	Sampling Procedures and Tables for Inspection by
	Attributes
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-147	Palletized Unit Loads
MIL-STD-2073-1	DoD Materiel Procedures for Development and Application of
	Packaging Requirements

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

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

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

AATCC TECHNICAL MANUAL

Test Method 88B	Appearance of Seams in Durable Press Items After Repeated
	Home Laundering
Test Method 124	Appearance of Durable Press 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 IRON AND STEEL INSTITUTE (AISI)

STEEL PRODUCTS MANUAL

Stainless and Heat Resisting Steel, Types 304 and 316

(Application for copies of the AISI Steel Products Manual should be addressed to the American Iron and Steel Institute, 1133 15th St., N.W., Suite 300, Washington DC 20005-2701.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 204	Standard	Methods o	f Testing	Sewing	Threads	•
ASTM D 3951	Standard	Practice	for Conner	cial Pa	ackaging	(DoD adopted)

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

THE COLOR ASSOCIATION OF THE UNITED STATES

Department of Defense (DoD) Standard Color Card of Official Standardized Shades for Sewing Threads 1968

Department of Defense (DoD) Standard Shades for Buttons 1966

(Application for copies should be addressed to The Color Association of the United States, 343 Lexington Ave., New York NY 10016-0927.)

(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 <u>Order of precedence</u>. In the event of a conflict between the text of this document and the references cited herein, the text 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 <u>First_article</u>. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 <u>Guide samples</u>. 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 <u>Materials</u>. It is encouraged that recycled material be used when practical as long as it meets the requirements of this document.

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

3.3.2 <u>Interlining</u>. The material used for interlining the front, shoulder loops, collar stand, and collar leafs of the type I and type II shirts and the cuffs of the type II shirt shall be polyester fiber cloth conforming to MIL-C-43594.

3.3.3 <u>Fastemer pile tape</u>. The nylon fastemer pile tape to secure the necktab to the shirt shall be White, Shade No. 3054 and shall be 5/8 inch wide by 3/4 inch long conforming to type I, class 1 of MIL-F-21940.

3.3.4 <u>Thread</u>. The thread shall be cotton-covered polyester, Ticket No. 70, 2 or 3 ply or Ticket No. 100, 2 or 3 ply conforming to MIL-T-43548. Spun polyester thread, Ticket No. 70, 2 or 3 ply or Ticket No. 100, 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 4.4.1. In addition, when purl type buttonholes are used, thread conforming to types IA2 and IA3, Ticket Nos. 40, 4 ply or 40, 6 ply (needle) and 80, 2 ply (bobbin) of V-T-276 shall be used.

* 3.3.4.1 <u>Color</u>. The color of the thread for the type I and type II, class 1 shirts shall be White AH, C.A. 66050 and the thread for the type II, class 2 shirt shall be Navy Blue AT, C.A. 66060 (see DoD Standard Shades for Sewing Threads).

* 3.3.5 <u>Buttons</u>. The buttons shall conform to type II, class K, style 25 of V-B-871 with 17-line for neck closure, and 19-line for front, cuffs (type II shirt), and shoulder loops and the color shall be White BA, C.A. 62031 for the type I and type II, class 1 shirts and Blue BV, C.A. 62003 for the type II, class 2 shirt (see DoD Standard Shades for Buttons 1966).

3.3.6 <u>Elastic</u>. The elastic for the collar closure loop shall be white, polyester fiber, 1/8 to 3/16 inch wide.

3.3.7 <u>Labels</u>. 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.

3.3.7.1 <u>Size_labels</u>. The size label shall conform to type IV or type VI, class 2.

3.3.7.2 <u>Identification_label</u>. The identification label shall conform to type VI, class 1.

* 3.3.7.3 Instruction_labels.

3.3.7.3.1 <u>Type I and type II, class 1 shirts</u>. The instruction label for the type I and type II, class 1 shirts shall conform to type VI, class 3 and contain the following instructions:

WASHING INSTRUCTIONS

<u>MACHINE WASH</u>: Use permanent press cycle, moderately hot water $(115^{\circ}F)$, and soap or mild detergent.

<u>HAND WASH</u>: Use moderately hot water ($115^{\circ}F$), and soap or mild detergent. DO NOT WRING OR TWIST

 $\underline{\text{MACHINE}\ DRY}$: Dry in tumble dryer at warm setting. Remove immediately at end of drying. Shape and hang.

<u>DRIP DRY.</u> Remove from water before last spin cycle. Shape and hang. <u>PRESSING</u>. Press at moderate heat setting.

DO NOT REMOVE THIS LABEL

* 3.3.7.3.2 <u>Type II, class 2 shirt</u>. The instruction label for the type II, class 2 shirt shall conform to type VI, class 3 and shall specify: DRY CLEAN ONLY.

3.3.7.4 <u>Combination identification and instruction label</u>. The combination identification and instruction label shall conform to type VI, class 15 and shall include the instructions specified in 3.3.7.3. When combined, the item nomenclature shall not be repeated. The coating requirement of the type VI, class 3 label shall apply.

* 3.4 <u>Design</u>. The shirt design shall be semi-form fitting, with a five-button front, princess lines, shoulder loops, ornamental sleeve cuffs (type I), convertible collars, vest-type front, and an elastic loop for closing the collar. The type II shirts shall be the same body design except with long sleeves and button through cuffs (see figures 1 through 5). The figures show the general style of the short and long sleeve shirts and are furnished for information purposes only.

3.5 <u>Patterns</u>. Standard patterns will be furnished by the Government (see 6.5) and, unless otherwise indicated, provide seam allowance of 1/4 inch for the collar, collar stand, cuffs, and sleeve plackets and 3/8 inch for all other seams. The standard patterns shall not be altered in any way and are to be used as a guide for cutting the contractor's working patterns. The standard patterns show size, seam allowances, directional lines for cutting and are marked or notched for proper placement and assembly of the component parts. The working patterns shall be identical to the standard patterns.

3.5.1 <u>Pattern parts</u>. The components of the shirts shall be cut from the materials, as specified, in accordance with the pattern parts indicated in table I.

Material	Pattern nomenclature	Cut parts
Basic material	Front	2
(see 3.3.1)	Side front	2
	Center back	1
	Side back	2
	Sleeve (type I)	2
	Sleeve (type II)	2
	Collar	2
	Collar stand	2
	Cuffs (type II)	4
	Sleeve binding (type II)	2
	Shoulder loop	4
Interlining	Shoulder loop	2
(see 3.3.2)	Front	2
	Collar	1
	Collar stand	1
	Cuffs (type II)	2
Marker	Front buttonholes	

TABLE I. List_of_pattern_parts.

3.6 <u>Construction</u>. The construction of the shirts shall conform in all respects to the requirements specified in table II and herein. Should any inconsistencies exist between the requirements of this document and the figures, the requirements of this document shall govern.

3.6.1 <u>Stitches, seams, and stitching</u>. Stitches, seams, and stitching types, as specified in table II, shall conform to FED-STD-751. When two or more methods of seams or stitches are given for the same operation, any one may be used. The looper (underthread), of stitch type 401, shall be on the inside of the shirt. The guides and knives on machines producing stitch types 515, 516, 517, 518, and 519 shall be set to trim only the ravelled ends of the fabric. If a knife is used on the overedging machine, only the ravelled ends shall be trimmed off; the edge of the fabric shall not be cut off. The trimming shall not exceed 1/16 inch. Seam allowances shall be maintained. Seams shall be sewn so that there will be no raw edges, run-offs, twists, pleats, or puckers. All seams shall start and finish evenly. Thread tension shall be maintained (see 6.6) so that there is no tight or loose stitching.

3.6.1.1 <u>Type 301 stitching</u>. 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 materials sewn. The lock shall be imbedded in the materials sewn.

3.6.1.2 <u>Repairs of type 301 stitching</u>. Repairs of type 301 stitching shall be as follows:

a. When thread breaks, skipped stitches, run-offs, or bobbin runouts 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. 1/2

b. Except for prestitching, thread breaks, or two or more consecutively skipped or run-off stitches noted during inspection of the item shall be repaired by overstitching. The stitching shall start a minimum of 1/4 inch in back of the defective area, continue over the defective area, and continue a minimum of 1/4inch 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. 1/4

1/ When making the above repairs, the ends of the stitching are not required to be backstitched.

3.6.1.3 Types 401, 502, 503, 504, 515, 516, 517, 518, 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.

TABLE II. Manufacturing operations.

		1	Seam and		read'
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch	Lower
1.	Cutting.				
	a. Cut the shirt in strict accordance with patterns furnished by the Government.				
	b. Cut all materials in the direction indicated by direc- tional lines on the pattern. The straight of the material shall indicate the warp direction.				
	c. Cut each shirt from one piece of basic material, except the under collar, underply of collar stand, underply of cuffs, and underply of shoulder loops may be cut from ends, but when cut from ends, the parts shall match the shade of the shirt. The bias binding for the armhole cuff opening may be stip cut and placed on rolls. The bias binding for the arm-				
	hole cuff opening may be strip cut and placed on rolls. The binding shall be cut of sufficient width (1-5/8 inch) to finish 3/8 to 1/2 inch wide.				
	d. Cut 1/8 to 3/16 inch wide elastic, 2-3/4 inches long for neck closure loop.				
	e. Cut the polyester fiber interlining in accordance with directional lines on patterns.				

		1	Seam and			read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch	1	Lower
2.	<u>Replacement of defective or</u> <u>damaged_parts</u> .					
	a. Any part that contains a hole or any weakening defect such as a smash, multiple floats, or a loose slub that might develop into a hole shall be replaced at the time of cutting.					
	b. Any part that contains workmanship damage such as a hole, a scissor or knife cut, a tear, a mend, a burn, or needle chews that might develop into a hole shall be replaced during the manufacturing process.					
3.	Component_marking.					
	Mark, ticket or bundle all component parts cut from one piece of basic material, except those parts cut from ends, to insure uniform shade and size throughout the shirt. Parts cut from ends shall be identified for size (see 3.7.1).					
4.	Attach or apply labels. a. See Operations 12.b, 12.f, and 12.g for application of size label.					

TABLE II. Manufacturing operations. - Continued

		Seam and		Th	read
Description of Operation	Stitch Type	Stitching Type			Lower
<u>Attach_or_apply_labels</u> Contd					
b. Position identification and instruction labels or combina- tion identification and instruction label on left facing and stitch on all four sides so that in the finished shirt the label shall be midway between the seamed front edge of shirt and back edge of facing. The bottom edge of label shall be approximately 3 inches from finished bottom edge of shirt. The label shall not be visible from outside of shirt.	301	LSbj-1	8-14	70-2	70-2
<u>Make_collar</u> .					
Finished appearance. The com- pleted collar shall finish smooth and flat without distortion. Edges shall be uniformly even. The seams shall finish at the edges of the collar. The points and seamed edges shall be neatly and completely forced out. The points shall be uniform in length.					
a. The collar and collar stand each shall be made of two plies of basic material and one ply of interlining.					
b. Seam interlining and top collar together 1/8 inch from each edge. Trim excess inter- lining along edges, where necessary.	301	SSa-1 (each edge)	12-14	70-2	70-2
	Attach or apply labels Contd b. Position identification and instruction labels or combina- tion identification and instruction label on left facing and stitch on all four sides so that in the finished shirt the label shall be midway between the seamed front edge of shirt and back edge of facing. The bottom edge of label shall be approximately 3 inches from finished bottom edge of shirt. The label shall not be visible from outside of shirt. Make collar. Finished appearance. The com- pleted collar shall finish smooth and flat without distortion. Edges shall be uniformly even. The seams shall finish at the edges of the collar. The points and seamed edges shall be neatly and completely forced out. The points shall be uniform in length. a. The collar and collar stand each shall be made of two plies of basic material and one ply of interlining. b. Seam interlining and top collar together 1/8 inch from each edge. Trim excess inter- lining along edges, where	Description of OperationTypeAttach or apply labels Contd301b. Position identification and instruction labels or combina- tion identification and instruction label on left facing and stitch on all four sides so that in the finished shirt the label shall be midway between the seamed front edge of shirt and back edge of facing. The bottom edge of label shall be approximately 3 inches from finished bottom edge of shirt. The label shall not be visible from outside of shirt.Make collar.Finished appearance. The com- pleted collar shall finish smooth and flat without distortion. Edges shall be uniformly even. The seams shall finish at the edges of the collar. The points and seamed edges shall be uniform in length.a. The collar and collar stand each shall be made of two plies of basic material and one ply of interlining.301b. Seam interlining and top collar together 1/8 inch from each edge. Trim excess inter- lining along edges, where301	Description of OperationTypeAttach or apply labels Contdb. Position identification and instruction labels or combina- tion identification and instruction label on left facing and stitch on all four sides so that in the finished shirt the label shall be midway between the seamed front edge of shirt. The label shall be midway between tinshed bottom edge of shirt. The label shall not be visible from outside of shirt.Make collar.Finished appearance. The com- pleted collar shall finish seamed edges shall be neatly and completely forced out. The points shall be neatly and completely forced out. The points shall be made of two plies of basic material and one ply of interlining.a. The collar and collar stand each edge. Trim excess inter- lining along edges, where301SSa-1 (each edge)1301	Description of OperationTypeTypePer InchAttach or apply labels Contd301Solution301Solutionb. Position identification and instruction labels or combina- tion identification and instruction label on left facing and stitch on all four sides so that in the finished shirt the label shall be midway between the seamed front edge of shirt and back edge of facing. The bottom edge of label shall be approximately 3 inches from finished bottom edge of shirt. The label shall not be visible from outside of shirt.Here is a state is a	Description of OperationTypeTypePer Inch TopAttach or apply labels Contd301LSbj-18-1470-2b. Position identification and instruction labels or combina- tion identification and instruction label on left facing and stitch on all four sides so that in the finished shirt the label shall be midway between the seamed front edge of shirt. The label shall not be visible from outside of shirt.8-1470-2Make collar.The completed collar shall finish

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TABLE II. Manufacturing operations. - Continued

			Seam and		Thi	read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
5.	<u>Make_collar</u> Contd c. Seam interlining and top collar stand 1/8 inch from top and lower edge. Trim excess interlining along edges, where	301	SSa-1	12-14	70-2	70-2
	necessary. d. Position under collar stand on outside of under collar with notches matching and join to- gether at the lower edge with a 1/4-inch seam.	301	LSq-2(a)	12-14	70-2	70-2
	e. Turn under collar stand and stitch 1/16 inch from raised edge.	301	LSq-2(b)	12-14	70-2	70-2
	f. Position top collar stand on outside of top collar with notches matching and join to- gether at lower edge with a l/4-inch seam.	301	LSq-2(a)	12-14	70-2	70-2
	g. Turn top collar stand and stitch 1/16 inch from raised edge.	301	LSq-2(5)	12-14	70-2	70-2
	h. Position under collar and top collar face to face with top notches matching and edges even and seam together along top and side edges with 1/4-inch seam.	301	SSe-2(a)	12-14	70-2	70-2
	i. Trim points and turn collar on a heated collar point turning and pressing machine, working out the points completely and working seam line to edge.					
·	j. Edge stitch the upper and side edges of the collar uniformly, 1/4 inch from seamed edges.	301	55e-2(5)	12-14	70-2	70-2

11

TABLE II. Manufacturing operations. - Continued

			Seam and			'ead
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
5.	<u>Make_collar</u> Contd					
	k. Press collar smooth and flat (see Operation 24).					
	OR					
	 Seam the three plies to- gether 1/4 inch from top and side edges, with the interlining on top and all edges even. 	301	SSe-1(a)	12-14	70-2	70-2
	m. The interlining may be stitched to the underply of collar 1/8 inch from outer edges before joining to the top ply of collar.	301	SSa-1	12-14	70-2	70-2
	n. Trim points and turn collar on a heated collar point turning and pressing machine, working out the points completely and working seam line to edge.					
	o. Edge stitch the upper and side edges of the collar uniformly 1/4 inch from seamed edges.	301	SSe-2(b)	12-14	70-2	70-2
	p. Press collar smooth and flat (see Operation 24).					
	OR					
	q. The collar leaf may be basted along the seamed edge.					

			Seam and		Thr	read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
5.	<u>Make collar</u> Contd r. Position the raw edge of collar between the top and under collar stand with inter- lining as indicated by notches on pattern and stitch from end to end along top edge of collar stand, 3/16 to 1/4 inch	301	SSq-2(a)	12-14	70-2	70-2
	from edge. OR s. The collar stand interlining may be stitched to the under collar stand 1/8 inch from the	301	SSa-1	12-14	70-2	70-2
	raw edges before joining to collar. t. Turn top and under collar stand to finish position and raise stitch 1/16 inch from	301	SSq-2(b)	12-14	70-2	70-2
б.	turned edge. u. Press collar smooth and flat (see Operation 24). <u>Attach elastic loop to collar</u> .					
	Fold the elastic in half, forming a loop. Position the loop on the lower edge of the underside of the collar $1/2$ inch from the right end, with the ends of the loop even with the raw edge of the collar. Stitch loop to collar $3/16$ from raw edge. The finished loop shall measure 1 $\pm 1/8$ inch.	301	SSa-1	12-14	70-2	70-2

TABLE II. Manufacturing operations. - Continued

			Seam and			read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
7.	Attach_interlining_to_front facing.					
	a. Position the left and right front facings on their respec- tive front interlinings with edges even and notches matching. Stitch the two plies together at the gorge, top and front bottom angled corner 1/8 inch from raw edge.	301	SSa-1	12-14	70-2	70-2
	b. Overedge stitch the shoulder and back edge of facing, catching the interlining in the stitching.	502 or 503	EFd-1	10-14	70-2	70-2
8.	Assemble_front_and_front_side_ panels.					
	Finished appearance. The fronts and side front panels shall be properly positioned and finished without pleats, puckers, or gathers.					
	a. Position front and side front panels together with notches matching, evenly dis- tributing the fullness in the bust area, with a 1/4-inch seam allowance.	301 or 401	SSa-1	12-14	70-2	70-2
	b. Overedge stitch raw edges of front and front panel seams together.	503 or 504	EFd-1	10-14	70-2	70-2
	OR					
	c. The front and side front panel may be joined in one operation by seaming and overedge stitching the raw edges together.	515 or 516 or 517 or 518	SSa-2	10-14	70-2	70-2

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MIL-S-S7225A(USAF)

			Seam and		Thr	ead
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch	Тор	Lower
8.	<u>Assemble front and front side</u> <u>panels</u> Contd					
	d. Press the front and side front panel joining seams smooth and flat (see Operation 24) The seams shall be pressed toward the center front.					
9.	Assemble_back.					
	a. Position the left and right side back to center back with edges even and notches matching. Stitch together with 1/4-inch seam.	301 or 401	SSa-1	12-14	70-2	70-2
	b. Overedge stitch the raw edges of the back and side back seams together.	503 or 504	EFd-1	10-14	70-2	70-2
	OR					
	c. The left and right side body may be joined to the center back by seaming and overedge stitching the raw edges to- gether in one operation.	515 or 516 or 517 or 518	SSa-2	10-14	70-2	70-2
	d. Press the right and left back seams smooth and flat (see Operation 24). The back seams shall be pressed toward the center back.					
10.	<u>Seam_shoulders</u> .					
	a. Join back to fronts at the shoulder with 1/4-inch seam.	301 or 401	SSa-1	12-14	70-2	70-2
	b. Overedge stitch the raw edges of the shoulder seams together.	503 or 504	EFd-1	10-14	70-2	70-2
	OR					

			Seam and		Thr	'ead
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
10.	<u>Seam_shoulders</u> Contd					
	c. The raw edges of the back and front seams at the shoulder may be joined by seaming and overedge stitching in one operation.	515 or 516 or 517 or 518	SSa-2	10-14	70-2	70-2
11.	Mark_lower_front_corners.					
	Turn facing to the front at the notch on the bottom of the shirt with the raw edges of the bottom and angle even and stitch across the angle and bottom with 1/4- inch seam. The seam at the bottom edge shall extend the width of the facing and be in line with the bottom turn-up mark.	301	SSa-1	12-14	70-2	70-2
12.	<u>Set_collar_with_size_label</u> .					
	a. Position collar between facing and front with the lower end of collar in line with the lapel notch and with raw edge of collar and gorge even. Stitch all plies together with l/4-inch seam along the gorge from the lapel notch up to approximately 1 inch in back of the joining seam line of collar and collar stand.	301	SSa-1	12-14	70-2	70-2
	b. Notch all plies at the end of stitching line and continue to stitch the lower (neck) edge of the under collar stand to front and back part from gorge seam to gorge seam. When used, the type VI size label shall be centered on the back part and caught in seam joining collar to shirt.	301	SSa-1	12-14	70-2	70-2

			Seam and		Thr	read
		Stitch	Stitching	Stitches		
No.	Description of Operation	Туре	Type	Per Inch	Тор	Lower
12.	<u>Set_collar_with_size_label</u> . - Contd					
	c. Turn facing to the inside of fronts, working out the points and seamed edges and lapping back edge of facing on front end of bottom turn up.					
	d. Stitch the shoulder edge of facing to the shoulder seam allowance 3/16 inch from edge.	301	SSa-l	12-14	70-2	70-2
	e. Position size label at center back and stitch 1/8 to 3/16 inch from raw edge of neck area (type VI label, if applicable).	301	SSa-1	12-14	70-2	70-2
	f. Turn under lower edge of collar stand from gorge seam, lapping the folded edge on facing and fronts at the shoulder and on the back. Stitch through all plies 1/16 inch from the folded edge, catching the top of the type VI size label in the stitching.	301	BSg-2(b) or BSj-2(b)	12-14	70-2	70-2
	g. Stamp the size of the shirt on the collar stand with the marking centered on the collar stand approximately 1/4 inch from its inner edge (type IV label, if applicable).					
	h. In the finished garment, the ends of the collar shall be $2-3/4$ $\pm 1/8$ inches long when measured from junction point of collar and lapel.					

	l		Seam and			ead
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch	1	Lower
13.	<u>Attach_pile_fastener_tape_to</u> <u>shirt_under_the_collar</u> .					
	Finished appearance. The application of attaching fastener tape to shirt shall not cause any distortion to the collar, interlining, or shirt, either in an open collar or buttoned collar position.					
	a. The $5/3$ - by $3/4$ -inch piece of pile fastener tape shall be positioned $1/16 \pm 1/16$ inch above the collar gorge seam at the point where the under collar stand begins. The pile fastener tape shall be stitched on all four sides $1/16$ inch from the edge through all plies of the shirt.	301	SSa-1	12-14	70-2	70-2
	NOTE: The 3/4 inch side of the pile fastener tape shall be parallel to the gorge seam.					
14.	<u>Make_ornamental_sleeve_cuffs</u> (type_I).					
	Finished appearance. The cuffs shall finish smooth and flat without distortion and shall be uniform in shape and size. The edge stitching shall be of uniform gage.					
	a. Turn under (to the right side) the lower raw edge of the sleeve 1/2 inch, forming the finished curve and pointed edge in accordance with the shape of the pattern. Press smooth and flat, creasing the edge (see Operation 24).					

	1	1	Seam and	1	Thr	ead
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch	{	Lower
14.	<u>Make ornamental sleeve cuffs</u> (<u>type I)</u> Contd					
	b. Fold cuff back to the right side against body of the sleeve at the folding notches, with the pointed end of the cuff face up and stitch the cuff through all plies, 1/4 inch from the upper folded edge, catching the turned under portion in the stitching.	301	SSa-1	12-14	70-2	70-2
15.	<u>Make_cuffs_(type_II)</u> .					
	Finished appearance. The 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 $2-1/4 \pm 1/8$ inches wide and shall have rounded lower corners. The buttonholes shall be clean cut, well made and correctly positioned, and the stitching shall be securely caught in the fabric with the purling on the outside and no loose stitching.					
	a. The cuffs shall be made of two plies of basic material and one ply of interlining.					
	b. Position the interlining on the inside of the top ply of the cuff with the side and bottom edges even and stitch together 1/8 inch from raw edge.	301	SSa-1	12-14	70-2	70-2
		1				1

TABLE II. Manufacturing operations. - Continued

			Seam and			read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
15.	<u>Make_cuffs_(type_II)</u> Contd c. Fold the top raw 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
	d. Stitch the top and under ply of the cuff and interlining together along the bottom and side edges with a 1/4-inch seam.	301 or 401	SSe-2(a)	12-14	70-2	70-2
	e. Turn the cuff completely and edge stitch uniformly 1/4 inch from the seamed edge. The edge stitching shall finish 1/2 inch from the top edge of finished cuff. The edge stitching may taper to edge of cuffs at ends of stitching and need not be backstitched.	301	SSe-2(b)	12-14	70-2	70-2
	f. Make a horizontal $9/16$ <u>+1/16</u> inch long straight-cut, purl or whip type buttonhole in the center of each cuff (1/4 inch off center tolerance) with the end of the buttonhole $1/2$ <u>+1/8</u> inch from the edge. The purl side, if applicable, of the button- hole shall face toward the outside of the cuff.	304 or 304	purl or whip per button- hole in- cluding tack	42-52 per button- hole in- cluding tack or 42-52	or 40-6 or	90-2 or 70-2
	g. Press cuffs (see Operation 24).					

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			Seam and		Thr	ead
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch	Тор	Lower
16.	<u>Make and attach shoulder loops</u> . Finished appearance. The shoulder loops shall finish smooth and flat and uniform in construction and placement. The buttonholes shall be clean cut and correctly positioned. The shoulder loops shall measure 1-3/4 to 1-15/16 inches wide at the armhole seam tapering to a width of 1-7/16 to 1-9/16					
	 a. Join the three plies of each shoulder loop along the sides and the point with 1/4-inch seam. 	301 or 401	SSe-2(a)	12-14	70-2	70-2
	 b. Turn each shoulder loop. Work out the edges and the point and edge stitch along sides and point 1/4 inch from edge. 	301	SSe-2(b)	10-14	70-2	70-2
	c. Locate and make a horizontal straight cut, purl or whip type, buttonhole barred one each end, in accordance with the pattern marks, in each shoulder loop.	304	purl	42-52 per button- hole in- cluding	or 40-6	80-2
	The end of the buttonhole shall be $1/2 \pm 1/8$ inch from pointed edge of the shoulder loop. The buttonhole opening shall be $1/2 \pm 1/16$ inch long. The purl side, if applicable, of the buttonhole shall face toward the outside of the shoulder loop.	or 304	or whip	tack or 42-52 per button- hole in- cluding tack		or 70-2
	d. Press the shoulder loops flat (see Operation 24).					

			Seam and			read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
16.	<u>Make_and_attach_shoulder_loops</u> . - Contd					
	e. Trim and measure the shoulder loops to fit the shoulders and match with the shirt. Center the shoulder loops on the shoulder seams so that the pointed end will extend to within 1/8 to 1/4 inch of the collar seam. Stitch each shoulder loop to the shirt 1/16 to 3/16 inch from the armhole edge. The shoulder loops will be paired. They will be attached by sewing left and right shoulder loops to corres- ponding shoulder.	301	SSa-1	12-14	70-2	70-2
17.	Set_sleeve_and_overedge_stitch.					
	Finished appearance. The sleeves shall be set without distortion.					
	a. Join sleeves to shirt around the entire armhole with a 1/4- inch seam, matching the notches.	301 or 401	SSa-1	12-14	70-2	70-2
	b. Overedge stitch the raw edges of the sleeve and armhole together.	504	EFd-l	10-14	70-2	70-2
	OR					
	c. The sleeves may be joined to the shirt by seaming and over- edge stitching the raw edges together in one operation.	515 or 516 or 517 or 518	SSa-2	10-14	70-2	70-2
			1 1 2			

		1	Seam and		Thr	read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
18.	<u>Close_sleeves_and_sides</u> .					
	a. Join fronts and back at the sides and close the sleeve underarm with a 3/8- inch seam, with the armhole seam flat against the sleeve.	301 or 401	SSa-1	12-14	70-2	70-2
	b. Overedge stitch the raw edges of the side and sleeve seam allowance.	504	EFd-1	10-14	70-2	70-2
	OR					
	c. The raw edges of the sleeve and side seam allowance may be joined by seaming and overedge stitching in one operation.	515 or 516 or 517 or 518	SSa-1	10-14		70-2
	d. Turn type I sleeve allowance in Operation 19.b 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.	301 or bartack		12-14 29 per bartack	70-2	70-2
19.	Bind_sleeve_opening_(type_II).					
	a. Bind the raw edges of the sleeve at the sleeve opening with a strip of basic material, with the raw edges of the binding turned under and caught in the stitching 1/16 inch from the inner folded edges. The binding shall finish 1/2 to 3/8 inch wide on inside and outside of the sleeve.	301	BSc-1	12-14	70-2	2 70-2

TABLE II. Manufacturing operations. - Continued

		1	Seam and		The	need
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
19.	<u>Bind_sleeve_opening</u> (type_II) Contd					
	b. Turn binding to inside of sleeve and bartack diagonally through binding only. An automatic tack may be used.	bartack		28 per bartack	70-2	70-2
20.	Join_cuffs_to_sleeve_(type_II).					
	Finished appearance. The finished cuffs shall be uniform in width without raw edges, distortion, twist and puckers. On the finished shirt, the cuffs shall be $2-1/4 + 1/8$ inches wide.					
	 a. Position the underply of the cuff on the lower inside end of the sleeve with edges even. Join sleeve and cuff together with 3/8 inch seam, turning the sleeve closing seam toward the back and catching the sleeve seam in the stitching. The bound edge of the sleeve opening shall be turned to the inside at the buttonhole end of cuff and caught in the stitching. b. Turn cuff on the outside 	301 or 401	LSg-2(a)	12-14	70-	70-2
	with the hemmed edge lapped on the outside of the sleeve and stitch the top ply of the cuff to the sleeve 1/16 inch from the finished edge.					

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TABLE II. Manufacturing operations. - Continued

	1	Seam and		Thr	read
	Stitch		Stitches		
Description of Operation	Туре	Туре	Per Inch	Тор	Lower
Overedge and blindstitch_bottom of_shirt.					
Finished appearance. The finished bottom edge of the shirt shall be uniformly over- edged then blindstitched with- out puckers or gathers. The bottom turn up shall be uniform in width. The side front seams shall be pressed toward the front and the side back seams toward the center back (see Operations 8.d and 9.d).					
a. Overedge stitch the raw edges of the bottom edge of the shirt with the side seams turned toward the back.	503 or 504	EFd-1	10-14	70-2	70-2
b. Mark shirt 1-1/4 inches from the serged edge for bottom turn up.					
c. Blindstitch the overedged bottom edge to the body of the shirt, catching the facings in the stitching. The blindstitch shall run onto the facing not less than 1/4 inch nor more than 1 inch.	103 or 106		3-4	70-2	70-2
<u>Make_buttonholes</u> .					
Finished appearance. The buttonholes shall be clean cut, well made and correctly positioned. The stitching shall be securely caught in the fabric. The buttonholes shall be in vertical alignment with each other.					
	<pre>Overedge and blindstitch bottom of shirt. Finished appearance. The finished bottom edge of the shirt shall be uniformly over- edged then blindstitched with- out puckers or gathers. The bottom turn up shall be uniform in width. The side front seams shall be pressed toward the front and the side back seams toward the center back (see Operations 8.d and 9.d). a. Overedge stitch the raw edges of the bottom edge of the shirt with the side seams turned toward the back. b. Mark shirt 1-1/4 inches from the serged edge for bottom turn up. c. Blindstitch the overedged bottom edge to the body of the shirt, catching the facings in the stitching. The blindstitch shall run onto the facing not less than 1/4 inch nor more than 1 inch. <u>Make buttonholes</u>. Finished appearance. The buttonholes shall be clean cut, well made and correctly positioned. The stitching shall be securely caught in the fabric. The buttonholes shall be in vertical alignment with</pre>	Overedge and blindstitch bottom of shirt.Finished appearance. The finished bottom edge of the shirt shall be uniformly over- edged then blindstitched with- out puckers or gathers. The bottom turn up shall be uniform in width. The side front seams shall be pressed toward the front and the side back seams toward the center back (see Operations 8.d and 9.d).a. Overedge stitch the raw edges of the bottom edge of the shirt with the side seams turned toward the back.503 or 504b. Mark shirt 1-1/4 inches from the serged edge for bottom turn up.103 or 106c. Blindstitch the overedged bottom edge to the body of the shirt, catching the facings in the stitching. The blindstitch shall run onto the facing not less than 1/4 inch nor more than 1 inch.Make buttonholes.Finished appearance. The buttonholes shall be clean cut, well made and correctly positioned. The stitching shall be in vertical alignment with	Description of Operation Type Type Overedge and blindstitch bottom of shirt. Finished appearance. The finished bottom edge of the shirt shall be uniformly over- edged then blindstitched with- out puckers or gathers. The bottom turn up shall be uniform in width. The side front seams shall be pressed toward the front and the side back seams toward the center back (see Operations 8.d and 9.d). a. Overedge stitch the raw edges of the bottom edge of the shirt with the side seams turned toward the back. b. Mark shirt 1-1/4 inches from the serged edge for bottom turn up. c. Blindstitch the overedged bottom edge to the body of the shirt, catching the facings in the stitching. The blindstitch shall run onto the facing not less than 1/4 inch nor more than 1 inch. Make buttonholes. Finished appearance. The buttonholes shall be clean cut, well made and correctly positioned. The stitching shall be in vertical alignment with	Description of OperationStitch TypeStitching TypeOveredge and blindstitch bottom of shirt.Overedge and blindstitch bottom of shirt.Stitching TypeStitches Per InchFinished appearance. The finished bottom edge of the shirt shall be uniform in width. The side front seams shall be pressed toward the front and the side back seams toward the center back (see Operations 8.d and 9.d).503 or 504EFd-1a. Overedge stitch the raw edges of the bottom edge of the shirt with the side seams turned toward the back.503 or 504EFd-1b. Mark shirt 1-1/4 inches from the serged edge for bottom turn up.103 or 1063-4c. Blindstitch the overedged bottom edge to the body of the shirt, catching the facings in the stitching. The blindstitch shall run onto the facing not less than 1/4 inch nor more than 1 inch.103 or 1063-4Make buttonholes.Finished appearance. The buttonholes shall be clean cut, well made and correctly positioned. The stitching shall be in vertical alignment with103 or 1063-4	Description of OperationStitch TypeStitching TypeOveradie and blindstitch bottom of shirt.Overadie and blindstitch bottom of shirt.TopFinished appearance. The finished bottom edge of the shirt shall be uniform in width. The side front seams shall be pressed toward the front and the side back seams toward the center back (see Operations 8.d and 9.d).503 ora. Overedge stitch the raw edges of the bottom edge of the shirt with the side seams turned toward the back.503 orEFd-1b. Mark shirt 1-1/4 inches from the serged edge for bottom turn up.103 or3-470-2c. Blindstitch the overedged bottom edge to the body of the shall run onto the facing not less than 1/4 inch nor more than 1 inch.103 or3-470-2Finished appearance. The buttonholes shall be clean cut, well made and correctly positioned. The stitching shall be in vertical alignment with103 or3-4

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TABLE II. Manufacturing operations. - Continued

			Seam and		Thr	read
No.	Description of Operation	Stitch Type	Stitching Type	Stitches Per Inch		Lower
22.	<u>Make_buttonholes</u> Contd					
	a. Mark the right front in accordance with pattern marker for the location in five equally spaced buttonholes 3/4 inch from the front edge.					
	b. Make a vertical 9/16 <u>+</u> 1/16 inch long straight type button- hole, tacked at each end, at each mark on the front.	304	whip	42-46 per button- hole in- cluding tack	70-2	70-2
	c. The buttonholes shall be made to fit 19-line sewing hole buttons. The purling of the buttonholes shall be on the outside of the shirt.					
23.	<u>Clean_shirts</u> .					
	a. Trim all thread ends and remove loose threads from shirts. Remove all spots and stains. The shirt shall be free of residual fiber particles, lint and dust, or other foreign substances.					
	b. Remove all shade tickets.					

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<u> </u>			Seam and			read
No.	Description of Operation	Stitch Type	Stitching Type	1	ches Inch	Lower
24.	Pressing.					
	Press the bottom of shirt, side seams, and underarm seams on a hot head pressing machine or with a heated iron at a perm- anent press (moderate) setting.					
	NOTE: The use of a steam in- flated bag type pressing machine is prohibited. The hot head pressing machine shall be equipped with controls for accurate temperature (350 to 370°F), time (minimum 10 seconds), and pressure (100 psi gauge).					
25.	Mark for buttons.		۰			
	Finished appearance. The lo- cation of the buttons shall be marked so that in the finished shirt, each button shall engage its corresponding buttonhole or loop when the shirt is buttoned. The position of the top button shall provide a smooth closure, with the ends of the collar at the neck meeting without over- lapping or spreading apart.					
	a. Mark the left front for the location of five 19-line sewing hole buttons thru the center of the buttonholes 7/8 inch from the front edge.					
	b. Mark the top left front panel (under the collar) below the gorge seam line and 1/2 inch from left end of collar, for one 17-line button, to properly engage the closure loop.					

TABLE II. Manufacturing operations. - Continued

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|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1              | Seam and          |                        | Th   | read  |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|------------------------|------|-------|
| No. | Description of Operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Stitch<br>Type | Stitching<br>Type | Stitches<br>Per Inch   |      | Lower |
| 26. | <u>Sew_on_buttons</u> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                   |                        |      |       |
|     | Finished appearance. The<br>buttons shall be securely sewn<br>with the ends of the stitching<br>securely tacked and properly<br>aligned with the buttonholes<br>to secure a smooth and com-<br>plete closure without bulging<br>or misalignment.                                                                                                                                                                                                                                                                                                   |                |                   |                        |      |       |
|     | a. Sew a 19-line sewing hole<br>button at each mark on the left<br>front. The buttons shall be<br>sewn through the front, inter-<br>lining and facing.                                                                                                                                                                                                                                                                                                                                                                                             | 301 or<br>101  |                   | 14-16<br>per<br>button | 70-2 | 70-2  |
|     | b. Sew one 17-line sewing hole<br>button at the mark on the top<br>left front. Sew one 17-line<br>sewing hole button at the mark<br>on the top right front, located<br>adjacent to the elastic loop.<br>The buttons shall be sewn with<br>a back reinforced stay con-<br>sisting of basic or alternate<br>material (see NOTE). Position<br>the buttons with button stay<br>between the front and facing.<br>The stitching shall not<br>penetrate the facing material.<br>The buttons shall be sewn<br>through the front and inter-<br>lining only. | 301 or<br>101  |                   | 14-16<br>per<br>button | 70-2 | 70-2  |
|     | NOTE: A 1/2 inch diameter piece<br>or a 1-1/2 inch square piece of<br>a suitable commercial nonwoven<br>material or the basic fabric<br>shall be used to reinforce the<br>top buttons only.                                                                                                                                                                                                                                                                                                                                                        |                |                   |                        |      |       |

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#### TABLE II. Manufacturing operations. - Continued

|     |                                                                                                                                                                                                                                                                        | 1              | Seam and          | 1                      | Thi  | read  |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|------------------------|------|-------|
| No. | Description of Operation                                                                                                                                                                                                                                               | Stitch<br>Type | Stitching<br>Type | Stitches<br>Per Inch   | ł    | Lower |
| 26. | <u>Sew on buttons</u> Contd                                                                                                                                                                                                                                            |                |                   |                        |      |       |
|     | c. Type II only. Sew two 19-<br>line sewing hole buttons on<br>each cuff. The first button<br>shall correspond to the button-<br>hole and be 3/8 inch from the<br>back end of cuff and the second<br>button 3/4 inch from the center<br>of the first button placement. | 301 or<br>101  |                   | 14-16<br>per<br>button | 70-2 | 70-2  |
|     | d. Sew 19-line button on each<br>shoulder. The buttons shall be<br>securely sewn and aligned with<br>the center of the corresponding<br>buttonholes in the shoulder<br>loops.                                                                                          | 301 or<br>101  |                   | 14-16<br>per<br>button | 70-2 | 70-2  |
| 27. | Touch-up_pressing_and_closing<br>shirt.                                                                                                                                                                                                                                |                |                   |                        |      |       |
|     | a. Examine for complete shirt pressing.                                                                                                                                                                                                                                |                |                   |                        |      |       |
|     | b. When required, touch-up<br>fronts, backs, cuffs, bottom<br>hems and collars, before folding<br>and packaging, with a heated<br>iron at a permanent press<br>(moderate) setting.                                                                                     |                |                   |                        |      |       |
|     | c. Button shirt fully.                                                                                                                                                                                                                                                 |                |                   |                        |      |       |

3.6.1.4 <u>Automatic stitching</u>. 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 thread are met; and at least three tying, overlapping or backstitches are used to secure the ends of the stitching.

3.6.1.5 <u>Thread\_ends</u>. All thread ends shall be trimmed to 1/4 inch maximum length.

3.6.2 <u>Bartacks</u>. Bartacks shall be  $1/4 \pm 1/16$  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.

3.6.3 <u>Stitches per\_inch</u>. The minimum and maximum number of stitches per inch shall be as specified in table II.

\* 3.6.4 End\_item seam appearance. The appearance rating of the seams and stitching of the finished shirt shall be 4.0 or greater when tested as specified in 4.5. This requirement shall be applicable to all seams including the collar, shoulder loops, armholes, side and underarm seams, side front seam, side back seam, hem, type I ornamental sleeve cuffs and the type II and type III cuffs and plackets.

3.6.5 <u>Buttonholes</u>. The buttonholes shall be straight-cut, purl, or whip type, and the finished cut length shall be  $1/2 \pm 1/16$  to  $9/16 \pm 1/16$  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, face toward the outside of the cuffs and outside of the shoulder loops. All loose thread ends shall be trimmed or fused to within 1/8 inch of the tack.

3.6.6 <u>Repairs</u>. Repairs such as mends, darns, patches, or splices are not permitted on the shirt.

3.7 <u>Manufacturing operation requirements</u>. 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.

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

a. Corrosive metal fastening devices. (Metal devices shall not be used on the lining material.)

b. Sew-on type tickets.

c. Adhesive type tickets which show discoloration and the adhesive mass which adheres to the material upon removal of the ticket.

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

3.7.1.1 <u>Ink pad numbering machine, rubber stamp or pencil</u>. 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 wherever possible are covered by the seam allowance.

3.8 <u>Finished\_measurements</u>. The finished measurements shall conform to table III.

|           |                  |                    | 1/2 Bust        | D.           | ack leng     | i+ h         |              | Type I<br>eve ler | sth          | Type II<br>Sleeve length |              |              |
|-----------|------------------|--------------------|-----------------|--------------|--------------|--------------|--------------|-------------------|--------------|--------------------------|--------------|--------------|
| Size      | Collar<br>length | (regular<br>sizes) | (plus<br>sizes) | S            | R R          | L            | S            | R.                | L            | S                        | R            | L            |
| 6         | 13-3/4           | 17-1/4             | 17-5/8          | 21-1/4       | 22-1/2       | 23-3/4       | 3-7/9        | 4-3/9             | 4-7/9        | 17                       | 19           | 19           |
| 8         | 14               | 17-3/4             | 18-1/9          | 21-3/3       | 22-5/9       | 23-7/9       | 3-7/8        | 4-3/8             | 4-7/3        | 17                       | 18           | 19           |
| 10        | 14-1/4           | 19-1/4             | 19-5/9          | 21-1/2       | 22-3/4       | 2 <b>4</b>   | 3-7/8        | 4-3/8             | 4-7/8        | 17                       | 18           | 19           |
| 12        | 14-1/2           | 19                 | 19-3/8          | 21-5/8       | 22-7/8       | 24-1/8       | 3-7/3        | 4-3/8             | 4-7/8        | 17                       | 18           | 19           |
| 14        | 14-3/4           | 19-3/4             | 20-1/8          | 21-3/4       | 23           | 24-1/4       | 3-7/8        | 4-3/9             | 4-7/8        | 17                       | 18           | 19           |
| 16        | 15               | 20-1/2             | 20-7/3          | 21-7/8       | 23-1/8       | 24-3/8       | 3-7/8        | 4-3/8             | 4-7/8        | 17                       | 18           | 19           |
| 18        | 15-1/4           | 21-1/2             | 21-7/8          | 22           | 23-1/4       | 24-1/2       | 3-7/8        | 4-3/8             | 4-7/3        | 17                       | 18           | 19           |
| 20        | 15-1/2           | 22-1/2             | 22-7/9          | 22-1/8       | 23-3/8       | 24-5/8       | 3-7/8        | 4-3/8             | 4-7/3        | 17                       | 18           | 19           |
| 22        | 15-3/4           | 23-1/2             | 23-7/8          | 22-1/4       | 23-1/2       | 24-3/4       | 3-7/8        | 4-3/8             | 4-7/8        | 17                       | 18           | 19           |
| Tolerance | +1/4<br>-1/8     | <u>+</u> 3/3       | <u>+</u> 3/8    | <u>+</u> 1/2 | <u>+</u> 1/2 | <u>+</u> 1/2 | <u>+</u> 1/4 | <u>+</u> 1/4      | <u>+</u> 1/4 | <u>+</u> 1/4             | <u>+</u> 1/4 | <u>+</u> 1/4 |

TABLE III. Finished\_measurements\_(inches).

\* 3.3.1 <u>Methods\_of\_measuring</u>. Shirts shall be buttoned and laid smooth and flat and measured as follows:

Collar length - Measure along inside from collar end to collar end at the gorge.

1/2 bust - Measure across front of shirt from folded edge to folded edge, 1/4 inch below the seam where the sleeve joins the side body. The blouse shall be held in a slightly taut position when the measurement is taken.

Back length - Measure from lower edge of collarstand to bottom edge of shirt.

Sleeve length - Measure along underarm seam, from the base of armhole seamline to the bottom edge of cuff.

3.9 Workmanship. The finished shirt shall conform 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 indicated by an asterisk (\*) in table VI. The occurrence of defects shall not exceed the acceptable quality level.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 <u>Responsibility for inspection</u>. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations 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 ensure supplies and services conform to prescribed requirements.

4.1.1 <u>Responsibility for compliance</u>. All items shall meet all requirements of sections 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 ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspeciton, 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 <u>Certificates of compliance</u>. When certificates of compliance are submitted, the Government reserves the right to check test such items to determine the reliability of certification.

4.2 <u>Classification of inspection</u>. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.3).

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b. Quality conformance inspection (see 4.4).

4.3 <u>First article inspection</u>. When required (see 3.1 and 6.2), the first article shall be inspected for the defects listed in 4.4.3 and 4.4.4. The presence of any defect shall be cause for rejection of the first article.

4.4 <u>Quality\_conformance\_inspection</u>. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105 and the acceptance criteria, as specified in the contract or purchase order, shall be binding.

4.4.1 <u>Component and material inspection</u>. 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 <u>Component testing</u>. In addition to any testing required by 4.4.1, the component listed in table IV shall be tested for the characteristic noted. The methods of testing specified in table IV shall be followed. The lot and sample sizes shall be as follows:

| Lot_size                | Sample_size |
|-------------------------|-------------|
| 800 cr 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> |  |  |
|------------------|----------------------|--------------------|--|--|
| Thread           | Spool                | 3 each             |  |  |

#### TABLE IV. Component\_test.

| Corponent | Characteristic | Requirement<br>paragraph | Test method           |
|-----------|----------------|--------------------------|-----------------------|
| Thread    | Shrinkage      | 3.3.4                    | ASTM D 204 <u>1</u> / |

1/ Shrinkage in dry heat shall not apply.

4.4.2 <u>In-process\_inspection</u>. 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 End item visual examination. The end item shall be examined for the defects listed in table V. The lot size shall be expressed in units of shirts. The sample unit shall be one shirt. The inspection level shall be III and the acceptable quality level (AQL), expressed in terms of defects per hundred units (dhu) shall be 1.5 dhu for major defects, 6.5 dhu for major and minor A (combined) defects, and 15.0 dhu for total (major, minor A and minor B combined) defects. If one or more of the major defects found in the sample is an asterisk (\*) defect, it shall be rause for rejection of the lot as listed below.

| Lot_size           | <u>Sample_size</u> | Maximum number of selected (*)<br><u>defects_acceptable_in_sample</u> |
|--------------------|--------------------|-----------------------------------------------------------------------|
| Up to 90           | 20                 | 0                                                                     |
| 91 thru 150        | 32                 | 0                                                                     |
| 151 thru 280       | 50                 | 0                                                                     |
| 291 thru 500       | 80                 | 0                                                                     |
| 501 thru 1200      | 125                | 1                                                                     |
| 1201 thru 3200     | 200                | 1                                                                     |
| 3201 thru 10,000   | 315                | 2                                                                     |
| 10,001 thru 35,000 | 500                | 3                                                                     |
| 35,001 and over    | 800                | 5                                                                     |

4.4.4 End item dimensional examination. Shirts shall be examined for conformance to the dimensions specified in table III. Any dimensions deviating from the specified requirement and sleeves uneven in length by 1/4 inch or more shall be classified as defects. The lot size shall be expressed in units of shirts. The sample unit shall be one shirt. The inspection level shall be S-3 and the AQL shall be 2.5 dhu.

4.4.5 <u>Inspection of packaging</u>. An examination shall be made to determine that the preservation, packing, and marking comply with section 5 requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully packaged except that it need not be sealed. Defects of closure listed below shall be examined on shipping containers fully packaged. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 dhu.

| <u>Examine</u>                     | Defect                                                                                                                                                                                                                   |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marking (exterior<br>and interior) | Omitted; incorrect; illegible; of improper size,<br>location, sequence or method of application.                                                                                                                         |
| Materials                          | Any component missing, damaged, or not as specified.                                                                                                                                                                     |
| Workmanship                        | Inadequate application of components, such as:<br>incomplete closure of container flaps, loose<br>strapping, improper taping or improper adhesive<br>application, inadequate stapling.<br>Bulged or distorted container. |
| Content                            | Number of shirts per container is more or less than specified. $\underline{l}/$                                                                                                                                          |

1/ For this defect, one shipping container shall be examined.

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## MIL-S-87225A(USAF)

# TABLE V. End\_item\_visual\_defects.

|      | Defect                                                                                                                                                  | Major | Minor A | Minor B |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| Ι.   | <u>Material_defect_and_damage</u>                                                                                                                       |       |         |         |
|      | a. Any hole, cut, tear, needle chew, burn,<br>mend, darn, patch, multiple float, loose or<br>unsightly slub or shade bar:                               |       |         |         |
|      | (1) On outside.                                                                                                                                         | ×     |         |         |
|      | (2) On inside. •                                                                                                                                        |       | 201     |         |
|      | b. Permanent crease in cloth (when caught<br>in stitching).                                                                                             | 101   |         |         |
| II.  | Shaded_part                                                                                                                                             |       |         |         |
|      | a. Outside part, except collar stand, shaded.                                                                                                           | 102   |         |         |
|      | b. Top collar stand, or under collar stand badly shaded.                                                                                                |       |         | 301     |
| III. | <u>Cleanness</u>                                                                                                                                        |       |         |         |
|      | a. Any spot or stain clearly noticeable:                                                                                                                |       |         |         |
|      | (1) On outside.                                                                                                                                         | 103   |         |         |
|      | (2) On inside.                                                                                                                                          |       |         | 302     |
|      | b. One or more marking tickets not removed.                                                                                                             |       |         | 303     |
|      | c. Any marking clearly visible on outside.                                                                                                              | 104   |         |         |
|      | d. Thread ends not trimmed, or loose threads not removed.                                                                                               |       |         | 304     |
|      | e. Visible basting thread not removed.                                                                                                                  |       |         | 305     |
| IV.  | Cutting                                                                                                                                                 |       |         |         |
|      | a. Any component part not cut in conformance<br>with directional lines indicated on pattern<br>or not in accordance with specification<br>requirements. | 105   |         |         |
|      |                                                                                                                                                         |       |         |         |

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|      | Defect                                                                                                                      | Major | Minor A | Minor B |
|------|-----------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| v.   | Component_and_assembly                                                                                                      |       |         |         |
|      | <ul> <li>Any component part or required operation<br/>omitted or added (unless otherwise classified<br/>herein).</li> </ul> | 106   |         |         |
|      | <ul> <li>Any operation not performed as specified<br/>(unless otherwise classified herein).</li> </ul>                      |       |         | 306     |
| VI.  | Pressing                                                                                                                    |       |         |         |
|      | a. Omitted.                                                                                                                 |       | 202     |         |
|      | b. Shirt burned or scorched.                                                                                                | 107   |         |         |
|      | c. Gloss, wrinkles, or creases.                                                                                             |       |         | 307     |
|      | d. Edge bulky (not pressed solidly).                                                                                        |       |         | 308     |
|      | e. Sleeve center creased.                                                                                                   |       |         | 309     |
|      | f. One or more darts or seams not pressed<br>in the direction specified.                                                    |       |         | 310     |
|      | g. Cuff not pressed evenly.                                                                                                 |       |         | .311    |
| VII. | Seams_and_stitchings_                                                                                                       |       |         |         |
|      | a. Accuracy of seaming:                                                                                                     |       |         |         |
|      | (1) Seams twisted, puckered or pleated (see 4.5).                                                                           | 108   |         |         |
|      | (2) Any part of shirt caught in any unrelated operation or stitching:                                                       |       |         |         |
|      | (a) Caught in or up to, and including, 1/4 inch of stitching.                                                               |       | 203     |         |
|      | (b) Caught in or more than 1/4 inch of stitching.                                                                           | 109   |         |         |
|      | (3) Stitching overlapping end of thread break less than 1/2 inch.                                                           |       |         | 312     |
|      |                                                                                                                             |       |         |         |

## TABLE V. End\_item\_visual\_defects. - Continued

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#### MIL-S-87225A(USAF)

|      | Defect                                                                                                                                                      | Major | Minor A | Minor B |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| VII. | <u>Seams_and_stitchings</u> - Contd                                                                                                                         |       |         |         |
|      | (4) End of stitching when not caught in<br>other seams or stitching backtacked less<br>than 1/4 inch.                                                       |       |         | 313     |
|      | (5) Ends of a continuous line of<br>stitching overlapped less than 1/2 inch<br>on all continuous stitching.                                                 |       |         | 314     |
|      | (6) Raw edge more than 1/4 inch long.                                                                                                                       |       |         | 315     |
|      | b. Gage of stitching:                                                                                                                                       |       |         |         |
|      | (1) Irregular, i.e., unevenly gaged or<br>corresponding stitchings not uniform (to<br>be scored only when condition exists along<br>major portion of seam). | 5     | 204     |         |
|      | (2) Beyond range of width specified or<br>varying more than 1/16 inch when no range<br>is specified.                                                        |       |         | 316     |
|      | c. Stitches broken or missing (except button-<br>holes):                                                                                                    |       |         |         |
|      | (1) All stitching except overedging:                                                                                                                        |       |         |         |
|      | (a) Up to 1/4 inch inclusive.                                                                                                                               |       |         | 317     |
|      | (b) More than 1/4 but less than 1/2 inch inclusive.                                                                                                         |       | 205     |         |
|      | (c) More than $1/2$ inch.                                                                                                                                   | 110   |         |         |
|      | (2) On overedging:                                                                                                                                          |       |         |         |
|      | (a) l inch or more.                                                                                                                                         |       |         | 318     |
|      | d. Skipped stitches or runoffs:                                                                                                                             |       |         |         |
|      | <ol> <li>More than 1/4 inch but less than</li> <li>1/2 inch long.</li> </ol>                                                                                |       |         | 319     |
|      | (2) More than 1/2 inch long.                                                                                                                                |       | 205     |         |

|       | Defect                                                                                                                           | Major | Minor A | Minor B |
|-------|----------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| VII.  | <u>Seams_and_stitchings</u> - Contd                                                                                              |       |         |         |
|       | e. Seam and stitch type:                                                                                                         |       |         |         |
|       | (1) Not specified seam or stitch type.                                                                                           |       | 207     |         |
|       | f. Stitches per inch (to be scored only<br>when condition exists on major portion of<br>seam or stitching):                      |       |         |         |
|       | (1) Less than the minimum or more than the maximum specified.                                                                    |       |         | 320     |
|       | g. Stitch tension (except buttonholes):                                                                                          |       |         |         |
|       | (1) Loose tension resulting in a loose<br>seam.                                                                                  | 111   |         |         |
|       | (2) Loose tension (exposed loops of top<br>or bottom threads) more than 1/2 inch in<br>length.                                   |       |         | 321     |
|       | (3) Tight tension (stitches break when strain is applied to seam or stitching).                                                  |       | 208     |         |
|       | h. Blindstitching on bottom turn-up shows on outside, affecting appearance.                                                      |       | 209     |         |
| VIII. | <u>Buttonhol∋s</u>                                                                                                               |       |         |         |
|       | a. One or more omitted or added.                                                                                                 | 112   |         |         |
|       | b. Opening in any one of the lower five<br>buttonholes less than 23/32 inch or more<br>than 25/32 inch from front edge of shirt. |       | 210     |         |
|       | c. One or more slanted.                                                                                                          |       | 211     |         |
|       | d. Buttonholes positioned from top to<br>bottom different from buttonhole marker<br>(each size must be checked).                 | ¥     |         |         |
|       | e. One or more of the five buttonholes positioned horizontally.                                                                  |       |         | 322     |

## TABLE V. End\_item\_visual\_defects. - Continued

## MIL-S-87225A(USAF)

|       | Defect                                                                                          | Major | Minor A | Minor B |
|-------|-------------------------------------------------------------------------------------------------|-------|---------|---------|
| VIII. | <u>Buttonholes</u> - Contd                                                                      |       |         |         |
|       | f. The five buttonholes unequally spaced<br>by more than 1/4 inch.                              |       |         | 323     |
|       | g. Stitches not securely caught in fabric (stitches pull away from fabric).                     | 113   |         |         |
|       | h. Two or more uncut warp yarns in button-<br>hole (not caught in overcast stitching).          |       | 212     |         |
|       | i. Two or more broken stitches or<br>continuous skipped stitches in one or<br>more buttonholes. |       | 213     |         |
|       | j. One or more broken stitches or<br>continuous skipped stitches in one<br>or more buttonholes. |       |         | 324     |
|       | k. Loose stitch tension.                                                                        | •     |         | 325     |
|       | 1. Ragged edge in one or more.                                                                  |       |         | 326     |
|       | m. Not specified type or uncut.                                                                 |       |         | 327     |
|       | n. Tacking omitted on end.                                                                      |       | 214     |         |
| IX.   | Buttons                                                                                         |       |         |         |
|       | a. One or more buttons missing, broken or malformed.                                            | 114   |         |         |
|       | b. Not specified size, type or color.                                                           |       | 215     |         |
|       | c. Hand sewn button tacked off with less<br>than two stitches.                                  |       |         | 328     |
|       | d. Front buttons not sewn through facing orinsecurelysewn.                                      |       | 216     |         |
|       | e. Collar button sewn through facing.                                                           |       | 217     |         |
|       | f. Collar button misplaced more than $\pm 1/8$ inch.                                            |       | 218     |         |
|       |                                                                                                 |       |         |         |

| -   | Defect                                                                                                                      | Major | Minor A | Minor B |
|-----|-----------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| IX. | <u>Buttons</u> - Contd                                                                                                      |       |         |         |
|     | g. Collar button not wrapped (shanked).                                                                                     |       |         | 329     |
|     | h. Buttons not aligned with buttonholes.                                                                                    |       | 219     |         |
|     | <ol> <li>Stitches not locked at end of cycle (tug<br/>at loose end of thread to determine if it<br/>will ravel).</li> </ol> |       | 220     |         |
| Х.  | Labels_or_marking                                                                                                           |       |         |         |
|     | a. Size label:                                                                                                              |       |         |         |
|     | (1) Missing, incorrect, illegible, not<br>completely on top collarstand or strike<br>through.                               | 115   |         |         |
|     | (2) Horizontally off center by more<br>than 1/4 inch or vertically off center<br>by more than 1/8 inch (type IV label).     |       |         | 330     |
|     | (3) When stitched, the top of label not completely caught in seam.                                                          |       | 221     |         |
|     | <ul> <li>b. Identification and instruction labels</li> <li>(or combination label, if applicable):</li> </ul>                |       |         |         |
|     | (1) Missing, incorrect, or illegible.                                                                                       |       | 222     |         |
|     | (2) Not positioned on lower left facing.                                                                                    |       | 223     |         |
|     | (3) Bottom of label positioned less<br>than 1/4 inch from back edge of facing.                                              |       |         | 331     |
|     | (4) Right side of label less than 2-1/2<br>inches or more than 3-1/2 inches from<br>finished shirt bottom.                  |       |         | 332     |
|     | (5) When stitched, the top of label not completely caught in seam.                                                          |       | 224     |         |
|     |                                                                                                                             |       |         |         |

|     | Defect                                                                                                         | Major | Minor A | Minor B |
|-----|----------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| XI. | Collar, lapel, and front closure                                                                               |       |         |         |
|     | a. Not uniform in size or shape, any point varying:                                                            |       |         |         |
|     | (1) More than 3/8 inch with corresponding point on matching part.                                              | 116   |         |         |
|     | (2) 1/4 inch up to and inclusing 3/8<br>inch with corresponding point on<br>matching part.                     |       | 225     |         |
|     | b. Collar point uneven in length by:                                                                           |       |         |         |
|     | (1) 1/3 inch up to and including 1/4 inch.                                                                     |       |         | 333     |
|     | (2) More than 1/4 inch up to and including 3/8 inch.                                                           |       | 226     |         |
|     | (3) More than 3/8 inch.                                                                                        | 117   |         |         |
|     | c. Twisted, not smooth, too full, short or tight causing collar to turn out.                                   | 118   |         |         |
|     | d. Collar point not properly forced out.                                                                       | 119   |         |         |
|     | e. Facing/front edges not worked to the<br>seam line (having folds 1/16 inch or more<br>on inside or outside). |       | 227     |         |
|     | f. Under collar exposed beyond edge of top collar for a distance of more than 1/2 inch.                        |       | 228     |         |
|     | g. Stitching joining top collar interlining visible on outside of collar.                                      | 120   |         |         |
|     | h. Top end of either facing not securely caught in seam allowance.                                             |       | 229     |         |
|     | i. Ends of collar overlapping more than 3/16 inch when shirt is buttoned and neck closure loop is hooked.      |       | 230     |         |

#### TABLE V. End\_item\_visual\_defects. - Continued

|      | Defect                                                                                                                   | Major | Minor A | Minor B |
|------|--------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| XI.  | <u>Collar, lapel, and front closure</u> - Contd                                                                          |       |         |         |
|      | j. Either facing does not lie flat on front<br>in the area between second button and edge of<br>shoulder seam allowance. |       |         | 334     |
|      | <ul> <li>k. Edge of collar not properly forced out,</li> <li>i.e., having a fold of:</li> </ul>                          |       |         |         |
|      | (1) 1/16 inch up to and including 1/8 inch in depth.                                                                     |       |         | 335     |
|      | (2) More than 1/8 inch in depth.                                                                                         |       | 231     |         |
| XII. | <u>Collar_elastic_loop</u>                                                                                               |       |         |         |
|      | a. Missing.                                                                                                              | 121   |         |         |
|      | b. Misplaced, i.e., not inserted in gorge<br>seam line.                                                                  | 122   |         |         |
|      | c. Distance from right end of collar more<br>than 5/8 inch or less than 3/8 inch.                                        |       | 232     |         |
|      | d. Loop opening more than 1-1/8 inches or<br>less than 7/8 inches.                                                       |       | 233     |         |
|      | e. Not securely attached.                                                                                                |       |         | 336     |
| III. | <u>Pile_fastener_tape</u>                                                                                                |       |         |         |
|      | a. Missing (one or both sides).                                                                                          | 123   |         |         |
|      | b. Misplaced 1/4 inch or more.                                                                                           | 124   |         |         |
|      | c. Not stitched on all four sides.                                                                                       | 125   |         |         |
|      | d. Less than specified size.                                                                                             |       | 234     |         |
| XIV. | <u>Sleeve_and_cuffs</u>                                                                                                  |       |         |         |
|      | a. Sleeve setting seam at underarm<br>staggered more than 1/4 inch (measured<br>from center of seam to center of seam).  |       |         | 337     |

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#### MIL-S-87225A(USAF)

## TAPE V. End item visual defects. - Continued

|       | Defect                                                                                                                          | Major | Minor A | Minor B |
|-------|---------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| XIV.  | <u>Sleeve_and_cuifs</u> - Contd                                                                                                 |       |         |         |
|       | b. Sleeve setting stitching irregular.                                                                                          |       | 235     |         |
|       | c. Width of cuff less than 2-1/8 inches or<br>more than 2-3/3 inches wide (type II shirt).                                      |       |         | 338     |
|       | d. Cuff twisted.                                                                                                                |       | 236     |         |
|       | e. Cuff not iniform in width.                                                                                                   |       | 237     |         |
|       | f. Bottom edge of cuff at underarm seam,<br>uneven by 1/18 inch or more.                                                        |       | 238     |         |
| * XV. | Bartack_or_tack                                                                                                                 |       |         |         |
|       | One or more:                                                                                                                    |       |         |         |
|       | a. Missing, insecure, misplaced, not<br>specified size or type, or not serving<br>intended purpose:                             |       |         |         |
|       | Bartack for reinforcement.                                                                                                      |       |         | 339     |
|       | b. Loose stitch tension.                                                                                                        |       |         | 340     |
| XVI.  | <u>Sears</u>                                                                                                                    |       |         |         |
|       | a. Side sears not turned toward back of<br>shirt at hem or bottom of sleeve or sleeve<br>setting seam not turned toward sleeve. |       |         | 341     |
|       | b. Sleeves reversed.                                                                                                            | 126   |         |         |
| XVII. | Shoulder_locts                                                                                                                  |       |         |         |
|       | a. Upper side of shoulder loop full or twisted.                                                                                 |       | 239     |         |
|       | b. Poorly shaped.                                                                                                               |       | 240     |         |
|       | c. Misplacei so that it will not lie flat<br>when buttoned. causing bulge or twise on<br>shoulder loop.                         |       | 241     |         |

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|      | Defect                                                                                                                          | Major | Minor A | Minor B |
|------|---------------------------------------------------------------------------------------------------------------------------------|-------|---------|---------|
| XVI. | <u>Shoulder_loops</u> - Contd                                                                                                   |       |         |         |
|      | d. Misplaced so that shoulder seam is exposed.                                                                                  | 127   |         |         |
|      | e. Misplaced, i.e., one shoulder loop<br>further forward or back from position of<br>other shoulder loop:                       |       |         |         |
|      | (1) More than $3/16$ inch up to $1/4$ inch.                                                                                     |       | 242     |         |
|      | (2) More than 1/4 inch.                                                                                                         | 128   |         |         |
|      | f. Width of shoulder loop at pointed end<br>less than 1-7/16 inches or more than<br>1-9/16 inches.                              |       | 243     |         |
|      | g. Shoulder loop long, i.e., point extending beyond collar seam.                                                                | 129   |         |         |
|      | h. Interlining omitted.                                                                                                         |       | 244     |         |
|      | i. Interlining not caught in stitching.                                                                                         |       |         | 342     |
|      | j. Width of shoulder loop at armhole end<br>less than 1–13/16 inches or more than<br>1–15/16 inches.                            |       | 245     |         |
|      | k. Underside of shoulder loop exposed 1/8<br>inch along edges for a distance of 1/2 inch<br>or more.                            |       |         | 343     |
|      | <ol> <li>Button not aligned with buttonhole,<br/>causing bulge or twist on shoulder loop<br/>or puckers on shoulder.</li> </ol> |       | 246     |         |
|      | m. Buttonhole finished with purling on reverse side.                                                                            | 130   |         |         |
|      | n. Buttonhole off center with width of<br>shoulder loop more than 1/8 inch but not<br>more than 1/4 inch.                       |       |         | 344     |
|      | o. Buttonhole off center with width of shoulder loop more than 1/4 inch.                                                        |       | 247     |         |

#### MIL-S-87225A(USAF)

|     | Defect                                                                                               | Major | Minor A | Minor B |
|-----|------------------------------------------------------------------------------------------------------|-------|---------|---------|
| xv. | <u>Shoulder_loops</u> - Contd                                                                        |       |         |         |
|     | p. Shoulder loop off center with shoulder seam:                                                      |       |         |         |
|     | (1) More than 1/8 inch up to 3/16 inch.                                                              |       | 248     |         |
|     | (2) More than 3/16 inch.                                                                             | 131   |         |         |
|     | q. Shoulder loop short, i.e., point more<br>than 5/8 inch from collar seam.                          | 132   |         |         |
|     | r. Pointed end of shoulder loop less<br>than 1/4 inch or more than 3/8 inch<br>from collar.          |       |         | 345     |
|     | s. Buttonhole less than 3/8 inch or more<br>than 5/8 inch from pointed end of shoulder<br>loop.      |       |         | 346     |
|     | t. Underside of shoulder loop exposed 1/9<br>inch along edges for a distance of 1/2 inch<br>or more. |       |         | 347     |

TABLE V. End\_item\_visual\_defects. - Continued

4.4.5.1 <u>Palletization examination</u>. 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 AQL shall be 6.5 dhu.

| Examine             | Defect                                                                                                                            |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Finished dimensions | Length, width, or height exceeds specified maximum requirements.                                                                  |
| Palletization       | Pallet pattern not as specified,<br>Interlocking of loads not as specified.<br>Load not bonded with required straps as specified. |
| Weight              | Exceeds maximum load limits.                                                                                                      |
| Marking             | Omitted; incorrect; illegible; of improper size,<br>location, sequence, or method of application.                                 |

#### 4.5 <u>Methods of inspection</u>

4.5.1 <u>Appearance of seams</u>. 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 6.6).

5. PACKAGING

5.1 <u>Preservation</u>. In accordance with the requirements of MIL-STD-2073-1, preservation shall be level A, C, or Commercial as specified (see 6.2).

#### 5.1.1 Level\_A.

5.1.1.1 <u>Unit\_packing</u>. Each fully buttoned shirt shall be neatly folded to measure approximately 14 by 7-1/2 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.

5.1.1.2 <u>Intermediate packing</u>. Twenty shirts, of one type, class, and size only, unit packed as specified in 5.1.1.1, shall be packed an intermediate fiberboard container conforming to type CF. class domestic. variety SW, grade 175, style FTC of PPP-B-636. Shirts shall be alternated end for end, 20 in depth within the intermediate container. The inside dimensions of the container shall approximate 14 inches in length, 8 inches in width, and 11 inches in depth. (Approximate dimensions are furnished as a guide only.) Intermediate containers shall be closed in accordance with method II for style FTC of PPP-B-636.

5.1.2 <u>Level C</u>. Each shirt shall be preserved in accordance with MIL-STD-2073-1 requirements for this level.

5.1.3 <u>Commercial</u>. Each shirt shall be preserved in accordance with the applicable requirements of ASTM D 3951.

5.2 <u>Packing</u>. In accordance with the requirements of MIL-STD-2073-1, packing shall be level A, B, C, or Commercial as specified (see 6.2).

\* 5.2.1 Level A. Eighty shirts of one size only for type I and 68 shirts of one size and class only for type II, preserved as specified in 5.1, shall be packed in a snug-fitting shipping container conforming to overseas type, style A or I, grade A or B, type 2 load of PPP-B-601. Shipping containers that conform to PPP-B-601 shall be closed and reinforced in accordance with the appendix of PPP-B-601 and waterproofed with a sealed case liner conforming to type I or II, grade C of MIL-L-10547. Shipping containers packed with waterproof packages need not be waterproofed. The contents of each wood shipping container shall not exceed 150 pounds. Level A packages shall be packed flat, front up, collars alternated front to rear, two in length, one in width, and forty in depth within the shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of 30 pound minimum basis weight kraft wrapping paper conforming to A-A-203.

\* 5.2.2 Level B. Eighty shirts of one size only for type I and 68 shirts of one size and class only for type II, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to type CF or SF, class domestic, variety DW, grade 275, style RSC of PPP-B-636. The inside of each container shall be fitted with a box liner conforming to the requirements in PPP-B-636 for liners for domestic boxes. Level A packages shall be packed flat, two in length, one in width, and two in depth within the shipping container. The inside dimensions of each shipping container shall approximate 17 inches in length, 15 inches in width, and 23 inches in depth. (Approximate dimensions are furnished as a guide only.) Each shipping container shall have the contents completely covered on the top and bottom with a sheet of 30 pound minimum basis weight, kraft wrapping paper conforming to A-A-203 and shall be closed in accordance with method II as specified in the appendix of PPP-B-636.

5.2.2.1 <u>Weather resistant fiberboard containers</u>. When specified (see 6.2), the shipping container shall be grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with the appendix of the box specification.

\* 5.2.3 <u>Level C</u>. Shirts, of one type, class, and size only, preserved as specified in 5.1, shall be packed in accordance with MIL-STD-2073-1 requirements for this level.

5.2.4 <u>Commercial</u>. Shirts, of one type, class, and size only, preserved as specified in 5.1, shall be packed in accordance with the applicable requirements of ASTM D 3951.

5.3 <u>Palletization</u>. When specified (see 6.2), shirts packed as specified in 5.2 shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with the bonding means K and L or film bonding means 0 or P. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.4 <u>Marking</u>. In addition to any special marking required by the contract or purchase order, unit packs, intermediate packages, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.

5.4.1 <u>Polyethylene packages</u>. The polyethylene packages shall have the stock number, the nomenclature, the quantity and the size of the shirts contained therein legibly printed or stamped in black directly on the bag across the center face or on a white paper label inserted within the bag so as to permit ready identification.

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6. NOTES

\* (This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 <u>Intended use</u>. The short and long sleeve shirts are intended for wear by female military personnel of the Department of the Air Force.

\* 6.2 <u>Acquisition requirements</u>. Acquisition documents should specify the following:

a. Title, number, and date of the specification.

b. Type, class, size, and 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 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 5.2.2.1).

g. When palletization is required (see 5.3)

\* 6.3 <u>First article</u>. When a first article inspection is required, the item should be a first article sample. 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 article. 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 a product which has been previously acquired or tested by the Government, and that 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 <u>Samples</u>. For access to samples of the end item and shade samples, address the contracting activity issuing the invitation for bids.

\* 6.5 <u>Government\_furinshed\_patterns</u>. The contracting officer should arrange to furnish the patterns listed in 3.5.

43

6.6 <u>Seam appearance</u>. In order to avoid puckering and to produce the flattest seams possible, consideration must be given to the following:

a. The needle should be the smallest size possible with a slim point.

b. The smallest throat plate hole possible shall be used to prevent flagging.

c. The feed dogs should contain 18 to 20 teeth per inch for normal sewing and 20 to 25 teeth per inch for stitching down. Pressure on the pressure foot should be just enough to insure a steady flow of material and to prevent the stretching of the top ply of material.

d. All attachments should be as smooth as possible to permit free flowing of the material through the machine.

e. The lightest possible thread tensions, while maintaining a good stitch, should be used. The upper and lower threads shall be balanced.

f. Checks to insure that blunt needles are eliminated and that machine adjustments are maintained should be made frequently.

\* 6.7 Subject\_term\_(key\_word)\_listing.

garment, long-sleeved garment, short-sleeved uniform, dress, security police

6.8 <u>Changes from previous issue</u>. 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.

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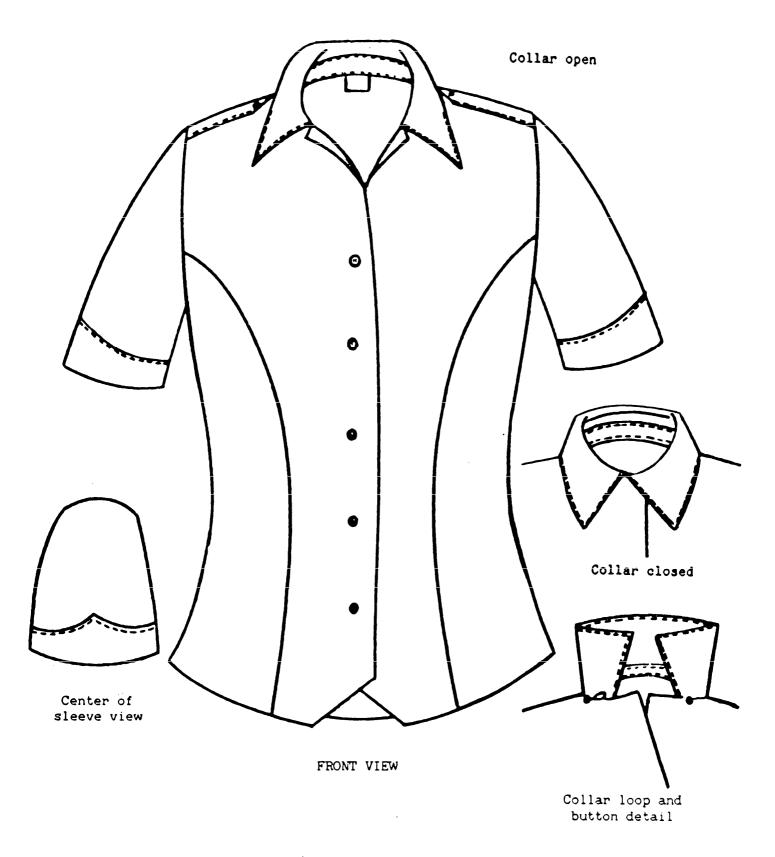
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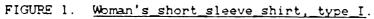
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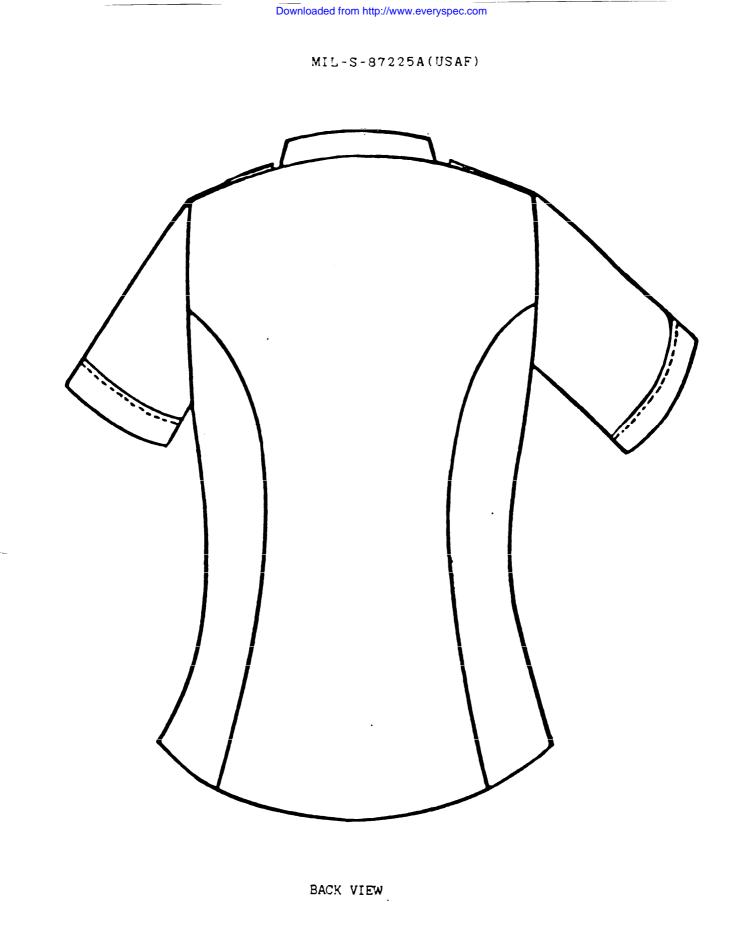


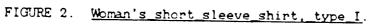


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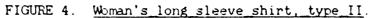


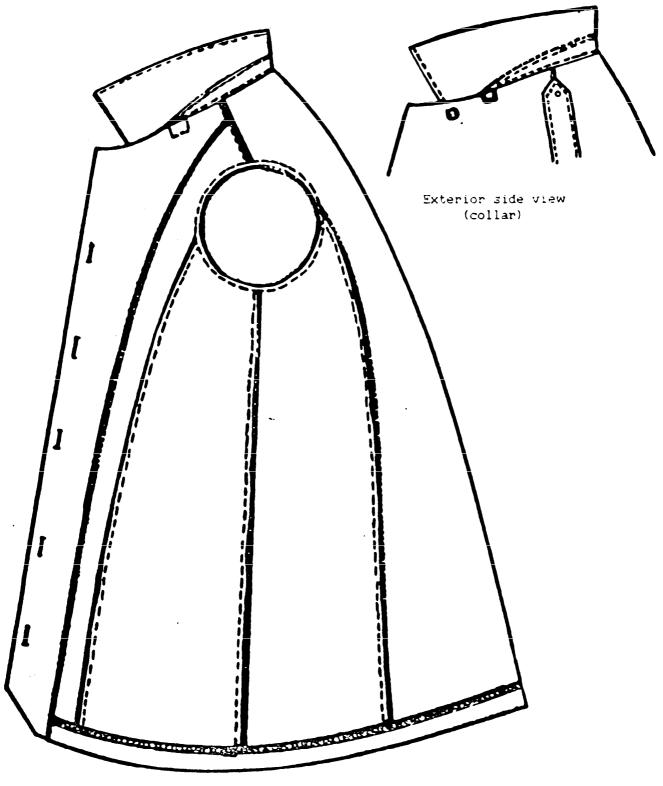


FRONT VIEW

FIGURE 3. Woman's long sleeve shirt, type II.







Interior side view

FIGURE 5. Woman's shirts, types I and II.

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| STANDARDIZATION DOC                                                                         | UMENT IMPROVEMENT PROPOSAL                                                                                                                                             |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>IN</u>                                                                                   | ISTRUCTIONS                                                                                                                                                            |
| 1. The preparing activity must complete blocks 1, 2 letter should be given.                 | 2, 3, and 8. In block 1, both the document number and revision                                                                                                         |
| 2. The submitter of this form must complete blocks                                          | 4, 5, 6, and 7.                                                                                                                                                        |
| 3. The preparing activity must provide a reply withi                                        | n 30 days from receipt of the form.                                                                                                                                    |
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| RECOMMEND A CHANGE: 1. DOCUMENT NUL<br>MIL-S-872                                            |                                                                                                                                                                        |
| 3. DOCUMENT TITLE SHIRTS, WOMEN'S: SHORT AND                                                | LONG SLEEVES, POLYESTER/COTTON (DURABLE PRESS)                                                                                                                         |
| AND LONG SLEEVES. POLYESTER.<br>A. NATURE OF CHANGE (Identify paragraph number and include) | /WOOL<br>proposed rewrite, if possible. Attach extra sheets as needed.)                                                                                                |
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