

INCH-POUND

MIL-C-44211A(GL)

5 October 1989

SUPERSEDING

MIL-C-44211(GL)

23 July 1987

MILITARY SPECIFICATION

COATS, MEN'S, TROPICAL AND SERGE, POLYESTER/WOOL,
ARMY GREEN 344, FUSIBLE

This specification is approved for use by the Natick Research, Development, and Engineering Center, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers a polyester/wool tropical worsted coat, and a polyester and wool serge coat.

1.2 Classification. The coats shall be of the following types, classes, and sizes as specified (see 6.2).

- Type I - Polyester/Wool Tropical, Army Green 344, 10.0 ounce
- Type II - Polyester and Wool Serge, Army Green 344, 11.3 ounce
- Class 1 - General Officers
- Class 2 - Other Officers and Warrant Officers
- Class 3 - Enlisted Men

Schedule of sizes (chest)

<u>X-Short</u>	<u>Short</u>	<u>Regular</u>	<u>Long</u>	<u>X-Long</u>
		30		
		31		
	32	32		
	33	33	33	
34	34	34	34	
35	35	35	35	

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8405

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MIL-C-44211A(GL)

Schedule of sizes (chest) (cont'd)

<u>X-Short</u>	<u>Short</u>	<u>Regular</u>	<u>Long</u>	<u>X-Long</u>
36	36	36	36	36
37	37	37	37	37
38	38	38	38	38
39	39	39	39	39
40	40	40	40	40
41	41	41	41	41
42	42	42	42	42
43	43	43	43	43
	44	44	44	44
	46	46	46	46
	48	48	48	48
	50	50	50	

1.3 Uniform. When coats specified in this specification and trousers specified in MIL-T-43957(GL) are procured as a uniform, the coat and trousers shall be cut from the same roll of material, the shades shall match, and the uniform shall conform to the type and class as follows (see 6.2 and 6.9).

<u>Coat</u>	<u>Trousers</u>
Type I	Class 3
Type II	Class 6

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are 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

V-T-280	- Thread, Gimp, Cotton, Buttonhole
V-T-295	- Thread, Nylon
V-T-301	- Thread, Silk
CCC-C-438	- Cloth, Buckram, Woven and Nonwoven
DDD-L-20	- Label: For Clothing, Equipage, and Tentage (General Use)

MIL-C-44211A(GL)

- DDD-T-86 - Tape, Textile; Cotton, General Purpose
(Unbleached, Bleached or Dyed)
- PPP-B-636 - Boxes, Shipping, Fiberboard
- PPP-T-45 - Tape, Gummed, Paper, Reinforced and Plain,
for Sealing and Securing

MILITARY

- MIL-C-368 - Cloth, Satin, Rayon and Cloth, Twill, Rayon
- MIL-B-371 - Braid, Textile, Tubular
- MIL-B-593 - Braid, Textile (Flat)
- MIL-C-823 - Cloth, Serge; Wool, Wool and Nylon, Polyester and Wool
- MIL-B-3461 - Button, Insignia, Metal, Uniform and Cap
- MIL-C-15062 - Cloth, Flannel, Wool, Undercollar Cloth
- MIL-P-15064 - Pads, Shoulder and Sleeve-Head
- MIL-C-15065 - Coat Fronts
- MIL-C-21115 - Cloth, Tropical: Wool, Polyester/Wool
- MIL-C-29137 - Cloth, Felt Fabric Composite, Undercollar
- MIL-L-35078 - Loads, Unit: Preparation of Semiperishable
Subsistence Items; Clothing, Personal Equipment
and Equipage; General Specification For
- MIL-T-43548 - Thread, Polyester Core: Cotton-, Rayon-, or
Polyester-Covered
- MIL-C-43718 - Cloth, Twill, Polyester; Polyester and Cotton;
Polyester and Rayon
- MIL-C-44121 - Cloth, Twill, Polyester
- MIL-C-44192 - Container, Shipping and Storage, Coat (Hanger Pack)
- MIL-C-44296 - Cloth, Fusibles

STANDARDS

FEDERAL

- 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-731 - Quality of Wood Members for Containers and Pallets
- MIL-STD-1490 - Provisions for Evaluating Quality of Coats, Men's,
Dress

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

MIL-C-44211A(GL)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents 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 SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging

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

THE COLOR ASSOCIATION OF THE UNITED STATES

Standard Color Card of America

Department of Defense Standard Shades for Sewing Threads

(Application for color cards should be addressed to the Color Association of the United States, Inc., 343 Lexington Avenue, New York, NY 10016-0927. If color cards are not available from the Color Association, individual color samples may be obtained from the contracting activity or as directed by the contracting activity.)

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

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

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

3.3 Material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

MIL-C-44211A(GL)

3.3.1 Basic material.

3.3.1.1 Tropical cloth for type I coat. The basic material shall be 10 ounce polyester/wool tropical cloth, Army Green 344, conforming to type III, class 3 of MIL-C-21115.

3.3.1.2 Serge cloth for type II coat. The basic material shall be 11.3 ounce polyester and wool serge, Army Green 344, conforming to type III, class 3 of MIL-C-823.

3.3.2 Lining. The material for lining the fronts, sleeves, yoke, back vent, and facings for inside right breast pocket and as an option for pocket flaps and lower pocket facings shall be rayon lining, 3.7 ounces per square yard, Army Green 45, conforming to class 1 of MIL-C-368. As an alternate, the lining may be a polyester twill cloth, Army Green 461, conforming to MIL-C-44121.

3.3.3 Binding. The binding for the coat shall be cut on the bias and shall be of the same material as the coat lining (see 3.3.2). The width of the bias binding shall be 5/8 to 7/8 inch. The binding may be placed on rolls.

3.3.4 Collar interlining. The material for the collar interlining shall be cotton buckram cloth, natural or bleached, conforming to type I, class 2 of CCC-C-438.

3.3.5 Fusible interlinings.

3.3.5.1 Small parts fusible interlining. The lapels, front facing, pocket flaps, top sleeve, under-sleeve, top collar, and shoulder loops, known as "small parts" shall use a black or charcoal, nonwoven fusible interlining. It shall conform to either type V or VI, class 1, styles A or B or type VIII, class 1, style A of MIL-C-44296. The material shall have a uniformly distributed powder dot, paste dot, spunfused or sintered nylon polyamide fusible adhesive evenly applied to one side in accordance with good commercial practice. Any given coat shall incorporate the same small parts fusible material. As an alternate, a black or charcoal, woven, lightweight fusible interlining for small parts, conforming to type I, class 1, style A of MIL-C-44296 may be used.

3.3.5.2 Fronts fusible interlining. The fusible interlining for the coat and side body fronts shall be a black or charcoal napped woven twill material conforming to type II, class 1, style B of MIL-C-44296. The material shall have a uniformly distributed dot type nylon polyamide fusible adhesive evenly applied to one side in accordance with good commercial practice. Any given coat shall incorporate the same fronts fusible material.

3.3.5.3 Fused state bonding strength. The small parts and fronts fusible material for preproduction and in-process testing shall meet an initial minimum bonding strength requirement in the warp (machine) direction of 32 ounces per inch or splits prior to drycleaning when tested as specified in table V, and minimum 24 ounces per inch or splits in the warp (machine) direction after three

MIL-C-44211A(GL)

drycleanings and pressings when tested as specified in 4.4.3.1. Additionally the small parts fusible interlining will be accepted if it either begins to debond from the outer shell material, equivalent to the minimum bond strength or higher, and then splits from itself or if the small parts readily splits from itself at a minimum tear strength of 6.0 ounces (170 grams) per inch.

3.3.5.4 Colorfastness. All dyed finished fusible interlining materials shall show fastness to drycleaning as specified in MIL-C-44296, except when no standard sample is available, the finished fusible materials shall show "fair" fastness to drycleaning.

3.3.5.5 Shrinkage. The interlining, after fusing to the basic cloth as specified in 3.3.5.6, shall not exceed 1.5 percent differential shrinkage when tested as specified in 4.4.3.1. Additionally, the interlining after fusing to the basic cloth as specified in 3.3.5.6 shall not exceed 2.0 percent shrinkage after drycleaning when tested as required in 4.4.3.1. All drycleaned materials shall not exhibit any sign of bubbling, puckering or delamination.

3.3.5.6 Fusing press operating procedure and conditions. A single layer of fusible interlining shall be fused to a single layer of basic material on a dry electrically heated conveyor type Fusing press which has the capacity of controlling and retaining pressure, dwell time, and temperature for a minimum of 8 hours. Pair or sandwich fusing which can create differential shrinkage, stitching, and uneven bonding shall not be permitted. A steam sourced fusing press shall not be allowed for any initial fusing operations. For optimum results, the fusible material manufacturers recommendations for fusing dwell time, pressure, and temperature, based upon the fusing equipment used and basic material being fused, shall be utilized. Common fusing press settings shall be established in order to fuse both the small parts and fronts fusibles together. Basic preproduction and production maintenance procedures, including a fusing press information chart, shall be required to assure proper fusing press performance relative to temperature control, evenness in pressure head or roller contact, dwell time and cleanliness. Results of the production maintenance procedures shall be recorded on figure 6.

3.3.6 Twill cloth. The material for inside breast pocket, lower hanging pockets, armholes, shoulder, and pocket stays shall be polyester and cotton, or polyester and rayon matching the shade of the basic material or dyed black, and shall conform to class 1 of MIL-C-43718 except that the nonfibrous material content and colorfastness requirements for perspiration and crocking shall not apply.

3.3.7 Undercollar material. The material shall be wool flannel cloth, Army Green 48, conforming to MIL-C-15062 except that the colorfastness requirements for perspiration and crocking shall not apply. As an alternate, the material may be a wool blend wool felt-fabric composite, Army Green 48 conforming to MIL-C-29137.

MIL-C-44211A(GL)

3.3.8 Floating chest piece. The floating chest piece for the coat shall conform to type XVIII of MIL-C-15065.

3.3.9 Labels. Each coat shall have a combination size-identification label, a size label, an instruction label and a cardboard instruction folder. All labels, except for the instruction folder, shall conform to DDD-L-20 and shall show fastness to drycleaning.

3.3.9.1 Combination size and identification label. The combination label shall conform to type VI, classes 1 and 2 combined.

3.3.9.2 Size label. The size label shall conform to type VI, class 2.

3.3.9.3 Instruction label. The instruction label shall conform to type VI, class 3. The letters for the caption shall be not less than 3/16 inch in height and all other lettering shall be not less than 1/8 inch in height. The contents of the label shall be as follows:

COAT, MEN'S, ARMY GREEN

1. Dry clean only, low moisture.
2. Remove wrinkles or gloss with a steam iron or with a hot iron using a damp press cloth.
3. Roll press sleeves and lapels.
4. Utility press only.

3.3.9.4 Uniform size tickets. When coats and trousers are procured as a uniform, a size ticket made of suitable commercial cardboard and measuring not less than 2-1/8 by 1-1/4 inches shall be included with both the coat and trousers. The corners may be perforated for tacking. The ticket shall be legibly printed with the following information, for example:

UNIFORM, MEN'S, ARMY GREEN

Coat	- 38 Regular
Trousers	- 32 Regular
Army Green 344	

The item description shall be printed in letters and numerals not less than 1/8 inch in height. The shade number shall be printed in letters and numerals not less than 1/16 inch in height. The nomenclature, Coat and Trousers, together with the adjective size shall be in letters not less than 1/8 inch in height and may be abbreviated. The size shall be printed in numerals not less than 1/4 inch in height. The coat size ticket shall be tacked on the outside of right front sleeve 2 or 3 inches from bottom edge. The trousers size ticket shall be tacked to outside of waistband above the right hip pocket between the belt loops. The tickets shall be machine or hand tacked on four corners with two or three stitches to each hole.

MIL-C-44211A(GL)

3.3.9.5 Cardboard instruction folder. The printed cardboard instruction folder of commercial type shall be attached by a string 12 inches in length, looped through a hole $1/4$ inch in diameter and attached to the right breast pocket flap button. The cardboard folder shall measure $4 + 1/4$ inches by $6 + 1/4$ inches by $3 + 1/8$ inches. The text of the instruction folder shall be as shown on figure 3. The letters for the instructions shall be not less than $1/8$ inch in height.

3.3.10 Shoulder pads. The shoulder pads shall conform to type I, class 1 of MIL-P-15064.

3.3.11 Sleeve-head pads. The sleeve-head pads shall conform to type IV of MIL-P-15064.

3.3.12 Stay tapes. The tapes for bridle at breakline of coat and for staying armhole shall be cotton, preshrunk, conforming to type I, class 1 or 2 of DDD-T-86 except that the nonfibrous material content shall not apply, and shall be of the following widths.

$5/8$ inch for bridle at breakline of coat
 $1/4$ inch for staying armhole

The $5/8$ inch bridle tape may be dyed black, conforming to class 3 and shall show fastness to wet drycleaning. In the event a standard sample has not been established, the dyed tape shall show an adjective fastness rating of "good". The tape for staying the front edges of the coat shall be cross-cut, $1/2$ inch wide, made from natural, or dyed black polyester and cotton or rayon cloth conforming to class 1 of MIL-C-43718, except that the nonfibrous material content shall not apply. The raw edges of the tape shall be treated with a synthetic resin to prevent raveling. As an alternate, a fusible edge tape, as specified in 3.3.12.1, may be used.

3.3.12.1 Fusible edge tape. The fusible edge tape shall be type I, style B, class 1, dyed black or charcoal conforming to MIL-C-44296, except that it shall be cut in the filling (cross cut) direction at a width of $5/8 \pm 1/32$ inch. The $5/8$ inch edges shall be sewn together using a LSA-1 seam with a 304 stitch at 12-16 stitches per inch with 70/2 thread conforming to MIL-T-43548. All sewn edges shall be within the fusible dot area such that the adhesive will not exhibit any breaks or blank areas on either side of the joining seam.

3.3.13 Braid.

3.3.13.1 Hanger braid. The braid for coat hanger shall be cotton or rayon tubular braid, flat, $1/8$ to $3/16$ inch wide, Army Green 44, conforming to type IX, class 1 of MIL-B-371.

MIL-C-44211A(GL)

3.3.13.2 Sleeve braid (class 1 and 2 coats). The sleeve braids shall be flat mohair or cotton braid Army Black 194, conforming to type I, class 3 or type III, class 2 of MIL-B-593 in the following widths, except that the colorfastness requirement to perspiration shall not apply:

Class 1 coat - 1-1/2 inch wide braid

Class 2 coat - 3/4 inch wide braid

3.3.14 Thread.

3.3.14.1 Thread, polyester core: cotton-, rayon-, or polyester-covered. The cotton, rayon or polyester-covered polyester core thread shall conform to MIL-T-43548 in the colors, sizes and manufacturing uses as follows:

Use	Ticket	Ply
Seaming and stitching of coat	30, 50, 70	2 or 3
Overedging	70	2 or 3
Blindstitching, and machine felling (except when the use of silk or alternate nylon is indicated in table II)	70	2 or 3
Button sewing, hand	30	2 or 3
Button sewing, machine (except automatic sew and shank type see 3.3.14.6)	30	2 or 3
Braid stitching (class 1 and 2 coats only)	50 (black)	2 or 3
Tacking armhole and attaching sleeve-heads and pads	30 (white)	2 or 3

3.3.14.2 Thread, silk. The silk thread shall conform to V-T-301 in the types, sizes, classes, and manufacturing uses as follows, except the requirements prohibiting weighting and loading materials shall not apply for type III thread.

MIL-C-44211A(GL)

Use	Type	Size	Class
Machine-made buttonholes	I	B and C	---
Hand tailored buttonholes	II	10	1, Subclass A or B
Hand felling	III	A or C	---
Machine type felling	III	A	---
Outside trim topstitching	I	O	---

3.3.14.3 Thread, nylon. Nylon thread may be used as an alternate to silk thread as indicated in 3.6.4. The nylon thread shall conform to the following types and sizes of V-T-295 (see 6.5).

Use	Type	Size	Class
Hand or machine type felling	IV	A and C	A
Making buttonholes and bartacks	V	10	A
Machine stitching	VI	B, F and O	A

3.3.14.4 Thread, basting. The thread for basting shall be a good commercial grade bleached or unbleached cotton thread. As an alternate, the cotton-covered polyester thread used for seaming and stitching or the nylon thread used in hand or machine type felling may be used for basting (see 6.13).

3.3.14.5 Color. The color of the polyester core, silk or nylon threads shall be Army Green E, C.A. 6603⁴ except that the thread for stitching the sleeve braid shall be Black AA, C.A. 6604³, and the thread for tacking the armholes and attaching sleeve-head and pads shall be white.

3.3.14.5.1 Colorfastness. All dyed thread shall show colorfastness to light and wet drycleaning, equal to or better than the standard sample. When no standard sample is available, the dyed thread shall show "good" fastness to light and wet drycleaning.

3.3.14.5.2 Color, thread, topstitching. All thread used for outside trim (topstitching) either silk or nylon, as indicated in 3.6.4 and table I shall be separately evaluated for Army Green E, C.A. 6603⁴ shade matching.

3.3.14.6 Automatic button sewing. If an automatic machine which sews and shanks (wraps) the buttons in one operation is used, the thread shall be waxed in nylon monocord special No. 5, having a minimum breaking strength of 16 pounds and a minimum length per unit weight of 2150 yards per pound and shall be tested for these requirements and for colorfastness (see 3.3.14.5.1) in accordance with the test methods as specified in V-T-295.

MIL-C-44211A(GL)

3.3.15 Gimp. The gimp for reinforcing the buttonholes shall be cotton size No. 8 conforming to type I or II of V-T-280.

3.3.15.1 Color and colorfastness. The color of the gimp thread shall be Army Green E, C.A. 66034. The dyed gimp shall show colorfastness to wet drycleaning, equal to or better than the standard sample. When no standard sample is available, the dyed gimp shall show "good" fastness to wet drycleaning.

3.3.16 Buttons, uniform. The buttons for the front shall be 36 line, hopper back; and for the pockets and shoulder loops shall be 25 line, hopper back, conforming to type I, style 2, class A or B of MIL-B-3461.

3.3.16.1 Toggles (optional). Split or ring type toggles, when used to fasten buttons to the breast pocket flaps and lower pocket flaps, shall conform to MIL-B-3461.

3.3.17 Fasteners. The snap fasteners for the breast patch pockets and flaps shall be rounded or square rolled-edge (sew-on type) size 0 or 00 brass black commercial finish.

3.4 Design. The design is a four-button single breasted coat with notched collar and peak lapels, front and underarm darts, two-piece back with vent, two top pleated patch pockets with flaps, two lower inside hanging pockets with flaps, and shoulder loops to button. Inside of coat is 3/8 lined with yoke back, fully lined sleeves and one inside breast pocket (see figure 1).

3.5 Patterns. Standard patterns to be used for cutting the contractor's working patterns will be furnished by the Government. The working patterns shall be identical to the standard patterns and shall not be altered in any way. The patterns provide seam allowances as follows:

1/4 inch	- For lapel and front edge seams, points of shoulder loops, and joining pocket flaps to coat
5/16 inch	- For armholes, darts, and shoulder seams
3/8 inch	- For all other seams and lining seams, unless otherwise indicated
5/8 inch	- For side and back center seams
2-1/4 inch	- For the coat sleeve bottom turn up
1-3/4 inch	- For the lining sleeve bottom turn up

3.5.1 List of pattern parts. The component parts of the coat shall be cut from materials as specified according to the pattern parts indicated:

MIL-C-44211A(GL)

Material	Pattern nomenclature	Cut Parts
Basic material (see 3.3.1.1 and 3.3.1.2)	Front	2
	Side body front	2
	Back	2
	Right front facing	1
	Left front facing	1
	Top collar	2
	Top sleeve	2
	Under sleeve	2
	Shoulder loop	2
	Breast patch pocket	2
	Breast pocket flap	2
	Lower pocket flap	2
	Lower pocket cord	2
	Lower pocket top and bottom pipings	2 each
	Breast pocket flap lining	2 $\frac{1}{-}$
	Lower pocket flap lining	2
	Armhole shield (one piece)	2
	Bound buttonhole piping	2
Cloth, rayon or polyester lining	Front	2
	Side body front	2
	Back yoke	1
	Top sleeve	2
	Under sleeve	2
	Lower pocket facing	2 $\frac{2}{-}$
	Inside breast pocket piping	1
	Back vent lining	1
	Top sleeve (alternate construction)	2
	Under sleeve (alternate construction)	2
Cloth, twill, polyester and cotton or polyester and rayon	Lower pocket	2
	Inside breast pocket	1
	Lower pocket stay	2
	Inside breast pocket stay	1
	Flap and breast pocket stay	2
Fusible interlining cloth	Right front	1
	Left front	1
	Right front facing piece	1
	Left front facing piece	1
	Shoulder loop	2
	Breast pocket	2
	Breast pocket flap	2
	Lower pocket flap	2
	Bottom top sleeve piece	2

MIL-C-44211A(GL)

Material	Pattern nomenclature	Cut parts
Fusible interlining cloth (cont'd)	Bottom under sleeve piece	2
	Top collar fusible	1
	Side body front armhole fusible	2
	Bound buttonhole piping	2
	Lapel peak reinforcement piece	2
Cloth, cotton, buckram	Collar interlining (for wool flannel cloth only)	1 <u>3</u> /
Cloth, wool, flannel or material composite	Undercollar	1 <u>4</u> /
Templates	Front (right and left) shaper	-
	Left facing shaper	-
	Lapel shaper (working)	-
	Finished lapel shaper	-
	Undercollar shaper	-
	Top collar marker	-
	Undercollar stand shaper	-
	Shoulder loop shaper	-
	Breast patch pocket shaper	-
	Breast pocket flap marker (sew-in-line)	-
	Breast patch pocket flap shaper	-
	Breast patch pocket pleat shaper	-
	Lower pocket flap marker (sew- in-line)	-
	Lower pocket flap shaper	-
	Gorge shaper	-
	Bottom shaper	-
	Bench marker	-
	Representative production test squares	-

- 1/ Breast flap lining and lower flap lining may be cut of rayon lining in place of the basic material.
- 2/ The pocket facings may be cut of basic material in place of the rayon lining.
- 3/ The collar interlining may be cut in two pieces with center seam allowance added.
- 4/ The undercollar, when used with wool flannel and collar interlining construction, may be cut in two pieces with center seam allowance added.

MIL-C-44211A(GL)

3.6 Construction.

3.6.1 Stitches, seams and stitching. Stitch, seam, and stitching types and stitches per inch specified in table I, shall conform to FED-STD-751. Where two or more seam or stitch types are given for the same part of an operation, any one of them may be used. Seam allowances shall be maintained with seams sewn so that no raw edges, run-offs, twists, pleats, puckers or open seams will result.

3.6.1.1 Type 301 and 306 stitching. Ends of all stitching shall be backstitched or overstitched not less than 1/4 inch except where ends are caught in other seams or stitching. Ends of a continuous line of stitching (except label) shall be overlapped not less than 1/2 inch. The ends of the label and hand stitching shall be overlapped not less than three stitches. Thread tensions shall be maintained so that there will be no loose stitching resulting in loose bobbin or needle thread or excessively tight stitching resulting in puckering of the materials sewn. The lock shall be embedded in the materials sewn.

3.6.1.1.1 Repairs of type 301 and 306 stitching. Repairs of type 301 and 306 stitching shall be as follows:

a. When thread breaks or bobbin run-outs occur during stitching, the stitching shall be repaired by restarting the stitching a minimum of 1/2 inch back of the end of the stitching. 1/

b. Thread breaks or two or more consecutive skipped or run-off stitches noted during end item inspection shall be repaired by overstitching. The stitching shall start a minimum of 1/2 inch in back of the defective area and continue a minimum of 1/2 inch beyond the defective area onto the existing stitching. Loose or excessively tight stitching shall be repaired by removing the defective stitching, without damaging the materials, and restitching in the required manner. 1/

1/ When making the above repairs, the ends of the stitching are not required to be backstitched. The loose ends shall be trimmed by scissors. Caution pulling or breaking the loose ends is not allowed.

3.6.1.2 Type 401, 502, 503, and 504 stitching. Thread tension shall be maintained so that there will be no loose stitching. Where 401 stitch type is used the looper (underthread) shall be on the inside. All repairs shall be in accordance with 3.6.1.1.1a and b, except substitute 3/4 inch for 1/2 inch wherever 1/2 inch appears. Repairs to stitch type 401 may be accomplished by use of stitch type 301.

3.6.1.3 Type 101 and 103 stitching. Tension of 101 stitch tacking shall be adjusted and maintained so there will be no loose stitching resulting in either loose underneath or top thread, or excessively tight stitching, puckering outward appearance of coats. The underneath loop shall be on the inside of the coat, unless otherwise specified in the table of operations.

MIL-C-44211A(GL)

3.6.1.3.1 Repairs of type 101 and 103 stitching. Repairs shall be accomplished by superimposing new tack or blindstitching in same location after removing threads of first broken tack or blindstitching. When repairing blindstitching, superimpose stitching 1/2 inch over loose ends of broken stitching.

3.6.2 Buttonholes. The buttonholes shall be the eyelet end, square bar, cut first type, reinforced with gimp. The purl of the buttonhole shall be on the outside of the coat. The ends of the gimp shall be pulled through to the underside. The ends of the buttonhole stitching shall be tacked by hand or by machine, the width of the bar section, catching the ends of the buttonhole stitching in the gimp. The finished size of the buttonhole cut is specified in table I. When toggles are used to attach button to pocket flaps (see table I, operation 41) only the eyelet of the buttonholes shall be cut and the ends of the gimp shall be caught in the bar. As an option, the front buttonhole may be a bound type buttonhole (piped with the basic material) (see 6.12).

3.6.3 Bartacks. Bartacks shall measure 1/4 to 3/8 inch long, and be free from thread breaks and loose stitching.

3.6.4 Outside trim stitching. All outside trim topstitching shall be done with either silk or nylon thread as specified in table I, however, only one type of thread shall be used in the outside trim topstitching of any one coat.

3.6.5 Marking. The component parts of the coat shall be marked to insure a uniform shade and size throughout the garment. Any method of marking may be used except:

- a. Corrosive metal fastening devices. No metal device or sew-on type markings shall be used on the rayon lining.
- b. Adhesive-type tickets which discolor the material or leave traces of paper or adhesive on the material after removal of the tickets.

NOTE: The use of ink pad numbering or machine rubber stamp or pencil is allowed, provided the numbering does not show on the outside of the garment, and wherever possible, is covered by the seam allowance.

3.7 Manufacturing operations requirements. The coats shall be made by and with the use of all operations listed in table I. The contractor is not required to follow the exact sequence of operations except within operation 6. Any additional basting or holding stitches used to facilitate manufacture is permissible provided the thread does not show on the finished coat.

3.7.1 Pressing. Pressing specified in table I shall be performed by use of a heated pressing iron or machine as commercially used for dress coats.

MIL-C-44211A(GL)

3.7.2 Figures. Figures are furnished solely for guidance and information. Should variation from the written document appear in the figures, the written document shall govern.

3.7.3 Use of automated apparel equipment. Automated apparel equipment may be used to perform any of the operations specified in table I, providing that the seam and stitch type are as specified and the finished component conforms to the required configuration. When a government finished shaper pattern is forwarded, the component shall conform to that pattern.

MIL-C-44211A(GL)

NO.	TABLE I. MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
1.	<p><u>Cut basic material.</u></p> <p>a. Spread the material without tension in a suitable number of plies for the applicable fabric. The cut parts from the top and bottom ply shall match and correspond to the pattern.</p> <p>b. Lay the material in uniform widths and lengths. The plies shall not be stretched, pulled nor full, and one side of the lay shall be even.</p> <p>c. Cut coat parts in strict accordance with patterns which show directional lines, size, shape, placement of pockets and flaps, and notches for proper assembling of all parts. Use of drill holes for pocket dart and flap locations are prohibited.</p> <p>d. Cut all parts of the garment out of one piece of material, except flap linings, armhole shields and lower pocket piping pieces which may be cut from ends. Cut piping pieces in the warp direction. When armhole shields are cut from ends, the shields shall match each other. The pocket flap linings and shoulder loops may be cut in either the warp or filling directions. Cut front darts as indicated on pattern.</p> <p>e. The left front shall be dressed in the front shaping operation after the bottoms are shaped as defined in operation 21.d.</p> <p>f. When the coat is cut as part of the uniform, the coat and the trousers shall be cut from the same roll of material, except those parts which may be cut from ends.</p>						

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	DOBBIN/ LOOPER	COVER
2.	<p><u>Cut lining.</u></p> <p>a. Cut lining for body of coat, sleeves, yoke lining, vent lining, and right inside breast pocket facing in the direction of the warp, and in strict accordance with patterns furnished. The lower pocket facings may be cut in the direction of the warp or filling and in strict accordance with patterns furnished. The pocket flap linings, lower pocket facings and sleeve linings may be cut from ends.</p> <p>b. When sleeve linings are cut from ends, the parts shall approximately match the shade of the body lining and the sleeves shall match each other.</p>						
3.	<p><u>Cut trimmings.</u></p> <p>a. Cut fusible interlinings in the same direction as parts to be fused.</p> <p>b. Cut twill cloth for armhole and shoulder stays on the bias. Cut twill cloth for inside breast pocket, flap and breast pocket stays, and lower hanging pockets in the direction of the warp.</p> <p>c. Cut wool flannel undercollar cloth and collar interlining on the bias, or cut alternate felt fabrics composite undercollar cloth as indicated by directional lines on the patterns.</p>						

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
4.	<p><u>Replacement of damaged parts.</u></p> <p>Care shall be exercised during the spreading, cutting, and manufacturing operations to assure that material defects and damages, as classified in MIL-STD-1490, are excluded and replaced with non-defective and properly matched material.</p>						
5.	<p><u>Shade markings.</u></p> <p>a. All component parts of the basic material and linings, including sleeve linings, whether cut from ends or in the main lay, shall be marked or ticketed to assure a uniform shade throughout the coat. Other parts cut from ends need not be shade marked. Any method may be used except as indicated in 3.6.5.</p> <p>b. Identify test swatches (basic material and fusible interlining) that represent the every 1000 coat units of production (see 4.4.3.1).</p>						
6.	<p><u>Fusing (see 3.3.5 through 3.3.5.6 and figure 9).</u></p> <p>a. Superimpose the small parts fusible peak reinforcement piece on the fronts fusible interlining and fuse both pieces together to the front as indicated on figure 9. Fuse side body front armhole interlining with the armhole edge set back 1/8 inch and 3/8 inch from edge of side body to front joining seam.</p> <p>b. Fuse small parts fusible interlining piece to top and undersleeve with the bottom edge of the fusible interlining 1/8 inch from the bottom edge of sleeves and centered.</p>						

MIL-C-44211A(GL)

NO.	TABLE I, MANUFACTURING OPERATIONS (CONT'D) REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	DOBBIN/ LOOPER	COVER
6.	<p>Fusing (see 3.3.5 through 3.3.5.6 and figure 9). (cont'd)</p> <p>c. Fuse small parts fusible to the top collar. Position top collar interlining centered on the top collar with the interlining center top edge positioned 1 inch from the top collar edge and as indicated on pattern.</p> <p>NOTE: Do not fuse top collar when flannel undercollar and separate interlining are used.</p> <p>d. Fuse small parts fusible to the flaps even with the top edge, with the other remaining edges set back 1/16 inch.</p> <p>e. Fuse small parts fusible to the breast patches with the side and bottom edges of the interlining set back 1/4 inch.</p> <p>NOTE: To be accomplished solely after operation 10.a or 10.b.</p> <p>f. Fuse small parts fusible to the shoulder loops as indicated on pattern.</p> <p>g. Fuse small parts fusible to the left and right facings with the top of the fusible interlining even with the top of the shell.</p> <p>h. Fuse small parts and fronts fusible test swatches.</p> <p>i. Fuse a 1 inch wide bias cut small parts fusible strip to each center back neckline.</p>						

NATICK Form 903
1 Dec 76 EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D	
					NEEDLE	DOBBIN/ LOOPER COVER
6.	<p><u>Fusing (see 3.3.5 through 3.3.5.6 and figure 9).</u> (cont'd)</p> <p>NOTE: Fused lots and test swatches shall be allowed to cool to the touch prior to bundle tying or testing.</p> <p>j. Fuse the small parts fusible to the piping for the bound buttonholes (non-automated method)</p>					
7.	<p><u>Make darts and join side body fronts to fronts.</u></p> <p>a. Seam the vertical cut darts of fronts.</p> <p>b. Press dart seams open and flat holding front waist dart short and front of coat straight.</p> <p>c. Join side body fronts to fronts matching notches with a 5/16 inch seam. Press seam open and flat.</p>	301	SSa-1	10-14	50	50
8.	<p><u>Make shoulder loops.</u></p> <p>Finished appearance. The shoulder loops shall be uniformly stitched and shall finish smooth and flat, without twists, gathers, puckers, pleats or raw edges and shall be uniform in shape and size in accordance with the finished shoulder loop shaper. The buttonholes shall be clean cut, well made, properly positioned, and the stitching shall be securely caught in the basic material. The purling of the buttonholes shall be on the outside of the shoulder loops.</p> <p>a. Fold loop in half lengthwise and seam raw side edges.</p>	301 or 401	SSa-1 SSa-1	10-14 10-14	50 50	50 50

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
8.	<p><u>Make shoulder loops.</u> (cont'd)</p> <p>b. Press seam open and flat with seam off center of loop.</p> <p>c. Seam point of loop.</p> <p>d. Turn loop with the seam on the underside, work out point and edges. Baste edges and press shoulder loop smooth and flat. The loop shall be uniform in shape and size in accordance with shoulder loop shaper. The loop shall finish $2-1/4 + 1/8$ inches wide at sleeve head tapering to $1-1/2 + 1/8$ inches at the base of point.</p> <p>e. Make a buttonhole centered on the narrow end of each loop. The inside edge of the eyelet shall be so positioned that the corresponding button will finish as specified in operation 46.c. The cut of the finished buttonhole after tacking shall measure not less than $5/8$ inch or more than $3/4$ inch (see 3.6.2).</p> <p>f. Tack ends of buttonhole stitching and gimp by hand or machine with a bartack (see 3.6.3).</p>	301 or 401	SSe-2(a) SSe-2(a)	10-14 10-14	50 50	50 50	
		101 or hand			Commercial		
		Buttonhole machine or		42-48 per button- hole	C silk or B ny- lon	B silk or B ny- lon	
		Hand		46-50 per button- hole	B ny- lon or 10 silk or 10 ny- lon	F ny- lon	
		Bartack		21 per bartack	B silk or B ny- lon	B silk or B ny- lon	
		Hand		6 per tack	10 silk or 10 ny- lon		lon

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
9.	<p><u>Make breast and lower pocket flaps.</u></p> <p>Finished appearance. The pocket flaps shall be uniformly stitched and shall finish smooth and flat without twists, gathers, puckers, pleats or raw edges and shall be uniform in shape and size in accordance with the finished pocket flap shaper. The seamed edges, the corners and points of the flaps shall be well worked out and the lining shall not be visible on the outside of the flaps. The buttonholes shall be clean cut, well made, properly positioned, and the stitching shall be securely caught in the basic material.</p> <p>a. Seam lining to flaps, notch seam allowance on the bottom edge between corners and trim corners. When lining and flaps are trimmed during sewing operation to 3/16 inch or less, it will not be necessary to notch.</p> <p>b. Turn and work out edges, points, and corners. Edge baste the flap edges. The lining shall not show on the outside of flaps. Press flaps flat.</p>	<p>301 or</p> <p>401</p> <p>101 or hand</p>	<p>SSe-2(a)</p> <p>SSe-2(a)</p>	<p>10-14</p> <p>10-14</p>	<p>50 or 50 or 0 silk 0 silk or or 0 ny- 0 ny- lon lon 50 or 70 or 0 silk 0 silk or or 0 ny- 0 ny- lon lon Commercial</p>		

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
9.	<p>Make breast and lower pocket flaps. (cont'd)</p> <p>c. Make a vertical buttonhole in each flap centered between the side edges and with the inside edge of the eyelet $3/8$ to $1/2$ inch from the point of flap. The cut of the finished buttonhole after tacking shall measure not less than $5/8$ inch or more than $3/4$ inch (see 3.6.2).</p> <p>d. Tack ends of buttonhole stitching and gimp by hand or by machine stitching with a bartack (see 3.6.3).</p> <p>e. Make sew line on breast pocket flap using the breast pocket flap marker pattern. Mark sew line on lower pocket flap using the lower pocket flap marker pattern.</p> <p>NOTE: Care shall be exercised so that the material does not stretch when overedging. Overedge stitching has a tendency to stretch the raw edges to the point where the ends may protrude beyond the side of the flaps when stitched to the coat.</p>	Buttonhole		42-48 per buttonhole	C silk or B ny-lon	C silk or B ny-lon	
		Machine or			B ny-lon or B ny-lon	B ny-lon or F ny-lon	
		Hand		46-50 per buttonhole	10 silk or 10 ny-lon	10 silk or 10 ny-lon	
		Bartack		21 per bartack	B silk or B ny-lon	B silk or B ny-lon	
		Hand		6 per tack	10 silk or 10 ny-lon	10 silk or 10 ny-lon	
		502 or 503	SSa-1 SSa-1	6-8 6-8	50 50	50 50	

NATICK Form 903

1 Dec 76 EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
9.	Make breast and lower pocket flaps. (cont'd)						
	f. Trim flaps, overedge stitch the top raw edges of the flap together 1/8 to 3/16 inch gage.	502 or 503	SSa-1 SSa-1	6-8 6-8	50 50		
10.	g. Press breast and lower pocket flaps smooth and flat. Make two breast patch pockets. Finished appearance. The patch pockets shall conform to finished pocket shaper, be uniform in appearance and lie flat and smooth without twists, puckers, or raw edges. The binding shall have no raw edges showing on the outer side and be caught in the fabric, or the top edge of the pocket area may be overedge stitched. a. Machine folded construction (when used). (1) Form a 1-1/2 + 1/8 inches wide vertical box pleat on the outside in the center of the pocket by a creasing machine or an automatic pleater to conform with finished patch pocket pleat shaper. (2) Blindstitch the abutted edges of the pleat together. b. Hand folded construction (when used). (1) Fold pocket vertically on the outside, matching cut edges of pocket and stitch 1-1/2 + 1/8 inches from folded edge.	103 or 301 301	SSm-1 OSf-1	4-8 12-16	50 50 50		0

M11-C-44211A(GL)

NO.	TABLE I. (Cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D	
					NEEDLE	BOBBIN/ LOOPER COVER
10.	<p>Make two breast patch pockets. (cont'd)</p> <p>b. Hand folded construction (when used). (cont'd)</p> <p>(2) Form a $1-1/2 + 1/8$ inches wide vertical box pleat to the outside in the center of pocket and stitch across top and bottom of pleat $1/8$ to $3/16$ inch from raw edge to conform with finished patch pocket pleat shaper.</p> <p>(3) Press pleat in center of pocket, flat and smooth.</p> <p>c. Fuse interlining to inside of pockets with the top edges even and the side and bottom edges of the fusible no less than $1/4$ inch from the edges of the basic fabric.</p> <p>d. Trim the bottom corners of the pockets.</p> <p>e. Turn the sides and bottom edges of the pockets and crease to conform to the finished pocket shaper.</p> <p>f. Put the shaper on the pocket and trim top edge if necessary.</p> <p>g. Bind the top edge of pocket. The raw edges of the binding may be turned in and caught within the binding or the inside of the binding may be a raw edge.</p> <p>-or-</p> <p>h. The top of the pocket may be overedge stitched.</p> <p>i. Press pockets smooth and flat.</p>	301	SSa-1	12-16	50	50
		301	BSc-1 or BSb-1	12-16	50	50
		502 or 503 or 504	EFd-1	6-10	50	50

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
11.	<p><u>Make collar.</u></p> <p>a. <u>Wool flannel cloth (when used).</u></p> <p>Finished appearance. The collar shall be uniform in appearance and the edges shall be smooth and flat without twisting, gathers, puckers, or raw edges (top and sides). The interlining shall not show after the collar is set.</p> <p>(1) Join wool undercollar pieces. Press undercollar seam open and flat (if two-piece construction is used).</p> <p>(2) The bottom raw edge of the undercollar may be overedge stitched.</p> <p>(3) Join collar interlining (if two-piece construction is used).</p> <p>(4) Pad interlining to undercollar with seven to eight rows of blindstitching with fullness between rows of blindstitching.</p> <p>(5) Superimpose bottom edge of undercollar to the related configuration of the finished top collar interlining. Press undercollar flat.</p> <p>(6) Mark and cut the undercollar in accordance with undercollar shaper or undercollar may be die cut to conform to pattern shaper. Trim undercollar interlining 1/8 to 3/16 inch away from lower edge of undercollar.</p>	<p>301</p> <p>SSa-1</p> <p>10-14</p> <p>50</p>	<p>502 or 503</p> <p>EFd-1 EFd-1</p> <p>8-10 8-10</p> <p>50 50</p>	<p>301</p> <p>LSa-1</p> <p>10-14</p> <p>50</p>	<p>70</p>		

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS (CONT'D) REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
11.	<p>Make collar. (cont'd)</p> <p>a. Wool flannel cloth (when used). (cont'd)</p> <p>(7) Mark the breakline of undercollar with the undercollar stand marker.</p> <p>(8) Seam top and side edges of undercollar 1/2 inch from edge.</p> <p>(9) Seam undercollar to interlining at breakline: stand shall be 1-1/4 + 1/8 inches at center. (Interlining construction only).</p> <p>(10) Mark top collar with pattern shaper.</p> <p>(11) Position upper edge of top collar between upper edges of undercollar and interlining matching notches. Seam top collar to interlining. When operation 11.a.(15) (top edge) is performed by machine the top collar need not be sewn to interlining.</p> <p>(12) Baste ends, upper edge of collar, and at crease line.</p> <p>(13) In lieu of operations 11.a.(11) and 11.a.(12), baste the top collar to the undercollar along crease line and outer edge matching notches.</p> <p>(14) Trim and turn edges of top collar over interlining between undercollar and interlining, and baste edges.</p>	301	SSa-1	10-14	50	50	
		301	SSa-1	10-14	50	50	
		301	LSa-1	4-6	50	50	
		Hand or 101			Commercial		
		Hand or 101			Commercial		
		Hand or machine			Commercial		

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
11.	<p>Make collar. (cont'd)</p> <p>a. <u>Wool flannel cloth (when used)</u>. (cont'd)</p> <p>(15) Fell top and side edges of top collar to undercollar by hand, or top edge may be machine felled with simulated hand stitching. The corners and sides shall be felled by hand. When simulated hand stitching is used, the operation shall precede collar basting.</p> <p>The side edges may be stitched 1/16 inch from finished shaped edge through the collar interlining. Trim top collar material only, 1/4 to 3/8 inch from finished seam line.</p> <p>(16) Trim bottom edge of top collar to allow for seaming.</p> <p>(17) Press and crease stand of undercollar holding crease line short and stretch outer edge of collar across the shoulders. Center area of crease line shall be straight for a distance of 3 or 4 inches.</p> <p>-or-</p> <p>b. <u>Felt-fabric composite (when used)</u>.</p> <p>Finished appearance. The collar shall be uniform in appearance and the edges shall be smooth and flat without twisting, gathers, puckers, or raw edges (top and sides). The composite undercollar shall be one piece and collar interlining is not required.</p>	<p>Hand or Machine (simulated hand felling)</p> <p>301</p>		<p>8-10</p> <p>6-10</p> <p>10-14</p>	<p>C silk or C nylon A silk or B nylon</p> <p>50 50</p>		

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
11.	<p>Make collar. (cont'd)</p> <p>b. Felt-fabric composite (when used). (cont'd)</p> <p>(1) Mari. and shape undercollar to conform to pattern shaper. Cut in accordance with undercollar shaper, or undercollar may be die-cut to conform to pattern shaper.</p> <p>(2) Mark the breakline of undercollar with the undercollar stand marker.</p> <p>(3) Stitch undercollar at breakline, stand shall be $1-1/4 + 1/8$ inches at center.</p> <p>(4) Mark top collar with pattern shaper.</p> <p>(5) Baste top edge of finished undercollar along straight top edge of top collar matching the notches and distributing fullness of top collar between the notches on outer edge of undercollar and top collar.</p> <p>NOTE: When top edge of collar is machine felled with simulated hand felling, operation 11.b.(5) may be omitted.</p> <p>(6) Baste the top collar to undercollar along crease line and outer edge, putting in proper fullness.</p> <p>(7) Trim, turn, and baste edges of top collar.</p>	301	SSa-1	10-14	50	50	
		Hand or machine			Commercial		
		Hand or machine			Commercial		
		Hand or machine			Commercial		

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
11.	<p>Make collar. (cont'd)</p> <p>b. Felt-fabric composite (when used). (cont'd)</p> <p>(8) Fell top and side edges of top collar to finished undercollar by hand, or top edge may be machine felled with simulated hand felling. The corners and sides shall be felled by hand.</p> <p>-or-</p> <p>The side edges may be 301 stitched 1/16 inch from the finished shaped edge through all plies. Trim top collar material only 1/4 to 3/8 inch from finished seam line.</p> <p>NOTE: When simulated handstitching is used, the operation shall precede collar basting and fullness of top collar shall be distributed between the matched notches on outer edge of undercollar and top collar.</p> <p>(9) Trim bottom (neck) edge of top collar to allow for seaming.</p> <p>(10) Press and crease the stand of the top collar and the undercollar together in one operation to shape, holding the creaseline short and stretching the outer edge of the collar across the area of the shoulders.</p>	<p>Hand or machine (simulated hand felling)</p> <p>301</p>		<p>8-10</p> <p>6-10</p> <p>10-14</p>	<p>C silk or A silk or B nylon</p> <p>50</p> <p>50</p>		

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	DOBBIN/ LOOPER	COVER
12.	<p><u>Make sleeves.</u></p> <p>Finished appearance. The sleeves shall be uniform in width. The seams shall be pressed smooth and flat and shall be without gathers, puckers, pleats, or raw edges.. The blindstitches for tacking turn-up of sleeves shall catch the wigan only. The linings and wigan shall not be short or tight at bottom of sleeves.</p> <p>a. Join forearm seam of sleeve, distributing fullness between notches.</p> <p>b. Press forearm seam open and flat holding seam short.</p> <p>c. Baste the turn-up of bottom sleeve as indicated by notches on pattern.</p> <p>d. Mark sleeve for braid (class 1 and 2 coats only). Lower edge of braid shall be $3 + \frac{1}{8}$ inches from finished bottom edge of sleeve.</p> <p>e. Seam braid to sleeve (class 1 and 2 coats only) at marks, with a row of stitching on each edge not more than $\frac{1}{16}$ inch from edge. The ends of braid shall be even with sleeve edges and be caught in the backarm seam.</p> <p>f. Press bottom of sleeve, and remove basting at bottom of sleeve.</p> <p>g. Join backarm seam of sleeves.</p>	<p>301 or 401</p> <p>101 or hand</p> <p>301</p> <p>301 or 401</p>	<p>SSa-1</p> <p>SSa-1 SSa-1</p>	<p>10-14</p> <p>10-14</p> <p>10-14 10-14</p>	<p>30</p> <p>Commercial</p> <p>50</p> <p>30 30</p>	<p>50</p> <p>50</p> <p>30 50</p>	

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
12.	Make sleeves. (cont'd)						
	h. Press backarm seam open and flat.						
	i. Stitch turn-up of sleeves to the undersleeve forearm seam allowance.	301 or 401	SSa-1 SSa-1	10-14 10-14	30 30	30 50	
	j. Join backarm seam and forearm seam of sleeve linings.	301 or 401	SSa-1 SSa-1	10-14 10-14	50 50	50 70	
	k. The sleeve linings shall extend not less than 3/4 inch above top of sleeve. Tack forearm seam and backarm seam of sleeve lining to forearm seam and backarm seam of sleeves respectively; tacking to extend from not more than 6 inches below top to not more than 6 inches above creased bottom edge. When tacking is done by hand, both ends of stitching shall be securely backstitched with not less than three stitches. A hand basting stitch, 1-1/2 inches long, will be acceptable.	Hand or 301		2-3 4-8	50 50		
	-or-						
	l. As an alternate, when using a sleeve lining felling machine (see 6.10), join backarm seam and forearm seam of sleeve lining. The distance between the notches on the forearm seam shall be left open.	301 or 401	SSa-1 SSa-1	10-14 10-14	30 30	30 50	
	m. Position the sleeve lining top notches to the top of forearm sleeve seam and top of the backarm sleeve hem. Tack forearm seam and backarm seam of the sleeve lining to the forearm seam and backarm seam, respectively. The backarm seam tacking shall extend from approximately the midpoint of the	Hand or 301		2-3 4-8	50	50 50	

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
12.	<p><u>Make sleeves.</u> (cont'd)</p> <p>backarm seam to not more than 6 inches above creased bottom edge. The forearm seam tacking shall be for a distance of 1-1/2 to 2 inches below the bottom left open forearm seam notch.</p> <p>n. Pull sleeve through lining and baste turn-up of sleeve lining. Sleeve lining shall have not less than 1-1/4 inches turn-up. The sleeve lining may be felled without basting (see operation 39.i).</p> <p>o. Turn sleeves and assemble in pairs.</p> <p>p. Sleeve may be rolled pressed prior to hanging to facilitate check on balance of sleeve during sleeve setting operation.</p>	101 or hand				Commercial	
13.	<p><u>Make front linings.</u></p> <p>Finished appearance. The lining shall finish without pleats or puckers. The pocket shall be positioned as indicated on patterns and of correct size.</p> <p>a. Seam underarm darts in front linings; the edges of the darts shall be toward the back of coat.</p> <p>b. Join lining side body fronts to lining fronts. Press seams open and flat.</p> <p>c. Seam front lining to facings placing fullness on the lining to allow facing to lie smooth and flat.</p>	<p>301 or 401</p> <p>301</p> <p>301 or 401</p>	<p>SSa-1</p> <p>SSa-1</p> <p>SSa-1</p> <p>SSa-1</p> <p>SSa-1</p>	<p>10-14</p> <p>10-14</p> <p>10-14</p> <p>10-14</p> <p>10-14</p>	<p>50</p> <p>50</p> <p>50</p> <p>50</p> <p>50</p>	<p>50</p> <p>70</p> <p>50</p> <p>50</p> <p>70</p>	

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	DOBBIN/ LOOPER	COVER
14.	<p>Make inside breast pocket and attach combination size-identification and instruction label.</p> <p>a. Mark position for a 3/16 to 1/4 inch double piped pocket on right front lining as indicated by pattern.</p> <p>b. The top and bottom raw edges of the facing shall be turned in and seamed to the twill cloth pocket, catching the top edge of the combination size-identification label in the seaming of the lower edge. When either edge is selvage, the edge need not be turned in.</p> <p>c. Seam the remaining three sides of the combination size-identification label to the twill cloth pocket, not more than 3/16 inch from edges of label.</p> <p>d. Seam twill cloth pocket, positioned at marks on coat facing and lining, with twill cloth stay, extending to the armhole, on the underside, with two rows of stitching, no less than 1/4 inch or more than 3/8 inch apart.</p> <p>e. Cut opening of the pocket and tongue notch the ends of the opening. The finished length of the pocket opening shall be 5-1/4 + 1/8 inches long for all sizes except 30-33, which shall be 4-3/4 + 1/8 inches long and it shall not extend into the facing more than 1-1/2 inches nor extend into the armhole.</p> <p>f. Turn pocket through cut opening, make and stitch top and bottom piping, and tack corners through tongue notch.</p> <p style="text-align: center;">-Or-</p>	301	Lsd-1	10-14	50	50	
		301		10-14	50	50	
		301	SSv-2	10-14	50	50	
		301		10-14	50	50	

MTL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
14.	Make inside breast pocket and attach combination size-identification and instruction label. (cont'd)	101 and		10-14	50 or A silk or 0 nylon		
	g. Pocket opening may be accomplished with a double piped pocket machine which stitches, cuts, and turns stitched piped edges in one operation. When machine is used, the lining for the piping may be trimmed to permit insertion into the machine. The joining seam of the top and bottom piped edges shall be raise stitched through lining and coat facing prior to pocket closing, and top edge stitched through all plies. Tack ends of pocket opening.	301		10-14	50 or A silk or 0 nylon	50 or A silk or 0 nylon	
	NOTE: When this machine is used, the contractor may utilize the machine manufacturer's recommended piping reinforcement material in addition to the twill cloth.	301		10-14	50	50	
	h. Seam instruction label on all four sides, to the lining through one ply twill cloth pocket, positioned with top edge 1/8 to 1/4 inch below joining seam of lower inside pocket piping at center of pocket opening.	301	SSa-1	10-14	50	50	
	i. Turn pocket into position and stitch sides and bottom edge of the pocket. The finished pocket shall measure not less than 5-1/2 inches in depth for all sizes. The back part of the pocket twill cloth shall be held taut to prevent gapping at the pocket opening.						

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
14.	Make inside breast pocket and attach combination size-identification and instruction label. (cont'd)						
	j. Stitch twill cloth stay through lining from back end of pocket to armhole. Notch top of pocket at front edge of the full width of seam allowance and blindstitch inner ply of pocket to facing (see operation 39.k for alternate operation).	301	SSv-1 and SSm-1 SSm-1	10-14 2-4 2-4	50 70 70	50 70	
15.	k. Press seam joining front body lining to the facings and darts flat to one side toward side seam; press pocket smooth and flat; press open bottom of joining seam.						
	Make sweat shields and yoke.						
	a. Bind the bottom raw edge of shield (see 3.3.3).	301	BSc-1	10-14	50	50	
	b. Seam a $1/2 + 1/8$ inch hem on bottom of one piece yoke lining with the stitching $1/8 + 1/16$ inch from turned in edge.	301	EFb-1	10-14	50	50	
	c. Press a $3/4$ to 1 inch pleat at center and press across bottom edge of yoke. Fold shall be to left side as worn.						
16.	Make backs and attach size label.						
	Finished appearance. The backs shall be joined without gathers, puckers, or pleats. The right vent lining and left vent shall finish smooth and flat without puckers, gathers or pleats.						

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T M R E A D		
					NEEDLE	DOBBIN/ LOOPER	COVER
16.	Make backs and attach size label. (cont'd)						
	a. Turn under edges of center back and side seam allowances of back parts, $1/4 + 1/16$ inch and blind-stitch. The blindstitching of center back shall terminate at top of vent opening.	103	SSba-3(a)	3-6	70		
	b. Join center back with a $5/8$ inch seam with stitching terminating at vent notch. Slash right seam allowance at top of vent and press back seam open.	301 or 401	SSba-3 (b&c) SSba-3 (b&c)	10-14 10-14	30 30	30 50	
	c. Fold back left vent, in line with center back turned edge and bottom notch and stitch from top to bottom of vent $3/16 + 1/16$ inch from the raw edge.	301 or 401	SSa-1	10-14 10-14	50 50	50 70	
	d. Fold back left vent in line with center seam and bottom notch, and press left vent.						
	e. Fold top of vent lining and position to right vent, face to face, with side raw edges even and stitch lining to right vent, $1/16$ to $1/8$ inch from edge. Turn vent to inside even with folded back seam allowance, fold lining to inside and stitch from top to bottom of vent $1/32$ to $1/16$ inch from folded edge.	301	SSa-1	10-14	50	50	
	f. Stitch top of vent lining to the right back seam allowance (viewing coat from inside) with the stitching continuing vertically down seam for a distance of $3/8 + 1/8$ inch.	301	SSbe-2	10-14	50	50	

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
16.	<p>Make backs and attach size label. (cont'd)</p> <p>g. Stitch top of vent lining to the left seam allowance with the stitching continuing vertically down seam for a distance of $5/8 + 1/8$ inch.</p> <p>h. Tack diagonally across top of vent through all plies, the width of the left vent allowance.</p> <p>i. Baste yoke to inside of back in center maintaining the center pleat in the lining, across shoulder area, and armhole.</p> <p>j. Sew on hanger and size label to center of back at collar seam with the stitching through all plies. Label shall be plainly visible. Hanger shall measure finished $2 + 1/2$ inches long.</p>	301		10-14	50	50	
17.	<p>Make fronts.</p> <p>Finished appearance. All darts, pockets, and flaps shall be positioned and finished without pleats or gathers. The front edges and pleats of patch pockets and front edges of all flaps shall be parallel to front edge of coat, point of flap shall be at center of pleat, and top edge of patch pocket flaps shall be at a right angle to front edge when coat is buttoned (see figure 2, views A and C), the width of pocket cords of pipings, pocket openings, and depth of pockets shall be correct and uniform.</p>	Hand or 301	SSa-1	4-8 10-14	0 silk or 0 ny- lon Commercial	0 silk or 0 ny- lon	

MANUFACTURING OPERATIONS REQUIREMENTS

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
17.	<p>Make fronts. (cont'd)</p> <p>a. Mark fronts for position of breast pockets, breast pocket flaps, lower pocket openings, and lower pocket flaps as indicated by pattern.</p> <p>b. Seam breast pockets on fronts at marks, with the ends of the binding turned in. Seaming shall be through twill cloth stay on the underside of front.</p> <p>c. Edge baste the edge of the patch. Press patch flat.</p> <p>d. Seam breast pocket flaps on fronts at marks $3/16 + 1/16$ inch from overedged top of flaps. Sew on top and through the marked line as indicated on the pattern through twill cloth stay on the underside of front. Turn down flap over pocket opening and vertically tack at each top end of the flap with a $3/8 + 1/16$ inch running tack, positioned $1/16$ inch from the top edge and side edge of the flap.</p> <p>e. Sew snap fasteners on breast flaps and patch pockets.</p> <p>Finished appearance. The snap fastener shall be so positioned as to effect a smooth, flat closure and the stitching shall not show on outside of flaps. The snap fasteners shall be securely attached.</p>	<p>301</p> <p>101 or hand</p> <p>301</p>	<p>LSs-2a</p> <p>LSs-2b</p>	<p>10-14</p> <p>10-14</p>	<p>0 silk or 0 ny-lon</p> <p>Commercial</p> <p>0 silk or 0 ny-lon</p>		

NATICK Form 903

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
17.	<p><u>Make fronts.</u> (cont'd)</p> <p>(1) Sew a snap fastener stud to underside of breast patch pocket flap at each corner, centered on the edge stitching and completely hidden from outside view. When attached by machine, the stud shall be sewn to lining through a small reinforcement piece of twill cloth and not more than 7/16 inch from sides and bottom edges of flap.</p> <p>(2) Sew on snap fastener socket at each side of each breast patch pocket to correspond with fastener studs on flaps. Hand stitching shall be tacked off with not less than two stitches.</p> <p>NOTE: When pocket is attached to front, the stitching may be through the pocket and forepart of coat only.</p>	Hand or		3-4 double thread	A or C silk		
		101 or		21-22 per fastener	50		
		301		14-16	50	50	
		Hand or		3-4 double thread	A or C silk		
		101 or		21-22 per fastener	50	50	
18.	<p><u>Make two lower pockets.</u></p> <p>a. <u>Double piping construction (when used).</u></p> <p>(1) Position top edge of facing piece on twill cloth pocket as indicated by notches on patterns; turn in the bottom edge of facing piece and seam to twill cloth pocket. Selvage edge need not be turned in.</p>	301	LSd-1	10-14 per fastener	50	50	

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
18.	Make two lower pockets. (cont'd)						
	a. Double piping construction (when used). (cont'd)						
	(2) Position the wide piping piece on twill cloth pocket with edge even with opposite end of twill cloth pocket and single stitch 1/4 to 3/8 inch from edge.	301	SSa-1	10-14	50	50	
	(3) Position piping pieces on outside of coat fronts at mark and seam through coat and twill cloth stay piece on underside of coat. The narrow piping piece shall be used to form the upper piping.	301		10-14	50	50	
	(4) Cut opening through coat and twill cloth stay on underside of coat and tongue notch the ends of the pocket opening. Turn pocket through opening.						
	(5) Open seam and fold each piping piece to form a firm 1/8 to 1/4 inch piping and seam between the folds through seam. The stitching shall be imbedded in the seam.	301	SSaf-2(b)	10-14	50	50	
	(6) Turn twill cloth pocket up and stitch across top of pocket adjacent to top piping piece; stitch, catching facing and twill cloth pocket in the stitching, closing top of pocket.	301	SSa-1	10-14	50	50	
	(7) Adjust pipings, tongues, and twill cloth stay piece and tack ends of pocket opening, continue stitching around the twill cloth pocket.	301		10-14	50	50	

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
18.	<p><u>Make two lower pockets.</u> (cont'd)</p> <p>b. <u>One piece cord construction (when used).</u></p> <p>Edges at pocket openings may be finished with a 1/8 to 1/4 inch cord as follows:</p> <p>(1) Position top edge of facing piece on twill cloth pocket as indicated by notches on pattern. Turn in the bottom edge of facing piece and seam to twill cloth pocket. Selvage edge need not be turned in.</p> <p>(2) Position the twill cloth stay pieces on the underside of coat with the cord piece positioned on the outside of coat as indicated by marks on pattern.</p> <p>(3) Seam through cord piece, coat, and twill cloth piece on underside of coat. (A special two-needle pocket machine with cutting knife may be used for this operation.)</p> <p>(4) Cut pocket opening through cord piece, coat, and twill cloth stay piece. Turn pocket through opening and stitch to form a 1/8 to 1/4 inch cord at lower edge of opening. Seam twill cloth hanging pocket to lower edge of cord piece.</p> <p>(5) Pull top cord piece through pocket opening.</p> <p>(6) Turn up pocket and position above the top cord and stitch to form a 1/8 to 3/16 inch cord edge. Upper cord edge may be formed separately and the pocket closed as specified in operation 18.a.</p>	301	Lsd-1	10-14	50	50	
		301		10-14	50	50	
		301		10-14	50	50	
		301		10-14	50	50	

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D	
					NEEDLE	BOBBIN/ LOOPER COVER
18.	<p>Make two lower pockets. (cont'd)</p> <p>b. One piece cord construction (when used). (cont'd)</p> <p>(7) Smooth out pocket, cord pieces and twill cloth stay pieces, securely tacking ends of pocket opening and stitch around the twill cloth pocket. During the stitch around operation of the twill cloth pocket, a 2 by 8 inch strip of fusible interlining shall be centered and stitched to the front closing seam of the pocket bag. The fusible interlining strip shall be positioned, with the adhesive part of the strip facing the front interlining.</p> <p>(8) As an alternate, operation 18.c(4) may be used to fuse pocket bag edge to front interlining.</p> <p>c. Double piped pocket machine construction (when used).</p> <p>(1) Operation 18.b. may be accomplished with a double piped pocket machine which stitches, cuts, and turns stitched piped edges in one operation. When this machine is used, the welt piece may be trimmed to permit insertion into the machine. The joining seam of the bottom piping piece shall be raised stitched through front and piping piece, and the joining seam of the top piping piece shall be raised stitched through all plies in the closing of the top of pocket. Ends of pocket shall be securely tacked. The finished length of the pocket open shall be as follows:</p>	301	SSa-1	10-14	50	50
		101 and 301		10-14	50 or A-3 or 0 nylon	50 or A-3 or 0 nylon

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD	
					NEEDLE	DOBBIN/ LOOPER COVER
18.	<p>Make two lower pockets. (cont'd)</p> <p>c. Double piped pocket machine construction (when used). (cont'd)</p> <p>Sizes 30-33 5 nor more than 5-1/4 inches Sizes 34-37 5-3/4 nor more than 6 inches Sizes 38-43 6 nor more than 6-1/4 inches Sizes 44-50 6-1/4 nor more than 6-3/4 inches</p> <p>(2) Seam the two lower flaps to fronts 3/16 + 1/16 inch from overedge top of flap. Sew on top and through the marked line as indicated on the pattern through twill cloth stay and top of hanging pocket. Turn down flap over pocket opening and vertically tack at each top end of the flap with a 3/8 + 1/16 inch running tack, positioned 1/16 inch from the top edge and side edge of the flap.</p> <p>(3) Bartack each end of pocket opening, the width of the double piping or cord edges, through cords, front, and pocket facing.</p> <p>(4) Position a 2 by 8 inch strip of fusible interlining with a two sided adhesive system centered on the closed pocket bag closing seam and front interlining.</p> <p>(5) Press pockets, and fuse strip attaching the bag to the interlining. All pockets shall be pressed individually keeping the front edge of the forepart straight before basting the floating chest piece.</p> <p>(6) Trim the ends of the piping and pocketing material on the inside.</p>	301		10-14	0 silk or 0 ny-lon 50 A-3 or 0 ny-lon 50	
		Bartack		28 per bartack		

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
19.	<p>Baste floating chest piece to fronts.</p> <p>a. Mark fronts for position of floating chest piece as indicated by drill holes on front fusible interlining.</p> <p>b. Position chest piece on underside of front in accordance with marks and baste floating chest piece in position to interlining from top of breast flap, through patch pocket, along front dart seam to bottom of chest piece, to front of chest piece and along front of chest piece.</p> <p>c. Baste across shoulder allowing room for setting shoulder pads. Baste around armhole and down back of chest piece.</p> <p>d. The gorge step is the starting-reference point for placement of the bridle tape. Position bridle tape adjacent to and 1/8 inch behind breakline of each lapel. Baste bridle tape so that the center of bridle tape is placed on the edge of chest piece and to finish behind the breakline at a point 1-1/2 inches from bottom of lapel (or front edge of forepart). Top of bridle tape shall extend sufficiently above gorge to permit catching in the top collar gorge stitching and to finish within 1 to 1-1/2 inches from bottom of lapel. Baste tape even and smooth for a distance of 1-1/2 to 2 inches from gorge, then hold tape taut for a distance of 4 to 5 inches to work in not less than 3/8 inch nor more than 1/2 inch breast fullness, and the balance of the tape with out tautness or fullness. Tape and floating chest piece shall be stamped marked to assure amount of fullness.</p>	<p>301 or hand</p> <p>301 or hand</p> <p>301 or hand</p>	<p>Hopper, flat bed jump basting or chain stitch</p>	<p>4-6</p> <p>4-6</p>	Commercial	Commercial	

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	DOBBIN/ LOOPER	COVER
19.	Baste floating chest piece to fronts. (cont'd)						
	e. Blind stitch bridle tape to interlining with three rows of stitching, one at the center, and one on each edge of the tape.	103 or 306		4-8 4-8	70 70	70	
20.	Join side seams.						
	a. Turn under edge of side seam allowance of front parts, $1/4 + 1/16$ inch and blindstitch.	103	SSba-3(a)	3-6	70		
	b. Join side seams with a 5/8 inch seam. Press seams open and flat.	301 or 401	SSa-3 (b&c) SSba-3 (b&c)	10-14 10-14	30 30	30 50	
	c. Seam 3/4 inch wide bias cut strips as follows: (1) On each front along shoulder seams 1 to 1-1/2 inches from gorge to within 1/2 to 3/4 inch from armhole. (2) A strip 4 to 4-1/2 inches in length on each front adjacent to forepart armhole and 3/8 to 3/4 inch from shoulder.	301	SSaa-1	8-12	50	50	
	d. Seam 1/4 inch tape around armhole from a point 3/4 inch from shoulder seam on back to 1 inch above notch on fronts, holding tape taut. The tape may extend 3/4 to 1 inch over bias cut strip of twill cloth front, provided no extra tautness is placed above front notch of armhole.	301 or 401	SSaa-1 SSaa-1	8-12 8-12	50 50	50 70	

-or-

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
20.	Join side seams. (cont'd) e. Prior to joining the side seams, seam 1/4 inch tape at armhole from side seam to 1 inch above notch on front, and seam 1/4 inch tape on back of armhole from side seam to a point 3/4 inch from shoulder seam.	301 or 401	SSaa-1 SSaa-1	8-12 8-12	50 50	50 70	
21.	Under press lapels and fronts, and shape lapels. a. After the bridle tapes are blind stitched, the left and right fronts of coat shall be pressed individually, on left and right coat chest pressing machine respectively, to conform to the shape of the body. The front edge of forepart shall be straight. b. Mark lapels, fronts, and bottom with lapel, front and bottom shapers. c. Position lapel shaper from gorge step to the back edges of front shaper and mark as indicated by shaper. NOTE: Step on front shaper is 1/8 inch wider than step on forepart, thus giving cloth allowance for trimming at base of lapel. d. Shape the lapels, fronts and bottom of coat matching side seams and matching vent lengths. Trim ends of side seam allowance and trim vent at bottom of coat. e. The left front edge shall be dressed from bottom notch to lapel after bottoms have been shaped. -or-						

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
21.	Under press lapels and fronts, and shape lapels. (cont'd) f. As an alternate, shaping of lapels, fronts, and trimming of bottom may be performed with a clicker machine using dies conforming to pattern shapers. NOTE: When using dies, the left front must be dressed after the bottoms are shaped. 22. Match and baste facings. Match, fit, and baste facings to coat (first basting) putting in proper lapel and breast fullness. The facings shall be held slightly taut at bottom edges of foreparts. NOTE: The stitches shall be no less than one stitch per inch to assure that the breast fullness and the tautness at bottom edges of forepart are maintained. 23. Tape edges. a. Position tape 1/8 to 3/16 inch from edge of coat and stitch 1/16 to 1/8 inch from edge of tape, from top edge of step on right front down front and across bottom to back edge of facing and from top buttonhole on left front down front to bottom of the coat to back edge of the facing. The tape shall not extend into the lapel areas.	Hand or 301	Hooper, flat bed, jump basting or chain-stitch	1-2	Commercial		
		301	SSab-1	10-14	50	50	

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
23.	<p><u>Tape edges.</u> (cont'd)</p> <p>b. Blindstitch back edge of tape to interlining on fronts and lapels.</p> <p>c. Press edges flat and smooth, and pull basting threads. Edge seam shall be pressed open.</p> <p>d. Fusible edge tape construction (when used).</p> <p>(1) Position tape 1/8 to 3/16 inch from the edge of coat and stitch 1/16 to 1/8 inch from edge of tape, from 1/2 inch below lapel point down front and across bottom to back edge of facing. Tape across top of step on right forepart shall be omitted.</p> <p>(2) Press edges fusing edge tape to the front. Press edge seam flat toward front. Pull basting thread.</p> <p><u>Bind bottom edge of coat.</u></p> <p>Finished appearance. The binding shall be evenly stitched with no raw edges showing and the fabric caught in the stitching. The binding shall not be tight or full causing puckers, gathers, or pleats.</p> <p>a. Bind the bottom edge of the coat with the top raw edge turned in and caught within the binding; binding to extend from vent to 2 to 3 inches beyond side seam. The inside of the binding shall be raw.</p>	103 or hand	SSm-1	3-4	70		
24.		301	SSab-1	10-14	50	50	
		301	BSb-1	10-14	50	50	

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	DOBBIN/LOOPER	COVER
24.	Bind bottom edge of coat. (cont'd) NOTE: Before binding the bottom edge, remove the 1/4 inch allowed for booking the bottom turned-up from the bottom of the back and bottom of the front side press. -or- b. In lieu of binding the portion of bottom edge specified above, turn in raw edge $1/4 + 1/16$ inch and blindstitch. Baste coat edges and blindstitch bottom turn-up. Finished appearance. Edges, lapel points, and corners shall be uniformly worked out. The blindstitching of the turn-up at bottom shall not show through the outer side. Fullness shall be uniformly placed at lapel break to point, when basting along breakline and back edge of facing so that lapel will roll. The lower front edges shall close flat and smooth, without rolling outward. a. Notch corner of lapel and trim around lapel points and bottom corners of front edges. Turn facings, work out lapels and bottom corners of fronts. The edge basting on the left shall be started in a normal fashion (starting at notch) and shall continue to within approximately 1/2 inch of point of right lapel. Baste peak of right lapel from notch to a point 1 or 2 inches beyond the first basting.	103	EFl-1	3-6	70	Commercial	
25.		101 or hand					

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
25.	<p>Baste coat edges and blindstitch bottom turn-up. (cont'd)</p> <p>NOTE: When basting the facings, the stitches shall be no less than one stitch per inch to maintain the fullness over the breast, the lapel roll, and to hold the lower front edge of forepart so as to roll inward.</p> <p>b. Turn up bottom of coat as indicated by patterns, matching lengths of vent opening, and baste by machine or hand.</p> <p>c. Blindstitch complete bottom turn-up of coat.</p> <p>d. Baste facings along lapel front (second basting) 1 + 1/2 inch from edge, along fronts to a point in line with top edge of breast flaps, holding lower corner of coat rolled in such a manner as to cause lower front edge of forepart to roll inward.</p> <p>e. Place a row of basting diagonally from lapel break to the point of lapel, placing fullness in lapel to allow lapel to roll.</p>	<p>101 or hand</p> <p>103 or</p> <p>306 or</p> <p>hand</p> <p>301 or hand</p> <p>301 or hand</p>			Commercial		
				6-8	0 silk or 0 nylon		
				6-8	0 silk or 0 nylon		
				6-8	A silk or A nylon		
					Commercial		
					Commercial		

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
25.	Baste coat edges and blindstitch bottom turn-up. (cont'd) f. Baste along breakline of lapel, allowing fullness in facing, to permit lapel to roll. g. Baste back edge of facing, putting fullness over chest. Sew shoulder pads. Insert shoulder pads between interlining and chest piece and tack in position to chest piece. Tack facings to interlining.	301 or hand 301 or hand 301 or hand		2-4 2-4	Commercial Commercial Commercial		
26.							
27.	a. Tack the back edge of right facing to the interlining with one row of blindstitching from not more than 2-1/2 inches from shoulder seam to not more than 2 inches above inside pocket opening. Continue the tacking along outer ply of inside pocket seam allowance and seam allowance of facing, to within 2 inches of bottom of coat (see operation 39.k.). b. Tack back edge of left facing to interlining with one row of blindstitching from not more than 2-1/2 inches from shoulder seam to within 2 inches of bottom of coat. Baste lining. a. Baste pleat in shoulder fronts, and baste around armhole, down side seam, and across bottom.	301 or 103 or hand 301 or 103 or hand	SSm-1 SSm-1 SSm-1 SSm-1 SSm-1	2-4 2-4 2-4 2-4 2-4	50 70 70 50 70 70	50	Commercial
28.							

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
28.	<u>Baste lining.</u> (cont'd) b. Turn in the bottom and back edge of lining and baste to body of coat; basting to allow room for felling. The raw edge of lining at bottom hem shall be covered. c. Trim gorge and the lining of armholes and shoulds with lining extending 1/4 inch from shoulder point at neck and 1/2 inch at shoulder point at armhole; trim even at the lapel notch to a point extending 1/8 inch from gorge at step for lapel crease line to allow for gorge to settle even when lapel is turned and creased. The lining at armhole shall extend no less than 1/2 inch to allow for insertion of sleeve head and shoulder pads.	301 or hand			Commercial		
29.	<u>Fell lining.</u> Blindstitch the bottom and sides of front body lining to body of coat. The felling stitches shall not be visible on outside of coat.	Hand or 301		6-8 6-8	A silk or A nylon O silk O silk O nylon O nylon		
30.	<u>Join shoulder seam.</u> Finished appearance. The fullness on the backs at shoulder seams shall be so placed that shoulder will attain correct shape as indicated by shoulder line on front pattern when finished.						

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
30.	Join shoulder seam. (cont'd) a. Join shoulder seams of coat, working in fullness on backs. -or- b. The back shoulder seam may be bias taped to draw in the fullness and pressed before joining of shoulder seams. Press shoulder seams.	301 or 401 301	SSa-1 SSa-1 SSaa-1	10-14 10-14 8-10	30 30 50	30 50 50	
31.	Finished appearance. The shoulder seams shall finish flat and smooth without distortion and curved as indicated by the shoulder line on the front patterns. Open and press shoulder seam over a suitable block, holding shoulder short.						
32.	Set shoulder loops. Finished appearance. The shoulder loops shall be of a uniform length and setting. Baste or stitch loop to shoulder at armhole. Trim even with armhole. Point of loop shall extend 1/8 inch beyond edge of the gorge outlet; the back edge of loop 1/2 inch back of the shoulder seam at armhole and the point of loop 1/4 to 3/8 inch in front of shoulder seam.	Hand or 301			Commercial		

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
33.	<p><u>Baste shoulder.</u></p> <p>a. Position shoulder interlining and lining, and baste upper part of each shoulder on outside and turn coat to inside. Turn under edges of back lining at shoulders and baste upper part of each shoulder, continuing basting across neck at back.</p> <p>b. In lieu of basting the lining at the shoulder as required in operations 33.a. and 37.a., and hand fell-ing as required in operation 39.f., the front lining and yoke lining at shoulder may be trimmed to allow for thickness of the shoulder pad and stitched on the inside by machine.</p>	Hand or 301					
34.	<p><u>Set collar.</u></p> <p>Finished appearance. The collar shall finish center- ed on the back seam with the fullness distributed over the shoulder to conform to and hug the neck.</p> <p>a. Mark outlet at neck with gorge shaper.</p> <p>b. Seam top collar to front facing at gorge to a point not less than 1 inch back of lapel breakline. Notch facing at the end of joining seam.</p> <p>-or-</p> <p>c. A strip of twill cloth, cut on the straight 1/4 to 3/8 inch wide, may be stitched to front and facing gorge seams (bias portion) to prevent stretching and facilitate collar setting.</p>	301	SSa-1	10-14	Commercial 50	50	
		301	SSa-1	10-14	50	50	
		301	SSaa-1	10-14	50	50	

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
34.	Set collar. (cont'd)						
	d. Spread open seam joining top collar to facing and tack the seam allowance of top collar to front at the gorge from lapel notch to end of seam, catching bridle tape in the tacking.	Hand or 301			50 50	50	
	e. Baste undercollar to coat, putting in fullness over the shoulder.	Hand or 301			50 50	50	
	f. Tack outlet at neck to undercollar, or to interlining if two piece collar construction is used, by hand or blindstitch machine.	Hand or 103 or 306	SSm-1 SSm-1 SSm-1	2-4 3-4 3-4	70 70 70	70	
	g. Turn under lower edge of top collar and baste across neck.	Hand or 301			50 50	50	
	h. Fell the lower edge of undercollar to coat by hand or machine. The raw edge of the undercollar shall be enclosed within the felling.	Hand or Machine (simulated hand felling) or 306	LSa-1 LSa-1	8-12 6-10	C silk or C nylon A silk or B nylon		
	i. Blind tack corners of collar and lapels. The tacking shall not show on outside of coat.	Hand	LSa-1	8-12 6-8	O silk or O nylon or C silk or C nylon	O silk or O nylon	

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
34.	<p><u>Set collar. (cont'd)</u></p> <p>j. Fell the lower edge of top collar from gorge seam to gorge seam by hand.</p> <p>-or-</p> <p>k. In lieu of operations 34.f., g. and j., machine stitch lower edge of top collar across neck from gorge to gorge seam.</p> <p><u>Set in sleeve.</u></p> <p>Finished appearance. The sleeves shall set uniformly with fullness at front and back armhole distributed without pleats or puckers.</p> <p>Set sleeves matching front sleeve notch with front armhole notch and back arm seam with back armhole notch, distributing the fullness in the front and back of armhole evenly and catching the end of shoulder loops in the seam.</p> <p><u>Press armhole seam.</u></p> <p>Finished appearance. The armhole seam pressing shall not stretch or distort the armhole. The portion of the shoulder loop seam shall not be pressed back. Shoulder loop shall remain smooth and flat.</p> <p>Press seam open across top from 1 + 1/4 inches above back arm seam to not less than 3 or more than 4 inches forward of shoulder seam, or the seam across top may be pressed toward sleeve in the same direction as loop.</p>	Hand		8-10	C silk or C nylon		
35.		301	Similar to SSbd-1	10-14	50	50	
36.		301 or 401	SSa-1 SSa-1	10-14 10-14	30 30	30 50	

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
37.	Baste and tack armholes. a. Baste around outside armholes, positioning lining, yoke, and shoulder pad and back of shoulder in place, putting fullness of yoke in place; or back part of armholes may be basted from the lining side. Baste balance of shoulder lining. b. Tack all around armhole by hand or machine catching the shields at base of armhole. NOTE: When armhole is tacked by machine, a loosely formed and elastic stitch shall be used, and operation 37.c. may be omitted. NOTE: When tacking is done by hand, the tacking shall be backstitched every other stitch from front notch, around top of armhole to back notch. c. Tack across base of armhole from sleeve notch on front to side seam. d. Trim away excess lining and interlining. e. Tack sleeve head wadding to top of armhole from front sleeve notch to back seam of sleeve. The sleeve head wadding shall be positioned with folded edge adjacent to edge of armhole, backing cloth side against sleeve, and in such a manner as to cause the wadding to fold on itself. The tacking shall be adjacent to armhole seam. When armhole is tacked by machine, the sleeve head wadding shall be attached in the armhole tacking operation.	Hand or 301			Commercial		
		Hand or 301		4-6 4-6	30 30		
		301	SSa-1	4-6	30	30	
		Hand or 301		4-6 4-6	30 White 30 White		

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
38.	Press left front.						
	Press left front prior to the buttonhole operation.						
39.	Complete hand felling.						
	a. Fell lining all around armholes and backstitch pit of armhole from forearm seam of sleeve to side seam. The sleeve lining shall be seam on seam with sleeve. The sleeve lining may be stitched to the armhole on the inside from forearm seam of sleeve to the back arm seam across undersleeve.	Machine (duplicate hand type felling) or Hand or		6-10	A silk or O nylon		
					C silk or C nylon		
		301 and machine (duplicate hand type felling) or 301 and hand	SSa-1	10-14 6-10	50 A silk or O nylon	50	
			SSa-1	10-14 6-10	50 C silk or C nylon	50	
	NOTE: Machine duplicated hand felling stitches shall be equal to or better than actual hand type felling stitches. When using the machine duplicated hand type felling stitches, the stitches shall be over the folded edge of the sleeve lining.						

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	DOBBIN/ LOOPER	COVER
39.	Complete hand felling. (cont'd)						
	-or-						
	b. As an alternate, the armhole lining may be felled utilizing a sleeve lining felling machine that consists of a one needle, two thread, feed off the arm machine equipped with a lower and upper feed (see operations 12.1 and 12.m).						
	c. Stitch sleeve lining to armhole on inside from front sleeve notch to backarm seam across under-sleeve.	301	SSa-1	10-14	50	50	
	d. Stitch the top sleeve lining to armhole on inside from the front armhole notch to top back arm lining seam across the crown of the top sleeve lining.	306	SSa-1	10-14	50 or nylon A	50 or nylon A	
	e. Close the previous left opened forearm seam 1/16 to 3/32 inch from edge.	301	SSc-1	10-14	50	50	
	f. Fell lining of shoulder, yoke at side seams, corners of linings and facings at bottom, and vent corners.	Hand		8-10	A or C silk or A or C nylon		
	-or-						

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/LOOPER	COVER
39.	Complete hand felling. (cont'd)						
	g. As an alternate, the right vent corner may be stitched from bottom of coat through turn up to top of piped bottom. The left vent corner may be stitched prior to turning up the bottom of the coat. The stitching shall not be visible on the outside.	301	SSa-1	10-12	0 ny- lon	0 ny- lon	
	-or-						
	h. As an alternate, tack the yoke at the side seams and corner of lining and facing at the bottom using an automatic tacker.	101		8	0 nylon		
	i. Fell the sleeve lining turn-up to the sleeve.	Hand or		6-8	A or C silk A or C nylon		
	j. Tack bottom edge of armhole shields on the under-side to lining.	306		6-8	0 silk or 0 ny- lon	0 silk or 0 ny- lon	
	k. Front edge of inside pocket may be tacked by hand in lieu of operation 27.a., and 14.j. Tack through facing pocket seam allowance catching the interlining from corner of pocket opening and down for a distance not less than 5 inches.	Hand		6-8	A or C silk or A or C nylon		
		Hand		2-4	A or C silk or A or C nylon		

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/ LOOPER	COVER
40.	<p><u>Clean coat.</u></p> <p>a. Remove all basting threads.</p> <p>b. All ends of stitching shall be trimmed and loose threads removed from the coats.</p> <p>c. All spots, stains, and shade or size markings shall be removed without damage to the material.</p>						
41.	<p><u>Mark and make buttonholes.</u></p> <p>Finished appearance. The top front buttonhole shall be positioned in horizontal alignment with center of eyelets in breast pocket flaps, and the bottom buttonhole shall be positioned 3/4 to 1 inch above top edge of lower pocket flaps (see figure 2, view B). The remaining two buttonholes shall be evenly spaced between top and bottom buttonholes.</p> <p>a. Mark left front for four buttonholes as indicated in finished appearance paragraph.</p> <p>b. Make four buttonholes in left front as marked with the inside edge of the eyelet 5/8 to 3/4 inch from the finished edge of the coat. The cut of the finished buttonhole after tacking shall measure not less than 1 inch and not more than 1-1/8 inches (see 3.6.2).</p>	<p>Buttonholes Machine or</p>		<p>63-70 per 1 inch buttonhole and 70-80 per 1-1/8 inch buttonhole</p>	<p>C or B nylon or B nylon</p>	<p>B or B nylon F nylon</p>	

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D	
					NEEDLE	DOBBIN/ LOOPER COVER
41.	Mark and make buttonholes. (cont'd)	hand		70-80 per 1-1/8 inch button- hole	10 silk or 10 nylon	
	c. Tack ends of buttonholes stitching and gimp by machine or hand with a vertical bartack centered on both legs of the buttonhole.	Bartack Machine or		21 per bartack	B silk or B ny- lon	B silk or B ny- lon
	d. <u>Optional bound buttonhole construction</u> <u>(when used) (see 6.11).</u> Finished appearance. The buttonhole shall be 1 + 1/16 inch long, positioned on the left front as indicated by marks on pattern and as specified in finished appearance paragraph in operation 41. (1) Mark the position and the length of the buttonholes on front. (2) Cut strip in two pieces for each buttonhole, sufficiently long to extend beyond the ends of the buttonhole. (3) Fold strip of basic material in half lengthwise and stitch 1/8 inch from folded edge.	Hand		6 per tack	10 silk or 10 nylon	
		301	OSf-1	12-16	50	50

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
41.	<p>Mark and make buttonholes. (cont'd)</p> <p>d. <u>Optional bound buttonhole construction (when used) (see 6.11).</u> (cont'd)</p> <p>(4) . Place pieces of stripping on each buttonhole mark with the raw edges abutted. Stitch to front through interlining, with the stitching superimposing the 1/8 inch stitching on the buttonhole strip, and securely tack ends. The two parallel lines of stitching shall be not more than 1/4 inch apart.</p> <p>NOTE: The 1/8 inch line of stitching from the folded edge (see operation 41.d.(3)) may be omitted.</p> <p>(5) Cut between the two parallel rows of stitching through front fusible interlining, tongue notching ends.</p> <p>(6) Turn piping, joining seam to inside. Turn in the tongue notched ends and stitch on inside across ends of buttonhole through tongue and piping only.</p> <p>(7) Baste buttonhole closed.</p> <p>(8) Trim excess material at each end of buttonhole to not less than 3/8 inch from the stitching across the ends.</p>	301		12-16	50	50	
		301		12-16	50	50	
		Hand or machine					

MIL-C-44211A(GL)

NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD		
					NEEDLE	BOBBIN/LOOPER	COVER
41.	<p>Mark and make buttonholes. (cont'd)</p> <p>d. <u>Optional bound buttonhole construction (when used) (see 6.11).</u> (cont'd)</p> <p>NOTE: The buttonholes may be made in one operation using a special machine with a suitable material for reinforcement. When using the special machine, the notch of the piping piece shall be placed towards the top of the front.</p> <p>e. <u>Finish front bound buttonholes.</u></p> <p>Slit facing the length of buttonhole in line with opening. Turn in raw edge and fell to piping, securely tacking ends. Indentations along front edge of coat, in line with buttonholes, shall be avoided.</p> <p><u>Press coat.</u></p> <p>Finished appearance. The coat shall be pressed smooth and flat, without any gloss or pressing impressions. The top of sleeves shall be blocked and pressed having a rolled effect at front and back. The left front bottom edge shall be even with right, and shall roll inward below bottom front button when buttoned on model form (see figure 2, view D). There shall not be any strike through or strike back of fusing material on the finished coat.</p> <p>a. Place coat on hanger after first pressing operation until completion of pressing.</p>	101 or 301		12-16	50		
42.		Hand		8-10			

NATICK Form 903

1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
42.	<p><u>Press coat.</u> (cont'd)</p> <p>b. The shoulders shall be pressed on a left and right shoulder pressing machine..</p> <p>c. Press edges of lapels, fronts, collar, and bottom of coat on edge pressing machine.</p> <p>d. Press right and left fronts on right and left chest machine respectively.</p> <p>e. Press balance of fronts, side seams, and back on body machine.</p> <p>f. Press collar on collar machine stretching outer edge of collar over shoulder area when required. The pressed crease at breakline of lapel shall extend 2 to 2-1/2 inches below the gorge seam. The lapel and gorge shall be checked with the finished lapel shaper for the proper width.</p> <p>g. Press armhole and shoulders on armhole machine.</p> <p>h. Press armhole solid from the inside, creasing armhole from not less than 1/2 inch above backarm seam to not less than 4 inches from shoulder seam. The armpit and back of armhole shall be held short and pressed flat.</p> <p>i. Roll press sleeves and lapels, starting 2 to 2-1/2 inches below the gorge seam; do not crease.</p>						

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
43.	<p><u>Finish pressing.</u></p> <p>a. Press coat lining smooth.</p> <p>b. Remove gloss, wrinkles, creases, spots, and all pressing impressions.</p> <p>c. Block armhole and shrink top sleeve.</p> <p>d. Brush coat and examine.</p> <p>e. Press any wrinkles missed or caused by previous pressing operations.</p> <p><u>Mark coat for buttons.</u></p> <p>a. Mark the location of the four buttons on the right front of coat as indicated by patterns, to correspond with buttonholes on left front. Buttons shall be sewn 1-5/8 to 1-7/8 inches from front edge. Buttons shall be in vertical alignment.</p> <p>b. Mark the location of each button on each pocket to correspond to eyelet end of buttonhole on each pocket flap.</p> <p>c. Mark the position of each button on each shoulder to correspond to buttonhole on each shoulder loop.</p> <p><u>Sew on buttons.</u></p> <p>Finished appearance. The buttons shall be securely sewn to the coat and shall properly engage buttonholes in left front, shoulder loops, and upper and lower</p>						
44.							
45.							

NATICK Form 903

1 Dec 76 EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

NO.	TABLE I (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	THREAD	
					NEEDLE	BOBBIN/ LOOPER COVER
45.	<p><u>Sew on buttons.</u> (cont'd)</p> <p>pocket flaps. All buttons when sewn by hand shall be backstitched with not less than two stitches and the ends of the thread shall be hidden.</p> <p>a. Sew a 36-line button at each of the marks on the right front. The button shall be sewn through all plies of material with the eagle in an upright position.</p>	301 or 101 or Hand		14-16 per button 14-16 per button 4-6 per button double thread 12 (min) per button (1 deep set)	30 30 30	
		or 801 (see fig. 5 and 6.10 b)			5 nylon	
		301 or 101 or Hand or 801 (see fig. 5 and 6.10 b)		14 per button 14-16 per button 4-6 per button double thread (7 min) per button (1 deep set)	30 30 30	30
	<p>b. Sew a 25-line button at the mark on each upper and lower pocket with the eagle in an upright position.</p>					
	<p>c. In lieu of sewing buttons to the pockets, the buttons may be attached to the flaps with loggies.</p>					

-or-

MIL-C-44211A(GL)

NO.	TABLE I. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	SEAM AND STITCHING TYPE	STITCHES PER INCH	T H R E A D		
					NEEDLE	BOBBIN/ LOOPER	COVER
45.	Sew on buttons. (cont'd) d. Sew a 25-line button at the mark on each shoulder with the spread wings of the eagle in line with shoulder seam, and the head in an upright position toward the back of the coat. The button shall be so that the loop lies flat without bulging. The rim of the button shall be $1/4 \pm 1/8$ inch from collar edge.	301 or 101 or Hand or 801 (see fig 5 and 6.10.b)		14-16 per button 14-16 per button 4-6 per button double thread (7 min) per button (1 deep set)	30 30 30 5 nylon		

NATICK Form 903
1 Dec 76

EDITION OF 1 OCT 76 WILL BE USED UNTIL EXHAUSTED.

MIL-C-44211A(GL)

3.8 Finished measurements. Finished measurements shall conform to tables II and III.

TABLE II. Coat measurements

Size	1/2 breast <u>1/</u>	Sleeve length <u>2/</u>	Back length <u>3/</u>
<u>X-short</u>	<u>Inches</u>	<u>Inches</u>	<u>Inches</u>
34	18-3/4	15	27-1/2
35	19-1 4	15	27 5/8
36	19-3 4	15	27-3 4
37	20-1/4	15	27-7/8
38	20 3 4	15	27
39	21-1/4	15	28-1/8
40	21-3/4	15	28-1/4
41	22-1/4	15	28-3/8
42	22-3/4	15	28-1/2
43	23-1/4	15	28-5/8
Tolerance:			
Plus	1/2	1/2	1/2
Minus	1/2	3/8	1/2
<u>Short</u>	<u>Inches</u>	<u>Inches</u>	<u>Inches</u>
32	17-3/4	16	28-3/4
33	18-1/4	16	28-7/8
34	18-3/4	16	29
35	19-1/4	16	29-1/8
36	19-3/4	16	29-1/4
37	20-1/4	16	29-3/8
38	20-3/4	16	29-1/2
39	21-1/4	16	29-5/8
40	21-3/4	16	29-3/4
41	22-1/4	16	29-7/8
42	22-3/4	16	30
43	23-1/4	16	30-1/8
44	23-3/4	16	30-1/4
46	24-3/4	16	30-1/2
48	25-3/4	16	30-3/4
50	26-3/4	16	31
Tolerance:			
Plus	1/2	1/2	1/2
Minus	1/2	3/8	1/2

MIL-C-44211A(GL)

TABLE II. Coat measurements (cont'd)

Size	1/2 breast <u>1/</u>	Sleeve length <u>2/</u>	Back length <u>3/</u>
<u>Regular</u>	<u>Inches</u>	<u>Inches</u>	<u>Inches</u>
30	16-3/4	17	29-3/4
31	17-1/4	17	29-7/8
32	17-3/4	17	30
33	18-1/4	17	30-1/8
34	18-3/4	17	30-1/4
35	19-1/4	17	30-3/8
36	19-3/4	17	30-1/2
37	20-1/4	17	30-5/8
38	20-3/4	17	30-3/4
39	21-1/4	17	30-7/8
40	21-3/4	17	31
41	22-1/4	17	31-1/8
42	22-3/4	17	31-1/4
43	23-1/4	17	31-3/8
44	23-3/4	17	31-1/2
46	24-3/4	17	31-3/4
48	25-3/4	17	32
50	26-3/4	17	32-1/4
Tolerance:			
Plus	1/2	1/2	1/2
Minus	1/2	3/8	1/2
<u>Long</u>	<u>Inches</u>	<u>Inches</u>	<u>Inches</u>
33	18-1/4	18-1/4	31-5/8
34	18-3/4	18-1/4	31-3/4
35	19-1/4	18-1/4	31-7/8
36	19-3/4	18-1/4	32
37	20-1/4	18-1/4	32-1/8
38	20-3/4	18-1/4	32-1/4
39	21-1/4	18-1/4	32-3/8
40	21-3/4	18-1/4	32-1/2
41	22-1/4	18-1/4	32-5/8
42	22-3/4	18-1/4	32-3/4
43	23-1/4	18-1/4	32-7/8
44	23-3/4	18-1/4	33
46	24-3/4	18-1/4	33-1/4
48	25-3/4	18-1/4	33-1/2
50	26-3/4	18-1/4	33-3/4
Tolerance:			
Plus	1/2	1/2	1/2
Minus	1/2	3/8	1/2

MIL-C-44211A(GL)

TABLE II. Coat measurements (cont'd)

Size	1/2 breast <u>1/</u>	Sleeve length <u>2/</u>	Back length <u>3/</u>
<u>X-long</u>	<u>Inches</u>	<u>Inches</u>	<u>Inches</u>
36	19-3/4	19-3/4	33-3/4
37	20-1/4	19-3/4	33-7/8
38	20-3/4	19-3/4	34
39	21-1/4	19-3/4	34-1/8
40	21-3/4	19-3/4	34-1/4
41	22-1/4	19-3/4	34-3/8
42	22-3/4	19-3/4	34-1/2
43	23-1/4	19-3/4	34-5/8
44	23-3/4	19-3/4	34-3/4
46	24-3/4	19-3/4	35
48	25-3/4	19-3/4	35-1/4
Tolerance:			
Plus	1/2	1/2	1/2
Minus	1/2	3/8	1/2

- 1/ One half breast measurement taken with coat buttoned, from folded edge to folded edge in line with pit of armhole.
- 2/ Sleeve length measurement taken along inseam from pit of armhole to bottom of sleeve.
- 3/ Back length measurement taken along center seam from undercollar seam to bottom of coat.

TABLE III. Pocket and flap measurements (inches)

Upper pocket and flap <u>1/</u>					
Size	30-31	32-34	35-37	38-43	44-50
A Width of flap at top edge.	4-1/8	4-3/8	5	5-7/16	5-3/4
B Length of flap at center point	2-13/16	2-13/16	2-13/16	2-13/16	2-13/16
C Width of patch pocket at top edge, side edge to side edge.	4-1/16	4-1/4	4-15/16	5-3/8	5-5/8
D Length of pocket, top edge to bottom edge at center of pleat.	5-3/8	5-5/8	5-13/16	6	6-3/16

MIL-C-44211A(GL)

TABLE III. Pocket and flap measurements (inches) (cont'd)

Lower flap <u>1/</u>				
Size	30-33	34-37	38-43	44-50
E Width of flap at top edge.	6-7/8	7-3/4	8-1/8	8-1/2
F Length of flap at center point.	3-3/4	3-3/4	3-3/4	3-3/4
Lower pocket opening				
Size	30-33	34-37	38-43	44-50
Width of pocket opening.	5 to 5-1/4	5-3/4 to 6	6 to 6-1/4	6-1/4 to 6-3/4

1/ Tolerance on all measurements $\pm 1/8$ inch. Reference figure 8 for positions of A, B, C, D, E, and F.

3.9 End item. The end item fusible shall have "no strike through" of the adhesive after fusing. The production end item testing shall be as specified in 4.4.5. Results of the end item drycleaning test shall be recorded on figure 7. Copies of figures 6 and 7, shall be attached to and become part of the contractor's end item examination record.

3.10 Workmanship. The end item shall conform to the quality of product established by this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (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 Responsibility for compliance. All items must 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

MIL-C-44211A(GL)

submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

4.1.3 Certificates of compliance. When certificates of compliance are submitted, the Government reserves the right to inspect such items to determine the validity of the certification.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), it shall be examined for the visual and dimensional defects specified in MIL-STD-1490 and for the fusing defects in 4.4.4 and 4.4.5.

4.4 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document. In addition, testing shall be performed on components listed in table IV for characteristics noted including small parts and fronts fusibles fused to the outershell fabric as prepared by the contractor during the pre-production testing period. The methods of testing specified in FED-STD-191, wherever applicable, and as listed in table IV shall be followed. All requirements are applicable to the sample unit. Unless otherwise specified, lot average will apply when more than one determination is made per sample unit. All test reports including figures 6 and 7 shall contain the individual values used in expressing the final result. The component lot shall be unacceptable if one or more sample units fail to meet any of the test requirements specified. The lot size shall be expressed in linear yards and the sample unit shall be 18 linear inches full width. The sample size shall be in accordance with the following:

MIL-C-44211A(GL)

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

TABLE IV. Component tests - fusible materials

<u>Component</u>	<u>Characteristic</u>	<u>Requirement</u>	<u>Test method</u>
Cloth, fusible, all parts	Color	3.3.5.1 thru 3.3.5.2	Visual <u>1/</u>
	Adhesive type	3.3.5.1 thru 3.3.5.2	<u>1/</u>
	Evenness of adhesive	3.3.5.1 thru 3.3.5.2	<u>1/</u> <u>2/</u>
	Colorfastness to drycleaning	3.3.5.4	5621

1/ A certificate of compliance will be accepted for this requirement.

2/ A 12 inch head end per 100 yards of fusible material shall be viewed under a black light for unevenness of adhesive, missing dot, or extreme heavy coating. Any of these conditions observed shall cause rejection of the 100 yard sample.

4.4.2 Daily preproduction testing. The tests listed in table V shall be performed each day prior to the start of production.

TABLE V. Daily preproduction tests

<u>Characteristic</u>	<u>Requirement</u>	<u>Test procedure</u>
Bonding strength		
Small parts	3.3.5.3	4.4.2.3
Fronts	3.3.5.3	4.4.2.3
Fusing press settings	3.3.5.6	4.4.2.1
Actual fusing temperature	3.3.5.6	4.4.2.2

4.4.2.1 Fusing press settings. Before production begins each day, visually check all fusing machine settings for temperature, pressure and conveyor speed dwell time for conformance with manufacturer's recommendations. Nonconforming settings shall be adjusted accordingly. Actual settings will be recorded in the first column of figure 6.

MIL-C-44211A(GL)

4.4.2.2 Actual fusing temperature. Two swatches of outershell material, 12 inches in the warp direction and 11 inches in the filling direction, shall be cut from outershell material to be used in the first 2 hours of the day's production. At the same time, one swatch each of small parts and fronts fusible material, 12 inches in the warp (machine) direction and 11 inches in the filling (cross-machine) direction, shall be cut from material to be used in the first 2 hours of the day's production. All test swatches shall be cut into three equal parts of approximately 3.6 inches by 12 inches. The fusible test swatches may be cut slightly smaller in size to avoid conveyor belt contamination. Sandwich a temperature strip face down between one specimen of outershell material placed face down and a specimen of fronts fusible material placed on top with the adhesive side down. The temperature strip shall be placed slightly within the fusible starter strip. All small parts and fronts fusing tests shall have an approximate 1 inch by full width starter strip or non-fused area incorporated into the top portion of any given bond strength samples. This can be accomplished by placing a thin non-adhesive material between the fusible interlining and outershell before fusing, or by folding the fusible onto itself. This sample shall be placed in the center of the fusing press conveyor with the outershell material down. Prepare two additional samples as described above using the fronts fusible material and place them on the left and right sides of the conveyor belt with the outershell material face down. Repeat the process for the small parts fusible material but without using the temperature strips. Lanes may be designated on the samples if necessary. After the fusing press is fully warmed up run all samples through the press. When all the samples are cool to the touch after running through the fusing press, take the temperature strip specimens, determine the average of the three readings, and record the results in column 2 of figure 6. Retain each individual temperature reading in an organized self-developed worksheet format. If the average falls outside of the fusible manufacturers recommended range, or if there is a variance in excess of 10°F or 6°C between lanes, determine the cause, correct the problem and repeat the testing process. Actual temperature and time shall be recorded in figure 6. See 6.6 for suggested temperature strip sources.

4.4.2.3 Bonding strength. To determine bonding strength, trim all small parts and fronts fusible swatches from the actual fusing temperature test to 1 inch by 12 inch strips. Pinking shears shall not be used to cut strips. The outershell fabric of each shall be clamped at the top, and the fusible material pulled from the starter strips downwards in a vertical direction in a steady continuous motion. A constant-rate-extension (CRE), or a constant-rate-traverse (CRT), or calibrated spring scale type tester may be used. If a spring scale type tester is used it shall be calibrated once weekly. Any calibration procedure used shall assure an accuracy of 1/4 ounce or better, and the date of calibration shall be entered on figure 6. Average the three bonding strength readings for each fusible type. Retain each individual bonding strength reading in an organized self-developed worksheet format and record the averages on figure 6. If any individual reading fails to meet minimum bonding strength requirement specified in 3.3.5.3 then cause must be determined, corrections made and the material retested until the problem is resolved before commencing production. In case of bonding strength dispute see 6.8.

MIL-C-44211A(GL)

4.4.3 In-process inspection. Inspection of subassemblies shall be made to ascertain that construction details which cannot be examined in the finished product are in accordance with specified requirements. The Government reserves the right to exclude from consideration for acceptance, any material or service for which in-process inspection has indicated nonconformance. Examination shall be made of the following operation to establish conformance to specified requirements. Whenever nonconformance is noted, corrections shall be made to the areas affected, the lot in process and to the operation. Parts which cannot be corrected shall be removed from production.

a. Visual and dimensional examination of the working patterns to determine that they conform to the Government patterns in all respects (see 3.5).

b. Visual and dimensional examination of the cut parts to determine that they are properly cut with respect to size, material directional requirements (warp and filling); that location marks and notches on the parts are located correctly; and that parts containing material defects and damages have been removed (see 3.6.5 and table I, operations 1 through 4).

c. Visual examination of cut parts during assembly of the coat to determine proper shade matching (see 3.6.5 and table I, operation 5).

d. Visual examination of the fused cut parts to assure conformance to the specified positioning requirements of operation 6 in table I and that there is no bubbling, strike back, or strike through. Additionally, all cut parts shall be examined for any resin transference.

e. Visual examination of collar gorge seam to determine seam is tacked open and the bridle tape is caught in the tacking (see table I, operation 34.d).

f. Visual examination of sleeves (prior to basting lining to armhole, side seams and bottom of coat) to determine that sleeves are set uniformly with fullness at armhole distributed without pleats or puckers (see table I, operation 35). 1/

g. Visual examination of taped front and back armholes to determine that armhole tape is stitched correctly without any indication of a stretched back and front armhole (see table I, operations 20.c. and 20.d.). 1/

h. Visual examination to determine that the breast pocket conforms to the breast pocket shaper, and the breast pocket flaps and the lower pocket flaps conform to their respective pocket flap shapers (sew in line). 2/

1/ For this examination, the contractor shall establish an inspection station. Periodic examination shall be made during each work shift to determine that the requirements are being met.

2/ This examination shall be performed prior to stitching the flaps to the coat front.

MIL-C-44211A(GL)

4.4.3.1 In-process fusing press maintenance and representative production testing. In-process tests listed in table VI shall be performed. Actual fusing temperature and bonding strength testing shall be performed after every 2 hours of fusing production time, and prior to re-starting fusing production after any stopping of fusing for 29 minutes or more. Pressure evenness and dwell time maintenance testing shall be performed once weekly. All representative production testing shall be performed on outershell, and both small parts and fronts fusible materials, sampled from component lots to be consumed in the next 1000 units of coat production. Sample size, and acceptance/rejection criteria shall be as specified in the applicable test procedure.

TABLE VI. In-process fusing press maintenance and representative production tests

Characteristic	Requirement	Test procedure
Fusing press maintenance:		
Bonding strength		
Small parts	3.3.5.3	4.4.2.3
Fronts	3.3.5.3	4.4.2.3
Actual fusing temperature	3.3.5.6	4.4.2.2
Pressure evenness	3.3.5.6	4.4.3.2
Dwell time	3.3.5.6	4.4.3.2
Representative production:		
Differential shrinkage	3.3.5.5	4.4.3.3
Appearance (before & after drycleaning)	3.3.5.5	4.4.3.4
Drycleaned shrinkage	3.3.5.5	4.4.3.4
Drycleaned bonding strength		
Small parts	3.3.5.3	4.4.3.4
Fronts	3.3.5.3	4.4.3.4

4.4.3.2 Pressure evenness and dwell time. Cut five, 12 inches in the warp direction by 2 inches in the filling, strips of outershell material and slightly smaller sized fronts fusible material. Place each of the fusible strips with the adhesive side down on the top of the outershell material with the face side down and with a fusible starter strip (see 4.4.2.2). Arrange the five specimens on the fusing press conveyor belt alongside each other in five different lanes consisting of extreme left, middle left, center, middle right and extreme right. Lanes may be marked on each strip if necessary. Run the specimens through the fusing press and using a stop watch, wrist watch or any mechanism that assures proper timing, mark the time elapsed between the time the leading edge of one of the specimens comes under pressure contact and the time it is released from the

MIL-C-44211A(GL)

pressure contact. As an alternate procedure, the dwell time test may be conducted with the outershell differential swatch required in 4.4.3.3. Enter the dwell time on figure 6. Remove the strips from the fusing machine when adequately cooled, cut fused outershell/fusible laminate to 1 inch filling direction, and perform the bonding test in 4.4.2.3 on all five specimens, recording the results for each specimen in figure 6. The dwell time should be consistent with the machine speed ratings, and the fusible manufacturers recommended range and all five specimens should meet the minimum initial requirement for bond strength specified in 3.3.5.3. Any variations shall be investigated for cause, correction made, and the testing process repeated.

4.4.3.3 Differential shrinkage. From the outershell material cut three, 12 inches in the warp direction by 11 inches in the filling swatches and one each slightly smaller sized (not less than 10.5 inches) swatch from small parts and fronts fusible materials. Mark all swatches with 10 inch square gage marks using drycleaning resistant ink. Run one swatch of the outershell material through the heated fusing press by itself, and record the dimensional change in both directions to the nearest one-half percent. As an alternate, the dwell time test (see 4.4.3.2) may be conducted using this swatch. Prepare the two composite samples with the remaining two outershell swatches placed face down, then place the small parts and fronts fusible material swatches, matching the outershell warp direction, on top with the adhesive side down and with the fusible starter strips (see 4.4.2.2). After running through the fusing press, record the dimensional changes in both directions to the nearest one-half percent. Differential shrinkage shall be calculated as the difference, if any, between the dimensional percent changes in the outershell only material and each of the fusible materials. This information shall be recorded on chart A of figure 7. If the differential shrinkage exceeds the requirements specified in 3.3.5.5, investigate to determine cause, correct the problem, and repeat testing.

4.4.3.4 Drycleaning appearance, shrinkage and bonding strength. For all tests use the two small parts and fronts premarked 12 inch by 11 inch fused swatches fabricated in 4.4.3.3. Prior to drycleaning, the two swatches shall be pressed twice each on a top and bottom steam press with closed head for 20 seconds and vacuum for 10 seconds. Both swatches shall be drycleaned three times using a commercial dry cleaning procedure and perchlorethylene solvent. Each swatch shall be steam pressed with 20 second bottom steaming in the non-locked position and vacuum after each of the three drycleanings. After cleaning and pressing, examine the swatches for bubbling, delamination or strike through and record the observations on chart A of figure 7. Measure the bench marks on the outershell material in both directions for each swatch, determine shrinkage to one half percent, and record on chart A of figure 7. Trim each swatch into three 1 inch by 12 inch strips and perform bonding strength tests using the bonding strength procedure in the preproduction testing in 4.4.2.3. Retain each individual bonding strength reading in an organized self-developed worksheet format and record the averages on chart A of figure 7. Any evidence of bubbling, delamination, or strike through, or either shrinkage or bonding

MIL-C-44211A(GL)

strength not meeting the requirements of 3.3.5.3 shall be investigated for cause, corrections made and retesting performed before continuing production of the 1000 coats represented by the sample.

4.4.3.5 Examination of coat fronts and facings. The right and left coat fronts after stitching side fronts, darts, making lower pockets, attaching breast pockets, pocket flaps, coat front fusible interlinings and all other fused parts, bridle tape, and facing shall be examined for the defects listed below. The lot shall be all pairs (matched right and left) of coat fronts submitted for inspection at one time. The sample unit shall be one pair of coat fronts (right and left). The inspection level shall be II (see 6.13).

<u>Examine</u>	<u>Defect</u>
Front darts and side body fronts	One or more omitted. One or more not as specified. One or more not pressed as specified.
Front fusible interlinings, facing fusible interlinings, and all other fused component cut parts	Not attached or positioned as specified. Not fused. Omitted.
Front floating chest piece	Not attached or positioned as specified. Omitted. Not assembled in accordance to specified requirements.
Breast pockets	One or more out of alignment or not parallel with front edge.
Breast and lower pocket flaps	One or more out of alignment or not parallel with front edge.
Bridle tape	Omitted. Not held taut causing lapel breakline to be stretched. Misplaced at gorge: <ul style="list-style-type: none"> - more than 3/8 inch behind lapel breakline. - onto or extending beyond breakline on lapel side. Misplaced at bottom lapel breakline: <ul style="list-style-type: none"> - more than 5/8 inch behind breakline. - onto or extending beyond breakline on lapel side. - not within 1 to 1-1/2 inches from bottom of lapel. Tape and interlining not stamp marked for fullness of bridle.

MIL-C-44211A(GL)

4.4.3.6 Examination of fronts and backs after joining. The fronts and backs after joining shall be examined for the defects listed below. The lot shall be all joined fronts and backs submitted for inspection at one time. The sample unit shall be one coat. The inspection level shall be II (see 6.13).

<u>Examine</u>	<u>Defect</u>
Fronts and lapels	One or more not shaped in accordance with shaper patterns.
Left front	Not dressed from bottom notch to base of lapel.

4.4.4 Point count inspection. Sampling and inspection provisions for end item examination, dimensional examination, and packaging inspection shall be performed in accordance with MIL-STD-1490 except that for end item examination, the following additional defects and point values shall apply:

	<u>Point value</u>
1. Delamination	
a. Partial or complete delamination on any fused component	*
b. Bubbling on any fused component	*
2. Any strike through or bleed through	*
3. Any resin transfer to coat	
a. On any fused component	*
b. Non-fused component	3

4.4.5 End item testing. One coat shall be randomly selected for end item testing for each 3000 coats or any portion of 3000 coats in the end item lot. Each coat selected shall be initially examined visually for any defects in the fusible category of MIL-STD-1490. After initial examination each sample unit shall be drycleaned and pressed three times as described in 4.4.3.4. Each sample coat shall then again be visually examined for fusible defects as listed in MIL-STD-1490. If any sample coat contains any fusing defects after three drycleanings and pressings, then retesting shall be performed by randomly selecting one coat for each 1,000 coats or portion of 1,000 coats in the end item lot and repeating the testing procedure. If any sample coat contains any fusing defects after three drycleanings and three pressings upon retesting, the end item lot shall be rejected. An end item testing chart shall be maintained in accordance with figure 7.

4.4.6 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1 (see 6.13).

MIL-C-44211A(GL)

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

5. PACKAGING

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

5.1.1 Level A.5.1.1.1 Coats (classes 1 and 2).

5.1.1.1.1 Folding. Each coat shall be laid back down and a paperboard insert conforming to figure 4 placed in the coat so as to fit snugly into the collar and shoulder area. The buttonhole front shall overlap the button front. The sleeves shall be positioned full length so that the sleeve ends rest over the pockets. The coat shall then be folded in half by bringing the bottom up even with the top edge of collar so that the folded coat measures not more than 21 by 16 inches.

5.1.1.1.2 Arrangement. Five folded coats of one type, class, and size only, stacked one on another with collars alternated, shall be placed in an intermediate fiberboard box as hereinafter specified.

5.1.1.1.3 Intermediate packing. The intermediate fiberboard box shall conform to style FTC, type CF, variety SW, class domestic, grade 200 of PPP-B-636. Inside dimensions of the box shall be 21 inches in length, 16 inches in width, and 6 inches in depth. The box closure shall be secured with 3 inch minimum width gummed paper tape conforming to type III, grade B of PPP-T-45 applied at the center of the length opening and extending along bottom and up the sides at least 3 inches.

5.1.1.2 Coat (class 3). Coats shall be folded as specified in 5.1.1.1.1.

5.1.1.3 Uniforms (classes 1, 2 and 3). A uniform shall consist of a matching coat and trousers and, when procured as such, shall be folded together as follows:

MIL-C-44211A(GL)

5.1.1.3.1 Uniform folding. The coat shall be folded as specified in 5.1.1.1.1. Fold each pair of trousers so that the length dimension is approximately 24-1/2 inches. Place the folded coat between the fold of the trousers. The folded uniform shall measure not more than 24-1/2 by 16 inches.

5.1.1.4 Uniform arrangement (classes 1 and 2). Five folded uniforms of one type, class, and size only, stacked one on another, shall be placed in an intermediate fiberboard box as hereinafter specified.

5.1.1.4.1 Intermediate packing. The intermediate fiberboard box shall conform to style, FTC, type CF, variety SW, class domestic, grade 200 of PPP-B-636. Inside dimensions of the box shall be 25 inches in length, 16 inches in width, and 9 inches in depth. The box closure shall be secured with 3 inch minimum width gummed paper tape conforming to type III, grade B of PPP-T-45 applied at the center of the length opening and extending along the bottom and up the sides at least 3 inches.

5.1.2 Commercial. Coats or uniforms of one type, class, and size only, shall be preserved in accordance with ASTM D 3951.

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

5.2.1 Level A packing.

5.2.1.1 Coats (classes 1 and 2). Fifteen coats of one class and size only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC, grade V2s of PPP-B-636. Level A intermediate packs shall be packed flat, three in depth within a shipping container. Inside dimensions of each shipping container shall approximate 23 inches in length, 18 inches in width, and 19 inches in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.1.2 Coats (class 3). Fifteen coats of one size only, preserved as specified in 5.1.1.2, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Inside dimensions of each shipping container shall approximate 22 inches in length, 17 inches in width, and 13 inches in depth. Approximate dimensions are furnished as a guide only. Level A unit packs shall be packed flat, fifteen in depth and alternated collar to bottom. Prior to packing, the shipping container shall be provided with an interior case liner bag, made from polyethylene film having a nominal thickness

MIL-C-44211A(GL)

of 0.003 inches. The open top of the case liner bag shall be of sufficient length to completely cover the stack of coats when closed. The liner shall be closed by folding the top down onto the stack and securing with pressure-sensitive tape or by means of a mechanical tie prior to closure of the container. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.1.3 Uniforms (classes 1 and 2). Ten uniforms of one type, class, and size only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC, grade V2s of PPP-B-636. Level A intermediate packs shall be packed flat two in depth within a shipping container. Inside dimensions of each shipping container shall approximate 27 inches in length, 18 inches in width, and 19 inches in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.1.4 Uniforms (class 3). Ten uniforms of one type and size only, preserved as specified in 5.1.1.4, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Inside dimensions of each shipping container shall approximate 25-1/2 inches in length, 17 inches in width, and 13 inches in depth. Approximate dimensions are furnished as a guide only. Level A unit packs shall be packed flat, ten in depth. Prior to packing, the shipping container shall be provided with an interior case liner bag, made from polyethylene film having a nominal thickness of 0.003 inches. The open top of the case liner bag shall be of sufficient length to completely cover the stack of uniforms when closed. The liner shall be closed by folding the top down onto the stack and securing with pressure-sensitive tape or by means of a mechanical tie prior to closure of the container. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing.

MIL-C-44211A(GL)

5.2.2.1 Coats (classes 1 and 2). Fifteen coats of one class and size only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC, type CF, (variety SW) or type SF, class domestic, grade 275 of PPP-B-636. Level A intermediate packs shall be packed flat, three in depth within a shipping container. Inside dimensions of each shipping container shall approximate 23 inches in length, 18 inches in width, and 19 inches in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed in accordance with method II, as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.2.2 Coats (class 3). Fifteen coats of one size only, preserved as specified in 5.1.1.2, shall be packed in a fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Inside dimensions of each shipping container shall approximate 22 inches in length, 17 inches in width, and 13 inches in depth. Approximate dimensions are furnished as a guide only. Level A unit packs shall be packed flat, fifteen in depth and alternated collar to bottom. Prior to packing, the shipping container shall be provided with an interior case liner bag, made from polyethylene film having a nominal thickness of 0.003 inches. The open top of the case liner bag shall be of sufficient length to completely cover the stack of coats when closed. The liner shall be closed by folding the top down onto the stack and securing with pressure-sensitive tape or by means of a mechanical tie prior to closure of the container. Each shipping container shall be closed in accordance with method II, as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.2.3 Uniforms (classes 1 and 2). Ten uniforms of one type, class, and size only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC, type CF, (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Level A intermediate packs shall be packed flat two in depth within a shipping container. Inside dimensions of each shipping container shall approximate 27 inches in length, 18 inches in width, and 19 inches in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed in accordance with method II, as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.2.4 Uniforms (class 3). Ten uniforms of one type and size only, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Inside dimensions of each shipping container shall approximate 25-1/2 inches in length, 17 inches in width, and 13 inches in depth. Approximate dimensions are furnished as a guide only. Level A unit packs shall be packed flat, ten in depth. Prior to packing, the shipping container shall be provided with an

MIL-C-44211A(GL)

interior case liner bag made from polyethylene film having a nominal thickness of 0.003 inches. The open top of the case liner bag shall be closed by folding the top down onto the stack and securing with pressure-sensitive tape or by means of a mechanical tie prior to closure of the container. Each shipping container shall be closed in accordance with method II, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.2.5 Weather-resistant fiberboard shipping container. When specified (see 6.2), the shipping container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636, and closed in accordance with method III as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.2.6 Hanger packs. When specified (see 6.2), 12 coats of one type, class and size shall each be placed on a 16-inch hanger for sizes up to and including size 36 and a 17-inch hanger for size 37 and larger and packed in a type I container (hanger pack) in accordance with MIL-C-44192. The loaded containers shall be palletized and marked in accordance with MIL-C-44192.

5.2.3 Commercial. Coats or uniforms of one type, class, and size only, preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), coats and uniforms, packed as specified in 5.2.2 or 5.2.3, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet type shall be type I (4-way entry), type IV, or type V in accordance with MIL-STD-147. Pallets shall be fabricated from wood groups I, II, III, or IV, of MIL-STD-731. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L or film bonding means O or P. Pallet pattern for coat and uniform, classes 1 and 2 shall be number 6 and for class 3 shall be pallet pattern number 3 in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course.

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

6. NOTES

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

6.1 Intended use. The coats are intended for wear as part of the service uniform worn by the male military personnel of the Department of the Army.

MIL-C-44211A(GL)

6.2 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this specification.
- b. Type, class, and size required (see 1.2).
- c. Whether coat and trousers are procured as a uniform (see 1.3, 3.3.9.4 and 6.9).
- d. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- e. When a first article is required (see 3.1, 4.3, and 6.3).
- f. Levels of preservation and packing (see 5.1 and 5.2).
- g. Type and class of unit load required (see 5.2.1.1, 5.2.1.2, 5.2.1.3, and 5.2.1.4).
- h. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.5).
- i. When hanger pack is required (see 5.2.2.6).
- j. When palletization is required (see 5.3).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should include specific instructions in all acquisition documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Samples. For access to samples, address the contracting activity issuing the invitation for bids.

6.5 Nylon thread. The particular nylon thread chosen should perform satisfactorily in each of the operations for which it is allowed under mass production conditions. Thread guide and tension devices should be carefully examined, and rough or worn machine components should be replaced. High needle temperature should be avoided to prevent melting of the thread.

6.6 Temperature indicators. Suggested sources for temperature indicators are as follows:

Paper Thermometer Company (603) 547-2034
MRC Inc. Reatec Div. (215) 687-4300

6.7 Release agent. Suggested source for release agent is as follows:

Apparel Machine & Supply Co. (EZ off Agent) (215) 634-2626

6.8 Bonding strength dispute procedure. In case of dispute, the average of the first 3 inches of the five highest bonding strength peaks from a chart recording on a CRE Tensile Tester, running at 12 inches per minute shall determine the bonding strength. If splitting is observed, then just the highest peak shall be regarded as the bonding strength.

MIL-C-44211A(GL)

6.9 Uniform assembly. When coats and trousers are provided as a uniform, the coats and trousers should be assembled as follows:

<u>X-Short</u>		<u>Short</u>		<u>Regular</u>		<u>Long</u>		<u>X-Long</u>	
<u>Coat size</u>	<u>Trousers size</u>	<u>Coat size</u>	<u>Trousers size</u>	<u>Coat size</u>	<u>Trousers size</u>	<u>Coat size</u>	<u>Trousers size</u>	<u>Coat size</u>	<u>Trousers size</u>
				30	24				
				31	25				
		32	26	32	26				
		33	27	33	27	33	27		
34	28	34	28	34	28	34	28		
35	29	35	29	35	29	35	29		
36	30	36	30	36	30	36	30	36	30
37	31	37	31	37	31	37	31	37	31
38	32	38	32	38	32	38	32	38	32
39	33	39	33	39	33	39	33	39	33
40	34	40	34	40	34	40	34	40	34
41	35	41	35	41	35	41	35	41	35
42	36	42	36	42	36	42	36	42	38
43	38	43	38	43	38	43	38	43	38
		44	39	44	39	44	39	44	39
		46	41	46	41	46	41	46	41
		48	43	48	43	48	43	48	43
		50	45	50	45	50	45		

6.10 Alternate construction.

a. When the alternate construction to fell the armhole lining by machine is used, it consists of leaving an opening between the notches of the forearm sleeve lining seam. Stitching the lining to the armhole on the inside from front sleeve notch of sleeve to backarm seam across undersleeve (301 stitch). Utilizing the forearm sleeve opening stitch the top sleeve lining to the armhole on inside by felling machine from front sleeve notch to backarm seam across the crown of top sleeve lining. Close the previous left opened forearm seam.

b. Use of AMF Automatic 84-4 EBS Button Machine, using fully wrapped shank with show (tack) stitch is permissible.

6.11 Implementation of optional bound buttonhole. The optional bound buttonhole shall be implemented at the discretion of the contracting activity issuing the invitations for bids.

6.12 Acceptance criteria. The acceptance criteria below are recommended for use. The acceptance criteria as specified in the contract or purchase order shall be binding. Unless otherwise specified, the following acceptance criteria are in accordance with MIL-STD-105.

MIL-C-44211A(GL)

6.12.1 For examination of coat fronts and facings. An acceptable quality level (AQL), expressed in terms of defects per hundred units, of 2.5 is recommended.

6.12.2 For examination of fronts and backs after joining. An AQL, expressed in terms of defects per hundred units, of 1.5 is recommended.

6.12.3 For palletization examination. An AQL, expressed in terms of defects per hundred units, of 6.5 is recommended.

6.13 Basting recommendations. In order to assure good basting without quilling effect (protrusion of extraneous fibers through basting needle holes) the following practices are recommended:

a. Utilize either 70/2 smooth finish cotton/polyester wrap or size A nylon thread. Avoid using threads with coarse, hairy exterior structure.

b. Utilize finest size sewing needle possible (sizes 12 or 14) with ballpoint. Larger sized needles will provide larger holes and better chance for fibrous material to enter.

c. Increase quality control checks on needle changes during production. Dull or burred needle tips will push fibrous material to outershell exterior.

d. Reduce basting sewing tensions and amount of pull on the material being sewn wherever possible.

6.14 Subject term (key word) listing.

Dress clothing

Fusible interlining

6.15 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodian:

Army - GL

Review activities:

Army - MD

DLA - CT

Preparing activity:

Army - GL

(Project 8405-A069)

MIL-C-44211A(GL)

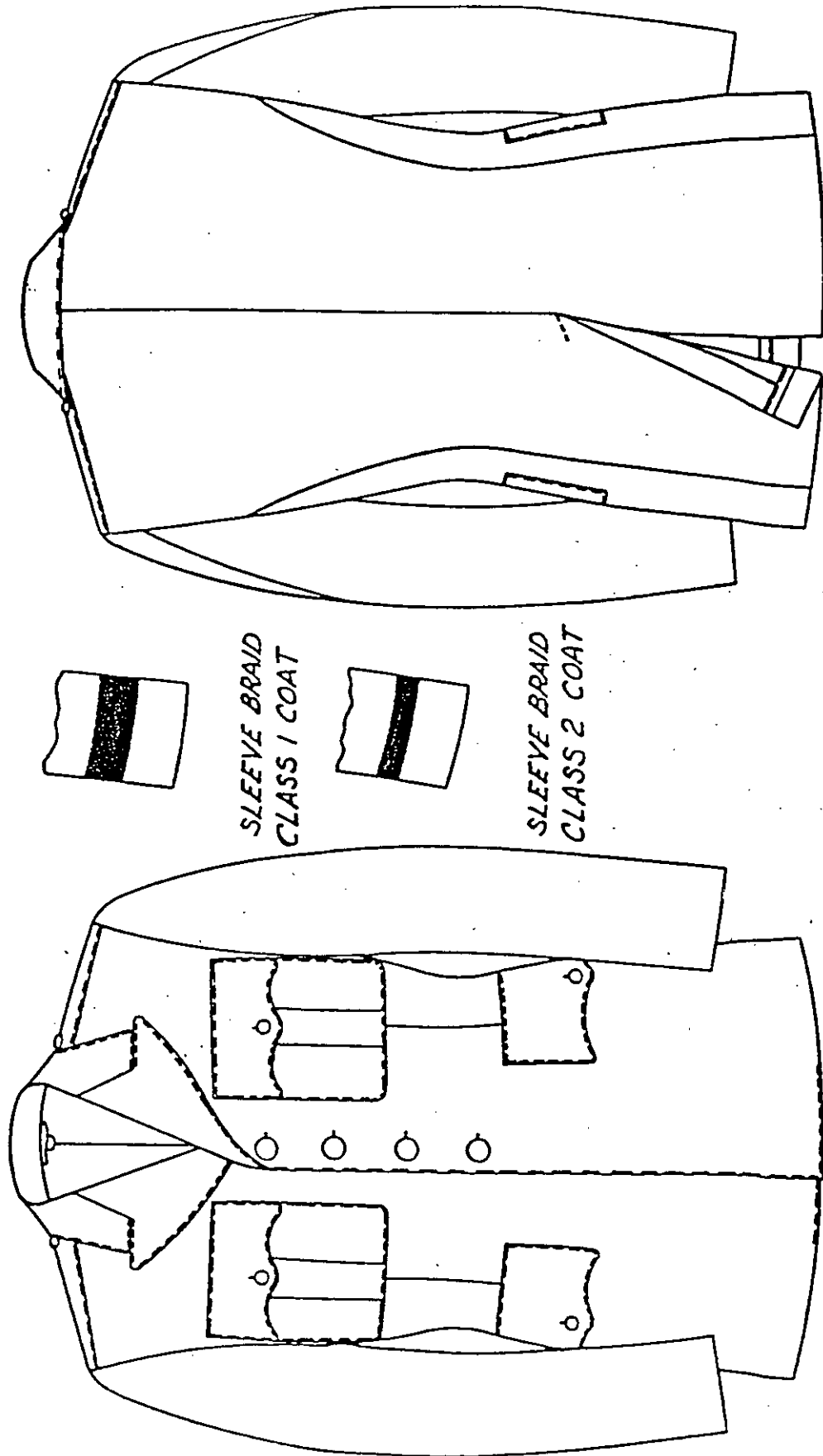
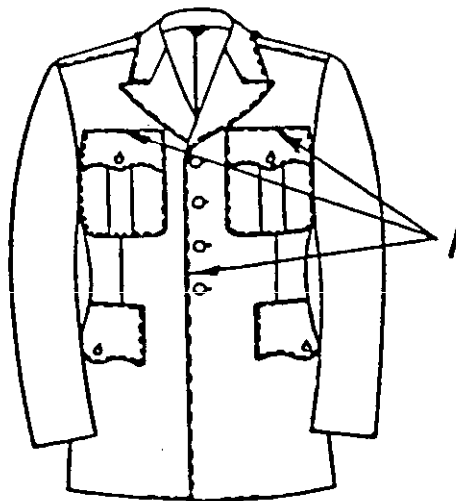


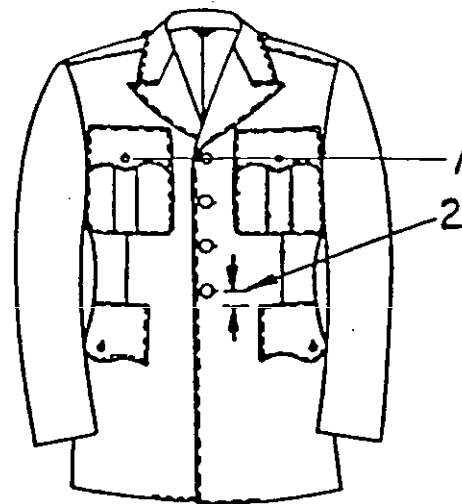
FIGURE 1. COATS, MEN'S, ARMY GREEN 344 - FUSIBLE

MIL-C-44211A(GL)



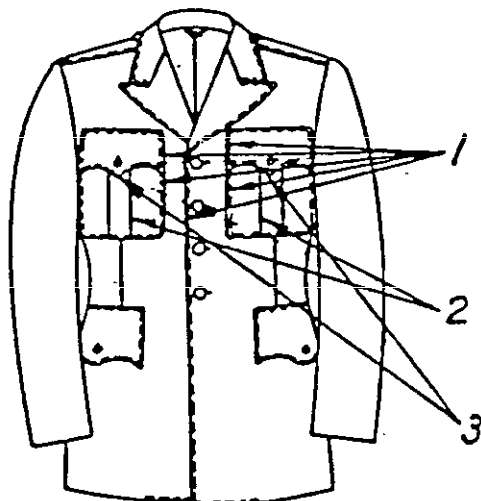
VIEW A

- (1) TOP EDGE OF BREAST POCKET FLAPS SHALL BE AT A RIGHT ANGLE WITH THE FRONT EDGE OF COAT WHEN BUTTONED.



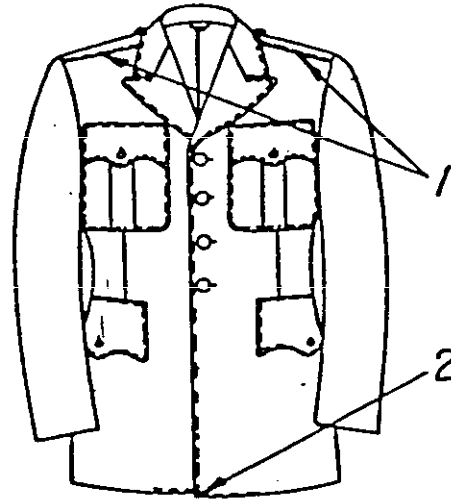
VIEW B

- (1) BREAST POCKET FLAP BUTTONS & TOP FRONT BUTTON SHALL BE IN HORIZONTAL ALIGNMENT THRU CENTER OF BUTTONS.
(2) BOTTOM BUTTONHOLE OF FRONT SHALL BE POSITIONED $\frac{3}{4}$ TO 1 INCH ABOVE TOP EDGE OF LOWER POCKET FLAPS.



VIEW C

- (1) FRONT EDGE OF FLAPS AND PATCH POCKETS SHALL BE PARALLEL TO FRONT EDGE OF COAT WHEN BUTTONED.
(2) PATCH POCKET SHALL BE PARALLEL TO FRONT EDGE OF COAT WHEN BUTTONED.
(3) POINT OF BREAST POCKET FLAPS SHALL BE CENTERED ON PATCH POCKET PLEAT

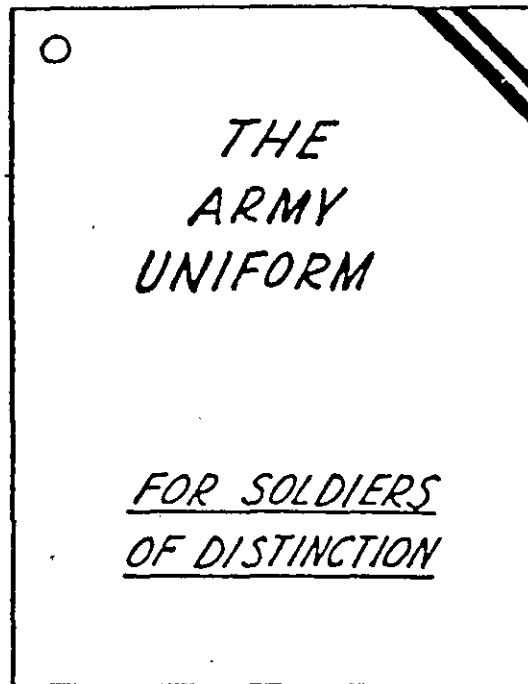


VIEW D

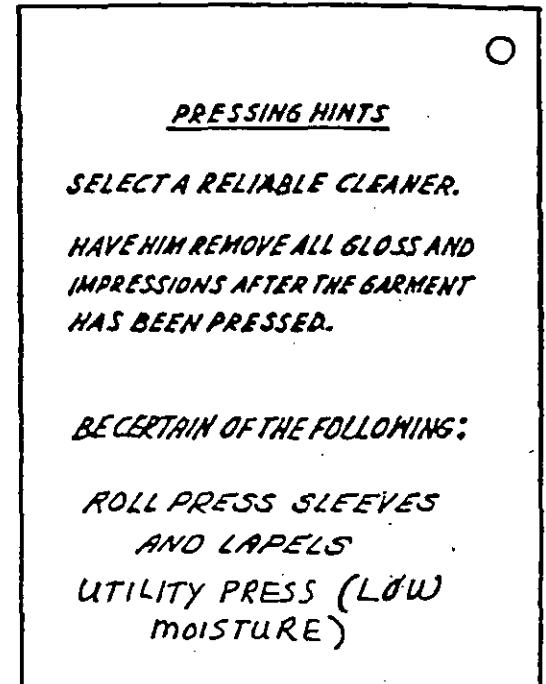
- (1) SHOULDER LOOPS SHALL BE FLAT AND SMOOTH WITHOUT DISTORTION.
(2) LEFT FRONT BOTTOM EDGE SHALL BE EVEN WITH RIGHT, AND ROLL INWARD.

FIGURE 2 - COATS, MEN'S, ARMY GREEN 344 - FUSIBLE

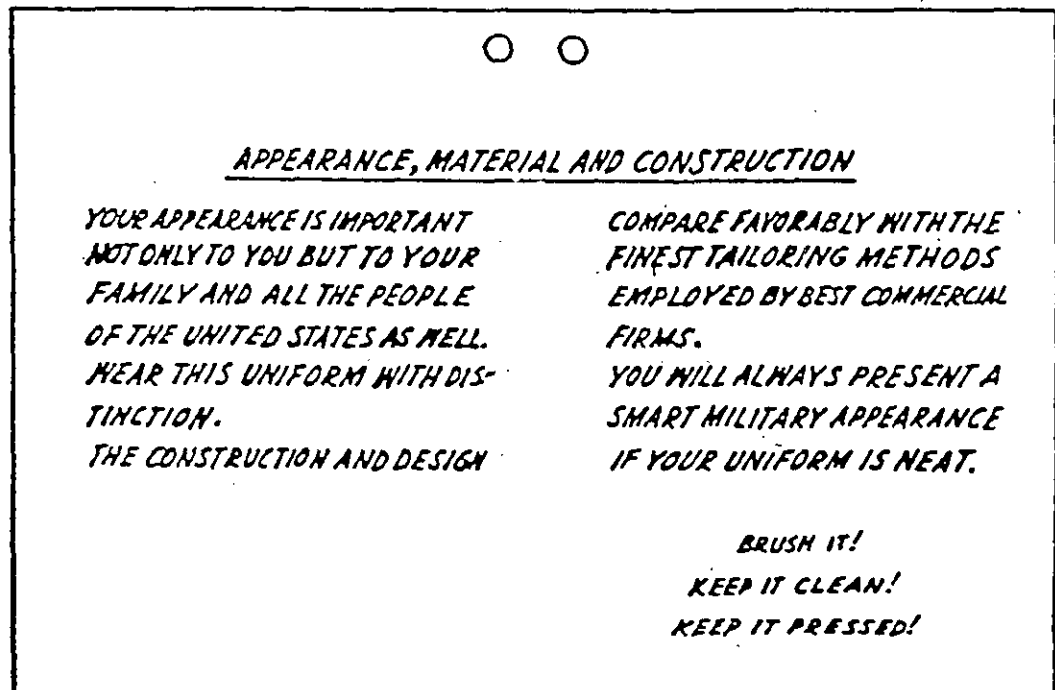
MIL-C-44211A(GL)



FRONT OF FOLDER



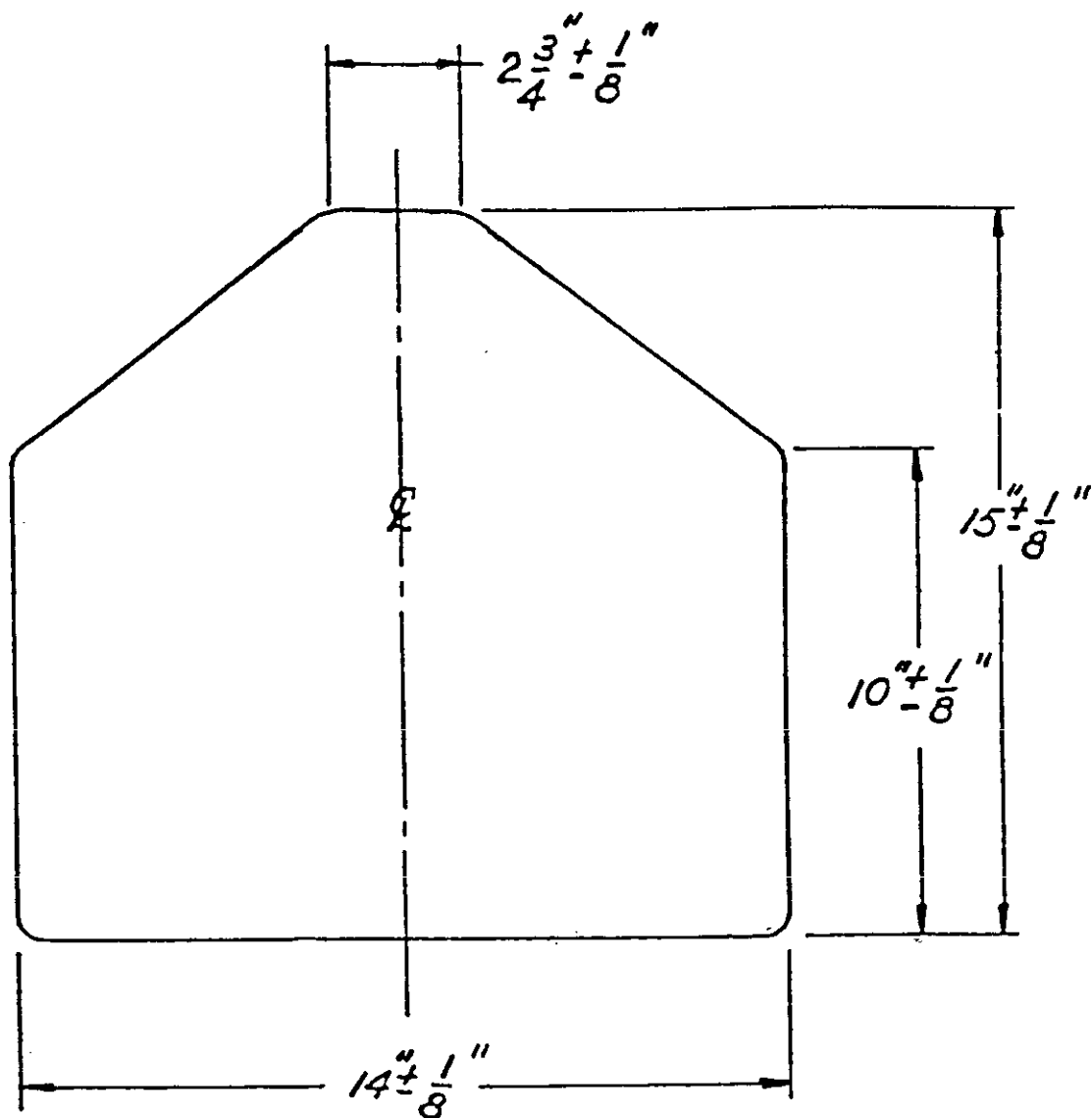
BACK OF FOLDER



INSIDE OF FOLDER

FIGURE 3. CARDBOARD INSTRUCTION FOLDER

MIL-C-44211A(GL)

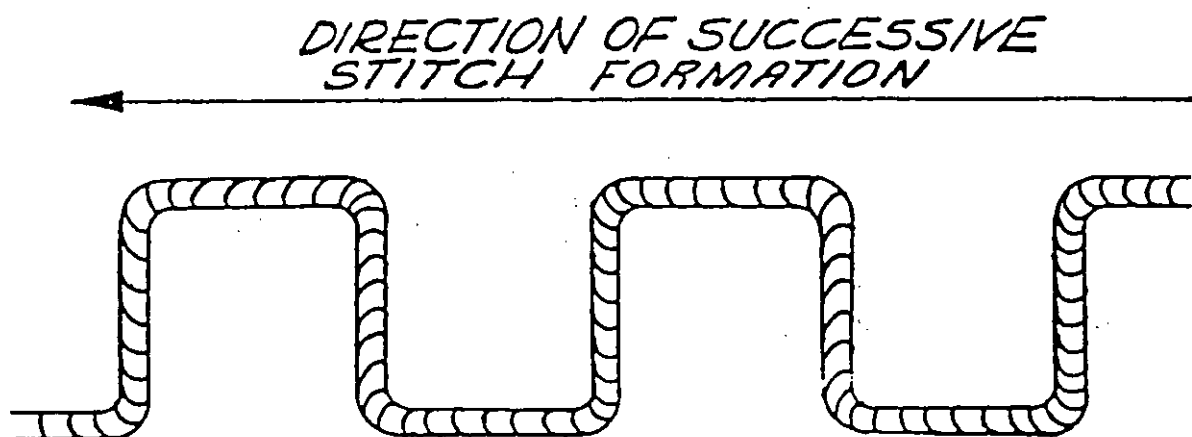


PAPERBOARD .032" THICK

FIGURE 4. INSERT, PAPERBOARD

MIL-C-44211A(GL)

Stitch Class 800.— This class of stitch shall be formed with one or more needle threads and has for a general characteristic that the thread does not interloop with itself or any other thread or threads. The thread is passed completely through the material by means of a double pointed center eye needle and returned by another path. This class of stitch simulates hand stitching.



This type of stitch shall be formed with one needle thread which is passed completely through the material and returned by another path after the material has been moved forward one stitch length.

FIGURE 5. STITCH TYPE 801

MIL-C-44211A(GL)

FUSING PRESS MAINTENANCE/BONDING STRENGTH CHECK CHART
ONE WEEK PRE-PRODUCTION & PRODUCTION

Contract # _____ TIME _____ Fusing Press Settings Recommended by Fusible Mfg.:
 Contractor _____ TEMPERATURE BONDING Temperature, F(C) _____
 QAR Name _____ Record (See: 4.4.2.2 & 4.4.2.3) STRENGTH Pressure, Bar _____
 Dwell Time, Sec: _____
 Date: DD/MM/YY Initial Daily Test (after machine warm up) and test every TWO hours after and subsequent to any 29 minute (min) production stoppage. FUSING PRESS CLEANLINESS once daily (See: 3.3.5.6)

MT	HS	TE	BS	I	II						AI
P	P	I	I	I	II						
DT	DT										
MT	HS	TE	BS	I	II						AI
P	P	I	I	I	II						
DT	DT										
MT	HS	TE	BS	I	II						AI
P	P	I	I	I	II						
DT	DT										
MT	HS	TE	BS	I	II						AI
P	P	I	I	I	II						
DT	DT										
MT	HS	TE	BS	I	II						AI
P	P	I	I	I	II						
DT	DT										

* Min. req.: 2 lbs. (32 oz.) (907 gms.) / inch or Split for Small Parts

PRESSURE EVENNESS, BONDING STRENGTH (See: 4.4.3.2)

TEST ONCE WEEKLY

Date: _____ AI _____

DWELL TIME, SEC. (See: 4.4.3.2)

TEST ONCE WEEKLY

Date: _____ MACHINE STOP WATCH
SETTING READING

SPRING SCALE CALIBRATION (See: 4.4.2.3)

TEST ONCE WEEKLY

Date: _____ AI _____

KEY:
 AI Authorized initials to verify contractor tests.
 BS Bonding Strength / In., Ave.
 DT Dwell time
 HS Machine setting
 MT Machine temperature
 P Pressure
 T Time
 TE Temperature strip reading, Ave
 I Small Parts, fusible
 II Fronts, fusible

Fig. 6

MIL-C-44211A(GL)

Representative Production Bond Strength Check Chart. Chart A (See 4.4.3.4 & 4.4.3.3)

Contract # _____ Small Parts, Fusible * Fronts, Woven Fusible *
 Contractor _____ *(All samples shall be pressed twice in accordance
 with 4.4.3.4 before being dry cleaned.)
 QAR Name _____

Representative Production Units / 1,000	Date: DD/MM/YY	Prod. lot #	Shrink, % Diff. DC.	B.S. After 3 DC.	Appear. After 3 DC.	Shrink, % Diff. DC.	B.S. After 3 DC.	Appear. After 3 DC.	AI
1 - 1,000	/ /								-----
1,001 - 2,000	/ /								-----
2,001 - 3,000	/ /								-----
3,001 - 4,000	/ /								-----
4,001 - 5,000	/ /								-----
5,001 - 6,000	/ /								-----
6,001 - 7,000	/ /								-----
7,001 - 8,000	/ /								-----
8,001 - 9,000	/ /								-----
9,001 - 10,000	/ /								-----
10,001 - 11,000	/ /								-----
11,001 - 12,000	/ /								-----
Requirement:			1.5%(max) 2%(max)	** or split	Good	1.5%(max) 2%(max)	**	Good	

End Item Testing Check Chart Chart B (See: 4.4.5)

Coats Production Units / 3,000	Date: DD/MM/YY	Coat Prod. lot #	Appearance Initial Good Poor	After 3 DC. *	Coat Lot Accept Reject	AI
1 - 3,000	/ /					
Retest:	1000 -					
	2000 -					
	3000 -					
3,001 - 6,000	/ /					
Retest:	1000 -					
	2000 -					
	3000 -					
6,001 - 9,000	/ /					
Retest:	1000 -					
	2000 -					
	3000 -					
9,001 - 12,000	/ /					
Retest:	1000 -					
	2000 -					
	3000 -					
Requirement:			Good	Good		

KEY:

Shrink. Shrinkage
Diff. Differential
(W x F)
DC. Dryclean
(W x F)
(W x F) Warp x
Filling
Appear. Appearance
B.S. Bonding
Strength /In.
Ave.
AI Authorized
Initials
** 1.5 lbs.
(24 oz.)
(630 gms.)

Fig. 7

MIL-C-44211A(GL)

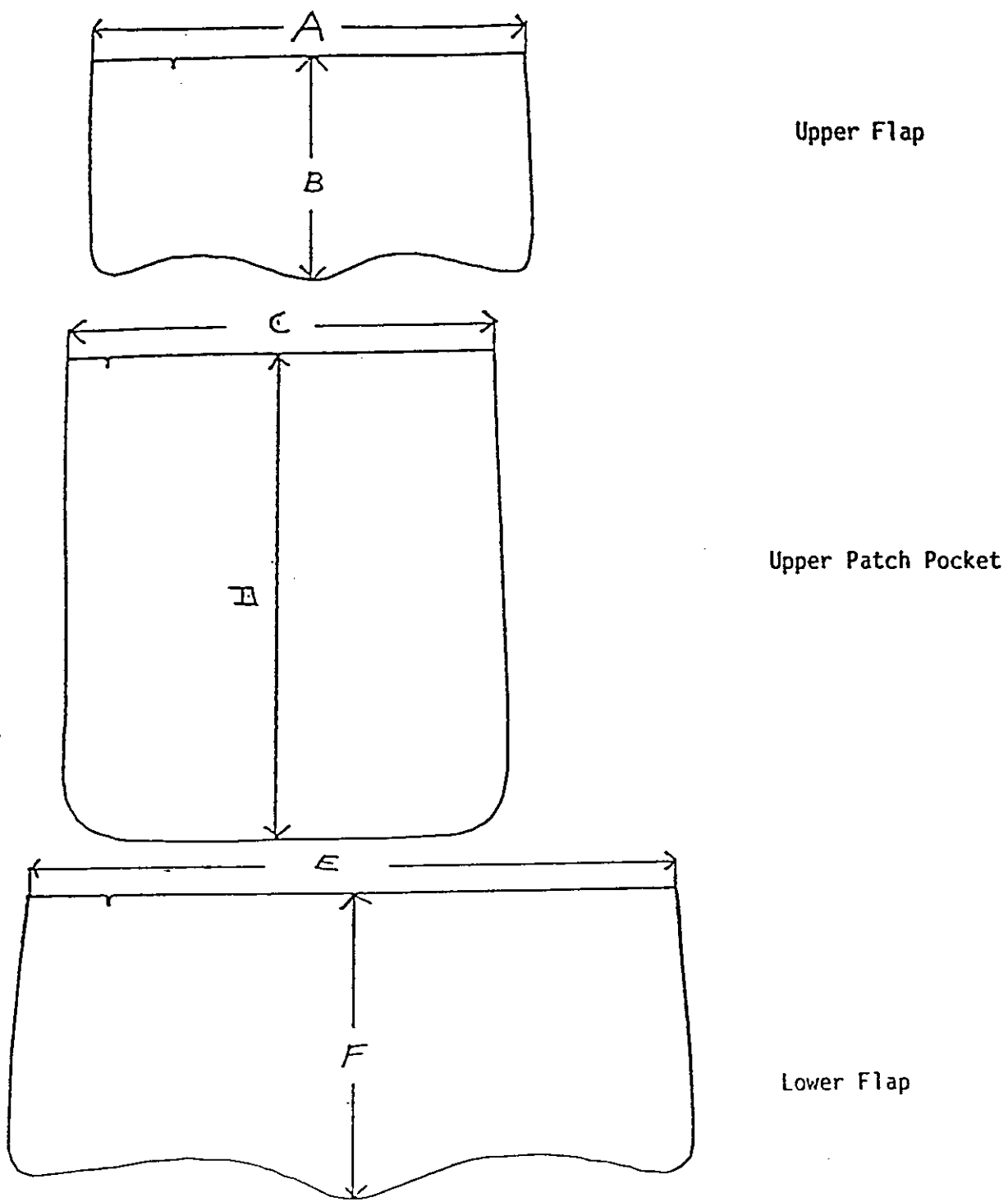


FIGURE 3. POCKET AND FLAP MEASUREMENTS

MIL-C-44211A(GL)

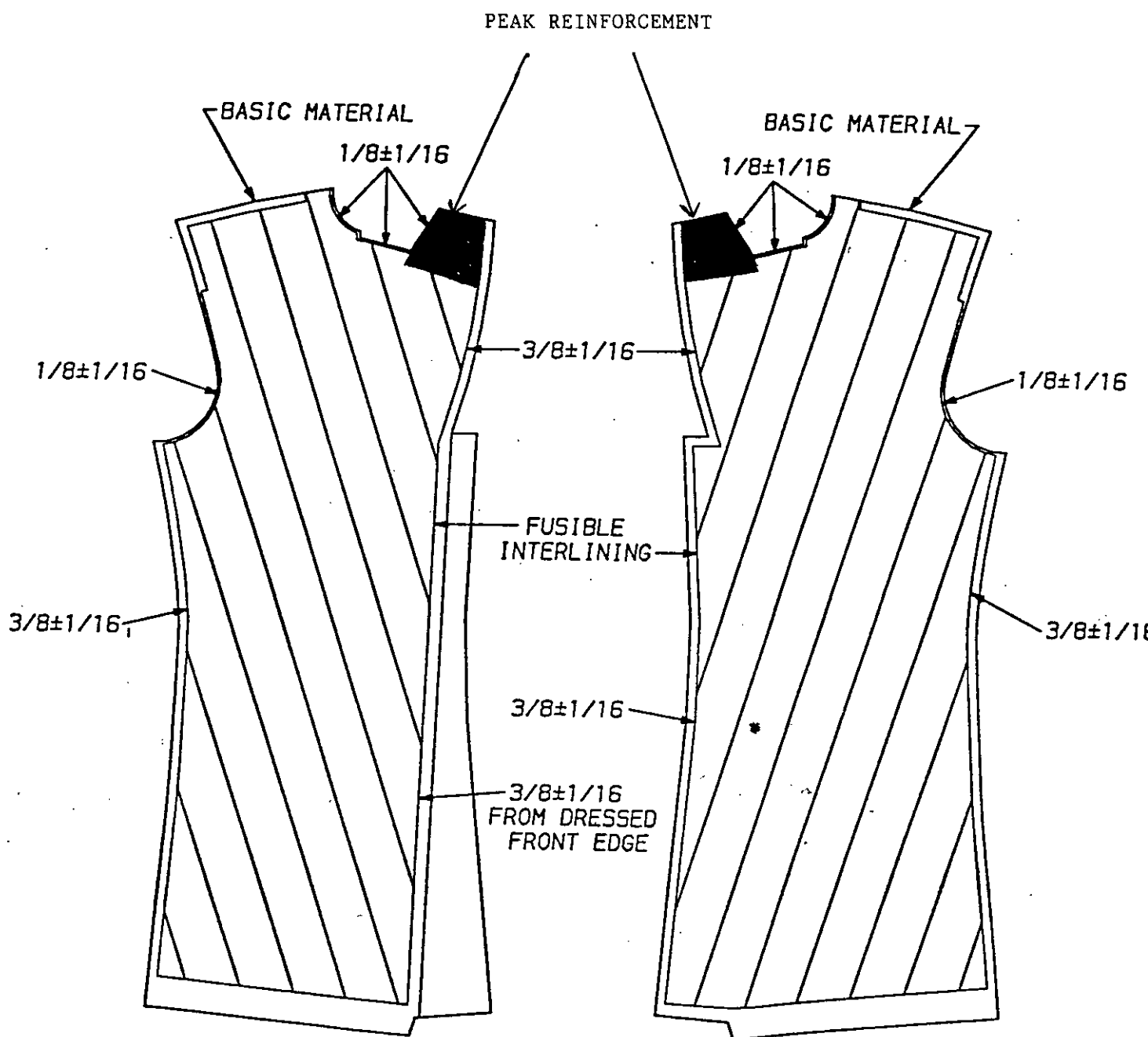


FIG. 9 - COAT, MEN'S: TROPICAL AND SERGE, POLY/WOOL,
AG-344, FUSIBLE, INTERLINING

2-1-1878

INSTRUCTIONS: In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE ARMY

U.S. ARMY NATICK RESEARCH, DEVELOPMENT
and ENGINEERING CENTER
ATTN: STRNC-ES
Natick, MA 01760-5014

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 12062 WASHINGTON D. C.

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander
U.S. Army Natick Research, Development
and Engineering Center
ATTN: STRNC-ES
Natick, MA 01760-5014

