INCH-POUND

MIL-C-43972D(GL)
30 August 1989
SUPERSEDING
MIL-C-43972C(GL)
26 November 1986

#### MILITARY SPECIFICATION

COAT, ALL-WEATHER, WOMAN'S, BLACK WITH REMOVABLE LINER

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 woman's all-weather coat with a removable liner.
- 1.2 Classification. The coat shall be of one type in the following sizes as specified (see 6.2).

#### Schedule of sizes

Short	Regular	Long
6	6	6
8	8	8
10	10	10
12	12	12
14	14	14
16	16	16
18	18	18
20	20	20

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 8410

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

#### 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

A-A-50083 - Bag, Plastic, Folded Garment
V-B-871 - Button, Sewing Hole, and Button, Staple (Plastic)
V-F-106 - Fasteners, Slide, Interlocking
V-T-280 - Thread, Gimp, Cotton, Buttonhole

DDD-L-20 - Label: For Clothing, Equipage, and Tentage
(General Use)

PPP-B-636 - Boxes, Shipping, Fiberboard

#### **MILITARY**

Braid, Textile, Tubular MIL-B-371 Thread and Twine: Mildew Resistant or Water MIL-T-3530 Repellent Treated MIL-C-21852 - Cloth, Taffeta, Nylon MIL-C-29365 Cloth, Nonwoven, Interlining, Fusible, Nylon and Polyester, Polyamid - Loads, Unit: Preparation of Semiperishable MIL-L-35078 Subsistence Items; Clothing, Personal Equipment and Equipage: General Specification For Cloth, Pile, Acrylic Fiber Pile MIL-C-43251 MIL-C-43482 - Cloth, Poplin, Cotton and Polyester (Water Repellent) - Cloth, Satin, Acetate or Rayon Face and Rayon or MIL-C-43525 Cotton Face Back Thread, Polyester Core: Cotton-, Rayon-, or MIL-T-43548 Polyester-Covered MIL-C-43836 - Cloth, Interlining, Non-Woven

#### STANDARDS

#### FEDERAL

FED-STD-191 - Textile Test Methods 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-1494 - Provisions for Evaluating Quality of Raincoats

(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.)

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).

#### THE COLOR ASSOCIATION OF THE UNITED STATES

Standard Color Card of America

Department of Defense Standard Shades for Sewing Threads

(Color cards may be available from the Color Association of the United States, 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.)

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

#### Chromatic Transference Scale

(Application for copies should be addressed to the American Association of Textile Chemists and Colorists, Research Triangle Park, P.O. Box 12215, Durham, NC 27709.)

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 19103-1187.)

(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.
  - REQUIREMENTS
- 3.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.2) in accordance with 4.3.
- 3.2 <u>Guide sample</u>. Samples, when furnished, are solely for guidance and information to the contractor (see 6.6). Variation from this specification may appear in the sample, in which case this specification shall govern.

4

- 3.3 Materials.
- 3.3.1 Basic material. The basic material shall be cotton and polyester water repellent poplin cloth, Black Shade 385, conforming to class 2 of MIL-C-43482. At the option of the contractor, the basic material may be used for the hanger loop (see 3.3.15 and operation 1.c.). In addition, the basic material may be used as alternate interlining material for the fusible interlinings as specified in 3.3.9.1.
- 3.3.2 <u>Liner material</u>. The material for the removable liner shall be acrylic fiber pile and acrylic or polyester back cloth conforming to class 2 of MIL-C-43251.
- 3.3.3 Sleeve lining and bindings. The material for the sleeve lining and for binding the back of the shell facings shall be black nylon taffeta cloth and conform to type III or IV of MIL-C-21852.
- 3.3.4 Sleeve hem interlining. The interlining for the sleeve hem shall be a fusible material as specified in 3.3.9.1 and fused as specified in 3.3.9.4. As an alternate, a non-woven cloth conforming to type II, class 1 of MIL-C-43836 may be used with the following exceptions: Staple polyester may be substituted for the staple nylon, the weight shall be 2.3 to 2.7 ounces/square yard and the thickness at 0.6 psi shall be 0.010 to 0.016 inch.
- 3.3.5 Undercollar stand interlining. The material for the undercollar stand interlining shall be fusible material as specified in 3.3.9.1. As an alternate, white or natural color 100 percent polyester, marquisette leno weave cloth conforming to the following requirements, when tested as specified in 4.4.1, may be used.

Weight, ounces/square yard 0.5 to 1.0
Threads/inch (min)

Warp 48 Filling 29

Thickness at 0.6 psi, inches	0.004 to 0.008
Breaking strength, pounds (min)	
Warp	40
Filling	25
Stiffness, inch pounds (min)	
Warp	0.001

- As an alternate, fusible material specified in 3.3.9.1, may be used for interlining the undercollar stand.
  - 3.3.6 Neck tape. The tape for reinforcing the neckline shall be black polyester tape, plain weave,  $3/16 \pm 1/32$  inch wide, with a minimum texture of 16 total warp yarns and 36 picks per inch when tested as specified in 4.4.1.
  - 3.3.7 <u>Liner sleeves</u>. The material for the sleeves of the removable liner shall be black and conform to types I. II or III of MIL-C-43525.
  - 3.3.8 <u>Liner binding</u>. The material for binding the edges of the liner shall be black nylon taffeta cloth as specified in 3.3.3 or black 100-percent rayon twill cloth conforming to the following requirements when tested as specified in 4.4.1.

Width, inches	1 <b>-</b> 5/16 <u>+</u> 1/16
Weight, ounces/square yard (min)	2.6
Threads/inch (min) Warp Filling	82 54
Weave	2/1 twill
Yarns, denier (nominal)	180

3.3.8.1 Colorfastness. The finished cloth shall show fastness to laundering (after 3 cycles), drycleaning, and crocking equal to or better than the standard sample. When no standard sample is available, the finished cloth shall show "good" fastness to laundering (after 3 cycles) and drycleaning and shall have a AATCC Chromatic Transference Scale rating for crocking not lower than 3.5 when tested as specified in 4.4.1.

#### 3.3.9 Fusible materials.

3.3.9.1 Fusible interlining. The fusible interlinings for the top collar, pocket welt, facings, fly front, and alternate method for interlining sleeve bottoms and undercollar stand shall be black, 100-percent cotton plain weave cloth or black spunlaced, binder free, 100-percent polyester nonwoven fabric, which has a uniformly distributed dot system of a polyvinyl chloride-polyvinyl acetate type fusible adhesive applied to one side in accordance with good commercial practice. The fusible interlining shall meet the following requirements when tested as specified in 4.4.1.

<u>p1</u>	Cotton ain weave cloth	Polyester spunlaced nonwoven
Weight, oz/yd <sup>2</sup>	3.3 to 4.1	2.7 to 3.2
Yarns per inch (min) Warp Filling	60 52	 
Breaking strength, lbs. (min) Warp (machine direction) Filling (cross machine directi	36 on) 14	25 10

As an alternative, a non-woven fusible fabric conforming to class 3 material of MTL-C-29365 may be used as a fusible interlining. Testing for the non-woven fusible with the polyamide type fusible adhesive paste regarding Weight per sq.yd, and Breaking/Tensile Strength shall be as specified in MIL-C-29365. (The woven and polyester spunlaced nonwoven fusible requirements contained herein for colorfastness, 3.3.9.3; fusing conditions, 3.3.9.4; bond strength, 3.3.9.5; and shrinkage, 3.3.9.6, shall apply.)

- 3.3.9.2 Seam web. The material for fusing the center back, side and sleeve outseams shall be a polyamide fusible web, 3/8 + 1/16 inch in width and weighing 1.0 + 0.2 ounce/per square yard when tested as specified in 4.4.1.
- 3.3.9.3 Colorfastness. All dyed finished fusible interlining materials shall show good fastness to laundering (after 3 cycles), equal to or better than the standard sample. When no standard sample is available, the finished fusible materials shall show "fair" fastness to laundering (after 3 cycles).
- 3.3.9.4 Fusing conditions. The interlining shall be fused to the basic material on a fusing press. For optimum results with the particular fusible style and press used, specific settings should be obtained from the contractor of the fusible interlining. See 6.4 for the recommended fusing conditions.

#### 3.3.9.5 Bond strength.

3.3.9.5.1 <u>Interlining</u>. The interlining after fusing to basic material, as specified in 3.3.9.4 shall meet the following bond strength requirements when tested as specified in 4.4.1.

# Bond strength, (min) - initial - after 3 launderings - after 3 drycleanings 17

- 3.3.9.5.2 <u>Fused coat</u>. The fused coat shall meet the minimum bond strength of 17 ounces per inch in the fused areas when tested as specified in 4.4.4. There shall be no "strike through" of the adhesive after fusing.
- 3.3.9.6 Shrinkage. The interlining after fusing to the basic material, as specified in 3.3.9.4, shall meet the following shrinkage requirements when tested as specified in 4.4.1.

Shrinkage, percent (max)	
Warp (machine direction)	3.0
Filling (cross machine direction)	2.0

3.3.10 <u>Labels</u>. Each coat and each liner shall have a combination size, identification and instruction label conforming to type VI, class 14 of DDD-L-20. The label shall show fastness to laundering and drycleaning. The instruction label legend shall be as follows:

#### For coat

#### Laundering (Preferred method)

Spot wash badly soiled areas.
Wash in warm water (115° ± 5°F) using mild detergent
Rinse at least 3 times.
Machine spin dry and then dry at highest temperature
setting on home dryer for 60 minutes (min).
Touch up with moderately hot iron (synthetic setting).

#### Dry Clean (Alternate method)

Dry cleaning in pure solvent will not reduce water resistance nor will drycleaning with detergent, providing the detergent is removed by rinsing. If poor water resistance is noted after cleaning, rinsing in water followed by drying and pressing will renew water resistance.

#### For liner.

# DRY CLEAN ONLY DO NOT STEAM OR PRESS

3.3.11 Thread, cotton or rayon covered polyester. The thread used for stitching and seaming shall be Black AA, C.A. 66043 and conform to MIL-T-43548 as follows:

Operation	Ticket No.	Ply
Seaming, stitching, and tacking	30 50	2 or 3 2 or 3
Overedging	70	2

The thread for the outer shell (coat) shall be water repellent-treated in accordance with type II, class 3 of MIL-T-3530.

- 3.3.12 Gimp. The gimp for reinforcing buttonholes shall be cotton, Black AA, C.A. 66043, conforming to size No. 8, type I or II of V-T-280.
- 3.3.12.1 <u>Colorfastness</u>. The dyed gimp shall show fastness to laundering (after 3 cycles) and wet drycleaning equal to or better than the standard sample. When no standard sample is available, the dyed gimp shall show "good" fastness to laundering (after 3 cycles) and wet drycleaning.
- 3.3.13 Buttons. The buttons shall be type II, class D, style 20 or 21, 40-line for front fly; 30-line for lapel, epaulets and storm tab, 24-line for sleeve liner and back vent; and style 15, 18-line for stay buttons conforming to V-B-871. The buttons shall be Black Shade BT, Cable No. 62001.
- 3.3.14 Slide fastener. The slide fastener for the coat and liner shall be type IV, style 1, size L, with short tab pull and brass or aluminum chain, conforming to V-F-106, except that the width of the tape shall measure no less than 7/16 of an inch nor more than 19/32 of an inch. The length of the fasteners shall be 66 inches for shorts, 70 inches for regulars, and 74 inches for longs.
- 3.3.14.1 Tape for slide fastener. The slide fastener tape shall be dyed black. The dyed tapes shall show fastness to laundering (after 3 cycles) and drycleaning equal to or better than the standard sample.
- 3.3.15 Braid-hanger loop. The braid for the hanger loop can be either cotton or rayon, Black 385, conforming to type IX, class 1 of MIL-B-371, (see operation 1.c. and 3.3.1 for alternate).

- 3.4 <u>Design</u>. The coat is a single-breasted, four button fly front, split shoulder (set-in front, raglan back) with a front and back yoke lining. The coat has slash pockets with inside hanging bellows which are two-way access (pass through pockets). The back has a center vent with button and buttonhole. The collar is convertible with a half stand. The shoulder loops are detachable. The coat has a detachable single ply liner with bound edges, raglan sleeves, button and loop at the sleeve bottom, a slide fastener for attaching to coat, and a pass through pocket slit (opening).
- 3.4.1 <u>Figures</u>. Figures 1 and 2 are furnished for information purposes only. If there are any inconsistencies between the written specification and the figure the written specification shall control.
- 3.5 Patterns. Standard patterns which show size, directional lines, placement marks, and notches for assembly will be furnished by the Government. The Government patterns shall not be altered in any way and shall be used as a guide for cutting the working patterns. Unless otherwise indicated in table II, the seam allowances shall be:

#### 1/4 inch

#### 5/8 inch

Making and attaching collar Facing to undercollar Making pockets Shoulder straps Storm tab Fronts to facings

Joining front sleeve to armhole down to step Joining back sleeve to armhole down to step Top arm seam

#### 3/8 inch

Joining front sleeve to armhole below step Joining back sleeve to armhole below step Front yoke to facing All other seams

3.5.1 List of pattern parts. The component parts of the coat shall be cut from materials specified in accordance with the number of parts indicated in table I.

## TABLE I. List of pattern parts

Material	Nomenclature	Cut parts
Cloth, cotton and	Back	2
polyester poplin,	Front	2
water repellent	Storm tab	1
·	Epaulet	4
	Collar	2
	Collar stand	2
	Pocket welt	2
	Cape	2
	Under pocket	2
	Top pocket	2
	Fly lining	1
	Top fly front	1
	Front lining (yoke)	2
·	Back lining (yoke)	1
	Back sleeve	2
	Front sleeve	2
	Front facing	2
Nylon taffeta	Front sleeve lining	2
	Back sleeve lining	2
Cloth, acrylic fiber pile	Front liner 1/	2
. •	Back liner 17	1
Cloth, satin, acetate or	Front sleeve of liner	2
rayon face and rayon or cotton back	Back sleeve of liner	2
Cloth, 100 percent polyester marquisette leno weave, non-fusible	Collar stand interlining	1 <u>2</u> /
Cloth, 100 percent cotton	Collar interlining	1 3/
plain weave, fusible	Collar stand interlining	1 3/
<b>,</b>	Pocket welt interlining	2 3/
	Front facing interlining	2 3/
	Top fly front interlining	1 3/
	Sleeve bottom front interli	ning $2\overline{3}/$
	Sleeve bottom back interling	ing 2 <u>3</u> /
Cloth, interlining, non-woven	Sleeve hem interlining Shapers: Lapel shaper Finished fly marker (stitch Bottom shaper	2 <u>2</u> / line)

## TABLE I. List of pattern parts (cont'd)

Material	Nomenclature	Cut parts
Shapers	Lapel shaper Finished fly maker ( Bottom shaper	stitch line)

- 1/ These parts are marked "cut one way only" so that on both pieces the pile of the liner fabric will fall in the same direction preferably with the nap running down as you go from top to bottom
- 2/ Use only when bottom of sleeve and collar stand are not fused.
- 3/ As an alternate, a non-woven fusible interlining may be used (see 3.3.9.1) with these pattern parts.

#### 3.6 Construction.

- 3.6.1 Stitches, seam and stitching. Stitches, seams and stitching types specified in table II shall conform to FED-STD-751. Whenever two or more seam or stitch types are given for the same part of the operation, any one of them may be used. When stitch type 401 is used, the looper thread shall be on the inside of the coat and on the coat side of the liner. Seam allowances shall be maintained with seams sewn so that no raw edges, runoffs, twists, pleats, puckers, or opens seams will result. All seams shall start and finish evenly. Thread tension shall be maintained so that there is no tight or loose stitching, resulting in loose bobbin, top thread or excessively tight stitching resulting in puckering of the materials sewn. The lock shall be imbedded in the material Unless otherwise specified, raise stitching or edge-stitching shall be 1/4 to 5/16 inch gage from the edge. The gage of stitching for safety stitch construction shall be 3/8 inch. The guides and knives on the safety stitch machines shall be set to trim only the ravelled ends of the fabric. All seams shall start and finish evenly. Seams required to be worked out having a depth between the fold of 1/16 inch or more shall be considered a defect. The fusible webs for seams shall not be exposed in the seam construction.
- 3.6.1.1 Stitches per inch. The minimum and maximum number of stitches per inch shall be specified in table II.
- 3.6.1.2 Thread breaks and ends of seams. The ends of all seams and stitching, when not caught in other seams or stitching, shall be backstitched not less than 1/4 inch. Thread breaks (all stitch types) shall be secured by stitching back of the break not less than 1/2 inch. Skipped stitches or thread breaks on a 401 stitch type may be repaired by using 301 stitch type. The ends of a continuous line of stitching shall be overlapped not less than 1/2 inch except on labels where a minimum of three-stitch overlap is required. Thread ends of darts shall be trimmed to a length of 1/2 inch. When automatic dart machine is

used, the ends shall be backstitched with not less than three stitches and shall be trimmed. A 1/2 inch chain shall extend from the end of 401 stitching at the outseam and inseams. All other thread ends shall be trimmed to a length of not more than 1/4 inch unless otherwise specified.

3.6.2 Buttonholes. The buttonholes for the front fly and storm tab shall be cut-after, eyelet-end taper bar type or square bar type worked over gimp specified in 3.3.12 with ends of the gimp pulled through to the underside and bartacked. The buttonholes for the shoulder loops and lapel shall be cut-first, eyelet-end square bar type worked over gimp with the ends pulled through to the underside and bartacked. The buttonhole on the vent shall be a straight cut type, tacked at both ends. The size, location, and number of buttonholes shall be as follows:

Location	Number	Size
Front fly	4	1-1/8 + 1/8 inches
Lapel	1 .	$7/8 + \overline{1}/8$ inch
Storm tab	1	7/8 + 1/8 inch
Shoulder loop	2-each	5/8 + 1/8 inch
Back vent	1	1/2 = 1/8, -0 inch

- 3.6.3 Bartacks. Bartacks shall measure 1/2 to 3/4 inch long, and be free from thread breaks and loose stitching.
- 3.6.4 Use of automated apparel equipment. Automated apparel equipment may be used to perform any of the operations specified in table II, providing that the seam and stitch type are as specified and the finished component conforms to the required configuration. When a government furnished shaper pattern is available, the component shall conform to that pattern.
- 3.7 Manufacturing operations requirements. The coat and liner shall be manufactured in accordance with operation requirements specified in table II. The contractor is not required to follow the exact sequence of operations listed. Any additional basting or holding stitching to facilitate manufacture is permissible, provided that the thread is removed or does not show in the finished coat or liner.
- 3.7.1 Pressing. Unless otherwise specified, all pressing specified in table II shall be performed with a heated pressing iron or machine.
- 3.7.2 Repairs. Repairs such as mends, darns, patches, or splices are not permitted on the coat and liner.

	TABLE II		SEAM AND	STITCHES	TH	THREAD	
ģ	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING	P.E.R.	B NEEDLE 1	B088IN/	COVER
-	Cutting.						
	a. Cut the coat in strict accordance with patterns furnished which show size, directional lines, marks for placement of component parts, and notches for proper assembly. Directional lines shall be placed in the warp direction unless otherwise specified.					· <u>·</u> ···	
<del></del>	b. Cut the basic material parts for coat from the same piece of material except storm tab, undercollar, underside of shoulder loop, capes, under pocket, top pocket, front lining (yoke), back lining (yoke), fly lining, top fly front, undercollar stand and hanger						- <u> </u>
	loop (see 3.3.15 for alternate braid and operation 1.c. for finished width) which may be cut from ends. Parts cut from ends shall approximate the shade of the material. Except for the parts identified above, all parts cut from the basic material shall be cut with the glossy side of the material to the outside.						VI F
	c. Cut stripping for hanger loop from basic material (when option is utilized) of sufficient width to finish 3/8 + 1/8 inch wide and 2-1/4 + 3/8 inches in length (see operation 12.).					. 5. 41	· 1·
	d. Cut fronts and backs of liner from the same piece of material, and in a manner so that on the finished liner the back and front pile pieces fall in the same direction preferably with the nap running down from top to bottom.					<del></del>	
	e. Cut the liner front and back sleeves out of the same piece of material, so on the finished liner the shiny side faces the wearer.						

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

	TABLE II (cont'd)		SEAM AND	STITCHES	THREAD	Vρ
Š.	MANUFACTURING OPERATIOMS REQUIREMENTS	STITCH	STITCHING	PER	#16808 31033H /NIB808	4/ R COVER
1.	Cutting. (cont'd)					
	f. Cut all interlining fabric in accordance with patterns furnished.					
	g. Cut the binding material for both the coat and liner on the bias 1-1/4 to 1-3/8 inches wide.			-		
	h. Cut stripping for shoulder loop keepers from basic material of sufficient width to finish 3/8 + 1/8 inch wide and 2-1/8 + 1/8 inches in length between bartacks (see operations 12 and 25).					
	i. Cut facings for pocket hand openings (one each opening) 1-1/2 to 1-5/8 inches wide by 8-1/2 to 8-3/4 inches long.				<del></del>	
2.	Replacement of defective components.				<del></del>	
	During the spreading, cutting, and manufacturing process, components having material defects or damages that are classified as defects in MIL-STD-1494, shall be removed from production and replaced with nondefective and properly matched components.					
ŕ	Marking.			· · · · •	_	
	a. Mark or bundle cut parts to insure a uniform shade throughout the coat and liner.		ſ			
-	<ul> <li>b. Any method of marking may be used except:</li> <li>(1) Metal fastening devices.</li> <li>(2) Sew-on tickets.</li> <li>(3) Adhesive type tickets which leave traces of adhesive on the material after removal of the tickets.</li> </ul>					

NATICK Form 903

1 Dec 76 EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

4. Assembling of components out from basic material.  4. Assembling of components out from basic material.  4. Assembling of components out from basic material.  4. During the fabrication of the cost, the parts required to be cut with the glossy side to the outside glossy side to the outside.  5. Make shoulder loops.  4. Stitch two shoulder loop pieces together around sides, leaving the square end open for turning.  5. This points from outside.  5. Make shoulder loop pieces together around sides, leaving the square end open for turning.  7. This points; from outside sample of the outside shoulder loop positioned as indicated by marks.  8. Stitch two shoulder loop positioned as indicated by marks on pattern. The listing edge of eyelst shall be from on pattern. The listing edge of eyelst shall be from on the underside of an off the sample of the stitching and gimp by Bartack ends of buttonhole stitching and gimp by Bartack and of loop at the pointed end.  6. Bartack ends of buttonhole stitching and gimp by Bartack machine.	Γ	, u				<u> </u>	<u> </u>	
Assembling of components out from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside (see operation 1.b.) shall be assembled with the glossy side to the outside.  Assembling of components out from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside.  Assembling of components out from edges and points and stitch two shoulder loops.  a. Stitch two shoulder loop pleces together around sile sides, lasving the square end open for turning. Holland SSe-2(a) 10-12 50 174 to 5/16 finch from edges around the entire stitched 1/16 to 1/8 inch from edges around the entire stitched 1/16 to 1/8 inch from edges and which shall be stitched 1/16 to 1/8 inch from edges and winch shall be stitched 1/16 to 1/8 inch from edges and winch shall be stitched 1/16 to 1/8 inch from edges of eyelt shall-er?  Do mattern. The inside edge of eyelt shall-er?  Symptom postitioned as indicated by marks on pattern. The finside edge of eyelt shall-er?  Do no pattern 1/8 inch (see 3.6.2). The purling shall he on the underside of the loop at straight end and face side of loop at the pointed end.  C. Bartack ends of buttonhole stitching and gimp by Bartack ba	٥					· · · · · · · · · · · · · · · · · · ·		
Assembling of components out from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside (see operation 1.b.) shall be assembled with the glossy side to the outside.  Assembling of components out from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside.  Assembling of components out from edges and points and stitch two shoulder loops.  a. Stitch two shoulder loop pleces together around sile sides, lasving the square end open for turning. Holland SSe-2(a) 10-12 50 174 to 5/16 finch from edges around the entire stitched 1/16 to 1/8 inch from edges around the entire stitched 1/16 to 1/8 inch from edges and which shall be stitched 1/16 to 1/8 inch from edges and winch shall be stitched 1/16 to 1/8 inch from edges and winch shall be stitched 1/16 to 1/8 inch from edges of eyelt shall-er?  Do mattern. The inside edge of eyelt shall-er?  Symptom postitioned as indicated by marks on pattern. The finside edge of eyelt shall-er?  Do no pattern 1/8 inch (see 3.6.2). The purling shall he on the underside of the loop at straight end and face side of loop at the pointed end.  C. Bartack ends of buttonhole stitching and gimp by Bartack ba	HRE	308BIN				50 50	50	20
Assembling of components cut from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside (see operation 1b.) shall be assembled with the glossy side to the outside.  Make shoulder loops.  a. Stitch two shoulder loop pieces together around all sides, leaving the square end open for turning. Trim points; from of gess and points and stitch 1/4 to 5/16 inch from edges around the entire stitched 1/16 to 1/8 inch from edges around the entire stitched 1/16 to 1/8 inch from edge as included by marks on pattern. The inside edge of eyelet shall be to inch from positioned as indicated by marks to 1/8 inch from pointed end and 1/4 to 3/8 inch from side edge of eyelet shall be be on the underside of the loop at straight end and face side of loop at the pointed end.  C. Bartack ends of buttonhole stitching and gimp by Bartack machine.	1	10.		·····	<del></del>			
Assembling of components out from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside glossy side to the outside glossy side to the outside.  Make shoulder loops.  a. Stitch two shoulder loop pieces together around slot see operation 1.b.) shall be assembled with the slossy side to the outside.  Make shoulder loops.  a. Stitch two shoulder loop pieces together around stitch shoulder loop except the square end open for turning.  Trim points; force out edges and points and stitch shall be stitched 1/6 to 1/8 inch from edges around the entire shoulder loop except the square end which shall be stitched 1/6 to 1/8 inch from edge.  b. Make two 7/8 inch from edges around the entire shoulder loop except the square end which shall be 7/8 inch from edges around the entire shoulder loop except the square end which shall be 7/8 inch from edges around 1/14 to 3/8 inch from stitched 1/16 to 1/8 inch from edges around the entire shoulder loop positioned as indicated by marks on pattern. The inside edge of evelet shall be 7/8 be on the buttonhole shall not be off center by more than 1/8 inch from pointed end.  c. Bartack ends of buttonhole stitching and gimp by Bartack machine.		7				222		20
Assembling of components cut from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside (see operation 1.b.) shall be assembled with the glossy side to the outside glossy side to the outside.  Make shoulder loops.  a. Stitch two shoulder loop pieces together around all sides, leaving the square end open for turning. 301 frim points; force out edges and points and stitch from edges around the entire shoulder loop except the square end which shall be stitched 1/16 to 1/8 inch from edge.  b. Make two 7/8 inch finished cut length buttonholes in each shoulder loop positioned as indicated by marks on pattern. The inside edge of eyelet shall be 7/8 to 1 inch from pointed end of 4 ut o 3/8 inch from straight end. The buttonhole shall not be off center by more than 1/8 inch (see 3.6.2). The puriling shall be on the underside of the loop at straight end and face side of loop at straight end and face side of loop at straight end and face side of loop at straight end and achine.	STITCHES	PER				10-12 10-12 10-12	50-54 per buttonhole	28 per bartack
ASSEMBLING OPERATIONS REQUIREMENTS ASSEMBLING OF COMPONENTS CUL from basic material.  During the fabrication of the coat, the parts required to be cut with the glossy side to the outside (see operation 1.b.) shall be assembled with the glossy side to the outside.  Make shoulder loops.  a. Stitch two shoulder loop pieces together around all sides, leaving the square end open for turning. Trim points; force out edges and points and stitch 1/4 to 5/16 inch from edges around the entire shoulder loop except the square end which shall be stitched 1/16 to 1/8 inch from edge.  b. Make two 7/8 inch fine dege around the entire shoulder loop positioned as indicated by marks on pattern. The inside edge of eyelet shall be 7/8 to 1 inch from pointed end and 1/4 to 3/8 inch from printed end and 1/4 to 3/8 inch from straight end. The buttonhole shall not be off center by more than 1/8 inch (see 3.6.2). The purling shall be on the underside of the loop at straight end and face side of loop at the pointed end.  c. Bartack ends of buttonhole stitching and gimp by machine.	SEAM AND	STITCHING				SSe-2(a) SSe-2(a) SSe-2(b)	!	
Assembling of components cut from basembling of components cut from basembling the fabrication of the coat quired to be cut with the glossy sid (see operation 1.b.) shall be assembglossy side to the outside.  Make shoulder loops.  a. Stitch two shoulder loop pieces all sides, leaving the square end op Trim points; force out edges and points; force out edges around the shoulder loop except the square end shoulder loop except the square end stitched 1/16 to 1/8 inch from edge.  b. Make two 7/8 inch finished cut line ach shoulder loop positioned as on pattern. The inside edge of eyel to 1 inch from pointed end and 1/4 tstraight end. The buttonhole shall by more than 1/8 inch (see 3.6.2).  be on the underside of the loop at sface side of loop at the pointed end c. Bartack ends of buttonhole stitc machine.		STITCH TYPE					Buttonhole	Bartack
· ·	TABLE II (cont'd)	MANUFACTURING OPERATIONS REQUIREMENTS	cut from basic	the coat, the par lossy side to the be assembled with	Make shoulder loops.	a. Stitch two shoulder loop pieces together around all sides, leaving the square end open for turning. Trim points; force out edges and points and stitch 1/4 to 5/16 inch from edges around the entire shoulder loop except the square end which shall be stitched 1/16 to 1/8 inch from edge.	b. Make two 7/8 inch finished cut length buttonholes in each shoulder loop positioned as indicated by marks on pattern. The inside edge of eyelet shall be 7/8 to 1 inch from pointed end and 1/4 to 3/8 inch from straight end. The buttonhole shall not be off center by more than 1/8 inch (see 3.6.2). The purling shall be on the underside of the loop at straight end and face side of loop at the pointed end.	ack ends of buttonhole stitching and gimp
LL1	_	ě	<u>:</u>					

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

	TADIT TT (C. 11.0.)		SEAM AND	STITCHES		THREAD	
Š	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING	PER	NEEDLE	DOBBIN/	COVER
						2 100	
• 9	Make storm tab.			- <del></del>			-
	tab in half	301 or	SSe-2(a)	10-12	50	, C	
	raw edge and point. Trim, turn and work out edges.		SSe-2(a)	10-12	20	202	·
		301	SSe-2(b)	10-12	20	50	
			0Sf-1	10-12	50	20	
	b. Make a 7/8 inch finished cut length buttonhole in the storm tab positioned as indicated on pattern.	Buttonhole		50-54 per buttonhole	30	50	
	from pointed end. The buttonholes shall not be off						
	ing shall be on the outside of the storm tab (when not in use).		·				
	c. Bartack ends of buttonhole stitching and gimp by machine.	Bartack		28 per bartack	50	20	
7.	Make collar.	_			<del></del>		
	a. Position fusible interlining to top collar and press. Stitch undercollar to top collar around the side and top edges. When alternate interlining is used, position interlining on undercollar, and with the undercollar and top collar face to face, stitch through all plies around side and top edges.	301 or 401	SSe-2(a) SSe-2(a)	10-12 10-12	50	50	
		301	SSe-2(b)	10-12	20	20	
					· ·		
							_
7							

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

			SEAM AND	STITCHES		THREAD	
Š	TABLE II (CONT'd) MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING TYPE	PER INCH	HEEDLE	BOBBIN/ LOOPER	COVER
φ.	Make collar stand and attach collar.						
	a. Position fusible interlining to undercollar stand and press.						
* -	b. Position collar between top and undercollar stand, as indicated by marks on pattern, and with raw edges even stitch along top edge of collar stand.	301 or 401	SSe-2(a) SSe-2(a)	10-12 10-12	50	50 70	
	c. Turn collarstand to finished position and stitch 1/16 to 3/32 inch from turned edge.	301	SSe-2(b)	10-12	50	50	
	d. Position hanger loop on center of top collar stand. Turn ends under and bartack each end through all plies (see 3.3.15 and operation 12).	Bartack		28 per bartack	20	50	
9,	Make pocket welt.	:		:		:	
, 	a. Position fusible interlining to underside of top part of pocket welt and press. Fold welt in half lengthwise and stitch side edges.	301 or 401	SSe-2(a) SSe-2(a)	10-12	50	50	3
	b. Trim, turn, and force out edges and points and stitch 1/4 to 5/16 inch from side and folded edges.	301	SSe-2(b) and	10-12	20	20	. <u>.</u> "
			0Sf-1	10-12	50	20	
		<u>-</u>					
						···	

	TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	
, OX	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING	PER	HEEDLE	DOBBIN/	COVER
6	Make pockets.						
	a. Slash under pocket opening, superimpose pocket pieces and stitch together around all edges.	301 or 401	SSe-2(a)	10–12	200	50	
	b. Turn pocket inside out and edge stitch 1/16 to 1/8 inch from edge.	301	SSe-2(b)	10-12	20	50	
	c. Turn under raw edge of under pocket and stitch to top pocket 1/16 to 3/32 inch from turned edge forming facing.	301	LSd-1	10-12	50	50	
=	Set pockets.						
-	Finished appearance. The pockets and welts shall be uniform in appearance and placement and shall lie flat and smooth, without twisting, pleating, or puckering. The stitching shall be uniform in width.						
	a. Set pocket welt on front as indicated by marks on pattern. Seam welts to fronts 1/4 inch from raw edge. The stitching shall not extend beyond the pocket line.	301 or 401	SSa-1		20	50	
	b. Fold facing for hand-opening (see operation 1.h.) in half lengthwise and position raw edges of facing on opposite side of pocket opening mark with raw edges abutting raw edges of welt. Stitch facing to front along pocket opening mark from top to bottom of opening 1/4 inch from raw edges.	301 or 401	SSe-2(b)	10-12	50	50	
· · · · · · · · · · · · · · · · · · ·	c. Slash pocket opening and tongue notch ends.						
				i			

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

-		_					TE O HOSTED (GE)		
	COVER			<u> </u>					
THREAD	BOBBIN/ LOOPER			20	20	20	20	20	20
TH	NEEDLE	F		. 20	20	25	20	20	20
STITCHES	PER			10-12	10-12	10-12	10-12	6-12	10-12
SEAM AND	STITCHING			SSe-2(b)	SSa-1	SSe-2(b)	LSq-3(b)	SSa-l or LSa-l	BFh~1
	STITCH			301	301	301	301	301	406
TABLE II (cont'd)	MANUFACTURING OPERATIONS REQUIREMENTS	Set pocke	NOTE: Cuts shall not be visible on finished coat.	d. Turn facing to inside of coat, and raise stitch to coat from top to bottom of opening 1/16 to 3/32 inch from folded edge.	e. Seam unfinished side of under pocket to welt-to-front joining seam (this may be performed as part of operation 10.a.).	f. Turn pocket to inside and raise stitch through welt and pocket 1/16 to 3/32 inch from turned edge.	g. With pocket in a flat position, stitch down top and bottom edges of welt, through front and hanging pocket, with two rows of stitching. The inner row shall superimpose the 1/4 to 5/16 inch stitching on welt; the outer row shall be 1/16 to 3/32 inch from edge and the stitching at ends of hand-opening shall be diagonal to the corners of the hand-opening.	h. Stitch front edge of top pocket to coat fronts.  Make keeper loops for shoulder loops and hanger loop	
	ģ	11						12.	

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

	TABLE II(cont'd)		SEAM AND	STITCHES		THREAD	
ò	MANUFACTURING OPERATIOMS REQUIREMENTS	STITCH TYPE	STITCHING	PER	HEEDLE	BOBBIN/ LOOPER	COVER
12.	Make keeper loops for shoulder loops and hanger loop (when applicable). (cont'd)						
· · · · · ·	- Or -						
	b. Fold loops with the raw edges turned in and stitch 1/16 to 1/8 inch from each side.	301	EFp-2	10-12	20	50	
13.	Make facings.	·			- · ·	-	
	<ul> <li>a. Position fusible interlining to front facings and press.</li> </ul>	,					\ <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>
	b. Bind back raw edge of facings. Binding shall finish 3/16 to 1/4 inch wide (see 3.3.3).	301 or 401	BSc-1	10-12	50	50 70	
14.	Make right fly front.						•
	a. Position fly lining piece on right front facing, as indicated by notches on pattern and stitch inward at top notch parallel to front edge and outward at bottom notch. The joining seam shall be $3/4 + 1/8$ inch from front edge of facing.	301 or 401	SSe-2(a) SSe-2(a)	10–12 10–12	50	70	
	b. Cut facing and fly piece diagonally at each corner to line of stitching.						
					·		
						i	

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

	TABLE II (cont'd)		SEAM AND	STITCHES		THREA	٥
ģ	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	STITCHING	PER	4	NOBBIN/	1
14.	Make ri			ואכאו	אבנחרב	LOOPER	700
	c. Turn fly piece to inside and stitch the length of the fly piece 1/4 to 5/16 inch from turned edge, back tacking each end or stitch the three edges of fly piece 1/4 to 5/16 inch from the turned edge.	301	LSbk-2	10–12	50	. 50	<del>.</del>
	d. Make four 1-1/8 inches finish cut buttonholes on fly piece as indicated by marks on pattern. The inside edge of eyelet shall be 1/2 to 5/8 inch from the front edge of fly lining. The purling shall be on the outside of the facing.	Buttonhole	-	70-74 per buttonhole	30	20	
	e. Position fusible interlining to top fly with back edges even and press.						
	f. Position buttonhole fly to top fly piece with raw edges evenly placed above and below notches and front edge of buttonhole fly 3/4 inch back of top fly piece raw edge. Make three vertical tacks or bartacks centered between the four buttonholes and superimposed on fly facing edge stitching.	Tack or bartack-	:	10-12 per tack or 28 per bartack	50	50	
15.	Attach combination label and storm tab.	_				- <u>-</u>	
···· ·	a. Stitch combination label to left front facing with the top of label approximately 1 inch below bottom front button.	301	LSbj-1	8-12	20	50	<del>''-</del>
					•	<del></del> -	
						, <u></u>	
					<u>-</u>	_	

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

	TABLE II (cont'd)		SEAM AND	STITCHES		THREA	۵
ŇO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING TYPE	PER	HEEDLE	BOBBIN/ LOOPER	COVER
15.	Attach combination label and storm tab. (cont'd)						
	NOTE: The label stitching shall not be through the printing.						
	b. Position storm tab on right front facing at marks indicated on pattern, with raw edge of tab parallel to front edge of facing. Stitch to facing 1/4 inch from raw edge. Turn tab to finished position (point of tab toward front of facing) and stitch enclosing the raw edge. Continue stitching across the top of the tab with stitching superimposed on the horizontal edge stitching on tab. The purling of the	301 or 401 and 301	LSs-2(a) LSs-2(a) LSs-2(b)	10-12 10-12 10-12	20	50 50 50	
	buttonhole shall face the wearer on the finished coat.						
16.	Make shoulder darts.		,				<u>-</u>
·	a. Stitch front shoulder darts tapering to a point 1 ± 1/2 inch below cut end of dart.	301	SSa-1	10-12	20	20	
	b. Press seam open flat and folded edge at bottom of dart toward center front.					***	-
17.	Make lining (yoke).						<del></del>
	a. Stitch darts on front lining tapering to a point 1 ± 1/2 inch below cut end of dart.	301	SSa-1	10-12	50	50	_
	b. Join front lining to front sleeve lining at armhole with a safety stitch.	515 or 516 or 519	SSa-2	10–12	50 70 (chain sti 70 70 (overedge stitching	70 stitching) 70 edge hing)	ling)

NATICK Form 903 1 Dec 76 VILL BE USED UNTIL EXHAUSTED.

10-12 50 70 (chain stite 70 70 70 70 70 70 70 70 70 70 70 70 70		TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	
Make lining (yoke). (cont'd)  c. Position front edge of back sleeve lining and front edge of cape to shoulder edge of front lining and safety sitch with stitching continued the entire length of sleeve.  d. Position back edge of cape and back edge of back 515 or SSa-2 10-12 sleeve lining to front edge of back lining and 515 or SSa-2 10-12 safety stitch to bottom of armhole.  e. Overedge stitch bottom raw edge of sleeve lining. 502 or EFG-1 6-12 503 or 504 front and back lining and 515 or SSa-2 10-12 safety stitch.  or Safety stitch.  g. Join front lining to back lining, face to face, 515 or 515 or 516 or	Ю.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	STITCHING TYPE	PER	HEEDLE	BOBBIN/	COVER
edge of front lining and 515 or 518 or 519 continued the entire 519 and back edge of back 515 or 519 cole.  and back lining and 515 or 502 or 503 or 504 cole.  inling, face to face, 515 or 519 cole.  to face, with a 515 or 519 cole.  to face, with a 515 or 519 cole.	17.	Make lining (yoke). (cont'd)						
and back edge of back 515 or 518 or 519 519 519 519 519 6-12 502 or 648 519 503 or 503 or 504 519 519 519 519 519 519 519 519 519 519		Positic nt edge safety sth of		SSa+2	10-12	50 (chai 70 (overe	70 n stitch 70 dge stit	ing)
Close side seam of front and back lining and ferarm seam of front and back lining and slife or stitch.  Or Join front lining to back lining, face to face, a safety stitch.  Stitch underarm seam, face to face, with a stitch.  Stitch underarm seam, face to face, with a stitch.  Stitch underarm seam, face to face, with a stitch.  Stitch underarm seam, face to face, with a stitch.		and back edge of back lining and ole.		SSa-2	10-12	50 (chai 70 (overe	70 n stitch 70 dge stit	ing)
Close side seam of front and back lining and 515 or 519 or 516 or 519 or 516 or 519		Overedge stitch bottom raw edge of sleeve		EFd-1	6-12	70	70	
Join front lining to back lining, face to face, 515 or 516 or 516 or 519  Stitch underarm seam, face to face, with a 516 or 519  ety stitch.		f. Close side seam of front and back lining and underarm seam of sleeve in one operation with a safety stitch.		SSa-2	10-12	50 (chai 70 (overe	70 n stitch 70	ing)
Join front lining to back lining, face to face, 515 or 58a-2 10-12 50 516 or 516 or 519 70 519 70 515 or 515 or 515 or 516 or 515 or 516 or 516 or 516 or 519 70 70 519 70 519 70		or						
Stitch underarm seam, face to face, with a 515 or 53a-2 10-12 50 ety stitch. 519		to back lining, face to		SSa-2	10-12	50	70 70	
		Stitch underarm seam, face to face, with ety stitch.		SS a	10-12	70	70 70	

NATICK Form 903
1 Dec 76 EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

	TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	
Š	MANUFACTURING OPERATIONS REQUIREMENTS	TYPE	STITCHING TYPE	PER	Ne ente	DOBBIN/	3
17.	. Make lining (yoke). (cont'd)						- COVER
	i. Position back edge of shoulder reinforcement piece and back edge of armhole sleeve lining to top edge of back lining and safety stitch around armhole. The shoulder reinforcement shall finish between the sleeve lining and the outer shall	515 or 516 or 519	SSa-2	10-12	50	70 70	<u>.                                    </u>
	of the coat.  j. Position front edge of shoulder reinforcement piece to front edge of back sleeve lining and top edge of front lining and safety stitch with stitching continuing the entire length of sleeve, closing top sleeve lining.	515 or 516 or 519	SSa-2	. 10–12	50	70	<del></del>
	k. Overedge stitch bottom raw edge of sleeve lining.	502 or 503 or 504	EFG-1	6–12	20	07	
	1. Hem bottom of lining with raw edge turned under. Hem shall finish 3/8 to 5/8 inch in width.	301	EFb-1	10-12	20	20	<del>_</del>
18.	Make back and vent.	:			<del></del>	·	·
	a. Position the back parts together face to face with the edge of the right back folded over the left back. Insert the fusible web against the left back under the folded edge of the right back. The fusible web shall extend from the top of the vent to the neck of the coat.						
-							·
	1						
] ;					···		· <u>-</u>

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

	TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	
회	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING	PER	4	BOBBIN	
18.	Make back and vent. (cont'd)				אבנחרב	LOOPER	2006
	b. Stitch back pieces together (from 1/4 to 3/8 inch below top of vent to neckline) 1/16 to 3/32 inch from raw edge, catching the web in the stitching.	301 or 401	SSw-2(a) SSw-2(a)	10-12	50	50	
	c. Press the seam, fusing the web and also forming left vent edge.						
	d. Turn back seam towards left side and fold left side of vent as indicated on pattern and raise stitch	301	SSw-2(b)	10-12	20	50	
	1/4 to 5/16 inch from fold of seam with stitching continuing down vent, catching the raw edge of the first fold of vent in the stitching.	301	EFb-1	10-12	50	50	
	e. Fold right side of vent as indicated by marks on pattern and, with raw edge turned under, stitch 1/16 to 3/32 inch from back turned edge.	301	BFb-1	10-12	50	20	
	f. Trim left side of vent at top and, with right side of vent overlapping left side, box stitch top of vent through all plies. The box stitching shall be diagonal to the center seam (approximately 450) and shall measure 1-1/4 ± 1/4 inches long and 3/8 ± 1/8 inch wide.	301		10-12	50	50	:
	g. Make a 1/2 inch straight cut buttonhole in right side of vent, positioned as indicated by marks on pattern.	Buttonhole		50-54 per buttonhole	30	20	
						-	<del></del>

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

T	TABLE IT (cont'd)		SEAM AND	STITCHES		THREAD	
		STITCH	STITCHING	PER		DOBBIN/	
Š	MANUFACTURING OPERATIONS REQUIREMENTS	TYPE	TYPE	INCH	NEEDLE	LOOPER	COVER
19.	Join sleeves to body.	i	****				
	a. Stitch front sleeve, to front armhole from shoulder to 3 ± 1/2 inches below the step on front.	301 or 401	LSq-2(a) LSq-2(a)	10-12 10-12	50	50 70	<del></del>
	b. Turn and raise stitch seam 1/4 to 5/16 inch with stitching on front to step as marked on pattern. At step, turn and stitch to joining seamline.	301	LSq-2(b)	10–12	50	20	
•	c. Stitch back sleeve, to back armhole from neckline to 3 ± 1/2 inches below the step on back.	301 or 401	LSq-2(a) LSq-2(a)	10-12 10-12	50 50	50 70	
	d. Turn and raise stitch seam 1/4 to 5/16 inch with stitching on back to step as marked on pattern. At step, turn and stitch to joining seamline.	301	LSq-2(b)	10–12	50	50	
20.	Close sides.						
	a. Position fronts to back, face to face with edge of front folded over edge of back. Insert fusible web on back under the folded edge of front, and stitch sides together 1/16 to 3/32 inch from raw edge, catching the web in the stitching.	301 or 401	SSw-2(a)	10-12	20	50	
	b. Press the seam, fusing the web.						·
	c. Turn seam toward back and raise stitch $1/4$ to $5/16$ inch from folded edge of seam.	301	SSW-2(b)	10–12	20	20	
21.	Close sleeves.						
	a. Join top arm seam from neckline to bottom of sleeve simultaneously stitching fusible web to back edge of front sleeve.	301 or 401	LSq-2(a) LSq-2(a)	10-12 10-12	20	70	
<u> </u>							

NATICK Form 903
1 Dec 76 EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

	TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	
Š.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	STITCHING	PER	NEFO	BOBBIN/	2000
21.	Close s					1000	
	b. Turn seam toward front and raise stitch 1/4 to 5/16 inch from folded edge.	301	LSq-2(b)	10–12	50	20	
	c. Press seam, fusing the web.						
	d. Prior to joining sleeves, position fusible interlining to sleeve bottoms, front and back, and press.						
	or						
<u>-</u>	When the alternate non-woven, non-fusible inter- lining is used, stitch sleeve hem interlining to bottom of sleeve.	301	LSbj-1	10-12	20	20	
	e. Stitch underarm seam.	301	SSa-1	10-12	20	50	
:	f. Complete the stitching of sleeve to armhole.	301	SSa-1	10-12	50	50	
22.	Attach collar to coat.						
	a. Stitch a 3/16 inch reinforcement tape to inside of neck edge from lapel notch to shoulder seam (see 3.3.6).	301	LSbj-1	8-12	20	20	
	b. Stitch collar to coat with notches matching. Notch front neckline seam allowance, as necessary.	301 or 401	SSa-1 SSa-1	10-12	50	50	
23.	Attach lining to facings.					,	
***	a. Mark facing 1-1/4 inches from bound back edge for positioning of lining.						
4 4014 1	200						7

NATICK Form 903
1 Dec 76 EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

b. Pos and sti (if any yoke li facing facing a. Pos edges e	MANUFACTURING OPERATIONS REQUIREMENTS  lining to facings. (cont'd)	STITCH	STITCHING	010			
	lining to facings. (cont'd)	TYPE	TYPE	INCH	NEEDLE	LOOPER	COVER
,							
Atta a. edge	b. Position raw edge of lining to mark on facings and stitch lining to facing. The excess fabric (if any) shall be eased across the top of the back yoke lining. The left facing shall lap the right facing and the pleat shall be folded toward left side.	301	LSa-1	10-12	50	20	
a. Pos edges	Attach facing assembly to shell.						
edges	and	301	SSe-2(a)	10-12	50	20	-
necklii The lei The lai accord: facing: facing	edges even across top of lapel and stitch across neckline through coat, collarstand and across facings. The left shall lap the right facing at center back. The lapels shall be uniform in size and shaped in accordance with lapel shaper. Continue stitching facings to fronts down to bottom of coat and across facing in accordance with bottom shaper.	301	SSe-2(a)	10-12	20	20	
b. Tun line 1, collars the out	b. Turn neck facing and raise stitch across neck- line 1/16 to 3/32 inch from edge, the length of the collarstand. The stitching shall not be visible on the outside of coat.	301	LSq2(b)	10-12	20	S O	
c. St.	c. Stitch sleeve lining to sleeve one inch from bottom of overedged seam of lining.	301	SSa-1	10–12	50	20	
d. Tun underal gether beginn	d. Turn up bottom of sleeve at hem notch. Align underarm seams of lining and shell and stitch to- gether for a distance of 6-1/2 + 1/2 inches beginning 3 + 1/2 inches from folded edge.	301	SSa-1	10-12	20	50	·

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

	TABLE II (cont'd)		SEAM AND	STITCHES	1	THREAD	
Š.	MANUFACTURING	STITCH TYPE	STITCHING	PER	HEEDLE	DOBBIN/ LOOPER	COVER
25.	Attach keeper loops.						
	With ends of keeper loop turned under, position loop on shoulder centered on sleeve outseam with back edge of loops parallel to front armhole joining seam, bartack each end.	Bartack		28 per bartack	20	50	
26.	Anchor lining to side seams.						
	Tack lining side seam to coat side seams with vertical bartacks, or 1/2 inch automatic straight tacks, 2 to 3 inches below the sleeve setting seam.	Bartack or 301		28 per bartack 28 per tack	50	20	
27.	Hem bottom of coat.						
	Turn in raw edge and hem bottom of coat. The hem shall finish 1 + 1/8 inch wide. The turned in raw edge may be stitched prior to hemming.	301	EFb-1	10–12	50	50	
28.	Finish coat fronts.						
	Turn facing; force out edges and edge stitch fronts 1/4 to 5/16 inch from edge across top of lapels, down fronts, and across bottoms to back edge of facings.	301	. SSc-1	10-12	20	50	
29.	Top stitch fly front.						
<u> </u>	Position fly marker on front and mark, extending the mark 1 + 1/8 inch below fly opening. Stitch on mark line through all plies.	301	LSbj-1	10-12	20	20	

ICK Form 903 sec 76 WILL BE USED UNTIL EXHAUSTED.

	TABLE II (cont'd)		SEAM AND	STITCHES	1	THREAD	Q
ж 6	MANUFACTURING OPERATIONS REQUIREMENTS	TYPE	STITCHING	PER	NEEDLE	ROBBIN/ LOOPER	COVER
30.	Make buttonhole on right lapel.						
	a. Make a 7/8 inch cut length buttonhole on right lapel as indicated by marks on pattern with inside edge of eyelet 1/2 to 5/8 inch from front edge 3/4 + 1/8 inch from top edge.	Buttonhole		50-54 per buttonhole	30	50	
	b. Bartack ends of buttonhole stitching and gimp by machine. The purling of the buttonhole shall be on the facing side of coat.	Bartack	-	28 per bartack	20	20	
31.	Tack pocket to facing.						
	Tack back edge of facing to bottom of pocket with a vertical bartack. The bartack shall not	301 or	SSa-1	10–12	20	50	<del></del>
	be more than 1/2 inch from bottom edge of pocket and approximately 1 inch from edge of binding.	Bartack	••	28 per bartack	20	50	<del> </del>
32.	Set slide fastener on coat.		_			•	··
	a. Position the slide fastener on the coat facings so that the ends of the fastener are equidistant from bottom edge of coat. The separating pin of the slide fastener shall be on the right facing.						
	b. Position the slide fastener on the underside of coat facings with the front edge of the chain 1/8 to 3/16 inch from the bound edge.	-		·			
· -							

NATICK Form 903 1 Dec 76 EDITION OF 1 OCT 74 WILL BE USED UNTIL EXHAUSTED.

	TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	9
Š	MANUFACTURING OPERATIONS REQUIREMENTS	TYPE	STITCHING	PER	NEEDLE	BOBBIN/ LOOPER	COVER
32.	Set slide fastener on coat. (cont'd)						
	c. Turn in the end of the tape 1/2 to 3/4 inch if end of tape is not finished and stitch the length of tape 3/16 to 5/16 inch from back edge of chain.	301	SSa-1	10–12	20	50	
33.	Clean coats.						
<del></del>	a. Trim thread ends and remove loose threads.				·····		
	b. Remove spots, stains, and markings.						
	c. Remove shade tickets.						
34.	Press coat.						
	Press collar, fronts, backs, pockets, sleeves, and hems with steam pressing machine or hand pressing iron.			<u>.</u>		4	
35.	Sew on buttons.					_	
	a. Mark or gage buttons to correspond to buttonholes, and marks on patterns. All buttons shall be shank wrapped, except the 24-line back vent button and the 24-line sleeve lining button.						

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

	TABLE II (cont'd)		SEAM AND	STITCHES	1	THREAD	٩
NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH	STITCHING	PER	HEEDLE	DOBBIN/ LOOPER	COVER
35.	Sew on buttons. (cont'd)						
<del></del>	b. Sew four 40-line buttons on left front to corres-	101 or		14-16 per	30		
	through coat, facing, and an 18-line stay button.	301 or		buccon 14-16 per	30	30	
	Buttons shall be shank wrapped and shall be 2 + 1/8 inches from left front edge (measured from	Hand		button 4-6 double	30		<del></del>
- <del></del>	center of button).			thread		,	
	c. Sew a 30-line button on left front lapel 7/8 inch	101 or		14-16 per	30		
		301 or		14-16 per	30	30	
	coat, lacing, and an lo-line stay button.	Hand		d-6 double	30		-
				thread			
	d. Sew a 30-line button on left front as indicated	101 or		14-16 per	30		•
	4	301 or		14-16 per	30	30	
	an io-iine stay button. The button shall be shank wrapped.	Hand		4-6 double	30		
				thread			
		<u></u>					
							<u> </u>
							· · · · · · · · · · · · · · · · · · ·
		_					

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

or 14-16 per 30 30 button 4-6 double 30 thread button 4-6 double 30 thread button 4-6 double 30 thread button 4-6 double 30 thread thread thread thread thread	•	•		SEAM AND	STITCHES		THREAD	
14-16 per 30 button 14-6 per 30 thread 14-16 per 30 button 14-16 per 30 button 14-16 per 30 button 14-6 double 30 thread 14-16 per 30 button 14-6 double 30 thread thread thread thread	TABLE II (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS		STITCH	STITCHING	PER	MEEDLE	BOBBIN/ LOOPER	COVER
or 14-16 per 30 button 14-16 per 30 button 4-6 double 30 thread or 14-16 per 30 button 4-6 double 30 thread 14-16 per 30 button 14-16 per 30 button 14-16 per 30 button 14-16 per 30 button 14-16 per 30 thread thread	Sew on buttons. (cont'd)							
or 14-16 per 30 button 4-6 double 30 thread or 14-16 per 30 button 4-6 double 30 thread or 14-16 per 30 button 4-6 double 30 thread 14-16 per 30 button 4-6 double 30 thread thread	Sew a 30-line button one each shoulder seam 1-1/4 /4 inches from collar joining seam. The buttons		101 or		14-16 per	30		
4-6 double 30 thread or 14-16 per 30 button 14-16 per 30 thread or 14-16 per 30 thread 14-16 per 30 button 30 thread thread thread thread			301 or		14-16 per	30	30	
or 14-16 per 30 button 14-16 per 30 button 4-6 double 30 thread 14-16 per 30 button 14-16 per 30 button thread thread thread			Hand		4-6 double thread		<del></del>	
or 14-16 per 30 button 4-6 double 30 thread  14-16 per 30 button 14-16 per 30 button 4-6 double 30 thread	f. Sew a 24-line button on left side of vent to correspond to buttonhole on right side		101 or		14-16 per	30		
#_6 double 30 thread thread  14_16 per 30 button 14_16 per 30 button 4_6 double 30 thread	1011		301 or		14-16 per	30	30	Ü
or 14-16 per 30 button 14-16 per 30 button 4-6 double 30 thread			Hand		button 4-6 double thread			
or 14-16 per 30 button 4-6 double 30 thread	8. Stitch a 24-line button on sleeve lining 1/2 + 1/8 inch from bottom turned edge of lining 1/2 +		101 or		14-16 per	30		
thread	stitching through the shell.		301 or		button 14-16 per	30	30	
			Hand		button 4-6 double thread			<del></del>
	Attach shoulder loops.							<del></del>
	Slide shoulder loops through keeper loop and fasten both ends to button on shoulder. The pointed end of the shoulder loops shall be on top.							

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

	TABLE II (cont'd)		SEAM AND	STITCHES		THREAD	
NO.	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	STITCHING	PER INCH	HEEDLE	LOOPER LOOPER	COVER
	MAKE LINER						
37.	Attach sleeve to liner body.						
	a. Position front sleeve liner to front liner as indicated by marks on pattern and safety stitch around armhole.	515 or 516 or 519	SSa-2	10-12	50 7C (chain st 70 7C (overedge	70 n stitching) 70 dge stitchin	citching)
	b. Position front edge of back sleeve liner to shoulder edge of front liner and safety stitch with stitching continued the entire length of sleeve.	515 or 516 or 519	SSa-2	10-12	50 7C (chain st 70 7C (overedge		itching)
	c. Position back edge of back sleeve liner to front edge of back liner and safety stitch to bottom of armhole.	515 or 516 or 519	SSa-2	10-12	50 7C (chain st 70 7C (overedge		(itching)
	d. Close side seams of front and back liner and underarm seam of sleeve in one operation with a safety stitch. As an alternate, the operation may be done by stopping and starting at the armpit.	515 or 516 or 519	SSa-2		50 (chaim 70 (overede	50 50 (chain stitching) 70 70 (overedge stitching)	hing) tching
38.			,				<u></u>
	Finished appearance. The binding shall be uniformly stitched with no raw edges showing. The fabric shall be caught in the stitching. The binding shall finish 1/4 ± 1/16 inch wide.	-					

NATICK Form 903 I Dec 76 WILL BE USED UNTIL EXHAUSTED.

ó	TABLE II (cont'd)		SEAM AND	STITCHES	1	THREAD	,
	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	STITCHING TYPE	PER INCH	MEEDLE	BOBBIN/ LOOPER	COVER
38.	Bind edges of liner. (cont'd)						
. ·	a. Bind edges of vent, bottom, fronts, and neck of liner in one operation. The binding shall start and finish other than at the top vent and the end shall be turned in and caught in the stitching. The ends of the binding shall overlap not less than 1/2 inch with the end of the binding turned over on itself and securely stitched or bartacked.	301 or 401 or bartack	BS0-1	10-12 10-12 28 per bartack	500	50 50 50	
· -	b. Bind sleeve bottoms with binding starting and finishing at underarm seam. The end of the binding shall be formed into a loop to accommodate the 24-line button on coat lining. The end of binding shall be bartacked or securely stitched.	301 or 401 or bartack	BSc-1	10-12 10-12 28 per bartack	50	50 70 50	
	c. Bind pocket pass-through opening. The ends of binding shall start and finish at other than the top and bottom of opening and shall overlap not less than 1/2 inch. The end of the binding shall be turned over onto itself and securely stitched or bartacked.	301 or 401 or bartack	BSc-1 BSc-1	10-12 10-12 28 per bartack	50	50 70 50	
39.	Attach combination label.						
	Position combination label on left front on the pile side of liner 1 inch down from the pocket and 2 inches in from the band edge and stitch on all four sides.	301	LSbj-1	10-12	20	50	
	NOTE: The label stitching shall not be through the printing.						·

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

Ho. Set slide fastener on liner.  a. Position the slide fastener on the underside of adjacent to bound edge of liner, and ends equidistant from bottom of liner.  b. Turn in the raw edge of the chain immediately adjacent to bound edge of liner, and ends equidistant from bottom of liner.  c. Turn in the raw edge of the chain immediately adjacent to bound edge of liner, and finished and stitching attiching.  c. The slider shall be positioned on left side of liner.  Trim all thread ends and remove loose thread.  Attach liner to coat by means of the slide fastener, easy manipulation of the slider. There shall be no easy manipulation of the slider. There shall be no easy manipulation of the slider. There shall match the coat in size.		TABLE IT (ALTHOUGH		SEAM AND	STITCHES	1	THREAD	D
Set slide fastener on liner.  a. Position the slide fastener on the underside of liner with the back edge of the chain immediately from bottom of liner, and ends equidistant from bottom of liner.  b. Turn in the raw edge of liner and ends equidistant from bottom of liner.  1/2 to 3/4 inch, if end of tape is not finished, and stitch the length of the tape with the stitching stitching.  c. The slider shall be positioned on left side of liner.  Trim all thread ends and remove loose thread.  Remove all spots, stains, and shade tickets.  Attach liner to coat by means of the slide fastener, checking the finished operation to insure free and easy manipulation of the slider. There shall be no builging or distortion of the coat or the liner when fastener is engaged. The liner shall match the coat in size.	ě	MANUFACTURING OPERATIONS REQUIREMENTS	STITCH TYPE	STITCHING TYPE	P.E.R. INCH	HEEDLE	DOBBIN/ LOOPER	
a. Position the slide fastener on the underside of liner with the back edge of the chain immediately addiacent to bound edge of liner, and ends equidistant from bottom of liner.  b. Turn in the raw edge of the slide fastener tape 1/2 to 3/4 inch, if end of tape is not finished, and stitch the length of the tape with the stitching superimposed on the binding stitching.  c. The slider shall be positioned on left side of liner.  Trim all thread ends and remove loose thread.  Remove all spots, stains, and shade tickets.  Attach liner to coat.  Attach liner to coat by means of the slide fastener, checking the finished operation to insure free and easy manipulation of the coat or the liner when fastener is engaged. The liner shall match the coat in size.	40.	Set slide fastener on liner.						
b. Turn in the raw edge of the slide fastener tape 1/2 to 3/4 inch, if end of tape is not finished, and stitch the length of the tape with the stitching superimposed on the binding stitching.  c. The slider shall be positioned on left side of liner.  Clean liners.  Trim all thread ends and remove loose thread.  Remove all spots, stains, and shade tickets.  Attach liner to coat.  Attach liner to coat by means of the slide fastener, checking the finished operation to insure free and easy manipulation of the slider. There shall be no heavy manipulation of the coat or the liner when fastener is engaged. The liner shall match the coat in size.		a. Position the slide fastener on the underside of liner with the back edge of the chain immediately adjacent to bound edge of liner, and ends equidistant from bottom of liner.						
c. The slider shall be positioned on left si liner.  Clean liners.  Trim all thread ends and remove loose threas Remove all spots, stains, and shade tickets Attach liner to coat.  Attach liner to coat by means of the slide checking the finished operation to insure free easy manipulation of the slider. There shall bulging or distortion of the coat or the line fastener is engaged. The liner shall match tin size.	0.00	Turn in the raw edge of the slide fastener tate to 3/4 inch, if end of tape is not finished, tch the length of the tape with the stitching erimposed on the binding stitching.	301	LSa-1	10–12	50	20	
Trim all thread ends and remove loose threa Remove all spots, stains, and shade tickets Attach liner to coat.  Attach liner to coat by means of the slide checking the finished operation to insure free easy manipulation of the slider. There shall bulging or distortion of the coat or the line fastener is engaged. The liner shall match tin size.		The slider shall be positioned on left sideer.						
Trim all thread ends and remove loose threas Remove all spots, stains, and shade tickets Attach liner to coat.  Attach liner to coat by means of the slide checking the finished operation to insure free easy manipulation of the slider. There shall bulging or distortion of the coat or the line fastener is engaged. The liner shall match tin size.	41.							
Attach liner to coat.  Attach liner to coat by means of the slide checking the finished operation to insure freeasy manipulation of the slider. There shall bulging or distortion of the coat or the line fastener is engaged. The liner shall match tin size.		Trim all thread ends and remove loose thread.						
Attach liner to coat by means of the slide checking the finished operation to insure freeasy manipulation of the slider. There shall bulging or distortion of the coat or the line fastener is engaged. The liner shall match tin size.		Remove all spots, stains, and shade tickets.				- <del></del>		
of the slide to insure fre There shall to the line shall match t	42.	Attach liner to coat.						
		of the slide to insure fre There shall to or the line shall match t						

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

The finished coat and liner shall conform to measurements shown in tables 3.8 Measurements.

TABLE III. Coat measurements (in inches)

Sizes	9	8	10	12	14	16	18	20	Tolerance
1/2 Bust 1/	21-1/4	21-374	22-1/4	23	23-374	24-1/2	25-1/2	25-1/2 26-1/2 ± 3/4	+ 3/4
Back length $\frac{2}{}$ :									
Short	40-1/4	40-1/2	40-3/4 41	41	41-1/4	41-1/2	41-3/4	77	± 3/4
Regular	43-1/4	43-172	43-3/4	44	44-1/4	44-172	44-374	45	+ 3/4
Long	46-1/4	46-172	46-3/4	<b>1</b> 47	47-174	47-172	47-3/4	817	± 3/4
Sleeve length $\frac{3}{2}$ :									
Short	16	16-1/8	16-1/8 16-1/4 16-3/8	16-378	16–1/2 16–5/8	16-578	16-374	16-3/4 16-7/8 ± 1/4	± 1/4
Regular	17-1/4	17-378	17-1/2	17-578	17-3/4	17-778	81	18-1/8 ± 1/4	± 1/4
Long	18-3/4	18-7 /8	19	19-1/8	19-1/4	19-378	19–172	19-5/8 ± 1/4	+ 1/₺

The coat shall be buttoned without liner, placed flat on a table and measured as follows:

ζ

<sup>1/</sup> Measure from folded edge to folded edge at base of armhole.

Measure from collar setting seam to bottom of coat down center back. /<u>5</u>

Measure underarm seam from sleeve joining seam to bottom of sleeve. اع

TABLE IV. Liner measurements in (inches)

Sizes	9	8	10	12	17	16	18	20	Tolerance
1/2 Bust 1/	16-1/4	16-374	16-3/4 17-1/4 18	18	18-374	19-1/2	20-1/2	20-1/2 21-1/2 ± 3/4	± 3/4
Back length $2/$ :									
Short	29-172	29-3 /4	30	30-1/4	30-1/2	30-374	31	31-1/4 ± 3/4	+ 3/4
Regular	31-7/8	32-1/8	32-378	32-578	32-778	33-1/8	33-378	33-5/8	± 3/t
Long	34-5/8	34-7/8	35-1/8 35-3/8	35-378	35-578	35-7 /8	36-1/8	36-378	+ 3/4
Sleeve length $\frac{1}{3}$ /:									
Short	14-3/8	14-172	14-5/8 14-3/4	14-3/4	14-7/8	15	15-1/8	15-1/8 15-1/4 ± 1/2	+ 1/2
Regular	15-5/8	15-374	15-7/8 16	16	16-1/8	16-1/4	16-3/8	16-3/8 16-1/2 ± 1/2	+ 1/2
Long	17-1/8	17-1/4	17-378 17-172	17-1/2	17-578	17-374	17-7/8	18	+ 1/2

The liner shall be placed flat on a table and measured as follows:

Fold liner in half (down center back) and measure from front edge to back folded edge at base of armhole.

 $<sup>\</sup>frac{2}{}$  Measure from neck edge to bottom of liner.

 $<sup>\</sup>frac{3}{4}$  Measure underarm seam from sleeve joining seam to bottom of sleeve.

- 3.9 Workmanship. The finished coat and liner shall conform to the quality of product established by this document. The occurrence of defects shall not exceed the applicable acceptable point values.
  - 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 shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling 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. Where certificates of compliance are submitted, the Government reserves the right to inspect 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 <u>First article inspection</u>. When a first article is required (see 3.2), it shall be examined in accordance with the visual and dimensional examination provisions of MIL-STD-1494.
- 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 requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document. In addition to testing provisions contained in subsidiary documents, testing shall be performed on components and materials listed in table V for characteristics noted. Unless otherwise indicated, testing shall be conducted in accordance with FED-STD-191. All test reports shall contain the individual values utilized in expressing the final result. The lot shall be unacceptable if one or more sample units fail to meet any of the test requirements specified. The lot size and sample size shall be in accordance with the following:

Lot size (yards)	Sample size (sample units)
800 or less	2
801 thru 22,000	3
22,001 and over	5

The basis for lot size and sample units for testing shall be as follows:

Component	Lot expressed in	Sample unit for testing
Cloth, 100 percent polyester, marquisette leno weave	Yards	1 yard full width
Tape, polyester for neck edge	Yards	1/2 linear yard
Cloth, 100 percent rayon twill	Yards	1/2 yard full width
Cloth, black, cotton, plain weave or polyester spun- laced non-woven (fusible)	Yards ,	1 yard full width
Polyamide fusible web for seams	Yards	1/2 linear yard
Interlining fused to basic cloth	Yards	Two 24 by 24 inch specimens 1/2/

- 1/ Prepared by the contractor during the same period and under the same conditions as for the fusing of the end item.
- 2/ The specimens shall be laundered once to obtain the shrinkage requirements, then laundered the remaining number of times to obtain the bond strength requirements.

TABLE V. Component and material tests

Method  Visual 5041 5050 5030 5100 5202  Visual 5020 5050  5020 5041
5041 5050 5030 5100 5202 Visual 5020 5050
5041 5050 5030 5100 5202 Visual 5020 5050
5050 5030 5100 5202 Visual 5020 5050
5030 5100 5202 Visual 5020 5050
5100 5202 Visual 5020 5050
5202 Visual 5020 5050
Visual 5020 5050 5020
5020 5050 5020
5020 5050 5020
5050 5020
5020
5041
5050
Visual
1/
<u>'</u> '
EC40
5610
5622
5651
5041
5050
5100
<u>1</u> /
5020
5041
5610
-
E0E1
5951
4.5.1 and 5951
5580 <u>2</u> /
and 5 <u>9</u> 51
4.5.1 3/

 $<sup>\</sup>underline{1}$ / A certificate of compliance will be acceptable for this requirement.

- 2/ Pressing and shrinkage requirements shall not apply.
- 3/ Specimens shall be prepared and measured for shrinkage in accordance with Method 5556 and laundered in accordance with 4.5.1.
- 4.4.2 <u>In-process inspection</u>. During the cutting of the parts from the basic material (see operation 1.b., table II) and also during the fabrication of the coat, in-process inspection shall be performed to assure that the parts, where required, are cut and assembled with the glossy side to the outside. Whenever non-conformance is noted, corrections shall be made to the parts affected and lot in-process. Parts which cannot be corrected shall be removed from production.
- 4.4.3 <u>Point count inspection</u>. Sampling and inspection for end item examination, dimensional examination, and packaging examination shall be performed in accordance with the provisions of MIL-STD-1494.
- 4.4.4 Fused coat testing. The fused coats shall be tested as specified in table VI. The lot size shall be expressed in units of one coat each. The sample unit shall be one fused coat. The lot shall be unacceptable if one or more sample units fail to meet the requirements specified. The sample size shall be in accordance with the following:

Lot size (coats)	·	Sample size (sample units)
800 or less 801 thru 22,000 22,001 and over	·	2 3 5

## TABLE VI. Fused coat tests

Characteristic	Requirement paragraph	Test method
Bond strength of fused areas after 3 launderings	3.3.9.5.2	4.5.1 and 5951 <u>1</u> /
Strike through of adhesive	3.3.9.5.2	Visual

<sup>1/</sup> Method 5951 of FED-STD-191 shall be followed except that the bond strength shall be based on the average of four specimens. The specimens shall be taken from the front facings or fly areas. It will be necessary to remove buttons and stitching to obtain the required number of specimens. When four fully laminated specimens cannot be obtained, partially or fully delaminated specimens shall be included in the average.

#### MIL - C - 43972D(GL)

4.4.5 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 6.7).

Examine

Defect

Length, width, or height exceeds specified maximum requirements.

Palletization

Pallet pattern not as specified.

Interlocking of loads not as specified.

Load not bonded as specified.

Weight

Exceeds maximum load limits.

Marking

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

## 4.5 Methods of inspection.

- 4.5.1 <u>Laundering procedure</u>. The following apparatus and material are required for laundering:
  - a. Automatic washing machine (see 6.5).
  - b. Automatic dryer (see 6.5).
  - . c. AATCC Standard Detergent 124 or equivalent.
    - d. Dummy pieces for ballast 3 feet by 3 feet hemmed pieces of the basic material to be added to test coats or fused specimens to make a 4pound load.

If the test coats or fused specimens weigh less than 4 pounds, ballast to make up a standard 4-pound load shall be added to the test coats or fused specimens. The ballast shall consist of pieces of the basic fabric. The pieces shall be hemmed and measure 3 feet by 3 feet. The washer shall be set for high water level, warm water temperature, and a 12-minute wash on the wash and wear cycle. The water used shall have a hardness not greater than 50 parts per million (PPM). The wash temperature shall be  $140^{\circ} + 5^{\circ}$ F. When the washer has filled, add 140 g of detergent. Allow the washer to proceed automatically through the final spin cycle. Remove the coats or fused specimens immediately at the completion of the final spin and separate the coats or the fused specimens and dummy pieces, when required, if tangled. Place the complete washed load in the dryer and dry at the normal cycle and at a setting which generates an exhaust temperature range of 140° to 160°F. Operate the dryer until the load is dry and continue tumbling 5 minutes with the heat turned off (cool-down cycle). Remove the load immediately after the machine stops. Repeat the wash and dry cycle until the load has completed three cycles.

#### MIL - C - 43972D(GL)

## 5. PACKAGING

- 5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).
- 5.1.1 Level A. Each coat shall be buttoned at the top front only and folded inward to measure approximately 23 by 15 inches. Each folded coat shall be inserted into a close-fitting flat style clear polyethylene film bag conforming to A-A-50083.
- 5.1.2 <u>Commercial</u>. Each coat shall be preserved in accordance with ASTM D 3951.
- 5.2 <u>Packing.</u> Packing shall be level A, B, or Commercial as specified (see 6.2).
- 5.2.1 Level A packing. Ten coats of one size only, preserved as specified in 5.1 shall be packed in a snug-fitting 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. Level A unit packs shall be packed flat within the shipping container with every other coat reversed top to bottom within a shipping container. Inside dimensions of each container shall approximate 23-1/2 inches in length, 15 inches in width, and 15 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 MIL-STD-1494. 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. Ten coats of one size only, preserved as specified in 5.1, shall be packed within a snug-fitting 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. Level A unit packs shall be packed flat within the shipping container with every other coat reversed top to bottom within a shipping container. Inside dimensions of each container shall approximate 23-1/2 inches in length, 15 inches in width, and 15 inches in depth. Approximate dimensions are furnished as a guide only. Each 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 MIL-STD-1494.

- 5.2.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be grade V3c, V3s or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III, as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with MIL-STD-1494.
- 5.2.3 Commercial packing. Coats, preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.
- 5.3 Palletization. When specified (see 6.2), coats, 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 types 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 C and D or film bonding means F or G. Pallet pattern shall be 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, unit packs, shipping containers, and palletized unit loads shall be warked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.
- 5.4.1 Polyethylene bagged unit packs. Polyethylene bagged unit packs shall have the required identification information legibly printed or stamped in black directly on the bag across the center face or on a white paper label inserted within the bag so as to permit ready identification.

#### 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 by female personnel of the Department of the Army.
  - 6.2 Acquisition requirements. Acquisition documents must specify the following:
    - a. Title, number, and date of this specification.
    - b. Size required (see 1.2).
    - c. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
    - d. When a first article sample is required (see 3.2, 4.3 and 6.3).
    - e. Levels of preservation and packing (see 5.1 and 5.2).
    - f. Types and class of unit load required (see 5.2.1).
    - g. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
    - h. When palletization is required (see 5.3).
    - Acceptance criteria required (see 6.7)

- 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 also include specific instructions in acquisition documents regarding arrangements for selection, inspection, and approval of the first article.
- 6.4 Fusing conditions. The following fusing conditions were established to include recommended requirements of several fusible contractors. These limits are furnished for guidance only. For optimum results with the particular fusible used, specific machine settings should be obtained from the contractor furnishing the fusible material.

# Cotton plain weave and polyester spunlaced non-woven fusible

	Min.	$\underline{\text{Max}}$ .
Temperature (between pressing surfaces)	275°F	320°F
Pressure (between pressing surfaces) Bar (psi)	2 (29)	4 (58)
Pressing, dwell time, seconds	8	12

#### 100 percent polyester spunlaced non-woven fusible

	Min.	Max.
Temperature (between pressing surfaces)	347°F	365°F
Pressure (between pressing surfaces) Bar (psi)	5 (73.5)	6 (88.2)
Pressing, dwell time, seconds	8	9

- 6.5 Recommended apparatus. The recommended apparatus for 4.5.1 a. and b. are:
- a. Kenmore Automatic Washer Model 600 or similar machine. In case of dispute, the Kenmore Model 600 shall be used.
  - b. Kenmore Automatic Dryer Model 600 or equivalent.
- 6.6 Samples. For access to samples of the end item and shade samples, address the contracting activity issuing the invitation for bids.
- 6.7 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.

- 6.7.1 For palletization examination. An AQL, expressed in terms of defects per hundred units, of 6.5 is recommended.
  - 6.8 Subject term (key word) listing.

Raincoat Womens clothing

6.9 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:

Preparing activity:

Army - GL

Army - GL

Review activities:

(Project 8410-A675)

Army - MD DLA - CT

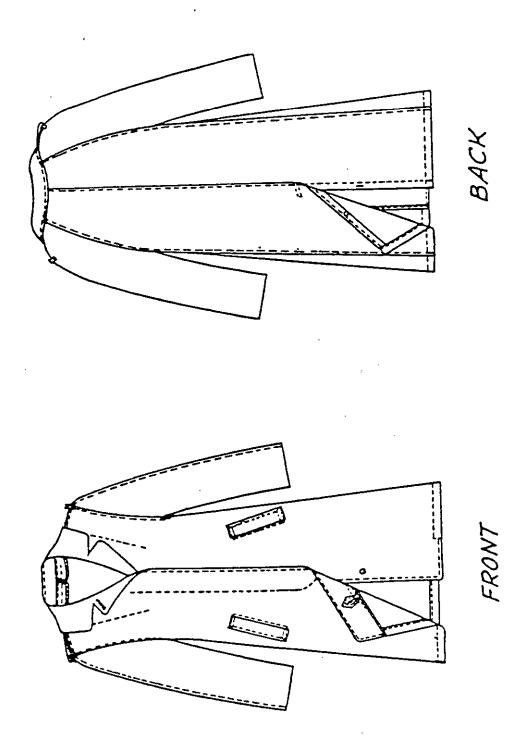


FIG I. COAT, ALL WEATHER, WOMEN'S, BLACK, WITH REMOVABLE LINER.

2-1-1144 8

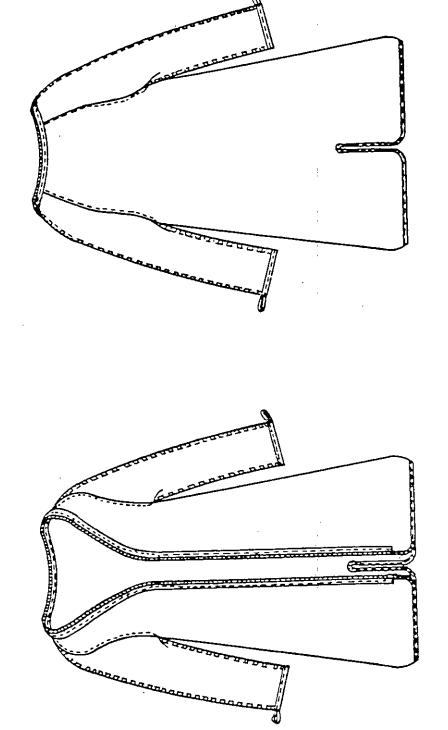


FIG.2 REMOVABLE LINER FOR COAT, ALL WEATHER, WOMEN'S, BLACK FRONT

BACK

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 gestions. This form may be detached, folded along the lines indicated, taped along the loose edge (DO NOT STAPLE), and kiled. In block 5, he 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



BUSINESS REPLY MAIL

IRST CLASS PERMIT NO. 12082 WASHINGTON D.

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

NO POSTAGE NECESSARY IF MAILED IN THE

STAND	ARDIZATION DOCUMENT IMPROVEM (See Instructions - Reverse Side)	IENT PROPOSAL
I. DOCUMENT NUMBER	2. DOCUMENT TITLE	
MIL-C-43972D(GL)	Coat, All-Weather, Woman's, Blac	k with Removable Liner
NAME OF SUBMITTING ORGAN		4. TYPE OF ORGANIZATION (Mera one)  VENDOR  USER
a. ADDRESS-(Street, City, State, ZIP)	Code)	MANUFACTURER
	·	OTHER (Specify):
S. PROBLEM AREAS		
4. Peragraph Number and Wording:		
à. Recommended Wording:		
		•
	•	
		•
c. Resson/Rationals for Recomme	ndation:	
	•	
		•
	;	
6. REMARKS		
		,
74. NAME OF BUBMITTER (Last F	rst, MI) — Optional	b, WORK TELEPHONE NUMBER (Include Are Code) — Optional
c. MAILING ADDRESS (Street, City,	, Stetz, ZIP Code) - Optional	& DATE OF SUBMISSION (YYMMDD)