

INCH-POUND
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MIL-J-82299C(NU)

6 December 1988  
SUPERSEDING

MIL-J-82299B(NU)

7 August 1981

## MILITARY SPECIFICATION

## JACKET, EXTREME COLD WEATHER, IMPERMEABLE

This specification is approved for use by the Navy Clothing and Textile Research Facility, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

## 1. SCOPE

1.1 Scope. This specification covers the requirements for an impermeable extreme cold weather insulated jacket constructed of a coated nylon twill and lined with uncoated nylon taffeta covered plastic foam.

1.2 Classification. The jacket shall be of one type only and in the following sizes (see 6.2).

\* 1.2.1 Sizes. Small, Medium, Large, X-Large, XX-Large

## 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 specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

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Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Officer in Charge, Navy Clothing and Textile Research Facility, 21 Strathmore Road, Natick, MA 01760-2490 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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## SPECIFICATIONS

## FEDERAL

- V-B-871 - Button, Sewing Hole, and Button, Staple (Plastic)
- V-F-106 - Fasteners, Slide, Interlocking
- V-T-280 - Thread, Cotton Gimp, Buttonhole
- V-T-295 - Thread, Nylon
- NN-P-71 - Pallet, Material Handling, Wood, Stringer Construction, 2 Way and 4 Way (Partial)
- DDD-L-20 - Label; for Clothing, Equipage and Tentage (General Use)

## MILITARY

- MIL-B-371 - Braid, Textile, Tubular
- MIL-F-495 - Finish, Chemical, Black, for Copper Alloys
- MIL-C-3735 - Cuffs, Knit, Wrist and Ankle, and Cloth, Knitted
- MIL-F-10884 - Fasteners, Snap
- MIL-P-12420 - Plastic Material, Cellular, Elastomeric
- MIL-P-15011 - Pallet, Material Handling, Wood, Post Construction, 4 Way Entry
- MIL-G-16491 - Grommet, Metallic
- MIL-B-17757 - Boxes, Shipping, Fiberboard (Modular Sizes)
- MIL-C-19699 - Cloth, Coated (Nylon Taffeta)
- MIL-C-19759 - Cloth, Coated, Twill, Nylon (Low Count)
- MIL-C-21852 - Cloth, Nylon, Taffeta
- MIL-B-41826 - Batting, Synthetic Fibers: Polyester (Quilted and Unquilted)

## STANDARDS

## FEDERAL

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

## MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-129 - Marking for Shipment and Storage
- MIL-STD-147 - Palletized Unit Loads

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

\* 2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

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LAWS AND REGULATIONS

U.S. POSTAL SERVICE MANUAL

(Copies of the manual may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-0001.)

\* 2.2 Other publications. The following document(s) form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification

(Applications for copies should be addressed to the American Trucking Association, ATTN: Traffic Department, 1616 P Street, N.W., Washington, DC 20036-1404.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification

(Applications for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606-5808.)

THE COLOR ASSOCIATION OF THE UNITED STATES

Department of Defense Standard Shades for Buttons

Department of Defense Standard Shades for Sewing Threads

(Application for copies of color cards should be addressed to the Color Association of the United States, 343 Lexington Avenue, New York, NY 10016.)

\* 2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Guide sample. Samples, when furnished, are solely for guidance and information to the contractor (see 6.3). Variations from this specification may appear in the sample in which case this specification shall govern.

3.2 First article. When specified, the contractor shall furnish sample unit(s) for first article inspection and approval (see 4.3 and 6.2).

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3.3 Material.

\* 3.3.1 Basic material. The basic material for the outer shell shall be chloroprene coated nylon twill conforming to type I of MIL-C-19759 (see 4.4.1).

3.3.1.1 Binding. The material used for the binding shall be of the basic material specified in 3.3.1, bias-cut on a 45 (+5) degree angle in strips 1-1/8 to 1-3/8 inches wide. The ends of the strips shall be joined by seam type SSa-1, stitch type 301, with 8-10 stitches per inch. The seams shall finish 1/8 to 3/16 inch wide and shall be spread open.

3.3.2 Taffeta, nylon, coated. The material for the pockets and lining gussets shall be chloroprene coated nylon taffeta conforming to type I of MIL-C-19699.

\* 3.3.3 Corduroy. The material for the topcollar and topcollar stand shall be 100% cotton or cotton/polyester blend of not less than 80% cotton. It shall have a minimum of eight wales per inch and weigh not less than 8.0 oz/sq yd. The cloth shall be fast dyed (no sulfur) dark green, black, or olive drab and after treated with a durable water repellent impregnant. As a limit of acceptability, the dyed and treated cloth shall show good colorfastness to crocking and perspiration (see 4.4.1).

3.3.4 Quilted lining and interlining assembly. The quilted lining and interlining assembly of the jacket shall consist of a middle layer of expanded plastic foam covered on both sides with an uncoated nylon taffeta, conforming to the requirements of 3.3.4.1.

3.3.4.1 Plastic foam, cellular, elastomeric. The material for the middle layer shall be plastic foam, 5/32 inch thickness, conforming to type II, class 6 of MIL-P-12420, except as follows:

- a. The minimum density shall be 3.0 lbs/cubic foot.
- b. The maximum compression deflection shall be 3.5 psi.
- c. The temperature for performing the low temperature flexibility test shall be minus 30°F + 2°F.
- d. The buoyancy shall not be less than 54.0 pounds per cubic foot when tested as specified in 4.4.1.

NOTE: To form rolls of plastic foam for quilting when plastic foam is supplied in sheet form, the raw edges of each plastic foam piece shall be abutted and joined across the width with a 1 to 1-1/2 inch wide strip of pressure sensitive tape.

\* 3.3.4.2 Nylon, taffeta, uncoated. The material for the cover layer (top and bottom) shall be an uncoated nylon taffeta conforming to MIL-C-21852, type III. The color shall match Green 3406, identified under piece Number 6-60. The material may be either dyed or undyed for the bottom ply of the back, front, and sleeve linings and for the top and bottom plies of the collar, back, and front interlinings.

3.3.4.3 Quilting. The three layers of lining and interlining assemblies shall be quilted in accordance with the dumbbell quilt pattern shown in Figure

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1 of MIL-B-41826 or Figure 2 of this specification. When the large dumbbell pattern in MIL-B-41826 is used, all raw edges shall be overedged (see operation 11). The quilting thread shall be nylon conforming to type I, size A, of V-T-295. Colorfastness of thread shall be as specified in 3.3.5.1. The color of the thread shall approximate the shade of the dyed nylon taffeta. Thread may be either natural shade or white for quilting the underside of the lining/interlining assembly. The stitch type shall be 301 using 6 to 8 stitches per inch.

\* 3.3.5 Thread. The thread for seaming and stitching the jacket shall be nylon, conforming to type III, sizes B and E of V-T-295. The color shall be olive drab shade S-1, cable number 66022 in accordance with the Department of Defense Standard Shades for Sewing Threads. As an alternate, and where applicable, type II, size B and E may be used for the needle thread and type I, size B or E may be used for the bobbin thread.

\* 3.3.5.1 Colorfastness. The dyed thread shall show colorfastness to laundering equal to or better than the standard sample when tested as specified in V-T-295. As a limit of acceptability or when no standard sample is available, the dyed thread shall show a minimum of "good" fastness to laundering when tested as specified in V-T-295.

3.3.6 Gimp. The gimp for reinforcing the buttonhole shall be thread, cotton gimp conforming to type I or II, size No. 8 of V-T-280. The color shall approximate the shade of the basic material.

\* 3.3.6.1 Colorfastness. As a limit of acceptability, the dyed gimp shall show a minimum of "good" fastness to laundering when tested as specified in V-T-280.

\* 3.3.7 Slide fastener. The slide fastener for the front closure shall be interlocking, long tab pull, natural brass chain, conforming to type IV, style 8, size MH of V-F-106. As an alternate, the slide fastener shall be molded plastic individual element or continuous chain conforming to type I, style 15, size MHS, long tab pull of V-F-106. The color of the plastic slide fastener components shall be black. The slide fastener tape shall approximate the shade of the basic material and shall be cotton, synthetic or a combination of both. When applicable, all brass components of the slide fastener shall be furnished by the same supplier. Lengths shall be such that the top stop of the slide fastener shall be set 1/4 to 1/2 inch from the finished neck seam.

3.3.8 Snap fastener. The snap fasteners for the pockets and hood attachment loop shall be regular wire spring clamp type conforming to style 2, 24-line, finish 2, conforming to MIL-F-10884.

\* 3.3.9 Buttons. The buttons for the front closure shall be 34-line and the buttons for the collar extension tab closure shall be 24-line, plastic, conforming to type II, class D, style 20 and 21 with stud conforming to V-B-871. The color shall be olive green BP, cable number 62016 in accordance with the Department of Defense Standard Shades for Buttons.

3.3.10 Cuffs. The cuffs shall be wool, knitted, dyed to approximate the shade of basic material, conforming to type I, class 2, size 1 of MIL-C-3735, except that the shrink resistant treatment and colorfastness to light and dry cleaning shall not apply.

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3.3.11 Braid. The braid for the button loops and tie cord shall be solid tubular cotton conforming to type IV or V, class 1 of MIL-B-371, except that colorfastness to bleaching shall not apply. The color shall approximate the shade of the basic material.

3.3.12 Grommets. The grommets and washers for the jacket hem shall be brass conforming to type 1, size No. 0, class 3 of MIL-G-16491.

3.3.13 Eyelet. The eyelet for the sleeve extension piece shall be 1/8 to 3/16 inch ID, brass, with a black chemical finish conforming to MIL-F-495 (see 4.4.1). As an alternate, a machine sewn eyelet may be used.

\* 3.3.14 Labels. Each jacket shall have a combination identification and instruction label and a separate size label, conforming to the requirements of 3.3.14.1 and 3.3.14.2. The printing shall show fastness to laundering.

\* 3.3.14.1 Combination label. Each jacket shall have a combination identification/instruction label conforming to type VI, class 15 of DDD-L-20, and shall bear the following inscription:

JACKET, EXTREME COLD WEATHER, IMPERMEABLE  
 BASIC FABRIC: 100% NYLON  
 QUILTED LINING: PLASTIC FOAM AND NYLON  
 CONTRACT NO: DLA-100-00-0-0000 (EXAMPLE)  
 NAME OF CONTRACTOR:  
 NAME OF MANUFACTURER: (IF OTHER THAN CONTRACTOR)

Cleaning Jacket should be laundered with water temperature below 140°F (60°C) and tumble dried below 160°F (71°C).

\* 3.3.14.2 Size label. Each jacket shall have a size label conforming to type VI, class 2 of DDD-L-20, and shall bear the following inscription:

SIZE: MEDIUM (EXAMPLE)  
 STOCK NUMBER: 8415-00-000-0000 (EXAMPLE)

\* 3.4 Design. The impermeable jacket shall have an outershell of coated nylon fabric with the coating on the underside. The body and sleeves shall be lined with a layer of buoyant plastic foam quilted on both sides with uncoated nylon taffeta cloth. The back and chest shall have an additional layer of quilted material. The jacket shall be hip length with a front slide fastener closure covered with a buttoned extension flap. The collar shall be lined with corduroy and interlined with foam and secured by a buttoned collar tab closure. The sleeves shall have knitted cuffs. A tie-cord shall be threaded through grommets into a tunnel-hem at the bottom. A snap fastener flap welt pocket shall be positioned on each front. Four eyelets shall be inserted or machine sewn at inside bottom of each sleeve. A strap with snap fastener on one end shall be attached at outside center back of collarstand to attach cold weather hood.

3.4.1 Figures. Figures are furnished for information purposes only. When inconsistencies exist between the specification and the figures, the

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specification shall govern.

\* 3.5 Patterns. Standard patterns to be used to cut working patterns will be furnished by the Government (see 6.3). The working patterns shall be identical to the Government patterns. Neither the Government patterns nor the working patterns shall be altered in any way, except that additional notches for use during construction are permitted on the working patterns. Also, minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification.

3.5.1 Pattern parts. The component parts shall be cut from the material specified in accordance with the following pattern parts:

<u>Material</u>	<u>Pattern parts</u>	<u>Cut parts</u>
Cloth, Coated Twill Nylon	Back	1
	Front	2
	Sleeve	4
	Underarm gusset	4
	Sleeve lining extension	2
	Undercollar	1
	Collarstand	1
	Welts, pocket	2
	Facings, pocket	4
	Flaps, pocket	4
	Wristlet stand	2
	Facing, slide fastener (face up) (L&R)	2
	Facing, front (face up) (left side)	1
	Collarstand, interlining	1
	Flap, interlining	2
Cloth, Corduroy	Topcollar	1
	Collarstand	1
Cloth, Coated, Nylon, Taffeta	Underarm gusset	4
	Pocket, inner ply	2
	Pocket, outer ply	2
Quilted Lining and Interlining	Back, lining	1
	Front, lining	2
	Sleeve, lining	4
	Back, interlining	1
	Front, interlining	2
	Collar, interlining	1
Template	Slide fastener, marker	-

### 3.6 Construction.

\* 3.6.1 Stitch, seam, and stitching types. Stitch, seam, and stitching types specified in Table I shall conform to FED-STD-751. Wherever two or more methods for seam or stitch types are given for the same part of the operation,



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any one may be used. Seam allowance shall be maintained with seams sewn so that no raw edges, runoffs, twists, pleats, puckers, or open seams result. All seams shall start and finish evenly. Thread tension shall be maintained so that there is no tight or loose stitching. Top stitching and edge stitching shall be 1/16 to 1/8 inch from the edge except as otherwise specified.

\* 3.6.2 Thread breaks and ends of seams. Ends of all seams and stitchings when not caught in other seams or stitchings shall be backtacked not less than 1/2 inch. The ends of the label stitching shall be backstitched not less than three stitches. Thread breaks (all stitch types) shall be secured by stitching back of the break not less than 1/2 inch. The ends of a continuous line of stitching shall be overlapped not less than 1/2 inch. Skipped stitches or thread breaks may be repaired by using 301 stitch type.

3.6.3 Stitches per inch. The minimum and maximum number of stitches per inch shall be as specified in Table I.

\* 3.7 Manufacturing operations requirements. The jackets shall be manufactured in accordance with the operation requirements specified in Table I. The contractor is not required to follow the exact sequence of operations listed provided that the finished jackets are identical to those produced by following the sequence of operations as listed in Table I. Minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification.

\* 3.7.1 Shade and size marking. The component parts shall be marked, ticketed or bundled, to insure a uniform shade and size throughout the jacket, except parts which may be cut from ends. Any method may be used except:

1. Corrosive metal fastening devices
2. Sew-on shade tickets
3. Adhesive type tickets whose adhesive causes discoloration or whose adhesive mass adheres to the material upon removal of the tickets.

NOTE: The use of ink pad numbering machine, rubber stamp, or pencil is acceptable provided the numbers are legible and do not show thru on the outside of the jacket.

\* 3.7.2 Abbreviations in table of operations. The abbreviations used in Table I are as follows:

Stch	-	Stitch
in	-	inch
Ndl	-	Needle
Bob	-	Bobbin
Lpr	-	Looper
Mchne	-	Machine
Brtck	-	Bartack
Comrcl	-	Commercial
smlr	-	similar
Btnhl	-	Buttonhole
incl	-	including
dbl	-	double
chnstch	-	chainstitch



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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD		
					NDL	BOB/ LPR	
1.	<u>Cutting.</u>						
	a. Cut the jackets in strict accordance with patterns which show size, shape, warp directional lines, and notches for the proper assembling of all parts.						
	b. The face side of the nylon twill and nylon taffeta shall be the uncoated sides and shall be on the exposed surfaces of the jacket.						
	c. Cut all component coated nylon twill parts out of one piece of material except pocket facings, hanger loop, underply of pocket flaps, stay tabs, undercollar, wristlet stand, sleeve lining extensions, collarstand and flap interlinings which may be cut from ends. When so cut, the parts shall closely match the main assembly.						
	d. Cut stay tabs 5/8 to 3/4 inch wide and 3 inches long.						
2.	<u>Replacement of damaged parts.</u>						
	Care shall be exercised during the spreading, cutting, and manufacturing operations to assure that material defects and damages specified in Section 4 are excluded and replaced with non-defective and properly matched material.						
3.	<u>Size and shade marking (see 3.7.1).</u>						
	Mark, bundle, or ticket component parts to insure a uniform shade and proper size assembly throughout the jacket.						
4.	<u>Make collar and collarstand.</u>						
	a. Join quilted collar interlining to coated side of undercollar on all four sides, 1/8 to 1/4 inch from edge of interlining.	301	SSbd-1	8-10	III B	III B	
	b. Join twill collarstand interlining to coated side of twill collarstand on all four sides, 1/8 to 3/16 inch from raw edge.	301	SSa-1	8-10	III B	III B	

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	c. Join, face to face, corduroy topcollar to twill undercollar assembly 1/4 to 5/16 inch from outer raw edges, on 3 sides only, leaving bottom open.	301	SSe-2(a)	8-10	III B	III B
	d. Trim excess material at points. Turn collar to finished position and edgestitch 1/4 to 5/16 inch from outer edges of four sides. The quilted foam interlining shall not be caught in the edgestitching.	301	SSe-2(b)	8-10	III B	III B
*	e. Position collar between corduroy and twill undercollar stand with raw edges even. Stitch 1/4 to 5/16 inch from edge along side and top edge of collarstand. Continue the stitching around the tab extension.	301	SSq-2(a) and SSe-2(a)	8-10	III B	III B
	f. Trim points, turn collarstand to finished position forcing out points and edges of tab extension and stitch 1/16 to 1/8 inch from turned edges. Continue the stitching across the bottom edge closing the collarstand.	301	SSq-2(b) and SSe-2(b) and SSa-1	8-10	III B	III B
5.	<u>Make pocket flaps.</u>					
	a. Join, face to face, pocket flaps with interlining superimposed, 1/4 to 5/16 inch from sides and bottom edges.	301	SSe-2(a)	8-10	III B	III B
	b. Trim corners, turn flaps to finished position, and force out edges. Edgestitch sides and bottom 1/4 to 5/16 inch from folded edge.					
	c. Close top of flap 1/8 to 3/16 inch from raw edge.	301	SSa-1	8-10	III B	III B
6.	<u>Make and attach pockets.</u>					
	a. Fold pocket welts in half lengthwise, face to face, and stitch ends 1/4 inch from edge.	301	SSe-2(a)	8-10	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	b. Turn welts to finished position, fold in the side edges and edgestitch all four sides 1/16 to 1/8 inch from edge.	301	OSf-1 and SSe-2(b) and SSa-1	8-10	III B	III B
	c. Stitch the outer edges of the pocket facing pieces to the taffeta pocket pieces 1/8 to 3/16 inch from edge with the coated side of the facing piece against the uncoated side of the pocket piece.	301	LSd-1	8-10	III B	III B
	d. Turn under inner edge of facing piece 1/4 to 3/8 inch and topstitch. Facings shall be located as indicated on the patterns.	301	SSa-1	8-10	III B	III B
	e. Prestitch pocket welt to outer ply of pocket facing 1/16 to 1/8 inch from edge, between notches as indicated by pattern.	301	SSa-1	8-10	III B	III B
	f. Place outer ply pockets on jacket front, face to face, in accordance with marks on pattern (welt sandwiched in between), and stitch 1/4 inch from edge.	301	SSq-2(a)	8-10	III B	III B
	g. Stitch inner ply pocket assembly and pocket flap to front, face to face, with flap sandwiched in between and stitch 1/16 to 1/8 inch from edge. Stitching shall be as indicated by marks on pattern.	301	Smlr to LSbl-2(a)	8-10	III B	III B
	h. Cut pocket opening and tongue notch ends.					
	i. Turn outer ply pocket assembly to finished position and topstitch 1/16 to 1/8 inch from edge.	301	SSq-2(b)	8-10	III B	III B
	j. Turn flap and inner ply pocket assembly to finished position and topstitch top and sides of pocket 1/16 to 1/8 inch from edge.	301	Smlr to LSbl-2(b)	8-10	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	k. Place welt on flap at back end of pocket and staystitch 1/8 to 3/16 inch from edge through all plies, from where welt meets flap to welt end.	301	SSa-1	8-10	III B	III B
	l. Close pocketing pieces 1/2 inch from side and bottom edges, and overlock edges.	301 or 401 and 503 or 504 or 602	SSa-2	8-10	III B	III B
	OR					
	As an alternate, operation l may be performed in one operation by simultaneously seaming and overedging.	515 or 516 or 519	SSa-2	8-10	III B	III B
*	1. Stitch a 1/2 inch vertical bartack at front sides of pockets superimposed on edge stitching of flap, through flap, welt, and pocketing.	Bar- tack		21-28 per bartack	III B	III B
	m. Stitch two 1/2 inch vertical bartacks at back sides of pockets superimposed on edge stitching: - One through welt and pocket - One through welt and pocket flap.	Bar- tack		21-28 per Bartack	III B	III B
7.	<u>Set sleeves.</u>					
	a. Join, face to face, sleeves to back, 5/16 to 7/16 inch from raw edge.	301	LSq-2(a)	8-10	III B	III B
	b. Join, face to face, sleeves to fronts, 5/16 to 7/16 inch from raw edge.	301	LSq-2(a)	8-10	III B	III B
	c. Topstitch all seams 1/16 to 1/8 inch from folded edge, with finished seams facing the sleeves.	301	LSq-2(b)	8-10	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	d. Join, face to face, fronts to back, 5/16 to 7/16 inch from raw edge, at shoulders and outer sleeve seam.	301	LSq-2(a)	8-10	III B	III B
	e. Topstitch 1/16 to 1/8 inch from folded edge with finished seam facing front.	301	LSq-2(b)	8-10	III B	III B
*	f. Fold under inner edge of twill gussets 1/4 inch, coated side down, and stitch to fronts, sleeves, and back 1/16 to 1/8 inch from folded edge.	301	LSb-1	8-10	III B	III B
	g. Join, face to face, side seams and underarm seams 5/16 to 7/16 inch from raw edge, aligning gusset seams.	301	LSq-2(a)	8-10	III B	III B
	h. Topstitch 1/16 to 1/8 inch from folded edge with finished seam facing front.	301 or 401	LSq-2(b)	8-10	III B	III B
8.	<u>Make wristlet stand and cuff.</u>					
	a. Join ends of wristlet stand, face to face, 5/16 to 7/16 inch from edge.	301	SSz-3(a)	8-10	III B	III B
	b. Open seam and stitch 1/16 to 1/8 inch on each side of the joining seam.	301	SSz-3(b)	8-10	III B	III B
	c. Fold wristlet stand in half lengthwise with the coated side on the inside.					
	d. Close open side of wristlet stand 1/4 to 5/16 inch from raw edge.	301	SSa-1	8-10	III B	III B
	e. Fold knitted cuff in half widthwise and overedge stitch the plies together.	503 or 504 or 602	SSa-1	8-10	III	III

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	f. Insert the cuff inside the double twill wristlet stand piece placing the knitted cuff 1/8 inch from the folded edge of the wristlet stand piece. Join all plies of material 1/4 to 5/16 inch from serged edge of cuff.	301	LSs-2(a)	8-10	III B	III B
	g. Turn cuffs to finished position and stitch 1/16 to 1/8 inch from folded edge of wristlet stand piece through cuff.	301	LSs-2(b)	8-10	III B	III B
9.	<u>Attach slide fastener.</u>					
	a. Stitch right half of slide fastener to right slide fastener facing 3/8 to 1/2 inch from raw edge, face to face.	301	SSa-1	8-10	III E	III E
	b. Turn under zipper tape and place assembly on right front in accordance with slide fastener marker and topstitch front edge of right facing thru all plies 1/16 to 1/8 inch from folded edge.	301	Similar to LSbk-2	8-10	III E	III E
	c. Turn under edges of back and bottom of right slide fastener facing 3/8 to 1/2 inch and topstitch 1/16 to 1/8 inch from folded edge. Facing shall finish 1 $\pm$ 1/16 inch wide.	301	LSd-1	8-10	III B	III B
	d. Stitch left half of slide fastener to left slide fastener facing 3/8 to 1/2 inch from edge, face to face.	301	SSa-1	8-10	III E	III E
	e. Turn under zipper tape and place assembly on left front facing in accordance with slide fastener marker and topstitch front edge of left facing thru all plies 1/16 to 1/8 inch from folded edge.	301	Similar to LSbk-2	8-10	III E	III E
10.	<u>Attach loops.</u>					
	a. Cut four pieces of tubular braid approximately 4-1/2 inches long.					

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	b. Prestitch braided loops to left front as indicated by marks on the pattern, 1/4 inch from edge. The free ends of the loop shall extend a minimum of 1/8 inch beyond raw edge of front.	301	SSa-1	8-10	III B	III B
	c. The finished loop shall measure (inside) 1-1/8 $\pm$ 1/8 inches.					
11.	<u>Make lining.</u>					
	a. Overedge all raw edges of quilted lining and interlining assemblies when the large dumbbell pattern is used.	503 or 504 or 602	SSa-1	8-10	III B	III B
	b. Place quilted back interlining on underside of quilted back lining in accordance with marks on pattern and stitch all sides 1/4 to 3/8 inch from edge of interlining.	301	LSa-1	8-10	III B	III B
	c. Place quilted front interlining on underside of quilted front lining in accordance with marks on patterns and stitch all sides 1/4 to 3/8 inch from edge of interlining.	301	LSa-1	8-10	III B	III B
	d. Stitch sleeves to back, face to face, 3/8 to 1/2 inch from raw edge.	301	SSa-1	8-10	III B	III B
	e. Stitch sleeves to fronts, face to face, 3/8 to 1/2 inch from raw edge.	301	SSa-1	8-10	III B	III B
	f. Join fronts to back 3/8 to 1/2 inch from raw edge, face to face, along shoulders and outer sleeve seams.	301	SSa-1	8-10	III B	III B



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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
*	g. Fold under inner edge of taffeta gussets 1/4 inch coated side down, and stitch to fronts, sleeves, and back 1/16 to 1/8 inch from edge.	301	LSb-1	8-10	III B	III B
	h. Join, face to face, side seams and underarm seams 3/8 to 1/2 inch from edge aligning gusset seams.	301	SSa-1	8-10	III B	III B
12.	<u>Attach combination label.</u> Center label on back lining with top edge 1 to 2 inches below collar joining seam. A 3/4 inch off center tolerance is permitted. Stitch all sides of label 1/16 to 1/8 inch from the edge.	301	LSbj-1	8-10	III B	III B
13.	<u>Attach stay tabs and binding to quilted liner.</u> a. Bind entire bottom edge of quilted lining with bias cut basic material, simultaneously spreading the side seams open and catching one end of a stay tab on the underside of quilted back lining approximately 1-1/2 inches from each side seam. Binding shall finish 5/16 to 7/16 inch wide with edge of lining securely caught in binding.  b. Not more than one splice shall be permitted when binding bottom edge. Stay tabs may be prestitched prior to binding the bottom edge.	301	BSc-1 or BSO-2	8-10	III	III
14.	<u>Attach left slide fastener assembly to quilted lining.</u> a. Position left slide fastener assembly on face side of left front lining in accordance with slide fastener marker. Turn under the back edge of slide fastener facing 3/8 to 1/2 inch and stitch 1/16 to 1/8 inch from folded edge.	301	LSd-1	8-10	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	b. Stitch front edge of left front facing to front edge of quilted lining, assuring that front facing overlaps quilted lining by 1/4 inch.	301	Similar to LSq-2(b)	8-10	III B	III B
15.	<u>Complete sleeve extension.</u>					
*	a. Insert or machine sew four metal eyelets on each sleeve lining extension in accordance with the marks on patterns. The finished side or purling of the eyelet shall be positioned on the twill side of outer shell fabric.					
	b. Fold sleeve lining extension pieces, face to face, widthwise and stitch 5/16 to 7/16 inch from raw edge.	301	SSz-3(a)	8-10	III B	III B
	c. Open seam and stitch 1/16 to 1/8 inch on each of the joining seamline.	301	SSz-3(b)	8-10	III B	III B
	d. Stitch cuff assembly to sleeve extension piece, face to face, 5/16 to 7/16 inch from raw edge.	301	SSa-1	8-10	III B	III B
	e. Stitch sleeve extension assembly to sleeve lining with face of lining against cuff, 1/4 inch from raw edge. Seam of sleeve extension piece shall meet underarm seam of sleeve.	301	SSa-1	8-10	III B	III B
16.	<u>Make buttonhole.</u>					
	Make horizontal buttonhole on collar tab, centered with front inside edge of eyelet approximately 1/2 inch from end of tab. Buttonhole shall be eyelet end, taper bar type worked over gimp, with a cut length of 7/8 to 1 inch and purling finishing on the nylon twill side of the tab. The taper bar at end shall have a minimum of four tacks not including the first cross-over stitch.	Btnhl		55 per btnhl inclu- ding tack	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
17.	<u>Make hanger loop.</u>					
	a. The hanger loop shall be made from a strip of basic material cut 3-3/4 to 4 inches in length and 1-1/8 inches in width.	301	EFp-2 or EFp-1	8-10	III B	III B
	b. Fold strip of basic material in half lengthwise, face side out, turn in raw edges parallel to the fold and stitch 1/16 to 1/8 inch from edge.	301	EFp-2 or EFp-1	8-10	III B	III B
	c. The finished hanger loop shall measure 5/16 to 7/16 inch wide.					
18.	<u>Assemble outershell to quilted lining.</u>					
	a. Stitch assembled collar to outershell 1/4 to 3/8 inch from raw edge.	301	SSa-1	8-10	III B	III B
*	b. Hanger loop and size label may be prestitched to the corduroy side of the collarstand or to the face side of lining centered between the shoulder seams.	301	SSa-1	8-10	III B	III B
*	c. Position, face to face, the outershell and lining with the front and neck edges even and the lining on the uppermost side. Stitch 1/4 to 3/8 inch from raw edge thru all plies, catching the centered hanger loop and edge of size label in the stitching, folding up bottoms in accordance with notches on patterns. Trim all corners and turn the two assemblies to finished position and work out points.	301	SSe-2(a)	8-10	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD		
					NDL	BOB/ LPR	
19.	<u>Attach grommets.</u>						
	a. Attach one grommet on right front under slide fastener to finish in the center of the hem on the outside.						
	b. Attach one grommet on left front to finish centered on underside of hem, approximately 3/4 inch from the finished front edge.						
	c. Reinforce grommet attachment by placing an approximate 1 x 1 inch piece on the coated twill under the grommet to finish on the inside of the hem.						
20.	<u>Finish neck, front, and bottom edges.</u>						
	a. Edgestitch left front continuing across neck on body of jacket and down right front 1/4 to 5/16 inch from folded edge.	301	SSe-2(b) and SSq-2(b)	8-10	III B	III B	
	b. Edgestitch bottom of jacket 1/16 to 1/8 inch from folded edge.	301	OSf-1	8-10	III B	III B	
	c. Cut a length of braid for tie cord to finish the length of the hem between grommets plus approximately 6 inches (3 inches extra on each side).						
	d. Thread tie cord through grommets and knot each end.						
	e. Close top of hem 1/16 to 1/8 inch from folded edge, enclosing the cord and catching the bottom edge of pockets, curved ends of the quilted lining and 1/4 to 1/2 inch of the stay tabs in the finished hem.	301	EFt-2 (inverted shows fin- ished seam)	8-10	III	III	

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
21.	<u>Finish front.</u> Stitch down left and right fronts thru all plies on the fastener tape immediately adjacent to the folded edge of the slide fastener facing to top of hem.	301	SSv-1	8-10	III B	III B
22.	<u>Finish sleeves.</u> a. Stitch, back to back, sleeve lining extension piece to bottom of twill sleeve, 1/4 inch from raw edge.	301	SSa-1	8-10	III B	III B
	b. Bind ends of sleeve with bias-cut twill overlapping approximately 3/4 inch near sleeve inseam. The overlapping end of the binding shall be turned under and the edges caught in the row of stitching. Binding shall finish 5/16 to 7/16 inch wide with the ends of sleeves securely caught in the stitching.	301	BSc-1 or BSO-2	8-10	III B	III B
	c. Not more than one splice shall be permitted for each bottom bound edge of sleeve.					
23.	<u>Make hood attachment strap.</u> a. Fold a 1-15/16 to 2-1/16 inch wide by 9 to 10 inch long strip of bias cut twill in half lengthwise, face side out, turning in the raw edges 1/4 to 3/8 inch and edgestitch 1/16 to 1/8 inch from folded edge.	301	EFp-2	8-10	III B	III B
	b. The finished strap shall measure 1/2 to 3/4 inch wide.					
	c. Horizontally center hood attachment strap on the nylon twill side of collarstand. Turn under one end of strap 1-1/4 inches so that the folded edge lies approximately above the right shoulder seam. Boxstitch the folded portion of the strap 1 inch in length thru all plies of collarstand.	301		8-10	III B	III B

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	d. Fold under free end of the strap attachment 5/8 to 3/4 inch. Attach a cap and socket of snap fastener centered on the turn-under with the cap on the outside.					
	e. Attach a stud and post of snap fastener thru all plies of collarstand, centered on the twill collarstand to correspond with the cap and socket on the strap when laid flat across the collarstand.					
24.	<u>Attach snap fasteners to pockets.</u>					
	a. Attach a cap and socket of snap fastener centered on each pocket flap with cap on outside. The center of the socket shall be approximately 7/8 inch from the finished flap edge.					
	b. Attach a stud and post of snap fastener on each front through outerply and facing on pocket with stud on the outside and corresponding with cap and socket on pocket flap when in closed position.					
25.	<u>Sew buttons.</u>					
	a. Sew on six buttons with thread ends securely tacked off and hidden. Machine sewn buttons shall be tightly wrapped not less than four times around to form a 1/16 to 3/16 inch shank. A button sewing machine that automatically stitches, wraps, and tacks may be used.					
	b. Four (4) 34-line buttons on outside of right front through outer twill shell only to correspond with loop openings on edge of left front when slide fastener is closed.	101 or 301		14-16 14-16	III III B B	
	Reinforce button attachment by placing an approximate 1 x 1 inch piece of the coated twill under the button on the inside of the outer twill shell.					

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TABLE I - CONSTRUCTION OF JACKET

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
	c. Two (2) 24-line buttons on the left and right outer edges of the collarstand through all plies to correspond with the buttonhole on the collar tab when tab is in utility and stay positions.	101 or 301		14-16 14-16	III III	B B
26.	<u>Bartacks.</u> Reinforce tops and bottoms of slide fastener tapes with 1/2 inch vertical bartacks. Bartacks shall be superimposed on the outer stitch line of the slide fastener facing.	Bartack		21-28 per bartack	III B	III B
27.	<u>Clean jackets.</u> a. Trim ends of stitching and remove all loose thread.  b. Remove all spots and stains.  c. Remove all size and shade tickets.					
NOTE: Care shall be taken when trimming thread ends that damage to the fabric does not result.						
28.	<u>Fasten jacket.</u> Close slide fastener and front button loops. Fasten all snap fasteners. Collar tab shall be fastened in stay position.					



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3.8 Sizes and measurements. Sizes and measurements of the finished jackets shall be as shown in Table II (see Figure 1). All measurements and tolerances are expressed in inches.

Table II - Finished measurements in inches

Size	Chest A	Bottom B	Length C	Sleeve Inseam D
Small	45	43	28-1/4	16-1/2
Medium	48	47	29	17
Large	52	51	30	17-1/2
X-Large	56	55	31	18
XX-Large	60	59	31-1/2	18
Tolerance	$\pm 1$	$\pm 1$	$\pm 1/2$	$\pm 1/2$

NOTE: Refer to Figure 1 for A, B, C, and D measurements. The jacket shall be laid flat with the front slide fastener completely closed.

A. Measure across front at the bottom of the underarm gussets from folded edge to folded edge. Double the value obtained.

B. Measure across bottom edge of jacket. Double the value obtained.

C. Measure along center of back from collar seam to bottom edge of jacket.

D. Measure from bottom of underarm gusset to bottom edge of sleeve.

3.9 Workmanship. The finished jackets shall conform to the quality established by this specification. The occurrence of defects shall not exceed the applicable acceptable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the contractor may use his own or any other facilities suitable for 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

\* 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

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4.1.2 Certificate of compliance. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

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

1. First article inspection (see 4.3).
2. Quality conformance inspection (see 4.4).

4.3 First article inspection. When required, the first article submitted in accordance with 3.2 shall be inspected as specified in 4.4.2 for compliance with design, construction, workmanship, appearance and dimensional requirements.

4.4 Quality conformance inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated.

\* 4.4.1 Component and material inspection. In accordance with 4.1 above, components and materials shall be tested in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable procurement documents. A certificate of compliance shall be furnished for the corduroy requirements of 3.3.3, the brass slide fastener components (when applicable) of 3.3.7 and the eyelet material identification and dimension of 3.3.13. In addition, the expanded plastic shall be tested for buoyancy as specified in 4.4.1.1 (see 3.3.4.1) and MIL-P-12420, except that the sample unit for testing the expanded plastic shall be 10 square feet. One determination of buoyancy shall be performed per sample unit and the result reported to the nearest 1.0 pound.

\* 4.4.1.1 Buoyancy. The buoyancy test shall be made with a sample consisting of three (3) pieces of the sheet material, each measuring 12 by 12 inches by thickness of material furnished. Securely attach a spring scale, accurate to 0.10 pound, in a position directly over the test tank. Suspend a weighted wire basket from the scale in such a manner that the basket can be weighed while completely submerged in water. Proceed as follows:

- a. Weigh the empty basket under water.
- b. Place test sample inside the basket and submerge it so that the top of the basket is at least 2 inches below the surface of water. Allow sample to remain submerged for 24 hours.
- c. After 24 hour submergence period, weigh the wire basket with the sample inside while both are still under water.
- d. Compute buoyancy in pounds per cubic foot:

$$\text{Lbs/Ft}^3 = \frac{\text{Weight of empty basket in water} - \text{weight of basket and sample in water}}{\text{Volume of foam material in cubic feet}}$$

4.4.2 Examination of the end item. Examination of the end item shall be in accordance with 4.4.2.1 through 4.4.2.3.

4.4.2.1 Visual examination. The jackets shall be examined for defects in

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color, design, material, construction, workmanship, and marking and the defects classified in accordance with the list below:

Defect	Classification	
	Major	Minor A B

## MATERIAL DEFECT(S) AND DAMAGE(S)

## A. General

1. Any size hole, cut, tear, smash, visible mend or burn:

(a) On outside (visible) with front fastened and collar in upright position

X

(b) On outside (not visible) under and backside of pocket flap

X

(c) On inside

X

2. Misweave, area of no dye penetration, missing yarn, broken yarn; more than 1/2 inch (largest dimension in any direction:

-Outside only

X

3. Permanent fold, pleat, or crease in cloth (when caught in seaming or stitching):

-Outside only

X

## B. Coated Fabric(s)

1. Any evidence of delamination of the chloroprene coating

X

2. Any brittle area which cracks when bent

X

3. Any objectionable odor

X

4. Any tackiness

X

5. Not soft or pliable

X

NOTE: Examination for chloroprene coated fabric defects in the lower portion of the jacket shall be performed by lifting up the quilted lining assembly at the bottom.

## C. Plastic foam

-Objectionable odor

X

## METAL COMPONENTS (grommets, eyelets, and snap fasteners)

## \*A. General

1. Not specified type, size, color, or finish

X

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Defect	Classification	
	Major	Minor A B
2. Any specified hardware or component missing, broken, bent, sharp, or rough edge, deformed, mismatched or otherwise defective not permitting proper function	X	
3. Any part not properly set to a degree where it might become detached from garment	X	
4. Any part not properly set or attached but will adequately be retained on garment and will function as intended		X
5. Misplaced or not positioned as specified		X
<b>*B. Snap fasteners</b>		
1. One or more clinched too tightly cutting material:		
(a) Affecting appearance		X
(b) Affecting serviceability	X	
2. Socket and stud out of alignment causing a gap or pull on any part of garment		X
3. Improperly clinched, failing to effect a secure closure or to open freely	X	
4. More than three cracks in snap fastener post	X	
NOTE: Studs and sockets shall be checked for proper function and secure clinching by opening and closing snap fasteners several times.		
<b>*C. Eyelets and grommets</b>		
1. Any omitted	X	
2. Any misplaced, not positioned or attached as specified		X
3. Finish omitted or not type specified		X
4. Any broken or maleformed	X	
5. Any having a sharp or rough edge		X
6. Any clinched		
(a) Tightly, damaging or cutting adjacent material	X	
(b) Loosely, permitting any component to rotate freely, but not to the degree that any component can be expected to become detached during use		X
(c) Loosely, to the degree that components can be expected to become detached during use	X	

## SEAM(S) AND STITCHING(S)

## A. Accuracy of seaming

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Defect	Classification	
	Major	Minor A B
1. Seam twisted, excessively puckered or pleated (unless otherwise classified)	X	
NOTE: A characteristic of nylon is to show a certain amount of puckering at seams or stitching. This puckering is not to be classified as a defect.		
2. Part of jacket caught in any unrelated stitching operation	X	
3. End of seam or stitching when not caught in another seam or stitching backtacked less than 3/8 inch		X
4. Stitching overlapping ends of thread break or skipped stitches less than 1/2 inch		X
5. Wrong shade of thread or various shades of thread used on outside of same jacket		X
6. Any seam restitched, damaging material to a degree where it may tear along the row of stitching	X	
7. Restitched seam not neatly accomplished		X
B. Stitching margin		
1. Top or edge stitching sewn too close to edge resulting in damage to material:		
(a) Affecting appearance		X
(b) Affecting serviceability	X	
2. Margin irregular, affecting appearance		X
3. Not within range specified or varies more than 1/8 inch when no range is specified (score only when condition exists on more than 1/2 the length of seam)		X
C. Runoff (on outside joining seam score as an open seam)		
1. On outside, two or more stitches		X
2. On inside, four or more stitches		X
D. Raw edges		
1. On outside:		
(a) More than 1/4 inch to 3/4 inch inclusive		X
(b) More than 3/4 inch	X	
2. On inside (including lining) -More than 1 inch		X

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Defect	Classification	
	Major	Minor A B
E. Open seams (skipped or broken stitches)		
1. On all seams except binding and quilting:		
(a) Up to 1/4 inch inclusive		X
(b) More than 1/4 inch up to 3/4 inch inclusive		X
(c) More than 3/4 inch	X	
2. On binding and quilting:		
(a) Up to 3/4 inch inclusive		X
(b) More than 3/4 inch		X
NOTE: One or more broken stitches or two or more continuous skipped or runoff stitches constitute an open seam.		
F. Stitch tension		
1. Loose tension resulting in a loose seam	X	
2. Loose tension resulting in loosely exposed loops of lower or top thread (score only when condition exists on more than 1/2 the length of seam)		X
3. Tight tension (stitches break when normal strain is applies in the direction of the seam or stitching):		
(a) On outside	X	
(b) On inside		X
G. Seam and stitch types		
1. Not specified seam or stitch type	X	
2. Any line of stitching not beginning or not ending where specified		X
3. Any required line of stitching omitted	X	
4. Any seam not facing the direction specified		X
H. Stitches per inch (score only when condition exists on more than 1/2 the length of seam)		
1. One stitch less than the minimum or any number in excess of the maximum specified		X
2. Two or more stitches less than the minimum specified	X	
I. Seam allowance		
-Not as specified by more than 1/8 inch (score only when condition exists on more than 1/2 the length of seam)		X

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Defect	Classification	
	Major	Minor A B
J. Bartack(s)		
1. Missing, insecure, misplaced, or not serving intended purpose		X
2. Not size specified		X
3. Loose stitch tension		X
*CLEANNESS		
1. Any spot or stain on outside, except under pocket flap		X
2. Three or more thread ends 1/4 inch or longer not trimmed on outside of jacket		X
3. Five or more thread ends 1/2 inch or longer not trimmed on inside		X
4. Two or more shade or size markings not removed		X
COMPONENT(S) AND ASSEMBLY		
1. Any component part or operation omitted (unless otherwise classified herein)	X	
2. Any component not as specified (type, size, color, etc.)	X	
3. Any component part tight, twisted, distorted, pleated, or full (unless otherwise classified herein)		X
4. Any operation not as specified (unless otherwise classified herein)		X
CUTTING		
Any part not cut in accordance with directional lines indicated on patterns or not in accordance with specification requirements	X	
SHADED PART(S)		
1. On outside:		
(a) Any part shaded (except parts which may be cut from ends)		X
(b) Part cut from ends badly shaded		X
(c) Variation in shade within a part		X



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Defect	Classification		
	Major	Minor	
		A	B
<b>BINDING</b>			
1. Not bias-cut		X	
2. Not securely caught in fabric causing binding to pull away from fabric easily	X		
3. Joined with more than one splice (sleeve and lining)		X	
4. Finished width not as specified			X
5. Stretched, i.e., edges have wavy appearance		X	
6. Tight causing edges to curl and not lie flat		X	
<b>BUTTON LOOPS</b>			
1. One or both ends not securely caught in stitching	X		
2. One or more too small not permitting button to enter	X		
3. One or more missing	X		
4. Finished dimension not as specified		X	
<b>HOOD ATTACHMENT</b>			
1. Omitted	X		
2. Not positioned as specified		X	
3. Not constructed as specified		X	
<b>LABELS</b>			
1. Missing, incorrect, illegible or strike through	X		
2. Not attached or affixed as specified, misplaced or stitching through the printing			X
<b>COLLAR</b>			
1. Tight at joining to fronts or back causing puckers or pleats at neck of jacket	X		

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Defect	Classification	
	Major	Minor A B
2. Interlining pleated, affecting smoothness of topcollar	X	
3. Interlining tight or twisted, causing puckers on undercollar		X
4. Undercollar exposed at outer edge		X
5. Collar points uneven in length by more than 1/2 inch	X	
6. Pointed ends poorly shaped or not uniformly shaped		X
7. Topcollar badly twisted, tight, or too full	X	
8. Stand:		
(a) Twisted, pleated, or having fullness in width or length	X	
(b) Buttonhole omitted or not located as specified	X	
FRONTS		
Closed fronts uneven at top by 3/8 inch or more		X
GUSSETS (outershell)		
1. Omitted or not as specified	X	
2. Seams not aligned as specified		X
HEM		
1. Irregular in width by 1/4 inch or more		X
2. Twisted, puckered, or pleated by stitching		X
3. Tie cord omitted	X	
4. Grommets not located as specified		X
5. Bottom edge of pockets and free end of tabs not securely caught in top row of stitching		X
6. Tie cord of improper length or not attached as specified		X
POCKETS		

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Defect	Classification	
	Major	Minor A B
1. Welt poorly formed or irregular in width		X
2. Welt twisted, puckered, or distorted		X
3. Facing short, i.e., end of facings not completely caught in bartack	X	
4. Flap lining tight or short causing flap to curl or fullness on outside		X
5. Corner of opening pleated or puckered		X
6. End of welt exposed beyond side edge of flap		X
7. Facing not caught when stitching flap to welt		X
8. Back corner of flap bartacked to front restricting freedom of flap		X
9. Flap poorly shaped		X
10. Back to edge of front flaps positioned unequal distance from side seams or not horizontally aligned by more than 1/2 inch		X
11. Flap edge not properly forced out		X
12. Snap fastener components off center of pocket or flap by more than 1/4 inch		X
SLIDE FASTENER		
1. Top end of fastener tape not completely caught in collar seam stitching		X
2. Any part of assembly omitted, bent, broken or otherwise defective	X	
3. Tape set on too loose or too tight, causing bulge, twist, or fullness when closed	X	
4. Stitches too close to metal edge not permitting slider to pass freely	X	
5. Top stop of chain set less than 1/4 inch or more than 1/2 inch from finished neck seam	X	
NOTE: Slide fastener shall be checked for proper function by opening and closing slide		

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Defect	Classification	
	Major	Minor A B
fastener at least three times.		
SLEEVES		
1. Improperly set sleeve resulting in excessive puckering around armhole		X
2. Wristlet omitted	X	
3. Wristlet insecurely attached or other than type or size specified		X
4. Eyelet on sleeve extension piece omitted:		
(a) One per sleeve		X
(b) Two or more per sleeve		X
BUTTONS		
1. Other than size, type, or style specified	X	
2. Any button omitted, broken, malformed or misplaced	X	
3. One or more insecurely attached		X
LINING AND INTERLINING		
1. Gussets omitted or not as specified	X	
2. Gusset seams not aligned as specified		X
3. Interlining on fronts or back missing	X	
4. Lining not attached to outer shell as specified	X	
5. Lining twisted, affecting outside appearance of jacket	X	
6. Not quilted as specified	X	
SLIDE FASTENER FACINGS		
1. Facings twisted or full affecting outside appearance of jacket	X	
2. Facing on right front exposed when jacket is fastened	X	

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Defect	Classification	
	Major	Minor A B
STAYS		
Any omitted or not located as specified		X
HANGER LOOP		
1. Omitted		X
2. Positioned in other than specified manner or place	X	
3. Not securely caught in neckline seam		X
4. Finished dimensions not as specified		X

4.4.2.2 Dimensional examination. The jacket shall be examined for dimensional defects in accordance with the following:

a. Any measurement deviating from dimensions and tolerances specified in Table II shall be scored as a measurement defect.

b. Sleeve lengths unequal in length by 1/2 inch or more shall be scored as a size measurement defect.

4.4.2.3 Inspection levels and acceptable quality levels. The inspection levels and acceptable quality levels (AQL's) expressed as defects per 100 units, for visual and dimensional examinations shall be as follows:

	<u>AQL's</u>	<u>Inspection level</u>
For visual examination in 4.4.2.1:		
Major	2.5	II
Major and Minor A (combined)	15.0	II
Total - Major, Minor A and B (combined)	40.0	II
For dimensional examination in 4.4.2.2:		
One class	4.0	S-3

4.4.3 Examination of packaging requirements. An examination shall be made to determine that packaging, packing, and marking comply with Section 5 requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be on the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 defects per hundred units.

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<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted, incorrect, illegible, of improper size, location, sequence, or method of application.
Materials	Any component missing, damaged, or not as specified.
Workmanship	Inadequate application of components, such as: incomplete closure of container flaps, loose strapping, improper taping, inadequate stapling, bulged or distorted container.
Content	Number of items per shipping container is more or less than required. Size shown on one or more items not as specified on shipping container. <u>1/</u>

1/ For this defect, one item from each shipping container in sample shall be examined.

\* 4.4.4 Palletization examination. An examination shall be made to determine that the palletization complies with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully packaged. The lot size shall be the number of palletized unit loads in the end item inspected lot. The inspection level shall be S-1 and the AQL, expressed in terms of defects per hundred units, shall be 6.5 in accordance with MIL-STD-105.

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

## 5. PACKAGING

5.1 Preservation-packaging. Packaging shall be level A or C as specified (see 6.2).

5.1.1 Level A. Each jacket with slide fastener closed and flap buttoned shall be laid front down. The sleeves shall be folded at right angles across the back one on top of the other. Fold the jacket in half by bringing the bottom up to the collar. The completely folded jacket shall measure approximately 23 inches in length by 14-1/2 inches in width.

5.1.2 Level C. Jackets shall be packaged to afford adequate protection against physical damage during shipment from the contractor to the first receiving activity. The package may be the same as that normally used by the

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contractor for retail distribution when it meets this requirement.

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

\* 5.2.1 Level A. Six (6) jackets of one size only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container assembled, closed, and reinforced conforming to type CF, class weather resistant, variety DW, grade V15c, size 3A of MIL-B-17757. The fiberboard for the box liner shall conform to type CF, class domestic, conforming to MIL-B-17757. Jackets shall be packed flat, front up, collars alternated front to rear, six in depth within the shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper.

\* 5.2.2 Level B. Six (6) jackets of one size only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container assembled, closed and reinforced conforming to type CF, class domestic, variety DW, grade 275, size 3A of MIL-B-17757. The fiberboard for the liner shall conform to type CF, class domestic, of MIL-B-17757. Jackets shall be packed flat, front up, collars alternated front to rear, six in depth within the shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of commercial grade kraft paper.

5.2.3 Level C. Item packaged, as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. The quantity per shipping container shall be the same as that normally used by the contractor for retail distribution. Containers shall comply with the US Postal Service Manual, Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

\* 5.2.4 Palletization. When specified (see 6.2) item packed as specified shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means C, K, and L or O or P. Pallet pattern shall be in accordance with the appendix of MIL-STD-147.

The pallet shall be 4-way, Type IV; Type V, Class 1, Size 2; or Type VIII, fabricated from wood group I, II, III or IV, Grade A of NN-P-71, or 4-way, Style 1, Size A, Type I, Class 1 fabricated from wood groups specified of MIL-P-15011. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall be approved by the contracting officer.

5.3 Marking. In addition to any special marking required by the contract or order, interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The jackets are intended to be worn in wind/cold and wet/cold areas in conjunction with the extreme cold weather trousers and hood. Because it is impermeable (water outer fabric) the jacket is particularly suitable for use by shipboard watchstanders.



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\* 6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number, and date of this specification.
- b. Sizes required (see 1.2).
- c. When first article inspection is required (see 3.2), the item will tested and should be a first article sample. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, quantity, and testing and approval.
- d. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- e. When palletization is required (see 5.2.4).

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

6.4 Water repellent treatments. Only those water repellent treatments approved by the US Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5000 and so listed in the invitation for bids or request for proposal shall be considered acceptable for the related procurement.

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

6.6 Changes from previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

\* 6.7 Subject term (key word) listing.

Collar, corduroy  
Foam, plastic  
Jacket, extreme cold weather  
Jacket, impermeable  
Quilted lining

Custodian:  
Navy - NU

Preparing Activity:  
Navy - NU

Review Activity:  
DLA - CT

Project No. 8415-0554

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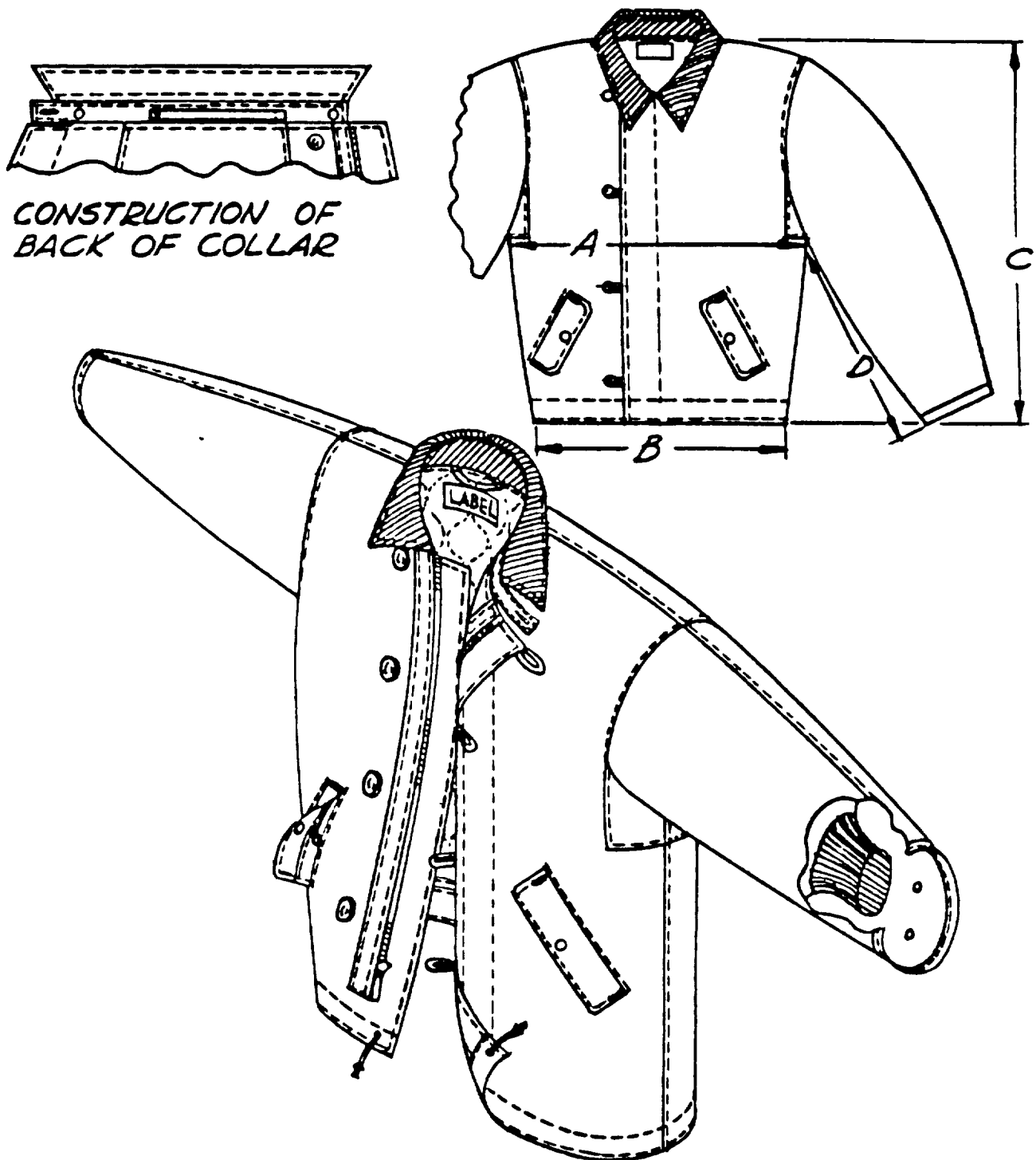


Figure 1 - Jacket, Extreme Cold Weather, Impermeable

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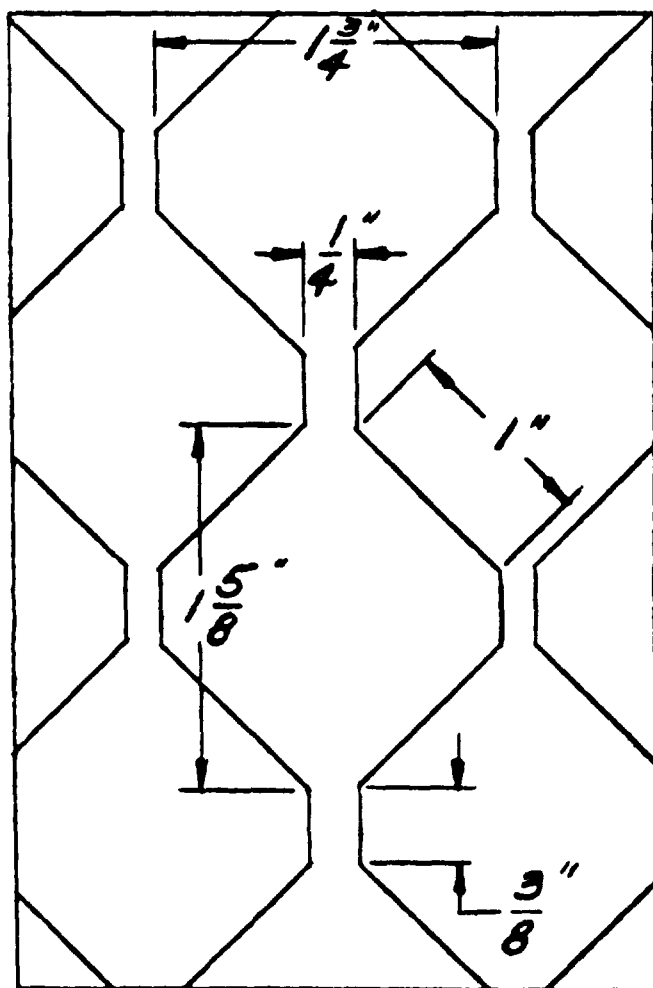


Figure 2 - Quilting Stitching (Small Pattern)



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