

INCH POUND

MIL-T-29452A
18 March 1994
SUPERSEDING
MIL-T-29452(MC)
20 January 1988

MILITARY SPECIFICATION

TROUSERS, MEN'S: POLYESTER/WOOL

This specification is approved for use by all departments and agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for men's polyester/wool trousers.

1.2 Classification. The trousers shall be of one type, in the following classes and sizes as specified (see 6.2):

- Class 1 - Polyester/Wool Gabardine, Shade 2212
- Class 2 - Polyester/Wool Gabardine, Shade 2319

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FSSD, 2800 South 20th Street, Philadelphia, PA 19101-8419, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8405

DISTRIBUTION STATEMENT A.

Approved for public release;
distribution is unlimited.

MIL-T-29452A

Schedule of Sizes	
Waist Sizes	26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46
Lengths	X-Short, Short, Regular, Long, X-Long

2. APPLICABLE DOCUMENTS

2.1 Government documents

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

- | | |
|-----------|---|
| A-A-50186 | - Cloth, Buckram, Woven and Nonwoven |
| A-A-50198 | - Thread, Gimp, Cotton, Buttonhole |
| A-A-50199 | - Thread, Polyester Core: Cotton-
or Polyester-Covered |
| A-A-52094 | - Thread, Cotton |
| A-A-52106 | - Cloth, Twill or Plain Weave,
Polyester or Polyester Blend |
| V-B-871 | - Button, Sewing Hole, and Button,
Staple (Plastic) |
| V-F-106 | - Fasteners, Slide, Interlocking |
| V-T-295 | - Thread, Nylon |
| NN-P-71 | - Pallet, Material Handling, Wood,
Stringer Construction, 2 Way and
4 Way (Partial) |
| UU-P-268 | - Paper, Kraft, Wrapping |
| DDD-L-20 | - Label, For Clothing, Equipage, and
Tentage, (General Use) |

MILITARY

- | | |
|-------------|--|
| MIL-C-10176 | - Cloth, Gabardine: Wool, Polyester
and Wool |
| MIL-P-15011 | - Pallet, Material Handling, Wood,
Post Construction, 4 Way Entry |
| MIL-B-17757 | - Box, Shipping, Fiberboard (Modular
Sizes) |

MIL-T-29452A

MILITARY

MIL-C-43920 - Cloth, Interlining, Cotton or Synthetic and Nylon

STANDARDS

FEDERAL

FED-STD-751 - Stitches, Seams and Stitchings

MILITARY

MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-147 - Palletized Unit Load
MIL-STD-1488 - Provisions for Evaluating Quality of Trousers

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

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be 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).

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, Illinois 60606-5808.)

MIL-T-29452A

THE COLOR ASSOCIATION OF THE UNITED STATES

Department of Defense Standard Shades For Sewing Threads

Department of Defense Standard Shades For Buttons

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

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

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

3. REQUIREMENTS

3.1 Guide sample. Samples, when furnished, are solely for guidance and information to the contractor (see 6.2). Variations from this specification may appear in the sample, in which case this specification shall govern.

3.2 First article. When specified, (see 6.2), a sample shall be subjected to first article inspection, in accordance with 4.4 and 6.4.

3.3 Materials

3.3.1 Basic material. The basic material for each class of trousers shall be as follows:

a. Class 1. Cloth, 10.6 ounce, polyester/wool gabardine, green, shade 2212 conforming to type II, class 12, of MIL-C-10176.

b. Class 2. Cloth, 10.6 ounce, polyester/wool gabardine, sky blue, shade 2319 conforming to type II, class 12 of MIL-C-10176.

3.3.1.1 Recycled materials. It is encouraged that recycled materials be used when practical as long as the materials meet the requirements of this specification.

MIL-T-29452A

3.3.2 Lining, interlining and pocketing

3.3.2.1 Lining and interlining. The material for lining the waistband, right fly, pocket flaps, crotch, left fly interlining, and pocket stay shall be black polyester, polyester and cotton, or polyester and rayon cloth conforming to class 1 of A-A-52106.

3.3.2.2 Pocketing. The pocketing material shall be black polyester, polyester and cotton, or polyester and rayon cloth conforming to class 1 of A-A-52106.

3.3.3 Buckram. The material for interlining waistband shall be bleached or unbleached cloth, cotton, buckram conforming to type II of A-A-50186.

3.3.4 Waistband stabilizer. The material for the waistband stabilizer shall be cloth, interlining, cotton or synthetic and nylon conforming to type 1 of MIL-C-43920.

3.3.5 Slide fastener. The slide fastener for each class of trousers shall be type I, style 1, cam lock, size LS, short tab pull, brass chain, conforming to V-F-106, except the salt spray test shall not apply. A staple bottom stop is required. All components of the slide fastener shall be brass and from the same supplier (see 4.5.1). The tape shall be cotton, synthetic, or a combination.

3.3.5.1 Color. The color of the slide fastener tape shall be as follows:

- Class 1 - Green Shade AF, Cable No. 66531
- Class 2 - Blue Shade AA, Cable No. 66527

3.3.5.2 Colorfastness. The dyed slide fastener tape shall show colorfastness to wet dry-cleaning equal to or better than the standard sample when tested as specified to V-F-106. When no standard sample is available, the tape shall show "good" colorfastness when tested as specified in V-F-106.

3.3.6 Hook and eye. The hook and eye shall be North and Judd (Hook Flex H-49, K-50, H-89 and E-90); Universal Button Co. (Talon #3, #7, and #8 hook with #8 eye or #85 eye); Akim Co. or Patwin, Inc., Junior Series, type JB; Stimpson (P-536, D-4086, D-4457, D-4288); Rau (OA50, OX 1256, 080415); Patwin, Inc. (Slim-Slak with MB eye, and Slik-Slak) or equal. The finish shall be nickel plate. Prior to use of an "or equal" item, the supplier shall submit the item with supporting data to the contracting officer for approval (see 4.5.1).

MIL-T-29452A

3.3.7 Thread. Cotton thread shall be used conforming to A-A-52094 as follows:

Operation	Type	Ticket No.	Ply
Outside Stitching, bartacks, buttonholes and ornamental strip	III	0	3
Seaming and stitching	I	30, 50	3
	I	70	2
Automatic machine pocket construction	III	A	3
Inside Stitching	I	50	3
		70	2
Button Sewing	II	16, 24	4

As an alternate to the cotton thread, a polyester, cotton-covered thread conforming to A-A-50199, ticket No. 50, 2 ply or ticket No. 70, 2 ply may be used for all sewing operations.

3.3.7.1 Automatic button sewing. If an automatic machine which sews and shanks (wraps) the buttons in one operation is used, the thread shall be waxed nylon monocord special No. 5, having a minimum breaking strength of 16 pounds and a minimum length per pound of 2150 yards. This thread shall be tested for these requirements and for colorfastness (see 3.3.7.3) in accordance with the test methods in V-T-295.

3.3.7.2 Color. The color of the thread for each class of trousers shall conform to the following:

Class 1 - Olive Drab T-1, Cable No. 66023

Class 2 - Navy Blue AT, Cable No. 66060

NOTE: See DOD Standard Color Card of Official Standardized Shades for Sewing Threads

3.3.7.3 Colorfastness. The colored thread shall show fastness to light and wet dry-cleaning equal to or better than the standard sample. When no standard sample is available, the colored thread shall show "good" fastness to light and wet dry-cleaning.

MIL-T-29452A

3.3.8 Gimp. The gimp for reinforcing buttonholes shall be cotton, No. 8, conforming to type I or II of A-A-50198.

3.3.8.1 Color. The color requirements for the gimp for each class of trousers, shall be the same as specified in 3.3.7.2 for the thread.

3.3.8.2 Colorfastness. The colored gimp shall show fastness to wet dry-cleaning equal to or better than the standard sample. When no standard sample is available, the colored gimp shall show "good" fastness to wet dry-cleaning.

3.3.9 Buttons. The buttons for the hip pocket and fly-tab closure shall conform to type II, class D, style 4, 22-line, glossy finish, of V-B-871. The color of the buttons for each class of trousers shall be as follows (see DOD Standard Shades for Buttons):

Class 1 - Green, Shade AF, Cable No. 62017
Class 2 - Blue, Shade BV, Cable No. 62003

3.3.10 Labels. Each pair of trousers shall have a combination identification-size-instruction label. The combination label shall conform to type VI, class 14 of DDD-L-20. The label shall conform to the colorfastness and writing test requirements of DDD-L-20. The content (inscription) and format of the combination label shall be as follows:

Trousers, Men's, Tropical (Example)
Fiber Content: 55% Polyester/45% Wool (Example)
Size: 38R (Example)
NSN: 8405-00-000-0000 (Example)
Name of Contractor:
Contract Number: DLA 100-00-0-0000 (Example)
DRY CLEAN ONLY

3.3.11 Label/tag. Each item shall be individually bar-coded with the type VIII, class 17 label/tag of DDD-L-20. This label/tag shall be located so that it is completely visible on the item when it is folded and/or packaged as specified and so that it causes no damage to the garment.

3.4 Design. The trousers shall be the US Marine Corps design as shown on Figure 1 having a two-piece, lined waistband with hook and eye closure and outlet at seat seam; french type fly with slide fastener; 7 belt loops for sizes up to and including size 37 and 8 belt loops for sizes 38 and up; straight side pockets; hip pockets with pocket flaps to button; outlet from crotch to knee at inseam and unfinished leg bottom.

MIL-T-29452A

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 allowed on the working patterns. Also, minor modifications are permitted where necessary when using automatic equipment. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification. The standard patterns provide an allowance of 1/4 inch for pocket flaps, and a 3/8 inch seam allowance for all other seams except seat seams and inseam of back part; 7/8 inch has been added to the seat seam allowances (total 1-1/4 inches at top) to allow for tapering the seat outlet and 3/4 inch has been added to the inseam of back part (total 1-1/8 inches at top) to allow for tapering the inseam outlet of back parts. Unless otherwise indicated in Table I, seams shall be in accordance with these seam allowances.

3.5.1 Pattern parts. The component parts of the trousers shall be cut from the materials specified herein in accordance with the number of pattern parts indicated below, except belt loops and waistband lining/interlining. (See Table I, operation 1, for cutting requirements for these components).

Item	Pattern Nomenclature	No. of cut parts
Material: Basic		
1.	Front	2
2.	Back	2
3.	Right fly	1
	Fly tab (alternate) <u>1/</u>	2
4.	Left fly	1
5.	Side pocket wide facing (bearer)	2
6.	Side pocket narrow facing	2
7.	Hip pocket bearer	4
8.	<u>2/</u> Hip pocket flap (classes 1 and 2)	2
9.	Waistband	2
Material: Lining/interlining		
10.	Right fly lining	1
11.	Crotch lining	2
12.	Side pocket stay	2
13.	Left fly interlining	1
14.	Hip pocket flap lining (classes 1 and 2)	2

MIL-T-29452A

Item	Pattern Nomenclature	No. of cut parts
Material: Pocketing		
15.	Side pocket	2
16.	Hip pocket	2

1/ When the fly tab is used, eliminate the right fly with integrated fly tab and cut right fly from same pattern as the left fly.

2/ When the flaps are self-lined, cut 4.

3.6. Stitches, seams, and stitchings. Stitch, seam and stitching types specified in Table I shall conform to FED-STD-751. Whenever two or more methods for seam or stitch types are given for the same part of the operation, any one of them may be used. Where stitch type 401 is used, the looper (under thread) shall be on the inside of the trousers. Seam allowances shall be maintained with seams sewn so that no raw edges, runoffs, twists, pleats, puckers or open seams will result. Buttonholes shall be clean cut and the stitching shall be securely caught in the fabric.

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

3.6.2 Thread breaks and ends of seam. The ends of all seams and stitching, when not caught in other seams and stitching, shall be bartacked not less than 1/4 inch. The ends of a continuous line of stitching (except labels) shall be overlapped not less than 1/2 inch. The ends of the label stitching shall be overlapped 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. Skipped stitches or thread breaks on 401 seaming may be repaired using 301 stitch type. Bartacks shall not be more than 1/16 inch wide.

3.6.2 Buttonholes. Buttonholes shall be the eyelet-end, taper-bar type, well-worked-over gimp with the end securely tacked. The finished cut length shall be 5/8 inch. The bar at the end of the buttonhole shall have a minimum of four tacks, not including the first cross-overstitch.

3.6.3 Pressing. Pressing as required in Table I shall be done with a heated pressing iron or machine.

MIL-T-29452A

3.6.4 Marking. The component parts shall be marked to ensure a uniform shade and size throughout the trousers. Any method of shade marking may be used except:

- (a) Corrosive metal fastening devices.
- (b) Sew-on shade tickets.
- (c) Adhesive type tickets, which leave traces of paper or adhesive on material after removal of the tickets.

3.7 Manufacturing operations requirements. The trousers shall be manufactured in accordance with operation requirements specified in Table I. The contractor is not required to follow the exact sequence of operations provided the finished trousers are identical to those produced by following the sequence as listed in Table I. Minor modifications are permitted where necessary when using automatic equipment. Any additional basting or holding the stitching used to facilitate manufacture is permissible provided that the thread is removed or does not show on the finished trousers. These modifications shall not alter the dimensional, serviceability or appearance requirements cited in the specification.

3.7.1 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
Btn	-	Button
Btnhl	-	Buttonhole
Incl	-	Including
Dbl	-	Double

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
1.	<p><u>Cutting.</u></p> <p>a. Cut the trousers in strict accordance with the patterns furnished by the Government.</p> <p>b. Cut the material in the direction indicated by directional lines on the patterns. Lay fronts and backs so that the directional lines are in the warp direction. The directional lines may not deviate from the warp direction by more than 1 inch on both fronts and backs. Measurements shall be taken from the top and the bottom of the directional line on patterns to the selvage edge of the fabric and the difference between the two measurements shall not exceed the tolerance specified.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
1.	<p><u>Cutting.</u> (cont'd.)</p> <p>c. Cut all component parts for the trousers from the same piece of basic material to ensure a uniform shade throughout the trousers. The following parts may be cut from ends: belt loops, pocket bearers and facings. When cut from ends, the parts shall harmonize with the shade of the trousers.</p> <p>d. Cut the pockets on the straight of the material in accordance with patterns. Cutting of the pockets in the direction of the filling is not permitted except when it is essential for economical use of the material.</p> <p>e. Cut stripping for the belt loops of sufficient width to comply with the requirements of operation 11.</p> <p>f. Cut the right fly lining in accordance with the directional lines on the pattern.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
1.	<p><u>Cutting.</u> (cont'd.)</p> <p>g. Cut the left fly interlining, hip pocket flap linings, and stays for side pockets in the warp or filling direction.</p> <p>h. Cut crotch lining parts so that, when folded, the fold will be on the bias, and one of the inseam sides is in the warp direction.</p> <p>i. Cut the waistband linings and interlinings on the bias and wide enough to comply with operation 12.</p> <p>j. Cut the waistband stabilizer of sufficient length to comply with operation 12.</p> <p>k. The waistband lining may be a commercial type composed of the lining, interlining and waistband stabilizer materials specified.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
2.	<p><u>Replacement of damaged parts.</u></p> <p>a. At time of cutting, replace any part containing damages such as holes or seriously weakening defects such as smashes, multiple floats and slubs, likely to develop into holes, as classified in MIL-STD-1488.</p> <p>b. Replace any part damaged during the manufacturing process by needle chews which may be expected to develop into holes, scissors or knife cuts, tears, holes, mends, burns and large exposed drill holes.</p>				
3.	<p><u>Shade markings.</u></p> <p>Mark or ticket the component parts to ensure a uniform shade and proper assembly throughout the trousers, except those parts specified in operation 1c. which may be cut from the end and need not match each other. Tickets shall conform to 3.6.4.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
4.	<p><u>Overedge stitch trousers.</u></p> <p><u>Finished appearance:</u> The overedge stitching shall be securely caught in the fabric. The raw edge of the overedged material shall be properly trimmed.</p> <p>a. Overedge stitch the inseam of front trousers, also the fly edge of right front. The overedge stitching of the inseam of the front shall extend from bottom of trouser to fly notch. The overedge stitching of the outseam of fronts shall extend from bottom notch of the side pocket to the bottom of the trouser leg.</p> <p>b. Overedge stitch inseam and outseam of back part of trousers. The side pocket stay piece with the bottom edge turned up may be attached to the outseam in the overedge operation.</p>	<p>502 or 503 or 504</p> <p>502 or 503 or 504</p>	<p>EFd-1</p> <p>EFd-1</p> <p>EFd-1</p> <p>EFd-1</p> <p>EFd-1</p> <p>EFd-1</p> <p>EFd-1</p> <p>EFd-1</p>	<p>6- 10</p> <p>6- 10</p> <p>6- 10</p> <p>6- 10</p> <p>6- 10</p> <p>6- 10</p> <p>6- 10</p> <p>6- 10</p>	<p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p>	<p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
4.	<u>Overedge stitch trousers.</u> (cont'd.)					
	c. Overedge stitch crotch seam, seat seam and raw edge at the left end of the waistband.	502 or	EFd-1	6- 10	70/2	70/2
		503 or	EFd-1	6- 10	70/2	70/2
		504	EFd-1	6- 10	70/2	70/2
	d. The folded crotch lining may be stitched to the foreparts in a separate operation (see operation 13).	301	SSa-1	6- 10	50/3	50/3
5.	<u>NOTE:</u> When a knife is used on serging (overedge stitching) machine, the gage shall be set so that the raveled ends are trimmed but the edge of the fabric is not cut off.					
	<u>Set hip pocket bearer.</u> <u>Finished appearance:</u> The hip pocket bearer shall be properly positioned, uniformly and securely sewn with stitching of uniform gage and without pleats, puckers or other distortions.					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
5.	<p><u>Set hip pocket bearer.</u> (cont'd.)</p> <p>a. The hip pocket bearers shall each be a single ply of basic material.</p> <p>b. Position the bearer on the pocketing material in accordance with notches as indicated by marks on the pattern.</p> <p>c. Fold under the lower raw edge of the hip pocket bearer uniformly 1/4 to 3/8 inch and stitch to the pocket 1/16 to 1/8 inch from the folded edge. When bearer is cut on selvage, the edge need not be turned under.</p>	<p>301</p> <p>or</p> <p>301</p>	<p>LSbl-1</p> <p>LSBj-1 (sel- vage)</p>	<p>10- 16</p> <p>10- 16</p>	<p>50/3</p> <p>50/3</p>	<p>50/3</p> <p>50/3</p>
6.	<p><u>Set side pocket bearer and facing.</u></p> <p><u>Finished appearance:</u> The side pocket bearer and facing shall be properly positioned and securely sewn with stitching of uniform gage and without pleats, puckers or other distortion.</p> <p>a. The side pocket bearer and facings shall each be a single piece of basic material.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
6.	<p><u>Set side pocket bearer and facing.</u> (cont'd.)</p> <p>b. Position the bearer and facing on the pocket material in accordance with notches as indicated by marks on the pattern.</p> <p>c. Fold under the front raw edge of bearer and facing 1/4 to 3/8 inch and stitch to the pocket 1/8 inch from the folded edge. Continue stitching across the bottom raw edge. A selvage edge need not be turned.</p>	301	<p>LSd-1</p> <p>and</p> <p>LSj-1</p>	<p>10- 16</p> <p>10- 16</p>	50/3	50/3
7.	<p><u>Make hip pocket flaps.</u></p> <p><u>Finished appearance:</u> The hip pocket flaps shall finish smooth and flat, without twists, pleats, or puckers and shall be uniform in shape and size in accordance with patterns. The lining shall not be exposed on the outside. The edges of the flaps shall be well forced out and the edge stitching shall be uniform in width. The buttonholes shall be correctly positioned, clean cut, and well made, and the stitching shall be securely caught in the basic material.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
7.	<p><u>Make hip pocket flaps.</u> (cont'd.)</p> <p>a. Flaps for the hip pockets shall be made of one ply of basic material and one ply of lining material.</p> <p><u>Alternate method:</u> The flaps may be self-lined.</p> <p>b. Stitch the two plies of material together 3/16 to 1/4 inch from the side and bottom edges. Evenly trim the edges for proper turning when necessary.</p> <p>c. Turn the flaps, working out the seamed edges, corners and points completely. Edge-stitch the seamed edges of flaps uniformly 1/16 to 3/32 inch from seamed edges, working the lining or under ply back from the finished edge of the flaps. The lining underply shall not be exposed on the outside.</p>	<p>301</p> <p>or</p> <p>401</p> <p>301</p>	<p>SSe-2(a)</p> <p>SSe-2(a)</p> <p>SSe-2(b)</p>	<p>10- 16</p> <p>10- 16</p> <p>10- 16</p>	<p>0</p> <p>0</p> <p>0</p>	<p>0</p> <p>0</p> <p>0</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
7.	<p><u>Make hip pocket flaps.</u> (cont'd.)</p> <p>d. Make a vertical, eyelet end, taper bar type buttonhole cut 5/8 inch long through the center of the flap with the edge of the eyelet 1/2 to 5/8 inch above the center point. Buttonholes shall be well worked over the gimp to fit a 22-line button with the ends of the buttonholes securely tacked. The purling of the buttonhole shall be on the outside of the flaps.</p> <p>e. The finished hip pocket flap shall measure 5-1/4 ± 1/8 inches across the top.</p>	Btnhl	-----	52- 54 per but- ton hole in- clu- ding bar- tack	0	0
8.	<p><u>Make left fly.</u></p> <p><u>Finished appearance:</u> The left fly shall finish smooth and flat without twists, puckering or distortion. The overedge stitching shall be securely caught in the fabric.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
8.	<p><u>Make left fly.</u> (cont'd.)</p> <p>a. Position slide fastener on left fly and left fly interlining with bottom end of chain 1/4 to 1/2 inch above the fly notch. The front edge of the chain shall be 1/2 to 5/8 inch from the front edge of the finished fly at the top, tapering from 1/4 to 3/8 inch at the bottom. Stitch slide fastener tape to the fly through the interlining with a double row of stitches 3/16 to 1/4 inch gage.</p> <p>b. Overedge-stitch the back edge of left fly and left fly interlining together.</p>	<p>301</p> <p>or</p> <p>401</p> <p>503</p> <p>or</p> <p>504</p>	<p>LSbj-2</p> <p>LSbj-2</p> <p>SSa-1</p> <p>SSa-1</p>	<p>12- 16</p> <p>12- 16</p> <p>6- 10</p> <p>6- 10</p>	<p>50/ 30</p> <p>50/ 30</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p>	<p>50/ 30</p> <p>50/ 30</p> <p>70/2</p> <p>70/2</p> <p>70/2</p> <p>70/2</p>
9.	<p><u>Make right fly.</u></p> <p><u>Finished appearance:</u> The right fly shall finish without bulkiness, twists, puckers or pleats.</p> <p>a. The fly shall consist of one ply of basic material and lining.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
9.	<p><u>Make right fly.</u> (cont'd.)</p> <p><u>Alternate:</u> Position the fly tab on the outside of the fly, with raw edges even and the upper finished edge of the tab 1/2 inch below the top edge of the fly.</p> <p>b. Center the bottom edge of the right fly on the right fly lining in line with the fly lining notch, and the upper front edges of the fly and fly lining even and stitch the right fly and right fly lining together 3/16 to 1/4 inch from the front edge following the contour of the right fly. The seam shall extend from the bottom end of the fly to the upper edge of the fly. Any excess lining may be trimmed.</p> <p>c. In the finished trousers, the upper end of the lining shall extend to top of the waistband, over the waistband lining, and the lining extension piece at the lower end shall not extend less than 1/2 inch beyond inseam.</p>	301	SSa-1	10- 16	50/3	50/3
		301	SSe-2(a)	10- 16	50/3	50/3
		or				
		401	SSE-2(a)	10- 16	50/3	50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
9.	<p><u>Make right fly.</u> (cont'd.)</p> <p>When the option to use a separate fly tab is exercised, the waistband lining may extend to the right end of the waistband over the right fly lining.</p> <p>d. Make a 5/8 inch long horizontal eyelet-end taper bar type buttonhole 3/8 inch below and horizontal with a waistband seam 1/2 inch in from edge of right fly piece. The buttonhole shall be well worked over the gimp to fit a 22-line button. The purling of the buttonhole shall be on the underside of the fly.</p> <p><u>Alternate fly tab:</u></p> <p>a. Stitch the two plies together along the pointed end front and bottom edges with a 3/16 to 1/4 inch seam.</p> <p>b. Evenly trim the edges for proper turning.</p> <p>c. Turn the tab, working out the seamed edges, corners and point completely. Edgestitch the tab uniformly 1/16 to 1/8 inch from the seamed edges.</p>	Btntl		52- 45	0	0
	a. Stitch the two plies together along the pointed end front and bottom edges with a 3/16 to 1/4 inch seam.	301	SSe-2(a)	10- 16	50/3	50/3
	b. Evenly trim the edges for proper turning.	401	SSe-2(a)	10- 16	50/3	50/3
	c. Turn the tab, working out the seamed edges, corners and point completely. Edgestitch the tab uniformly 1/16 to 1/8 inch from the seamed edges.	301	SSe-2(b)	10- 16	50/3	50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
9.	<p><u>Make right fly.</u> (cont'd.)</p> <p>d. Make a 5/8 inch long, horizontal eyelet-end, taper-bar type buttonhole through the center of the tab with the inside edge of the eyelet 1/2 to 5/8 inch from the finished point end of the tab. The buttonhole shall be a well worked over gimp to fit a 22-line button, with the purling on inner side of the tab.</p>	Btn-hl	-----	52- 54	0	0
10.	<p><u>Assemble right and left flies.</u></p> <p><u>Finished appearance:</u> The flies shall be of even length where they join the crotch seam. The fastener parts shall be set so that there is no twisting or puckering when fly is closed.</p> <p>a. Position flies with notches at lower end, matching seam slide fastener tape to back edge of right fly, stitching 1/4 inch from edge. When 301 stitch is used, the edge of the right fly shall be serged.</p>	301 or 503 or 504	SSa-1	12- 16	50/3	50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
11.	<p><u>Make belt loops.</u> (See operation 1.e).</p> <p><u>Finished appearance:</u> The belt loops shall be flat without distortions or raw edges and with stitching of uniform gage. The loops shall be of uniform length and width.</p> <p>a. Fold the stripping lengthwise towards the center, abutting the raw edges. Join the abutted edges with a combination covering stitch on the underside and a row of stitches uniformly 1/16 inch from the folded edges of the stripping. The stripping shall finish 5/16 to 3/8 inch wide.</p> <p>-- or --</p> <p>b. Fold the stripping lengthwise, turning the raw edges and abutting the turned-under edges at the center. Join the abutted edges with a covering stitch.</p> <p>-- or --</p>	406	EFh-1	10- 16	0	0
		105	EFae-1	10- 16	0	0

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
11.	<p><u>Make belt loops.</u> (See operation 1.e). (cont'd.)</p> <p>c. Turn under one side of the stripping; fold the stripping lengthwise, overlapping the turned under edge on the raw edge at the center. Join the lapped edges with a covering stitch.</p> <p>d. Cut seven belt loops for trousers up to size 37 and eight loops for sizes 38 and above (see operation 32). The belt loops shall be cut 2-3/4 inches long with a finished outside dimension 2 inches long and an inside dimension 1-3/4 inches long</p>	105	-----	10- 16	0	0
12.	<p><u>Make and join waistband lining.</u></p> <p><u>Finished appearance:</u> The waistband lining shall measure not less than 2 inches wide in the finished trousers. The waistband linings may be pieced provided the seam finishes flat and there is no more than one piecing on each pair of trousers.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
12.	<p><u>Make and join waistband lining.</u> (cont'd.)</p> <p>The waistband stabilizer may be 1 inch shorter than the waistband lining at the seat seam. In the finished trousers, the waistband lining shall not be exposed beyond the top edge of the waistband.</p> <p>a. The waistband lining-interlining assembly shall consist of any one of the lining materials specified in 3.3.2.1 and one ply of interlining cotton buckram cloth specified in 3.3.3.</p> <p>b. Overlap the lining on the buckram interlining 1 inch (see operation 1.j.) and stitch 1/8 to 3/16 inch from edge of lining.</p>	<p>301</p> <p>or</p> <p>401</p> <p>or</p> <p>101</p>	<p>LSa-1</p> <p>LSa-1</p> <p>LSa-1</p>	<p>6- 10</p> <p>6- 10</p> <p>6- 10</p>	<p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p>	<p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
12.	<p><u>Make and join waistband lining.</u> (cont'd.)</p> <p>c. Position stabilizer on interlining with one edge of stabilizer and free edge of interlining even. Stitch stabilizer to interlining 1/2 inch from edge.</p> <p>d. A commercial waistband lining/interlining conforming to specified requirements may be used (see operation 1.k).</p> <p><u>NOTE:</u> The waistband interlining may be fused if all requirements of the waistband are maintained.</p>	301	-----	6- 10	50/3	50/3
13.	<p><u>Seam crotch lining to fronts</u> (see operation 4.d).</p> <p>a. Fold crotch lining lengthwise to form a double thickness and seam to fronts or attach to fronts in overedge operation.</p>	301 or 503 or 504	SSa-1 EFd-1 EFd-1	6- 10 6- 10 6- 10	50/3 70/2 70/2	50/3 70/2 70/2

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
14.	<p><u>Seam darts in back.</u></p> <p><u>Finished appearance:</u> The darts shall be properly positioned and finished without pleats, puckers, gathers or other distortions. In the finished trousers, the darts shall be well tapered to a flat point and the tapered end shall finish within the hip pocket.</p> <p>a. Fold the backs, matching the cut edges of the waist darts. Stitch lengthwise along the entire length of the darts, starting 3/8 inch from the cut edges at the top end and tapering to a point at the lower end as indicated by marks on the pattern.</p> <p>b. Spread open and press darts smooth and flat with a heated pressing iron or pressing machine.</p>	301	SSa-1	12- 16	50/3 50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
15.	<p><u>Attach hip pocket, flaps and label.</u></p> <p><u>Finished appearance:</u> The pockets shall finish smooth and flat without bulkiness, bulges or other distortions on the outside of the finished trousers. The stitching shall be uniform and secure. The pocket openings and flaps shall be in proper alignment.</p> <p>a. Position pocket flaps on the outside of the back in line with the mark as indicated by the pattern, with the pocketing on the under side. Stitch through all plies 3/16 to 1/4 inch from the mark.</p> <p>b. Position the hip pocket cord on the outside of trousers in line with the mark and stitch through all plies 3/16 to 1/4 inch from the mark.</p> <p>c. Cut pocket opening through the back and pocket, simultaneously. The opening shall not extend beyond the ends of the flap. Turn the cord piece through the opening and raise stitch, forming a 1/8 to 3/16 inch cord edge at lower edge pocket opening.</p>	301	LSq-2(a)	12- 16	50/3	50/3
		301	SSe-2(a)	12- 16	50/3	50/3
		301	SSe-1 (shows finished seam)	12- 16	0 or 50/3	0 or 50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
15.	<p><u>Attach hip pocket, flaps and label.</u> (cont'd.)</p> <p>d. Turn under the lower raw edge of cord facing and seam pocketing 1/16 to 1/8 inch from folded edge. When cord facing is cut on selvage, the edge need not be turned under.</p> <p>e. Turn the pocketing wrong side out, matching notches with pocket opening, and stitch sides 3/16 to 1/4 inch from raw edges. The stitching may extend across the bottom folded edge.</p> <p>f. Turn pocketing, forcing out corners and seamed edges. Fold and stitch the pocket 1/4 to 3/8 inch from the side edges. Continue to stitch along the bottom edges. The stitching may extend across the bottom folded edge.</p> <p>As an alternate, fold pocketing with side raw edges turned to the inside $3/8 \pm 1/16$ inch and stitch down sides and across the bottom, $1/8 \pm 1/16$ inch from the pocket edges.</p>	<p>301</p> <p>301</p> <p>301</p> <p>401</p> <p>301</p> <p>401</p> <p>301</p>	<p>LSd-1</p> <p>or</p> <p>LSbj-1 (selvage)</p> <p>SSae-2(a)</p> <p>or</p> <p>SSae-2(a)</p> <p>SSae-2(b)</p> <p>or</p> <p>OSf-1</p> <p>SSc-1</p> <p>and</p> <p>OSf-1</p>	<p>10- 16</p> <p>10- 16</p> <p>12- 16</p> <p>12- 16</p> <p>12- 16</p> <p>12- 16</p> <p>12- 16</p>	<p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p>	<p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD	
					NDL	BOB/ LPR
15.	<u>Attach hip pocket, flaps and label.</u> (cont'd.)					
	g. Turn flap down and raise stitch through all plies, 1/16 inch from joining seam, closing top of pocket.	301	LSq-2(b) (show finished seams)	12- 16	0 or 50/3	0 or 50/3
	h. Position the combination personal identification size instruction label on the top of the right pocketing so that on the finished trousers it will face the wearer. No part of the label printing shall be covered by the waistband interlining curtain. Stitch the label on all four sides 1/16 to 3/32 inch from edges. Stitching shall not be through printing.	301	LSbj-2	10- 16	50/3	50/3
	- or -					
	i. Stitch top edge of combination personal, identification, size instruction label to the lower edge of the waist- band lining above the right hip pocket. The ends of stitching need not be tacked provided the stitching extends at least 1/2 inch beyond each side of the label.	301	LSa-1	12- 16	0 or 50/3	0 or 50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
15.	<p><u>Attach hip pocket, flaps and label.</u> (cont'd.)</p> <p>m. The depth of the pockets shall be 5-3/4 to 6-1/4 inches when measured on the inside of pocket from top edge of cord facing to bottom.</p> <p>n. The finished pocket opening (after bartacking) shall not exceed the hip pocket flap.</p> <p>o. On the finished trousers, the pocket flaps shall be 2-1/4 ± 1/4 inches at center measured from seam to center point.</p>				
16.	<p><u>Join fly assembly to fronts.</u></p> <p><u>Finished appearance:</u> The seam joining the fly assembly to the fronts shall be without pleats, puckers, twists or other distortions.</p> <p>a. Position left fly assembly on outside of left front with edges even and notches matching. Join left fly to front with 1/4 inch seam.</p>	301	SSe-2(a)	12- 16	50/3 50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
16.	<p><u>Join fly assembly to fronts.</u> (cont'd.)</p> <p>b. Raise-stitch the joining seam on left fly assembly 1/16 inch from the seam, catching all plies of the seam.</p> <p>c. Position the right fly assembly on right front with edges even and notches matching. Join right fly to front with a 1/4 inch seam.</p>	301	LSq-2(b)	12- 16	50/3	50/3
		301	LSq-2(a)	12- 16	50/3	50/3
17.	<p><u>Attach side pockets.</u></p> <p><u>Finished appearance:</u> The edges of the pocket openings shall finish smooth, flat, and without distortion. Pocket openings shall be of a uniform appearance. The bottom front corners of the pockets shall be backstitched. Care shall be taken to avoid notching the pockets on the underside beyond the width of the side seam outlet.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
17.	<p><u>Attach side pockets.</u> (cont'd.)</p> <p>a. Position the outside of the fronts on the facing of the side pocket in accordance with the notches for the pocket openings as indicated by marks on the pattern.</p> <p>b. Seam front, facing and pocket material together from notch to notch 3/8 inch from the edge of the front.</p> <p>c. Cut the depth of the notches for the pocket opening to the seam. Raise-stitch the joining seam on the pocket facing and pocket 1/16 inch from seam, catching all plies of the seam.</p> <p>d. Turn the pocket to the inside of the front so that the seam will finish on the inside of the pocket 1/8 inch back from the finished edge of the pocket opening.</p> <p>e. Top-stitch the front from notch to notch, through all plies of the material, 1/4 inch from the finished edge of the pocket opening.</p>	301	SSe-2(a)	12-16	0	0
		301	LSq-2(b)	12-16	50/3	50/3
		301	SSe-2(b) (shows finished seam)	12-16	0	0

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
17.	<p><u>Attach side pockets.</u> (cont'd.)</p> <p>f. Fold pocket inside out and seam the raw edges from step to folded edge of the pocketing 3/16 to 1/4 inch from edge. Notch pockets and bearers at top of step and turn.</p> <p>g. Tack the ends of the pocket opening to the facing with a 1/4 to 3/8 inch tack. The right and left pocket openings shall not be out of alignment by more than 1/2 inch.</p> <p>h. In the finished trousers, the top of the pocket shall extend into the waistband and be caught in the bottom stitching of the waistband.</p> <p>i. The finished pocket opening (after bartacking) shall measure 5-3/4 to 6-1/2 inches.</p>	301	SSae-2(a) or SSae-2(b)	12- 16	50/3	50/3
		401	SSae-2(b)	12- 16	50/3 or 50/3	50/3 or 70/2
		301	SSa-1 (each end)	12- 16	50/3 or 0	50/3 or 0

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
18.	<p><u>Join outseams.</u></p> <p><u>Finished appearance:</u> Outseams shall be carefully joined with notches matching, and shall be without twists, puckers or pleats. The seams shall start and finish evenly, and shall lie smooth and flat.</p> <p>a. Join the outseam with a 3/8 inch seam, matching the notches as indicated by marks on the patterns, joining the back pocket bearer to the front at the side seam and catching the side pocket stay with its bottom end turned (if not previously caught in the overedge operation) (see operation 4.b.).</p> <p>b. Spread open the outseams from the top edge of the trousers to the bottom and press smooth and flat with a heated pressing machine with the pocket stay folded and pressed flat over the open seam.</p>	301 or 401	SSa-1 SSa-1	12- 16 12- 16	30/3 30/3	30/3 30/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
19.	<p><u>Finish side pockets.</u></p> <p>a. Turn under the back edge of the side pocket and position in line with the folded edge of the stay piece and stitch pocket to stay piece 1/4 to 3/8 inch from edge along the side seam allowance. Continue stitching along the side seamed edge of the pocket to the folded edge of the pocket and securely backstitch end of stitching.</p>				
20.	<p><u>Attach waistband and set belt loops.</u></p> <p><u>Finished appearance:</u> The finished waistband shall measure 1-3/4 ± 1/8 inches wide. There shall be seven loops for sizes up to and including 37, and eight loops for sizes 38 and up. The loops shall be positioned as follows:</p> <p>One loop on each front as indicated by the mark on the pattern.</p> <p>One on each side, aligned with the outseam at the back.</p>	301 and 301	SSc-1 SSe-2(b)	12- 16 12- 16	50/3 50/3 50/3 50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
20.	<p><u>Attach waistband and set belt loops.</u> (cont'd.)</p> <p>One centered between outseam and seat seam as indicated by the mark on the patterns.</p> <p>One on the seat seam (see operations 32.c. and d.).</p> <p>The extra loop for size 38 and up on the right front in accordance with the mark on the pattern.</p> <p>a. The waistband shall be made of one ply of basic material. Stitch right and left waistbands to trousers with a 3/8-inch seam, catching the ends of the belt loops (except the center back loop, see operation 32.c. and d.).</p> <p>b. Spread open waistband seam and press smooth and flat with a heated iron or pressing machine.</p> <p>NOTE: The waistband lining may be attached to the waistband (operation 12) prior to setting the trousers.</p>	301 or 401	SSa-1	12- 16	50/3 50/3

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
21.	<p><u>Join lining to waistband.</u></p> <p>a. Turn back right fly lining and stitch top end to front and top edges of the waistband.</p> <p>b. Turn back the end of the left waistband in line with the joining seam of the left fly front and stitch across the top edge of the waistband the width of the fly.</p> <p>c. Insert top edge of waistband between lining and buckram waistband interlining with edge of lining turned in, and join all plies with a row of imitation hand felled stitches.</p> <p>d. The left end of the waistband lining shall finish at the front edge of the trousers, with the end of the waistband lining trimmed slightly back from the front edge of an angle. The right end of the waistband lining shall extend approximately 1 inch under the fly lining in the finished trousers.</p>	<p>301</p> <p>301</p> <p>304 or</p> <p>404 or</p> <p>Hand</p>	<p>SSe-2(a) (each edge)</p> <p>SSa-1</p> <p>-----</p> <p>-----</p> <p>-----</p>	<p>12- 16</p> <p>12- 16</p> <p>12- 16</p> <p>12- 16</p> <p>12- 16</p>	<p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p> <p>50/3</p>	<p>50/3</p> <p>50/3</p> <p>50/3</p> <p>70/2</p> <p>----</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
22.	<p><u>Press waistband.</u></p> <p>a. Turn out front end of the left and right waistband, forcing out the corners. Turn the waistband lining to the inside and press along the top edge of the, waistband. Trouser's waistband lining shall not be exposed beyond the top edge of the waistband.</p>				
23.	<p><u>Attach hooks and eyes.</u></p> <p><u>Finished appearance:</u> In the finished trousers, when the hook and eye is engaged, the closure shall not bulge, pucker or twist.</p> <p>a. Position the hook at the center (1/4 inch off-center tolerance) of the left waistband with the rolled edge of the hook aligned with the slide fastener scoops. Attach the hook to the left waistband through a suitable reinforcement.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
23.	<p><u>Attach hooks and eyes.</u> (cont'd.)</p> <p>b. Position the eye at the center of the right waistband aligned with the slide fastener scoops and corresponding with hook and left waistband. Attach the eye to the right waistband through a suitable reinforcement.</p>				
24.	<p><u>Stitch pockets to lower edge of waistband.</u></p> <p>a. Stitch top end of all pockets to waistband seam allowance with pockets properly positioned and smoothed out.</p>	301 or 101	SSa-1	12- 16	50/3 50/3
25.	<p><u>Finish right and left fly.</u></p> <p><u>Finished appearance:</u> The top corners of the right and left flies shall be completely forced out, and shall not be bulky. The stitching of the left fly shall be uniformly stitched from the edge of the fly. The seam joining the left fly to the front shall not be exposed on the outside. The flies shall be smooth and flat without twists, puckers or excessive fullness.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
25.	<p><u>Finish right and left fly.</u> (cont'd.)</p> <p>a. Stitch down the left fly with the waistband lining smoothly inserted between the fly and trouser. The stitching shall be $1-3/8 \pm 1/8$ inches from the front edge of the fly, extend from the top of the waistband, and curve to the fly notch.</p> <p>b. Continue the stitching of the right fly lining to the top of the waistband.</p> <p>c. Turn the right fly lining to the inside and stitch $1/16$ to $1/8$ inch from the front edge. Continue the stitching along the front end of the waistband, across the top of the waistband, and down to meet the back of the right fly.</p> <p>d. Turn under the raw edge of the fly lining and raise stitch the fly joining seam, catching the turned-under portion of the lining and slide fastener tape in the stitching.</p>	301	SSa-1	12- 16	50/3	50/3
		301 or	SSe-2(a)	12- 16	50/3	50/3
		401	SSe-2(a)	12- 16	50/3	50/3
		301	SSc-2(b) (shows finished seam)	12- 16	0	0
		301	LSq-2(b)	12- 16	0	0

MIL-T-20452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
25.	<p><u>Finish right and left fly.</u> (cont'd.)</p> <p>e. Alternate extended waistband lining: Turn right fly lining to the inside and stitch 1/16 to 1/8 inch from front edge. Continue to stitch down front end of waistband, across the top of the waistband and down to meet the back of the right fly. Turn in raw edge of the fly lining and raise-stitch the fly joining seam catching the fly lining in the stitching.</p>					
26.	<p><u>Join inseam.</u></p> <p><u>Finished appearance:</u> Inseams shall be carefully joined with notches matching, and shall be without twists or puckers. The seams shall start and finish evenly, and shall be smooth and flat.</p> <p>a. Join the inseam from the bottom edge of the legs to the crotch with the notches matching as indicated by marks on the pattern, forming an outlet, tapering the seam allowance of the back from 7/8 inch at</p>	301	SSbd-1 (above knee notch)	12- 16	30/3	30/3
		301	SSa-1 (below knee notch)	12- 16	30/3	30/3
		or				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
26.	<p><u>Join inseam.</u> (cont'd.)</p> <p>the crotch to 3/8 inch at the knee notch.</p> <p>b. Spread open inseam and press smooth and flat with a heated pressing iron or pressing machine.</p>	401	SSbd-1 (above knee notch)	12- 16	30/3 50/3
27.	<p><u>Join crotch and seat seam.</u></p> <p><u>Finished appearance:</u> The crotch and seat seams shall be joined with a stitch tension of sufficient elasticity to meet the strain of sitting and stooping. The waist shall be measured before joining the crotch and seat seam to ensure correct waist size. In the finished trousers, the inseams shall meet, and right and left waistband joining seams shall be aligned. The base of the right fly shall cover the left fly on the outside.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
27.	<p><u>Join crotch and seat seam.</u> (cont'd.)</p> <p>a. Measure the waist to the proper size before joining the crotch, seat and waist seam.</p> <p>b. Join the crotch and seat seams from the base of the fly through the curve in the crotch with a 1/4 inch seam, then taper to the end of the waistband lining with a double needle seat seamer with the rows of stitching 1/64 to 1/32 inch apart. The seams from the waistband joining seam to the end of the waistband lining shall be perpendicular (90 degree angle) to the waistband joining seam.</p> <p>c. Spread open the crotch and seat seams and press smooth and flat with a heated pressing iron or machine.</p> <p>d. The inseam at the crotch shall not stagger more than 3/8 inch.</p>	<p>401</p> <p>or</p> <p>401</p>	<p>SSa-2</p> <p>SSc-2</p>	<p>8- 10 each ndl</p> <p>8- 10 each ndl</p>	<p>30/3 50/3</p> <p>AA A Polyester (for both)</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
28.	<p><u>Finish waistband.</u></p> <p>a. Top-stitch the spread open waistband seam 1/16 inch below the joining seam, catching the waistband lining (with ends of the center back folded in) and the top pockets in the stitching. The stitching shall not extend across the fly.</p>	301	LSbd-2 (shows finished seam)	12- 16	50/3 50/3
29.	<p><u>Assemble fasteners.</u></p> <p>a. Attach slider, and with the ends of the slide fastener chain even, securely staple the bottom end of the chain together.</p>				
30.	<p><u>Press seams (with heated pressing iron or pressing machine.</u></p> <p><u>Finished appearance:</u> The seams shall finish smooth and flat without pleats, puckers or twists.</p> <p>a. Spread open the seat and crotch seams from the top of the waistband to fly notch and press smooth and flat.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
31.	<p><u>Stitch right fly extension.</u></p> <p><u>Finished appearance:</u> In the finished trousers, the right fly lining extension shall finish not less than 1/2 inch beyond the juncture point of the right and left inseam.</p> <p>a. Turn the raw edges and end of the right fly lining extension and machine-stitch or hand-fell to each side of the open crotch seat seam, catching the turned-under end in the stitching.</p>	301 or Hand	SSac-3(b) SSac-3(c) SSac-3(d) SSac-3(b) SSac-3(c) SSac-3(d)	12- 16 6- 8	50/3 50/3	50/3 ----
32.	<p><u>Finish belt loop attachments.</u></p> <p><u>Finished appearance:</u> All belt loop openings shall measure $2 \pm 1/8$ inches from bartacking of loop to folded edge. The tacking shall extend the width of the loops, but not beyond. All loops shall be vertically straight. The center back loop shall be centered on the waistband and seat seams.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
32.	<p><u>Finish belt loop attachments.</u> (cont'd.)</p> <p>a. Position the belt loops flat against the trousers with the underside of loops facing up. Securely stitch or bartack loops to trousers 1/4 to 5/16 inch below the waistband trouser seam. The tacking shall not be visible in the finished trousers.</p> <p>b. Turn under the top end of the loops and align the folded top end of the loops with the top edge of the waistband. Securely stitch or bartack the belt loops 1/8 inch below the top folded end of the loops at top of the waistband with the turned-under portion caught in the stitching. The stitching or bartack shall extend the width of the loops.</p>	<p>301 or brtck</p> <p>or</p> <p>Auto- matic loop tack- er</p> <p>301 or brtck</p> <p>or</p> <p>Auto- matic loop tack- er</p>	<p>SSa-1</p> <p>-----</p> <p>-----</p> <p>LSd-1</p> <p>-----</p>	<p>12- 16</p> <p>21- 28 per bar- tack</p> <p>24- 28 per bar- tack</p> <p>12- 16</p> <p>21- 28 per bar- tack</p> <p>24- 28 per bar- tack</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p> <p>0</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
32.	<p><u>Finish belt loop attachments.</u> (cont'd.)</p> <p>c. Position the back loop over the seat seam, with the right side of the loop against the trousers, and with one end of the loop positioned 5/8 to 3/4 inch from the top end of the waistband. Stitch or bartack across the loop 1/8 to 3/16 inch from the raw end of the loop.</p> <p>d. Fold the loop back even with the top edge of the waistband. Turn under the bottom raw end and stitch or bartack to trousers 1/4 to 5/16 inch below the waistband seam.</p> <p>- or -</p> <p>The top of the belt loops shall be positioned on the top of the waistband so that the folded edge of the belt loop after bartacking is even with the top edge of the waistband. Securely tack or bartack the belt loop, then fold the belt loop down toward the bottom of the waistband, folding the end of the loop up.</p>	<p>301</p> <p>or</p> <p>brtck</p> <p>301</p> <p>or</p> <p>brtck</p>	<p>LSq-2(a)</p> <p>-----</p> <p>LSd-1</p> <p>-----</p>	<p>12-16</p> <p>21-28 per bar- tack</p> <p>12-16</p> <p>28-32 per bar- tack</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p>	<p>0</p> <p>0</p> <p>0</p> <p>0</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
32.	<p><u>Finish belt loop attachments.</u> (cont'd.)</p> <p>Securely bartack the belt loop at the folded edge 1/4 to 5/16 inch from the bottom edge of the waistband. The tack or bartack shall be across the belt loop. On the finished belt loop, only the bottom tack or bartack shall be visible.</p>				
33.	<p><u>Bartack trousers.</u></p> <p><u>Finished appearance:</u> The trousers shall not be distorted by the bartacks. The pockets shall lie smooth and flat. The bartacks shall be properly positioned and correctly placed to reinforce the points of strain as specified.</p> <p>a. Bartack both ends of all the pocket openings. Bartacks for the back pockets shall be vertical. Bartacks for the side pockets shall be horizontal.</p>	brtck	-----	21- 28 per bar- tack	0 0

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
33.	<p><u>Bartack trousers.</u> (cont'd.)</p> <p>b. Bartack the bottom end of the fly horizontally through all plies above the juncture of the crotch seam and fly. The bartack shall not extend beyond the crotch seam.</p> <p>c. Bartack the inside front edge of the right fly to the back of the left fly with a vertical bartack, with the lower end of the bartack approximately 1/2 inch above the horizontal bartack at the base of the fly.</p> <p>d. Bartacks shall be made 3/8 to 1/2 inch long, and shall be stitched through all plies of the material at the point of the bartacking.</p>	brtck	-----	21- .28 per bar- tack	0	0
		brtck	-----	21- 28 per bar- tack	0	0
34.	<p><u>Mark, or gage, and sew buttons.</u></p> <p><u>Finished appearance:</u> The buttons shall be securely sewn and properly aligned with the buttonholes. Hand-sewn buttons shall be shank wrapped three times, and the thread shall be securely tacked with not less than two stitches.</p>					

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
34.	<p><u>Mark, or gage, and sew buttons.</u> (cont'd.)</p> <p>Machine-sewn buttons which are automatically shanked shall have a minimum of 10 wraps with 3 locking stitches. Shank wrapping is optional on machine-sewn buttons.</p> <p>a. Sew a 22-line button on each hip pocket through the top ply of the pocketing to correspond with the buttonhole in the pocket flap.</p>	<p>301</p> <p>or</p> <p>101</p> <p>or</p> <p>Hand</p>	<p>-----</p> <p>-----</p> <p>-----</p>	<p>14- 16 per but- ton</p> <p>14- 16 per but- ton</p> <p>4 dou- ble per but- ton not in- clu- ding sha- nk wrap- ping</p>	<p>20/4</p> <p>20/4</p> <p>20/4</p> <p>16/4</p>	<p>20/4</p> <p>----</p> <p>0</p>

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR	
34.	<u>Mark, or gage, and sew buttons.</u> (cont'd.) b. Sew a 22-line button on the left waistband lining to correspond with the right fly buttonhole. The stitching shall not be visible on the outside of the trousers.	301 or 101 or Hand	----- ----- -----	14- 16 per but- ton 14- 16 per but- ton 4 dou- ble not in- clu- ding sha- nk wrap ping 7 min 1 deep set per but- ton	20/4 20/4 16/4 50/3	20/4 --- ---

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
35.	<p><u>Press trousers.</u></p> <p><u>Finished appearance:</u> All pressing shall be done with a heated pressing iron or pressing machine of a type suitable to obtain the desired appearance in accordance with good manufacturing practice.</p> <p>a. Press the top, flies and pockets smooth and flat.</p> <p>b. Press smooth and crease the legs in the center with the seams matching at the bottom and in the crotch or the inseam in the crotch may be slightly back of the outseam.</p> <p>c. Close flies, waistband and pockets.</p>				
36.	<p><u>Finish trouser bottom.</u></p> <p>a. Overedge stitch or pink all trouser bottoms.</p>				
37.	<p><u>Clean trousers.</u></p> <p>a. Trim all ends of stitching and remove all loose threads, spots, stains and shade tickets or markings without injury to the material.</p>				

MIL-T-29452A

TABLE I - TABLE OF OPERATIONS (cont'd.)

NO.	OPERATION	STCH TYPE	SEAM/ STCH TYPE	STCH IN	THREAD NDL BOB/ LPR
37.	<p><u>Clean trousers.</u> (cont'd.)</p> <p>b. Trim ends of belt loops to a length of not more than 1/8 inch.</p> <p><u>NOTE:</u> The bar-coded label/tag shall be located so that it is completely visible on the item.</p>				

MIL-T-29452A

3.8 Measurements. The finished trousers shall conform to the measurements shown in Table II.

TABLE II - Measurements In inches 1/

Size	Waist <u>2/</u>	Seat <u>3/</u>	Knee <u>4/</u>		Bottom <u>5/</u>	
			Short X-Short	Regular, Long, X-Long	Short X-Short	Regular, Long, X-Long
26	26	35	18-1/2	19	17-1/2	18
27	27	36	18-1/2	19	17-1/2	18
28	28	37	19	19-1/2	18	18-1/2
29	29	38	19	19-1/2	18	18-1/2
30	30	39	19-1/2	20	18-1/2	19
31	31	40	19-1/2	20	18-1/2	19
32	32	41	20	20-1/2	19	19-1/2
33	33	42	20	20-1/2	19	19-1/2
34	34	43	20-1/2	21	19-1/2	20
35	35	44	20-1/2	21	19-1/2	20
36	36	45	20-1/2	21	19-1/2	20
37	37	46	20-1/2	21	19-1/2	20
38	38	47	21	21-1/2	20	20-1/2
39	39	48	21	21-1/2	20	20-1/2
40	40	49	21	21-1/2	20	20-1/2
41	41	50	21	21-1/2	20	20-1/2
42	42	51	21-1/2	22	20-1/2	21
43	43	52	21-1/2	22	20-1/2	21
44	44	53	21-1/2	22	20-1/2	21
45	45	54	21-1/2	22	20-1/2	21
46	46	55	22	22-1/2	21	21-1/2
Tol- er- ance	+ 3/4 - 1/2	+ 3/4 - 1/2	± 1/2	± 1/2	± 1/2	± 1/2

Inseams: 6/
 X-Short 32 inches ± 1/2
 Short 34 inches ± 1/2
 Regular 36 inches ± 1/2
 Long 38 inches ± 1/2
 X-Long 40 inches ± 1/2

NOTE: Measurements for waist and seat shall be taken with the waistband and fly closed and with the trousers laid out smooth and flat.

MIL-T-29452A

- 1/ Measurements in inches.
- 2/ Twice the measurement taken across the top edge of the waistband from folded edge to folded edge.
- 3/ Twice the measurement across the trousers, 1 inch above fly bartack, from folded edge to folded edge.
- 4/ The location of knee measurements shall be 12-1/2 inches below the crotch seam for X-shorts, 13-1/2 inches for shorts, 14-1/2 inches for regulars, 15-1/2 inches for longs and 16-1/2 inches for X-longs.
- 5/ Measure along (unhemmed) bottom edge of leg from folded edge to folded edge.
- 6/ Measure along inseam from the crotch seam to unhemmed bottom edge. (An allowance of 3 inches for hems is included in the inseam length.)

3.9 Workmanship. The finished trousers shall conform to the quality and grade of product established by this specification. The occurrence of defects shall not exceed the applicable point value or defect limit.

4. QUALITY ASSURANCE PROVISIONS

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

MIL-T-29452A

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 4.4).
2. Quality conformance inspection (see 4.5).

4.3 Inspection conditions. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in MIL-STD-1488.

4.4 First article inspection. When the first article is required, inspection shall be made of completely fabricated trousers for all provisions of the specification.

4.5 Quality conformance inspection. Sampling for inspection shall be performed in accordance with MIL-STD-1488.

4.5.1 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. The contractor shall furnish a certificate of compliance stating that the hooks and eyes are one of the specified types, or, if an "equal" type is used, that it conforms in all respects to that approved by the contracting officer as required in 3.3.6. In addition, the requirement that all components of the slide fastener have been furnished by one supplier shall be accepted on a certificate of compliance (3.3.5).

4.5.2 Examination of the end item. Samplings and examination of the end item shall be performed for dress (D) trousers in accordance with MIL-STD-1488. In addition, the bar-coded label/tag shall be examined for the following defects:

Bar code label:

Missing, or not readable by scanner
 HRI (Human-readable interpretation)
 omitted or illegible
 Not visible on folded, packaged item
 Causes damage to the item

4.5.3 Dimensional examination. The dimensional examination provisions for the finished trousers shall be as listed in 3.7 and as specified in MIL-STD-1488.

MIL-T-29452A

4.5.4 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.

<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.

4.5.4 Palletization examination. An examination shall be made to determine that 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.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirements.

MIL-T-29452A

<u>Examine</u>	<u>Defect</u>
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 Packaging. Packaging shall be level A or commercial as specified (see 6.2).

5.1.1 Level A. Each pair of trousers shall be folded so that the length dimension is approximately 23 inches.

5.1.2 Commercial. Trousers shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The package and the quantity per package shall be the same as those normally used by the contractor for retail distribution.

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

5.2.1 Level A packing. Thirty-five pair of trousers of one size and class only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container, assembled, closed, and reinforced conforming to class weather-resistant, variety DW, grade V15c of MIL-B-17757. Level A folded trousers shall be packed flat and alternated end to end within a shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to type I, grade B of UU-P-268. Not less than 8 ounces of naphthalene flakes shall be uniformly distributed throughout the entire contents of each shipping container, except where trousers are made from cloth pretreated with a moth repellent.

MIL-T-29452A**5.2.2 Level B packing**

5.2.2.1 Method 1. Thirty-five pair of trousers of one size and class only, packaged as specified in 5.1, shall be packed in a fiberboard shipping container, assembled, closed, and reinforced conforming to class domestic, grade 275, size 3A of MIL-B-17757. Level B folded trousers shall be packed flat, alternated end to end, within a shipping container. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to type I, grade B of UU-P-268. Not less than 8 ounces of naphthalene flakes shall be uniformly distributed throughout the entire contents of each shipping container, except where trousers are made from cloth pretreated with a moth repellent.

5.2.2.2 Method 2. When specified (see 6.2), the fiberboard shipping container shall be type CF or SF, variety SW and grade V3c, V3s or V4s in accordance with MIL-B-17757, and shall be closed in accordance with the appendix of the box specification.

5.2.3 Commercial. Trousers, packaged as specified in 5.1, shall be packed in a manner to ensure 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 Manual, Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

5.2.4 Palletization. When specified (see 6.2), trousers packed as specified shall be palletized on a 4-way entry pallet in accordance with load type 1a of MIL-STD-147. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.3 Marking. In addition to any special marking required by the contract or purchase order, unit, intermediate packages (when applicable) and shipping containers and palletized unit loads shall be marked in accordance with MIL-STD-129.

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 trousers are intended for wear by male military personnel of the US Marine Corps.

MIL-T-29452A

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number and date of this specification.
- b. 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).
- c. Classes and sizes required (see 1.2.1).
- d. When first article inspection is required, (see 3.2) the item will be tested and should be a first article sample. The contracting officer should include specific instructions in acquisition documents regarding arrangement for examinations, quantity, and testing and approval.
- e. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- f. When palletization is required (see 5.2.4).

6.3 Sample and shade samples. For information regarding the availability of samples of the trousers and of the standard shades specified, address inquiries to the acquiring activity issuing the Invitation for Bids.

6.5 First article. First article examination, test and approval shall be as specified by the contracting officer (see 3.2.)

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

6.7 Subject term (key word) listing.

Men's

Polyester

Trousers

Wool

Custodian:
Navy - MC

Preparing activity:
DLA - CT

Project No. 8405-0224

MIL-T-29452A

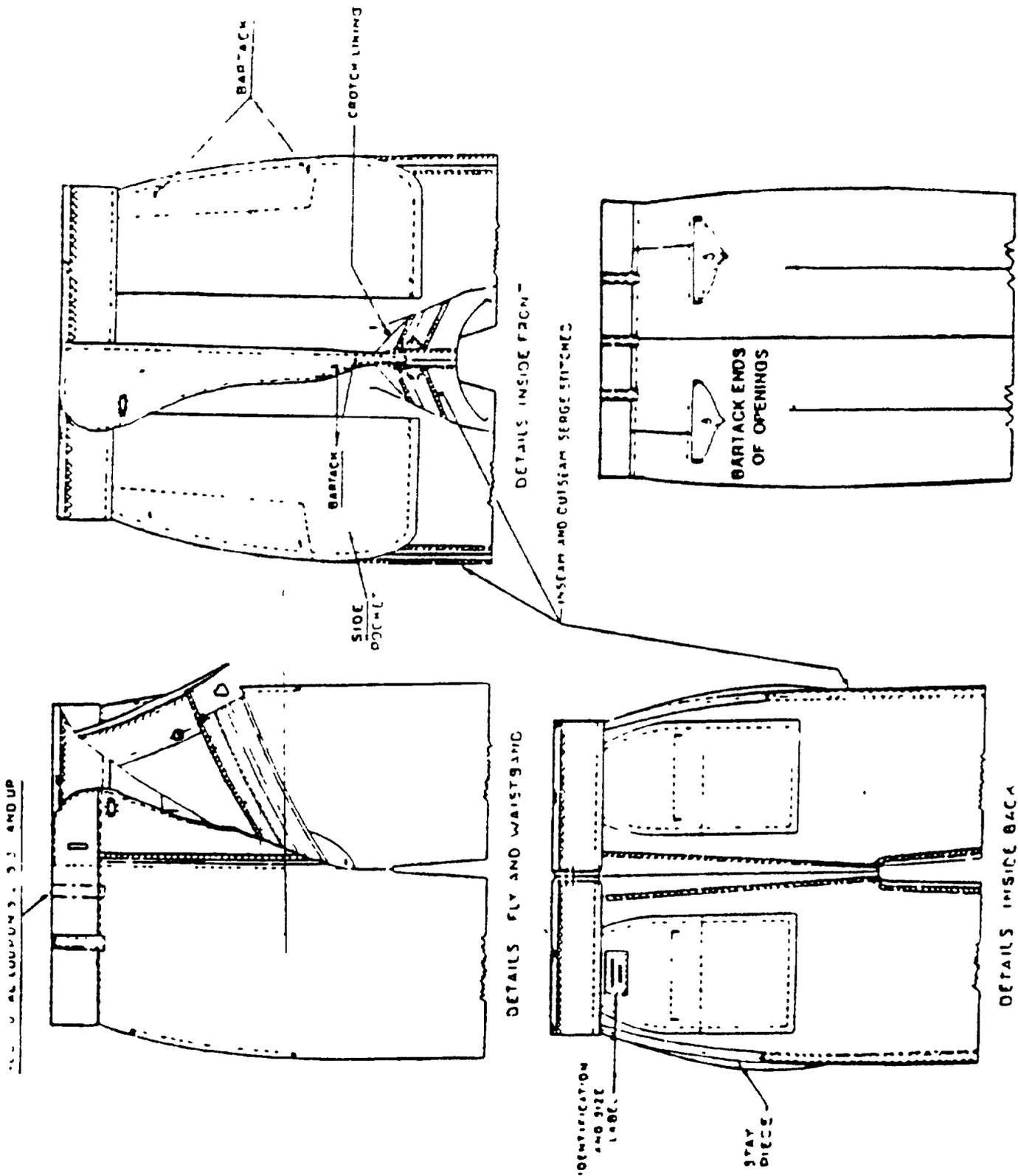


Figure 1 - Trousers, Men's: Wool and Polyester/Wool (inside-outside views)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-T-29452A	2. DOCUMENT DATE (YYMMDD) 94-03-18
3. DOCUMENT TITLE TROUSERS, MEN'S: POLYESTER/WOOL		
4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)		
5. REASON FOR RECOMMENDATION		
6. SUBMITTER		
a. NAME (Last, First, Middle Initial)	b. ORGANIZATION	
c. ADDRESS (Include Zip Code)	d. TELEPHONE (Include Area Code) (1) Commercial (2) AUTOVON (if applicable)	7. DATE SUBMITTED (YYMMDD)
8. PREPARING ACTIVITY		
a. NAME Defense Personnel Support Center ATTN: DPSC-FSSD (12-3-D)	b. TELEPHONE (Include Area Code) (1) Commercial (215) 737-8105	(2) AUTOVON 444-8105
c. ADDRESS (Include Zip Code) 2800 South 20th Street P. O. Box 8419 Philadelphia, Pennsylvania 19101-8419	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340	