

MIL-G-17602D(SA)
9 April 1975
SUPERSEDING
MIL-G-17602D(SA)
3 June 1970

MILITARY SPECIFICATION

GLOVES, LEATHER, BLACK (WOOL LINED)

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 one type of men's leather gloves, with a knitted wool liner.

1.2 Classification.- The gloves shall be procured in the following sizes as specified (see 6.2):

Small (8)	X-Large (11)
Medium (9)	XX-Large (12)
Large (10)	

2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

R-N-91 - Naphthalene, Technical
V-T-276 - Thread, Cotton
V-T-295 - Thread, Nylon
KK-L-254 - Leather, Sheepskin, Chrome Tanned
DDD-L-20 - Label; For Clothing, Equipage, and Tentage (General Use)

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MIL-B-17757 - Boxes, Fiberboard, Corrugated (Modular Sizes)

STANDARDS

FEDERAL

FED-STD-191 - Textile Test Methods
FED-STD-595 - Colors
FED-STD-751 - Stitches, Seams, and Stitching

FSC 8440

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- MIL-STD-105 - Sampling Procedures and Tables for Inspection
by Attributes
- MIL-STD-129 - Marking for Shipment and Storage
- MIL-STD-1613 - Provisions for Evaluating Quality of Gloves,
Leather, Dress

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, D. C. 20402.)

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

2.2 Other publications.- The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT
National Motor Freight Classification

(Application for copies shall be addressed to the American Trucking Association, Inc., Tariff Order Section, 1616 P Street, N.W., Washington, D. C. 20036.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT
Uniform Freight Classification

(Application for copies shall be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, Illinois 60606.)

U.S. DEPARTMENT OF AGRICULTURE
Methods of Tests for Grades of Wool

(Application for copies should be addressed to the U.S. Department of Agriculture, Agricultural Marketing Service, Washington, D. C. 20580.)

3. REQUIREMENTS

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

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3.2 First article approval.- The requirement for first article will be as specified by the procuring activity (see 6.2).

3.3 Materials.-

3.3.1 Leather.- The trunks (see 6.4) shall be cut from leather conforming to Type A, class 2, sub-class b, of KK-L-254. The thickness shall be not less than 1-1/2 ounces nor more than 2-1/4 ounces. Folds or wrinkles more than 1/16 inch wide in the flat are not acceptable. The chemical requirements for total ash, chromic oxide, and pH value are not applicable. During the determination of the shrinkage temperature, the water shall not be discolored by the leather.

3.3.1.1 Color.- The leather shall be developed dyed black (see 6.5), and shall approximately match shade number 27038 of FED-STD-595. The color shall be uniform throughout, and shall completely penetrate leather from the grain side through to the flesh side.

3.3.2 Wool liner.- The inside of gloves shall have a proportionately sized liner fabricated of wool, circular knit seamless, with the thumb and finger tips closed with cotton thread as specified in 3.3.3.1 or may be made on any suitable automatic knitting machine. The finished liner shall be of a natural shade or dyed tan, and shall conform to the requirements specified in 3.3.2.1, 3.3.2.1.1, and 3.3.2.2.

3.3.2.1 Wool.- The wool shall be fleece or pulled sheep's wool, or any combination thereof, not lower in grade than 56's U.S. Standard (see 4.3.1.1). The use of reprocessed, reused, or waste wool is prohibited.

3.3.2.1.1 Yarn.- The wool shall be carded and spun into singles or two (2) ply yarns (see 4.3.1).

3.3.2.2 Physical requirements.- The wool liner shall conform to the requirements specified in Table I, when tested as specified in 4.3.1.

Table I - Physical requirements

Characteristic	Requirement	
	Min.	Max.
Weight per dozen pairs (ounces)	16.0	-
Wales per inch	8-1/2	9-1/2
Courses per inch	13	15
Bursting strength (lbs.)	40.0	-

3.3.3 Thread.-

3.3.3.1 Thread, cotton.- The thread for closing the finger tips and thumb of the glove liner when applicable, shall be cotton conforming to type IA1 or IA3; ticket numbers 24 and 60; 3-ply; of V-T-276. The color of the thread shall be either a natural shade or dyed tan, approximating the shade of the liner.

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3.3.2.2 Thread, nylon.-- The thread for seaming and stitching the gloves shall be nylon, conforming to type I or II; class 1 or 2; sizes A and B; 3-ply; or type III; sizes A and B; of V-T-295. The color of the thread shall be black, approximating the shade of the leather.

3.4 Label.-- Each glove shall have a combination identification and size label conforming to type I, class 4, of DDD-L-20; except that the label shall bear the following inscription and shall show fastness to dry cleaning only:

GLOVES, LEATHER, BLACK (WOOL LINED)
 CONTRACT NO.: DSA-000-000-0000 (Example)
 STOCK NO.: 8440-00-000-0000 (Example)
 LINER: 100% WOOL
 SIZE: Medium (9) (Example)
 NAME OF SUPPLIER:

3.5 Design.-- The gloves shall be a slip-on style five finger type, with a Bolton thumb, fitted fourchettes with built in quirks, and turn over hem around top opening of glove. The gloves shall be fabricated from a leather outer shell and lined with a permanently attached seamless knit wool liner (see Figure 1).

3.5.1 Figure.-- Figure 1 is furnished for information purposes only. To the extent of any inconsistencies between the written specification and the figure, the written specification shall govern.

3.6 Patterns.-- Standard patterns to be used to cut the 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.

3.6.1 Pattern parts.-- The component parts of the gloves shall be cut from the leather as specified in 3.3.1, and in accordance with the pattern parts required for the manufacturing process as follows:

<u>Nomenclature of pattern parts</u>	<u>Cut parts per pair</u>
Shell	2
Thumb	2
Fourchette - Index finger to middle finger	2
Fourchette - Middle finger to third finger	2
Fourchette - Third finger to fourth finger	2

3.7 Construction.--

3.7.1 Stitches, seams, and stitching.-- Stitch, seam, and stitching types specified in Table II 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 may be used. The use of a trimmer attachment on the sewing machine is prohibited.

3.7.2 Stitches per inch.- The minimum and maximum number of stitches per inch shall be as specified in Table II.

3.7.3 Thread breaks and ends of seams.- Ends of all seams and stitching produced with 301 stitch type, when not caught in other seams or stitching, shall be securely tacked or backstitched not less than 3/8 inch. Thread breaks (all stitch types) shall be secured by stitching back of the break not less than 1/2 inch.

3.8 Manufacturing operations requirements.- The gloves shall be manufactured in accordance with operation requirements specified in Table II. The supplier is not required to follow the exact sequence of operations shown, provided the finished gloves are identical to that produced by following the sequence as shown in Table II.

3.8.1 Marking.- The component parts of the gloves shall be marked, ticketed, or banded to insure a uniform shade and size throughout the gloves. Any method may be used except:

- a. Corrosive metal fastening devices.
- b. Sew-on shade tickets.
- c. Adhesive type tickets which show discoloration or the adhesive mass adheres to the material upon removal of the tickets.

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Table II - Construction of gloves

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
1.	<p><u>Cutting</u></p> <p>a. Before cutting, the skins shall be thoroughly examined for defects which may affect the appearance or serviceability of the end item.</p> <p>b. The skins shall be dampened and all the stretch in the lengthwise direction pulled out. The stretched skins shall not be heat set.</p> <p>c. Cut component parts of the glove by the pattern cut method or by the method of premeasuring and adjusting the skins.</p> <p>d. The block or clicker cut method shall not be permitted. Mitering of the top edge of the trunk is permitted, provided an even butt joint is obtained after the hem is turned over.</p>					
2.	<p><u>Replacement of defective components</u></p> <p>During the cutting and manufacturing process, components having material defects or damages that are classified as defects in MIL-STD-1613, shall be removed from production and replaced with non-defective and properly matched components.</p>					
3.	<p><u>Marking</u></p> <p>Mark, ticket, or bundle all component cut parts to insure a uniform shade and size for proper assembly throughout the gloves (see 3.8.1).</p>					

NCTR Form 1, 15 Sep 1967

Table II - Construction of gloves (cont'd)

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
4.	<p><u>Attach fourchettes</u></p> <p>Stitch curved side of each designated fourchette to appropriate fingers on back of each glove flesh side to flesh side, 1/16 inch from the edge with the built in quirks centered at crotch of fingers.</p>	301	SSa-1	10-12	B	A
5.	<p><u>Attach thumb to palm</u></p> <p>The thumb piece shall be inserted into the gorge of the hand on palm side with the fullness evenly distributed, and stitch together flesh side to flesh side 1/16 inch from the edge.</p>	301	SSa-1	10-12	B	A
6.	<p><u>Closing</u></p> <p>Join the back of glove to the palm, and stitch together catching the straight side of fourchettes around the fingers on palm side and along the side of the glove 1/16 inch from the edge.</p>	301	SSa-1	10-12	B	A
7.	<p><u>Attach wool liner</u></p> <p>a. When applicable, the tips of the fingers and thumb shall be closed with cotton thread (see 3.3.3.1), with all thread ends trimmed to not less than 1/2 inch.</p> <p>b. Insert the liner evenly within the shell without any excessive bulkiness around the fingers, thumb, or body of the glove.</p>					

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Table II - Construction of gloves (cont'd)

No.	Description of Operation	Stitch Type	Seam and Stitching Type	Stitches Per Inch	Thread	
					Needle	Bobbin or Looper
8.	<p><u>Hem and attach label</u></p> <p>a. The top edge of shell at glove opening shall be turned in over the liner 3/8 to 1/2 inch, with the label as specified in 3.4 inserted between the shell and liner at center back of each glove.</p> <p>b. Single needle stitch around the top opening 3/16 to 5/16 inch down from the top edge. When finished, the label shall finish face side up with the printed side clearly visible.</p>	301	SSn-1	10-12	B	A
9.	<p><u>Forming</u></p> <p>The gloves shall be dampened, layed off and formed on steam or electrically heated boards, to proper shape and appearance.</p>					
10.	<p><u>Pairing</u></p> <p>The gloves shall be matched, paired, placed palm to palm, and tacked together in the hem approximately 1/2 to 1 inch from the side seam. Tacking shall be done with not less than two stitches, using a suitable ply cotton thread which will permit the gloves to be separated without tearing the leather.</p>					

NCTR Form 1, 15 Sep 1967

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3.9 Measurements.- The measurements of the finished gloves shall conform to the dimensions specified in Table III. All measurements and tolerances are expressed in inches.

Table III - Finished measurements
except where otherwise indicated in MIL-STD-1613.

Measurement	Size				Tolerance
	Small (8)	Medium (9)	Large (10)	Extra Large (11)	
Overall length (A)	9 1/2	10 1/8	10 3/8	10 1/2	3/16
Thumb length (B)	2 3/4	2 7/8	3 1/8	3 1/4	1/8
Width (C)	4 1/4	4 7/8	5 1/8	5 1/4	3/16

NOTE: A, B, and C refer to Figure 1.

- A. Measurement taken from tip of middle finger to top edge of glove opening.
- B. Measurement taken from point of quirk to tip of thumb.
- C. Measurement taken on palm side, 1/4 inch below crotch of middle and third fingers.

3.9.1 Glove stretch. - When measured across the palm, the leather stretch of the finished glove shall be not less than 3/4 inch for large sizes (see 4.4).

3.10 Workmanship. - The finished gloves shall conform to the quality established by this specification. The occurrence of defects shall not exceed the applicable point values specified in MIL-STD-1613.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. - Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to assure supplies and services conform to the prescribed requirements.

4.1.1 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.

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

4.3 Inspection.- Inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated in MIL-STD-1613.

4.3.1 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 purchase document. In addition, testing shall be performed on the knitted liner inserts for the characteristics specified in Table V, and in accordance with the referenced test methods of FED-STD-191 whenever applicable. The lot size shall be expressed in units of one (1) liner each. With the exception of weight per dozen, the sample size shall be as specified in Table IV.

Table IV - Sample size

Lot size (units)	Sample size
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

The sample unit shall be as follows:

For Weight - One dozen (12) pairs of liners of each size in the lot, with a sample size of one (1) regardless of lot size.

All other tests - Two pairs of liners.

The lot shall be unacceptable if one or more sample units fail to meet any of the test requirements specified.

Table V - Liner tests

Characteristic	Requirement paragraph	Test method
Material identification	3.3.2	1/
Knit construction	3.3.2	Visual 2/
Yarn (single or 2-ply)	3.3.2.1.1	Visual 2/
Weight per dozen, pairs	3.3.2.2	3/
Wales per inch	3.3.2.2	5070
Courses per inch	3.3.2.2	5070
Bursting strength	3.3.2.2	5120

1/ Unless otherwise specified, a certificate of compliance shall be submitted and will be acceptable for the stated requirement.

- 2/ One determination per sample and the result reported as "pass" or "fail."
- 3/ The twelve pairs of liners of each sample encompassing the sample unit for testing, shall be allowed to reach equilibrium under standard conditions as defined in FED-STD-191. When under standard conditions, the liners shall be weighed as a unit to the nearest 0.25 ounce. The entire lot of the applicable size shall be rejected if the weight per dozen is below the minimum weight specified.

4.3.1.1 Wool grade.— The wool shall be visually examined for grade in scoured form (prior to picking or carding) by comparison with the applicable U.S. Standard (see 2.2). In the event of a dispute resulting from the above comparison, the wool grade shall be determined by the width method (wedge) approved by the Government. The examination for grade shall be performed on a composite sample of 1 pound for each 10,000 pounds or fraction thereof in the lot. The composite sample shall be selected from not less than 10 percent of the bales or boxes in the lot. The lot shall be unacceptable if the sample does not conform to the requirement of 3.3.2.1.

4.3.2 In-process inspection.— Inspection shall be made at any point or during any phase of the manufacturing process to determine whether operations or assemblies are performed as specified. The Government reserves the right to exclude from consideration for acceptance any material or service in which in-process inspection has indicated non-conformance.

4.3.3 Examination of the end item.— The end item examination of the finished gloves shall be as specified in MIL-STD-1613.

4.3.4 Dimensional examination.— The dimensional examination of the finished gloves shall be as specified in MIL-STD-1613.

4.3.5 Examination of preparation for delivery requirements.— The examination to determine compliance with packaging, packing, and marking requirements shall be as specified in MIL-STD-1613.

4.4 Leather stretch.— The sample selected for dimensional examination in 4.3.4, shall be tested for leather stretch as specified in 3.9.1. The amount of leather stretch shall be determined by first laying the glove flat and smoothing to eliminate any wrinkles and to bring the palm side and back side of the glove together. The actual width measurement shall then be made. The glove shall then be grasped with the thumb and forefinger at the fold line side and the closing seam side at the location where the width dimension was taken. While held in this position, the glove shall be subjected to an outward pull (stretch) to the maximum extent that can be exerted by hand pressure without damaging the glove. The stretched glove shall then be measured across the palm side. The amount of stretch on the palm side shall be the required amount beyond the actual width measurement. When a measurement deviates from the required stretch, the glove shall be penalized one point. The lot shall be unacceptable if the total point value resulting from this examination exceeds one point.

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5. PREPARATION FOR DELIVERY

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

5.1.1 Level A.- Ten pairs of gloves of one size only, shall be neatly stacked in a bundle with every other pair reversed fingertip to cuff. Each bundle shall be bound around the center with any suitable commercial grade kraft paper. The ends of the paper wrapper shall be either pinned, pasted, or secured with gummed paper tape (1-inch minimum width).

5.1.2 Level C (Commercial packaging).- Gloves shall be packaged to afford adequate protection against physical damage during shipment from the supplier to the first receiving activity. The package and the quantity per package shall be the same as that normally used by the supplier for retail distribution.

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

5.2.1 Level A.- Thirty (30) pairs of gloves, of one size only, packaged as specified in 5.1.1, shall be packed in a fiberboard shipping container assembled, closed, and reinforced conforming to type SF, class weather-resistant, grade V2s, size 1A, of MIL-B-17757. Level A packages shall be packed flat, three in length, one in width, and one in depth within the shipping container. Two ounces of flaked naphthalene conforming to class B of R-N-91 shall be evenly distributed throughout the pack. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper, of any suitable commercial grade. Toward the end of the contract or order, or when there is less than the required amount per container of the same size, mixed sizes may be packed within the same shipping container.

5.2.2 Level B.- Thirty (30) pairs of gloves, of one size only, packaged as specified in 5.1.1, shall be packed in a fiberboard shipping container assembled, closed, and reinforced conforming to type CF, class domestic, variety SW, grade 275, size 1A, of MIL-B-17757. Level A packages shall be packed flat, three in length, one in width, and one in depth within the shipping container. Two ounces of flaked naphthalene conforming to class B of R-N-91 shall be evenly distributed throughout the pack. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper, of any suitable commercial grade. Toward the end of the contract or order, or when there is less than the required amount per container of the same size, mixed sizes may be packed within the same shipping container.

5.2.2.1 When specified (see 6.2), the shipping container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with MIL-B-17757, and closed in accordance with the appendix of the box specification.

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5.2.3 Level C (Commercial packing).- Gloves, 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 deliveries. The quantity per shipping container shall be the same as that normally used by the supplier for retail distribution. Containers shall comply with the U.S. Postal Service Manual, Uniform Freight Classification Rules, or National Motor Freight Classification Rules, as applicable.

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.

5.3.1 Labels, mixed sizes.- Each shipping container packed with mixed sizes shall have securely attached to the end and sides, directly under the printing or stenciling a white paper label 5 by 4 inches with the words "MIXED SIZES" plainly stamped or printed thereon, and under these words shall be legibly stamped or printed the correct quantity of sizes contained therein.

6. NOTES

6.1 Intended use.- The gloves covered by this specification are intended to be worn by male enlisted personnel of the Navy, Coast Guard, and Marine Corps as dress and semi-dress gloves.

6.2 Ordering data.- Procurement documents should specify the following:

- a. Title, number, and date of this specification.
- b. Size required (see 1.2).
- c. Whether first article sample is required (see 3.2).
- d. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- e. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).

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

6.4 Trank leather.- A trank for purpose of this specification is described as the large rectangular leather piece which is used to cut out the glove parts.

6.5 Developed-dyed leather.- A developed-dyed leather is a skin whose color is obtained by the application of a dye, subsequent application of a suitable nitrite, followed by a developer.

Custodian:
Navy - SA

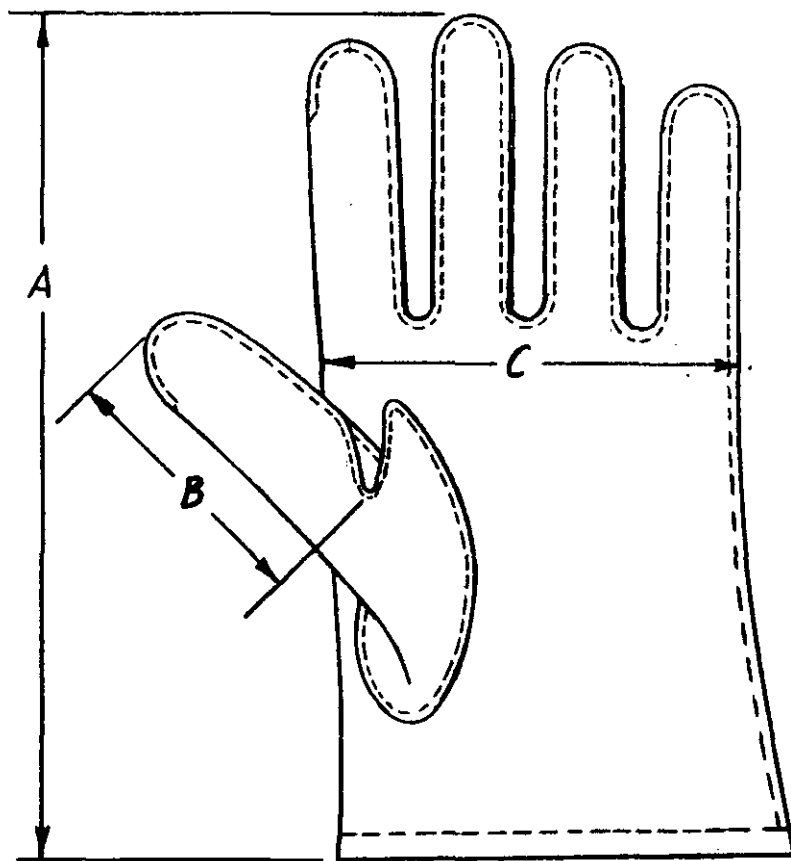
Preparing activity:
Navy - SA

Review activity:
Navy - MC

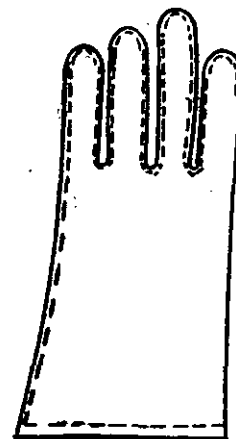
Project No. 8440-N086

User activity:
Navy - CG

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FRONT



BACK

FIGURE 1 - GLOVES, LEATHER, BLACK
(WOOL LINED)

FOLD

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID



Officer in Charge
Navy Clothing & Textile Research Unit
21 Strathmore Road
Attn: Code 50
Natick, MA 01760

FOLD

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL		OMB Approval No. 22-R255
<p>INSTRUCTIONS: The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay, or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers/vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. 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. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.</p>		
DOCUMENT IDENTIFIER AND TITLE		
MIL-G-17602D(SA); Gloves, Leather, Black (Wool Lined)		
NAME OF ORGANIZATION AND ADDRESS		CONTRACT NUMBER
		MATERIAL PROCURED UNDER A
		<input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT
1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?		
A. GIVE PARAGRAPH NUMBER AND WORDING.		
B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES		
2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID		
3. IS THE DOCUMENT RESTRICTIVE?		
<input type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes", in what way?)		
4. REMARKS		
SUBMITTED BY (Printed or typed name and address - Optional)		TELEPHONE NO.
		DATE

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1 JAN 72

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED

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