

FEDERAL SPECIFICATION

FLAG, NATIONAL, UNITED STATES OF AMERICA AND FLAG, UNION JACK

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal Agencies.

1. SCOPE AND CLASSIFICATION.

1.1 Scope. This specification covers requirements for United States of America National Flag and Union Jack.

1.2 Classification.

1.2.1 Materials, styles, headings and sizes. The US National Flag and Union Jack shall be of the following materials, styles, headings and sizes, as specified (see 6.2 and 6.5).

1.2.1.1 Materials:

Cotton Bunting.
Nylon, lightweight bunting.
Nylon, heavyweight bunting.
Nylon and wool bunting.
Rayon banner cloth.

1.2.1.2 Star design application:

Applique (Applicable to indoor and outdoor flags).
Swiss hand loom embroidery (For indoor flags only).
Schiffli embroidered (Applicable to indoor and outdoor flags).

1.2.1.3 Headings. The headings of the US National Flag and Union Jack shall be of the following types and classes, as specified (see 6.2):

Type I-Duck

Class 1-With distance line, ring and snaphook.
Class 2-With grommets.
Class 2a-With grommets (Interment).
Class 3-With distance line and thimbles.
Class 4-With grommets and leather tabs.

Type II-Tube or tunnel type.

Type III-Heading, automobile flag type.

Class 2-With leather tabs (automobile flag).

1.2.1.4 Sizes. Sizes shall be as specified on Figure 1.

2. APPLICABLE DOCUMENTS.

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

Federal Specifications:

V-T-276 -Thread, Cotton.
V-T-285 -Thread, Polyester.
V-T-301 -Thread, Silk.
KK-L-2004-Leather Cattlehide, Deerskin and Horsehide, Chrome Tanned
TT-I-542 -Ink, Marking, Indelible, Laundry, Black.
UU-P-268 -Paper, Kraft, Wrapping.
UU-P-553 -Paper, Wrapping, Tissue.
CCC-C-700 - Cloth, Coated, Vinyl Coated
(Artificial Leather).
CCC-C-419-Cloth, Cotton, Duck, Unbleached, Plied Yarns (Army and Numbered).
CCC-C-430-Cloth, Sheeting, Cotton, and Polyester and Cotton.
CCC-C-439-Cloth, Bunting, Cotton, Mercerized.
CCC-C-476-Cloth, Bunting, Nylon, and Nylon and Wool.
DDD-L-20 -Label; For Clothing, Equipage and Tentage (General Use).
PPP-B-566-Boxes, Folding, Paperboard.
PPP-B-621-Boxes, Wood, Nailed and Lock-corner.
PPP-B-636-Box, Shipping Fiberboard.

Federal Standards:

FED-STD-123 - Marking for Shipment (Civil Agencies).
FED-STD-191 - Textile Test Methods.
FED-STD-751 - Stitches, Seams and Stitchings.

(Activities outside the Federal Government may obtain copies of Federal specifications, standards and Commercial Item Descriptions as outlined under General Information in the Index of Federal specifications, standards and Commercial Item Descriptions. The Index, which includes cumulative bimonthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

(Single copies of this specification, other Federal specifications, standards, and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from the General Services Administration Business Service Centers in Boston; New York; Philadelphia; Washington, DC; Atlanta; Chicago; Kansas City, MO; Fort Worth; Houston; Denver; San Francisco; Los Angeles; and Seattle, WA.

(Federal Government activities may obtain copies of Federal specifications, standards and Commercial Item Descriptions and the Index of Federal specifications and Commercial Item Descriptions from established distribution points in their agencies).

Military Specifications:

MIL-C-606 -Cloth, Rayon, Banner.
 MIL-F-2310 -Fringe, Ornamental, Rayon.
 MIL-C-3636 -Cords and Tassels.
 MIL-H-15021-Hooks, Snap-Bolt, Swivel-Eye and Rings.
 MIL-G-16491-Grommets, Metallic.
 MIL-R-17343-Rope, Nylon.
 MIL-L-40051-Leather, Cattlehide, For Glove, Leather.

Military Standards:

MIL-STD-105-Sampling Procedures and Tables for Inspection by Attributes.
 MIL-STD-129-Marking for Shipment and Storage.

The Institute of Heraldry Drawings:

5-1-17 -Flag, National, USA, 50 Star Union Jack (Figure 1).
 5-1-45A -Flag Heading, Type I, Class 1 (Figure 2).
 5-1-45B -Flag Heading, Type I, Class 2 and Class 2A (Figure 3).
 5-1-45C -Flag Heading, Type I, Class 3 (Figure 4).
 5-1-45D -Flag Heading, Type I, Class 4 (Figure 5).
 5-1-45E -Flag Heading, Type II (Figure 6).
 5-1-45F -Flag Heading, Type III, Class 2 (Figure 7).

(Copies of Military Specifications, Standards and Drawings required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

Laws and Regulations:

Rules and Regulations under the Textile Fiber Products Identification Act. (Copies may be obtained free of charge from the Federal Trade Commissioner, Washington, DC 20580.)

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 issues in effect on date of invitation for bids or request for proposal shall apply.

National Motor Freight Traffic Associations, Inc., Agent:

National Motor Freight Classification.

(Application for copies shall be addressed to the American Trucking Association, Inc., Traffic Department, 1616 P. Street, N. W., Washington, DC 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

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

The Color Association of The United States, Inc:

Standard Color Card of America, 9th Edition

(Application for copies of this color card should be addressed to The Color Association of the United States, Inc., 24 East 38th Street, New York, NY 10016.)

3. REQUIREMENTS.

3.1 First Article. When required (see 6.2), before production is commenced a sample of the finished item shall be submitted to the contracting officer or his authorized representative for inspection as specified in 4.2. The approval of the first article authorizes the commencement of production but does not relieve the contractor of responsibility for compliance with all applicable provisions of this specification. The first article shall be manufactured by the contractor in the same facilities to be used for the production items.

3.1.1 Standard or guide sample for Schiffli star. When specified, (see 6.2), the contracting officer shall furnish a standard or guide sample of a Schiffli star to show design and execution of stitching in coordination with applicable cartoon.

3.2 Material. Materials shall conform to the referenced specifications and to the requirements specified herein.

3.2.1 Basic flag materials.

3.2.1.1 Cotton bunting. The cotton bunting shall conform to CCC-C-439.

3.2.1.2 Nylon, lightweight. The nylon lightweight bunting shall conform to type I, class A of CCC-C-476.

3.2.1.3 Nylon, heavyweight. The nylon heavyweight bunting shall conform to type I, class B of CCC-C-476.

3.2.1.4 Nylon and wool. The nylon and wool bunting shall conform to type II of CCC-C-476.

3.2.1.5 Rayon. The rayon banner cloth shall conform to MIL-C-606.

3.2.2 Duck. The duck used for the heading shall be white or in the gray, shall weigh not less than 8.25 ounce per square yard, have two ply yarn in both warp and filling, and shall have a breaking strength of not less than 105 pounds in the warp and 100 pounds in the filling when tested as specified for type III, 8.25 ounce duck of CCC-C-419.

3.2.3 Cotton Sheeting.

3.2.3.1 Lining. The sheeting used for lining the tube or tunnel of the heading shall conform to type I, class 1, style A of CCC-C-430.

3.2.3.2 Stars for cotton and nylon-wool bunting base material. When sheeting is used for stars (see 3.3.1.1), the sheeting shall be bleached and shall conform to type II, class 2, style B of CCC-C-430, except that a maximum of 10 percent sizing shall be allowed. The weight of all sizing, over and above 1 percent, shall be excluded as any part of the required weight of the finished sheeting.

3.2.3.3 Stars for nylon, lightweight and heavyweight bunting. As specified in paragraph 3.2.3.2 except that back shall be coated with adhesive and be a heat seal nylon type, 3 mil in thickness.

3.2.4 Thread. Unless otherwise specified, the distance lines shall be stitched with soft or glazed cotton thread conforming to type IIIA or IIIB, 16/4 ply of V-T-276, and all cotton duck headings shall be stitched with soft cotton thread conforming to type IA or IB, 50/3 ply of V-T-276.

3.2.4.1 Cotton. The thread used for sewing cotton bunting flags shall be a cotton machine thread conforming to type IA, 50/3 ply soft finish of V-T-276.

3.2.4.2 Polyester. Thread used for sewing all flags, except cotton bunting flags, shall be polyester conforming to type I or II, class 1 of V-T-285. Unless otherwise specified, the thread shall conform to size B, 2 or 3 ply. Stars shall be appliqued using size AA. At the option of the manufacturer, distance lines may be stitched using size E and cotton duck headings may be stitched using size F in lieu of thread specified in 3.2.4.

3.2.4.3 Silk embroidery thread. The Swiss handloom machine embroidery thread shall be silk embroidery thread conforming to type IV of V-T-301, except that the thread shall be 2 or 3 ply, having not less than 625 yards per ounce and a breaking strength of not less than 4 pounds.

3.2.4.4 Color. Except as noted herein, the color of the thread shall match the color of the material on which it is to be used. The colorfastness of the thread shall be equal to or better than the material on which it is used.

- a. Either red or white colored thread shall be used to sew the fly hem.
- b. Either red or blue colored thread shall be used to sew the top union hem.
- c. The seam joining the union with the stripes shall be sewn with red or blue colored thread on the face side and white thread on the reverse side.
- d. Red colored thread shall be used to close type II and type III, headings.
- e. When fringe is required, the thread used to sew on the fringe shall match the color of the fringe on the face side and shall be red on the reverse side.
- f. White thread shall be used to sew the stripes on the interment flags.

3.2.4.5 Schiffli embroidery thread or yarn.

3.2.4.5.1 Rayon. The rayon embroidery thread or yarn shall be a semidull, continuous filament, regenerated cellulose type rayon, two ply Schiffli type. The single yarn shall be 150 denier rayon as specified on applicable cartoon.

3.2.4.5.2 Cotton. The cotton embroidered thread or yarn shall be a two ply, bleached, Schiffli type. The single yarn shall be 30/1 or 40/1 cotton as specified on applicable cartoon.

3.2.5 Distance lines. The distance line shall be 1/4 inch in diameter nylon rope conforming to MIL-R-17343 or 1/4 inch in diameter twisted or solid braided polypropylene rope having a minimum breaking strength of 1,000 pounds.

3.2.5.1 Nylon rope (for type I, class 3 heading only). The nylon plaited rope (shroud line) used through the heading shall have a diameter of 5/16 plus or minus 1/16 inch. The rope shall be of plied filament yarns and shall weigh not less than 1 pound per 40 feet. The breaking strength shall be not less than 2800 pounds.

3.2.6 Grommets. The grommets shall conform to type II, class 1 or type III of MIL-C-16491.

3.2.7 Snaphooks and rings. The snaphooks and rings shall conform to MIL-H-15021. The snaphooks shall be type I, unless otherwise specified (see 6.2).

3.2.8 Thimbles (for type I, class 3 heading only). The thimbles for the distance lines shall be galvanized steel and shall be of the type used for 5/16 inch diameter wire rope, semicircular at the closed ends and tapering at the free ends.

3.2.9 Leather. The leather tabs shall conform to type I, class 2 of KK-L-2004, 3 or 4 ounce or shall conform to type II, class 1, subclass a or b of MIL-L-40051. When natural colored leather is used the crocking requirements shall not apply.

3.2.10 Fringe. When specified (see 6.2), the fringe shall conform to class 2 of MIL-F-2310, except for automobile flags which shall conform to class 1 of MIL-F-2310. The color of the fringe shall be golden yellow HD, Cable No. 67104, (see 2.2).

3.2.11 Cords and tassels. When specified (see 6.2), the cords and tassels shall conform to class 1 of MIL-C-3636.

3.2.12 Marking ink. The marking ink shall be black and meet the colorfastness requirements of TT-I-542.

3.2.13 Artificial leather. When artificial leather is required for making tabs, the leather shall conform to class 4 of CCC-C-700 (see 6.4).

3.3 Design. The design of the US National Flag and Union Jack shall be as shown on drawing 5-1-17. The flag shall consist of 13 horizontal stripes, 7 red and 6 white which shall alternate beginning and ending with red stripe, and the Union Jack. On the face side, each stripe shall overlap the stripe beneath it, forming a shingle effect. The canton or Union Jack shall contain 50 stars arranged in nine rows; five rows of six stars and four rows of five stars which shall alternate beginning and ending with a row of 6 stars. Each star shall have one point upward. Stars shall be symmetrically arranged in horizontal, vertical, and diagonal rows. The warp of the base cloth fabric shall run in the direction of the stripes. A tolerance of plus or minus 5 percent shall be allowed for all dimensions exceeding 4 inches, except that the maximum and minimum measurements of the same dimensions on a single flag may not differ by more than 2 percent of each other and both measurements be within 5 percent tolerance on the minus side or plus side (dimensions involved A, B, C and D). A tolerance of plus or minus 1/4 inch shall be allowed for dimensions from 2 to 4 inches and a tolerance of plus or minus 1/8 inch shall be allowed for dimensions 2 inches or less. Piecing of the Canton or Union Jack is prohibited except for flags with a blue field hoist dimension exceeding 60 inches, in which case only three pieces will be allowed and no piece shall measure less than 32 inches in the hoist dimension.

3.3.1 Star design application. The stars shall be applied by only one of the following methods per procurement, as specified, (see 1.2.1.2 and 6.2).

Applique.

Swiss handloom embroidered (indoor flags only).

Schiffli embroidered (applicable to indoor and outdoor flags).

The stars shall be identically oriented on each side with respect to the heading or staff side of the flag. The face of the flag is the front side when the heading is to the viewer's left.

3.3.1.1 Applique stars. When stars are appliqued, the materials for the stars shall be as listed below. The stars may be sized to aid in sewing provided the sizing agent does not have deleterious effect on appearance or serviceability. The finished stars shall be neatly trimmed.

<u>Flag material</u>	<u>Material for stars</u>
Cotton bunting	Cotton sheeting specified in 3.2.3.2
Nylon, lightweight or heavyweight	Nylon cloth specified in 3.2.1.2 or 3.2.1.3 or cotton sheeting specified in 3.2.3.2 or 3.2.3.3
Nylon and wool bunting	Cotton sheeting specified in 3.2.3.2
Rayon banner cloth	Rayon cloth specified in 3.2.1.5

3.3.1.2 Machine embroidered stars (Swiss handloom). When Swiss handloom embroidered stars are specified (see 6.2), they shall be a split stitch design. Single thread or double thread Swiss handloom embroidery may be used. The stitches shall completely cover the base cloth and the execution of the embroidery shall be clear and distinct.

3.3.1.3 Machine embroidered stars (Schiffli embroidered). When Schiffli embroidered stars are specified, the design and stitch count shall be governed by the applicable cartoon which is a part of this specification (see 6.2). The stars in the Schiffli star fields for all outdoor flags shall be made from cotton yarn specified in 3.2.4.5.2. The stars in the Schiffli star fields for all indoor flags shall be made from rayon yarn specified in 3.2.4.5.1. The stitching of the stars shall cover the base cloth and the execution of the embroidery shall be clear and distinct. The fields shall be embroidered in a horizontal direction. For all Schiffli embroidered star fields the distance between stars in the same horizontal row shall be governed by the applicable Schiffli machine span in lieu of the twice "H" dimensions. The stars in each row shall be centered with each succeeding row. The total accumulated distance between stars using the applicable Schiffli span plus the "G" dimensions shall be used in lieu of dimension "D." The Schiffli embroidered spans to be used are as follows:

Standard Size		Special Size	
No. of line	Span	No. of line	Span
3	28/4	3	28/4
4	20/4	4	20/4
5	16/4	5	12/4*
6	12/4*	6	8/4

See drawing 5-1-17 for flag size and dimensions.

*H" dimension tolerance for those sizes shall be plus or minus 1/4 inch.

3.3.1.3.1 Position of Schiffli embroidered star field. The completed star field shall be placed within the flag in the position indicated in drawing 5-1-17 with the face side or with the cover stitches of the stars showing.

3.4 Color. The colors of the US National Flag are as follows:

Old Glory Red.....	Cable No. 70180
White.....	Cable No. 70001
Old Glory Blue.....	Cable No. 70075

3.4.1 Colorfastness. The colorfastness of the basic cloth of flags shall be in accordance with the requirements of the specification for the applicable material. Rating on an objective basis will be performed only when a standard sample of reference of the exact material is not provided.

3.5 Stitches, seams and stitchings. The stitch and seam types specified herein shall conform to FED-STD-751. The number of stitches shall be as required hereinafter.

3.5.1 Stitch type. The stars, rope and joining of rope to heading shall be stitched with stitch type 304. Seams and stripes of interment flags may be sewn with stitch type 301 or 401 provided the white looper thread in the 401 stitch is always on the white portion of the stripes. In all other flags the seams and stripes shall be stitched with stitch type 301.

3.5.2 Stitches per inch.

3.5.2.1 Seams, hems and reinforcement patches. The seams, hems and reinforcement patches shall be sewn with not less than 12 stitches per inch.

3.5.2.2 Stars. Stars appliqued on cotton flags shall be sewn with a minimum of 24 stitches per inch with a 1/8 inch throw. Stars appliqued on nylon, nylon-wool and acrylic flags shall be sewn with 28 to 32 stitches per inch with a 1/16 to 1/8 inch throw. Stars appliqued on rayon banner flags shall be sewn with a minimum of 58 stitches per inch with a 1/16 inch throw.

3.5.3 Construction and stitching of seams, hems, reinforcement patches and fringe. The ends of all stitching when not caught in other seams or stitching, shall be backstitched for a distance of not less than 1 inch or locked with a 9/16 inch 28-stitch bartack.

3.5.3.1 Joining stripes and horizontal seam between stripes and union. The seam type used for joining the stripes and horizontal seam between the stripes and union shall be LSc-2, except the turned under edges shall extend the full depth of the seam (full double turn under). The stitching gauge of all seams shall be not less than 3/16 inch and not more than 3/8 inch.

3.5.3.2 Stitching of hems at edges. All raw edges shall be hemmed. Except as otherwise indicated herein for fringe flags (see 3.5.3.4), hemming shall be accomplished on the reverse side of the flag. A selvage edge may be used in lieu of hemming at the top or bottom edges of the flag, except that flags manufactured from all nylon shall be hemmed on all edges. Unless otherwise specified, the top and the bottom edges shall be hemmed with stitching type EFb-2 with not

less than a 3/8 inch wide hem having a full turnunder. The fly edge of all flags, except those constructed of rayon banner cloth, shall be hemmed with stitching type Efb-4 with not less than 3/4 inch wide hem having a full turnunder. The stitching gauge shall be not less than 3/16 inch. Flags constructed of rayon banner cloth shall be hemmed with stitching type Efb-2, with not less than a 1/2 inch wide hem having a turnunder of less than 3/8 inch. The stitching gauge shall be not less than 1/4 inch.

3.5.3.3. Reinforcement patches. Reinforcement patches are not required on interment flags or flags with a type II or type III heading or on other flags and pennants having a hoist of 24 inches or less. All other flags shall have reinforcement patches of the same material and color as that of the section to be reinforced, sewn to each corner, at the hoist end, and extending within the heading the same distance as the flag. The reinforcement patches shall be located on the reverse side of the flag. The exposed portion of the reinforcement patch shall be square with sides equal in length to the width of the stripe. When the size of the patch would interfere with the placement of the stars, the size of the patch shall be as near the required size as possible. The reinforcement patches for the Union Jack shall be of sufficient size to accommodate a complete star.

3.5.3.4 Stitching of fringe. When fringe is specified for flags, a continuous length of the fringe conforming to 3.2.10 shall be stitched to the face side of the flag at the top, fly and bottom edges and completely around each end of the heading. The fringe shall be neatly turned at the corners of the flag and the raw ends of the fringe shall be turned under and caught in the flag heading stitching. Selvages may be used unless the edges are not straight or are too tight. When cut edges are used, the top, bottom and fly edges shall be hemmed with an Efb-1 type stitching. When selvedge edges are used, the edge of the flag shall be hemmed with an Efa-1 stitching. The stitching used to attach the fringe to the flag may be incorporated in the formation of the hem. As an alternate, the edge of the flag may be hemmed with an Efa-1 stitching and turned over prior to the attachment of the fringe. The width of the hem shall be not less than 3/32 of an inch or more than 3/16 of an inch. The hems under the fringe shall be on the face side of the flag. The fringe shall be sewn superimposed upon the hem or selvedge edge (as applicable) and evenly attached around the flag with a single row of stitching through the center of the fringe heading using seam type Lsa-1. When fringe is specified for automobile flags it shall be attached with two rows of stitching at the top and bottom edges and three rows of stitching at the fly end.

3.6 Headings. Headings shall be of the following types and classes as specified (see 1.2.1.3 and 6.2).

3.6.1 Type I, duck. Headings fabricated of duck cloth specified in 3.2.2, shall be constructed in accordance with one of the following subparagraphs as specified.

3.6.1.1 Class 1, with distance line, ring and snaphook. The construction and dimensions for type I, class I headings shall be as specified on drawing 5-1-45A.

The heading shall be made by cutting a piece of duck 6 inches wide and 2 inches longer than the hoist of the flag. The edges and both ends of the duck cloth strip shall be turned in 1 inch. The duck cloth shall be doubled over to form a 2 inch wide heading. The hoist end of the flag shall be turned in 3/4 inch making 2 thicknesses and this folded end (which may be stitched) shall then be inserted between the edges of the duck cloth for a distance of 1 inch so that the ends of the inserted flag hoist are not exposed. With the turned-in sides and ends of the duck cloth placed even, the hoist end of the flag and the open side of the heading shall be stitched with 3 rows of equidistant stitching 1/4 to 3/8 inch gauge, (1/8 inch stitching margin). The flag shall have a distance line specified in 3.2.5 running through the heading in accordance with applicable figure for type 1, class 1 headings. The line at the top of the heading shall pass through a ring specified in 3.2.7, doubled back and superimposed upon itself for a distance of not less than 2 inches and sewn with zig-zag stitches through both thicknesses of the line for a minimum distance of 2 inches. The line shall then be drawn into the heading until the ring is approximately flush with the outer edges of the heading. The top of the heading shall then be closed by 2 rows of stitching 1/4 to 1/2 inch gauge, either up to or through the rope. The distance line shall be secured within the heading by zig-zag stitching at the top, center and bottom for a minimum of 2 inches at each location. The lower end of the heading shall then be closed by two rows of stitching in the same manner as the top. The snaphook specified in 3.2.7 shall be attached to the distance line by passing the line through the swivel loop, doubled back and superimposed upon itself for a distance of not less than 2 inches and sewn by a zig-zag stitching for a minimum of 2 inches. Zig-zag stitching at the top and bottom of the line shall pass through both thicknesses of the distance line. Prior to zig-zag stitching, the free end of the distance line shall be fused. The overall length of the extended portion of the distance line and snaphook, measured from the lower edge of the heading, shall be 24 inches. Distance lines for flags having an area of less than 16 square feet shall be 3/4 inch in circumference; distance lines for flags with an area of 16 square feet, or larger, shall be 1 inch in circumference.

3.6.1.2 Class 2, with grommets. The construction and dimensions for type I, class 2, headings shall be as specified on drawing 5-1-45B. The heading shall be made with a piece of duck cloth 6 inches wide and 5 inches longer than the flag hoist to which it is to be attached. Both side edges shall be turned-in 1 inch and both ends turned-in 2-1/2 inches. The hoist end of the flag shall be turned-in 3/4 inch and then inserted 1 inch into the duck cloth strip so that the ends are not exposed. The raw edges of the ends of the duck cloth strip may be closed with two rows of stitching using a 1/8 inch stitching margin. The duck cloth strip shall then be doubled over to form a finished heading 2 inches wide. With the sides and ends of the duck cloth strip even, 2 rows of stitching (not less than 3/16 inch stitching gauge, 1/8 inch stitching margin) shall be sewn through all thicknesses. Single rows of stitching shall be placed along the centerfold edge and ends of the duck cloth strip using a 1/8 to 1/4 inch stitching margin. The duck cloth heading shall be finished by securely clinching 2, No. 2 grommets, specified in 3.2.6, in position shown on drawing 5-1-45B.

3.6.1.3 Class 2a, duck with grommets. The heading shall be made by taking a piece of duck cloth 5 inches wide and 3 inches longer than the hoist to which it is to be attached. The side edges of the duck cloth strip shall be turned-in $3/4$ inch. The hoist end of the flag shall be turned-in a minimum of $3/4$ inch, making two thicknesses, and this end (which may be stitched) shall then be positioned to overlap the folded side edges of the folded duck cloth strip for a minimum of 1 inch, keeping the flag 1- $1/2$ inches from each end of the duck cloth strip. The ends of the duck cloth strip shall be turned-in 1- $1/2$ inches. The duck cloth shall be doubled over to form a heading 1- $3/4$ inches wide. With the sides and ends of the duck cloth even, 2 rows of stitching (not less than $3/16$ inch stitching gauge, $1/8$ inch stitching margin) shall be sewn through all thicknesses at the flag side of the heading. The duck cloth heading shall be finished by securely clinching 2 grommets as specified in 3.2.6, in position as shown for type I, class 2a heading on drawing 5-1-45B. A single or double row of stitching shall be placed along the centerfold edge and ends of the duck cloth strip using a $1/8$ to $1/4$ inch stitching margin.

3.6.1.4 Class 3 with distance line and galvanized steel thimbles. The class 3 heading shall be constructed in accordance with drawing 5-1-45G. The heading shall be fitted with thimbles specified in 3.2.8, so as to provide a loop or eye not less than 1- $1/2$ inches in length.

3.6.1.5 Class 4 with grommets and leather tabs. The construction and dimensions for type I, class 4 headings shall be as specified on drawing 5-1-45D. The heading shall be made of duck cloth specified in 3.2.2 cut 8 inches wide and 5 inches longer than the hoist of the flag. The hoist end of the flag shall be positioned 1 inch in from the side edge of the duck cloth, 2- $1/2$ inches from each end and stitched with 1 row of stitching. The side edge of the duck cloth attached to the flag shall be turned-in 1 inch so that a 1 inch strip of flag material the same length as the hoist shall be folded inside the turned-in duck cloth fold as shown on drawing 5-1-45D. The opposite side edge of the duck cloth shall also be turned-in 1 inch. The ends of the duck cloth strip shall be turned-in 2- $1/2$ inches. The raw edges of the top and bottom duck cloth ends shall be stitched closed with a single row of stitching with a $1/8$ inch stitching margin. A leather tab specified in 3.2.9, $3/4$ plus or minus $1/16$ inch wide and not less than 2 inches long having a slit and eyelet not more than $3/4$ plus or minus $1/16$ inch long for fastening tab over a knob or button of the flagstaff shall be centered and placed flush with each end of the duck cloth headings as shown on drawing 5-1-45D. The slit and eyelet shall be centered on the width of the tab $1/4$ to $5/16$ inch from center of eyelet to the outer end of tab and shall run parallel to the tab length. The tabs shall be secured through the 2 thicknesses of duck cloth by box stitching as shown on drawing 5-1-45D. Stitching shall be securely backstitched. Four No. 2 grommets specified in 3.2.6 shall be clinched into positions as indicated on drawing 5-1-45D. The duck cloth heading shall be doubled over to form a heading width of at least 2- $3/4$ inches. Position the sides and ends of duck cloth evenly, with the grommet holes aligned, and sew 2 rows of stitching not less than $3/16$ inch gauge, $1/8$ inch margin through all thicknesses.

3.6.2 Type II, tube or tunnel type with sheeting and leather tabs. The heading shall be of the tube or tunnel type for the insertion of a flagstaff, and shall be made with cotton sheeting specified in 3.2.3.1. The construction and dimensions for type II headings shall be as specified on drawing 5-1-45E. The sheeting shall be 6 inches wide and 5 inches longer than the hoist of the flag. Each end shall be folded under 2-1/2 inches. The sheeting shall be fitted with a tab of leather specified in 3.2.9 at each end. Each tab shall be 3/4 plus or minus 1/16 inch wide and not less than 2 inches long. Each tab shall have a slit and eyelet 3/4 inch plus or minus 1/16 inch long for fastening over a knob or a button on the flagstaff. The slit and eyelet shall be centered on the width of the tab as shown on drawing 5-1-45E. The tabs shall be placed within the heading and centered opposite the stitching of the hem. The outer end of each tab shall be flush with the end of the heading. The tabs shall be secured through the 2 thicknesses of lining by box stitching as shown on drawing 5-1-45E. As an alternate, the leather tabs may be secured by stitching through both lining and heading material. Stitching shall be securely backstitched. The contractor's label specified in 3.7 shall be affixed at the same time the tabs are placed on the sheeting. The sheeting strip shall be placed on the back of the flag at the hoist end with the folded ends of the strip flush with the hemmed or selvage edges of the flag at top and bottom and attached thereto by a single row of stitching across each folded end of the strip. The raw edge side of the strip shall be placed 1/2 inch from the raw edge of the flag. The tube or tunnel shall then be formed by hemming the hoist end of the flag with the sheeting strip inside. Sheeting may also be seamed separately with a 1/2 inch seam to form a tunnel. Turn under hoist edge of the flag 1/2 inch and insert under folded side edge of sheeting strip. Turn-under shall be stitched with a single row of stitching, (3/16 inch margin), which shall pass through both the turned edge of the flag and both edges of the unseamed or seamed lining strip. The flag width of the finished hem shall be not less than 2-3/4 inches.

3.6.3 Type III, class 2 with leather tabs. The automobile flags (and other flags when required), shall have the hoist end hemmed after insertion of the leather tabs specified for type III, class 2 headings on drawing 5-1-45F. Two rectangular leather tabs 1-3/8 inch long and 5/8 inch wide shall be located and secured within the hem as shown on drawing 5-1-45F.

3.7 Marking. All flags having type I heading shall be marked on the heading in accordance with type IV, class 9 of DDD-L-20, with letters appropriate to the size of the heading but not more than 3/4 inch high. The lettering shall run along the length of the headings beginning immediately below the upper grommet on class 2 headings, and in corresponding position on all other type I headings. Marking shall contain information required by class 5 labels and shall be equal to class 8 labels in colorfastness of printing. For type II headings, the contractor shall affix a label of woven cloth suitable for the purpose, adjacent to the top leather tab. The label shall contain the stock number, nomenclature, contract number and date. When required by Government agencies (see 6.2), the following shall be stamped on the heading of the flag: "US PROPERTY."

3.8 Workmanship. The finished flags shall conform to the quality and grade of product established by this specification. Occurrence of defects shall not exceed the applicable acceptable quality levels.

4. QUALITY ASSURANCE PROVISIONS.

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facility 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 that supplies and services conform to prescribed requirements.

4.2 First article inspection. When a first article is required, inspection shall be made on a completely fabricated flag for all provisions applicable to end product examination and tests.

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

4.3.1 Testing of components. In addition to the quality assurance provisions of the subsidiary specifications and drawings, testing shall be performed on the component listed in table I for the characteristics shown therein. The inspection level shall be S-1 and the AQL shall be 6.5 test failures per 100 units. When the data in the "Determinations per sample unit" and "Results reported as" columns are not specified in the following table, they shall be as required by the applicable test method of FED-STD-191. The sample unit shall be 10 foot of rope.

TABLE I. Testing of component

Component	Characteristic	Requirement paragraph	Test method	Determination per sample unit	Results reported as:
Nylon rope (1 coil)	Length-weight	3.2.5.1	6004	1	Nearest .001 lb. per foot
	Breaking strength	3.2.5.1	4106	-	Nearest 10 lbs.
	Diameter	3.2.5.1	1/16" scale	1	Pass or fail
	Material identification	3.2.5.1	1530	-	-
	Plied filament yarn	3.2.5.1	Visual	1	Pass or fail

4.3.1.1 Certificate of compliance. Components and materials listed below may be accepted on the basis of a contractor's certification of compliance for requirements specified in applicable paragraphs of this specification. The certificate shall be accompanied by actual test, inspection or other verifiable quality data.

Component	Characteristic	Requirement paragraph
Thimbles	Material identification and finish.	3.2.8

4.3.1.2 In-process inspection. Inspection shall be performed at any point or during any phase of the manufacturing process to determine whether operation or assemblies are accomplished as specified. The Government reserves the right to exclude from consideration for acceptance any material for which in-process inspection has indicated nonconformance. In-process inspection shall be conducted to see that accomplishment of the following is in accordance with the specification requirements:

Requirement, operation or assembly	Requirement paragraph
Heading construction.	3.6 thru 3.6.3, as applicable
Machine thread shall be checked at the machine to determine that threads as specified are used.	3.2.4 thru 3.2.4.5.2, as applicable.
Turn-in and turn-under of seams, hems, reinforcement patches and headings.	3.5.3.1 thru 3.6, as applicable.

4.3.1.2.1 Testing of the intermediate product. Testing of the partially fabricated flag shall be performed in accordance with table II for the characteristics shown therein. The sample unit shall be one screen printed star field prior to sewing into the completed flag. The inspection level shall be S-1 and the acceptable quality level (AQL) for each characteristic shall be 6.5 defects per hundred units. All requirements shall be applicable to the sample unit.

TABLE II. Testing of intermediate product

Screen Printed Design for:	Colorfastness to:	Requirement Paragraph	Test Method ^{1/}
Nylon Material	Light	3.4.1	5660
	Crocking	3.4.1	5651
	Water	3.4.1	5630
	Salt Water & Soap	3.4.1	5632

^{1/} Test method in accordance with FED-STD-191.

4.3.2 Inspection of the end item.

4.3.2.1 Visual examination of flags. The defects found during the examination shall be classified in accordance with 4.3.2.1.1 and 4.3.2.1.2. The lots shall

be inspected in accordance with 4.3.2.1.3. The unit of product for these examinations shall be one flag, as applicable.

4.3.2.1.1 Examination of flags for defects in material, design, construction, workmanship and marking. Examination shall be made at a distance of 18 to 40 inches with good illumination.

Table III. Classification of defects.

Examine	Defect	Classification	
		Major	Minor
Quality of cloth:			
Type	Any component not fabricated of specified material.	X	-
Color	Basic colors other than specified.	X	-
	Off shades, seriously affecting appearance.	X	-
Material	Off shade, affecting appearance, but not seriously.	-	X
	Hole, cut, tear, smash or weak place.	X	-
	Spots, stains, streaks or shade bars affecting appearance, seriously.	X	-
	Spots, stains, streaks or shade bars affecting appearance, but not seriously.	-	X
	Two or more contiguous broken or missing ends or picks.	X	-
	Double pick, coarse pick or mispick clearly noticeable.	-	X
	Slub, slough-off, float or skips seriously affecting appearance or serviceability.	X	-
Quality of distance line:	Slub, slough-off, float or skips affecting appearance or serviceability, but not seriously.	-	X
Type	Not fabricated of specified material.	X	-
Braiding	Uneven or loose, resulting in weak place.	X	-
	Any cut.	X	-
	Chafing, fraying or abrasion seriously affecting serviceability.	X	-
	Chafing, fraying or abrasion affecting serviceability, but not seriously.	-	X
Quality of metal components:			
Snap hook and ring	Not fabricated of specified material.	X	-
	Broken, cracked or malformed.	X	-

Table III. Classification of defects.

Examine	Defect	Classification	
		Major	Minor
Grommet or thimble (as applicable)	Broken, cracked or malformed.	X	-
	Contains rough or sharp edges.	-	X
Quality of leather components	Not fabricated of specified leather.	-	X
	Hole (other than required), cut, tear or weak place.	X	-
Quality of fringe and cords and tassels	Material, type, construction, color or color combination not as specified.	X	-
	Frayed edges.	X	-
	Spotted, stained or soiled, affecting appearance, seriously.	X	-
	Spotted, stained or soiled, affecting appearance, but not seriously.	-	X
	Cut or tear.	X	-
	Wood mould not completely covered by braid.	-	X
	Wood mould loosely or unevenly covered.	-	X
Construction and Workmanship: General	Operation omitted or not accomplished as specified.	X	-
	Component is not the required type, class or size.	X	-
	Warp threads of the basic cloth of the flag in other than the fly direction of the flag.	X	-
Seams, stitches and stitchings	Wrong type of seam, stitches or stitching.	X	-
	Wrong color thread.	X	-
	Row of stitches partially or completely missing.	X	-
	Wrong stitching gauge or margin.	-	X
	Seams improperly formed, material caught in unrelated stitching operations.	-	X
	Ends of stitching not backstitched at least 1 inch (when not caught in other seams or stitching).	-	X
	Needle chews.	X	-
	Any raw edge exceeding 1/2 inch in length.	X	-
	Loose stitch tension resulting in a loosely secured seam.	-	X
	Tight stitch tension (stitches break when normal pull is exerted in length-wise direction or seam or stitching).	X	-

Table III. Classification of defects.

Examine	Defect	Classification	
		Major	Minor
Stars (embroidery or appliqued design)	Stitches per inch for seams, hems and reinforcement patches:		
	-four or more stitches less than specified.	X	-
	-one to three stitches less than specified.	-	X
	Stitches per inch for duck cloth headings:		
	-two or more stitches less than specified.	X	-
	-one stitch less than specified.	-	X
	Stitches per inch for appliqueing:		
	-five or more stitches less than specified.	X	-
	-one to four stitches less than specified.	-	X
	NOTE: Variation in the number of stitches per inch caused by the operator speeding up the machine or pulling cloth, such as sewing over heavy places, or in turning corners shall be classified as follows:		
	Major to minors, minors to no defect.		
	Seam twisted, pleated or puckered, seriously affecting appearance.	X	-
	Seam twisted, pleated or puckered, affecting appearance but not seriously.	-	X
	Broken or skipped stitches in heading seam causing an unstitched length of 1 inch or more.	X	-
	Broken or skipped stitches in heading seam causing an unstitched length of less than 1 inch.	-	X
	Broken or skipped stitches in any other seam causing an unstitched length of 1/2 inch or more.	X	-
	Broken or skipped stitches in any other seam causing an unstitched length of less than 1/2 inch.	-	X
	Run-offs resulting in open seam.	-	X
	Broken stitches.	X	-
	Not appliqued as specified.	X	-
Stars inverted.	X	-	
Stars misplaced or in wrong location.	X	-	
Pattern marks used for location of design.	-	X	
Appliqued stars not neatly trimmed.	-	X	
Malformed stars.	-	X	
Incorrect cartoon used.	X	-	

Table III. Classification of defects.

Examine	Defect	Classification		
		Major	Minor	
Hems	Stitches not covering base cloth (front and back).	-	X	
	Execution of embroidery not clear and distinct.	-	X	
	Incorrect span used.	X	-	
	Incorrect yarn used.	X	-	
	Evidence that sizing or stiffening agent used as an aid in sewing had deleterious effect.	X	-	
	Nylon flags not hemmed on all edges.	X	-	
	Raw edges not hemmed on flags other than nylon.	X	-	
	Hems uneven.	-	X	
	Hem on wrong side of flag.	-	X	
	Reinforcement patches	Positioned on face side of flag.	-	X
Portion of patch at heading not inserted within the heading as specified.		-	X	
Not same material or color as section reinforced.		X	-	
Size or shape of patch not as specified.		-	X	
Fringe	Not completely attached as specified.	X	-	
	Ends of fringe not caught in heading stitching.	-	X	
	Not one continuous length.	-	X	
	Not stitched to the front side of the flag.	-	X	
	Not evenly attached around the flag.	-	X	
	Stitching of fringe not through center portion of the fringe heading.	-	X	
	One-half of fringe not visible on reverse side of flag.	-	X	
	Heading: Type I, class 1 and class 3	Lower end of line not passed through snap hook and sewed to itself, as applicable.	X	-
		Length of zig-zag stitching not as specified.	-	X
		Zig-zag stitching not sewn completely through all thicknesses of heading and line at any of the required locations.	X	-
Lower edge of ring more than 1/2 inch above or within the upper end of heading, as applicable.		-	X	
Ends of heading not closed by two rows of stitching up to distance line.		X	-	

Table III. Classification of defects.

Examine	Defect	Classification	
		Major	Minor
Type I, class 2 and class 2a	Free end of distance line not whipped as specified.	-	X
	Sides and ends of duck cloth heading out of alignment, seriously affecting appearance.	X	-
	Sides and ends of duck cloth heading out of alignment, affecting appearance, but not seriously.	-	X
	Grommet clinched excessively tight, cutting cloth.	X	-
	Wrong type of grommet.	-	X
	Grommet improperly set, e.g., clinched too loosely, allowing grommet to rotate.	-	X
	Sides and ends of duck cloth heading out of alignment, seriously affecting appearance.	X	-
Type I, class 4	Sides and ends of duck cloth heading out of alignment, affecting appearance, but not seriously.	-	X
	Grommet clinched excessively tight cutting cloth.	X	-
	Wrong type grommet.	-	X
	Grommets improperly located.	X	-
	Sides and ends of duck cloth heading not properly aligned, seriously affecting appearance.	X	-
	Sides and ends of duck cloth heading not properly aligned, affecting appearance, but not seriously.	-	X
	Grommet improperly set, e.g., clinched too loosely, allowing grommet to rotate.	-	X
Type II	Leather tab not positioned and attached as shown on applicable drawing.	-	X
	Sheeting, all or partially missing.	X	-
	Heading improperly formed, e.g., both edges of the sheeting or hoist end of flag not caught entire length of heading seam.	-	X
	Leather tabs not positioned and attached as shown on applicable drawing.	-	X
	Heading seam not formed on back of flag.	-	X
Type III, class 2	Hemmed heading not as shown on the applicable drawing.	-	X
	Leather tabs not positioned and attached as shown on applicable drawing.	-	X
Marking	Missing, incorrect, illegible, text incomplete, marking in wrong location, size of		

Table III. Classification of defects.

Examine	Defect	Classification	
		Major	Minor
Label	lettering not as specified or color or marking not as specified.	-	X
	Text incomplete or incorrect, not attached as specified, not in location specified, or not in position specified.	-	X

4.3.2.1.2 Examination of flag for defects in dimensions.

Examine	Defect	Classification	
		Major	Minor
Overall length (minus heading); overall width of basic flag; and canton dimensions.	Not within specified tolerance (+ 5%).	X	-
Width of heading	Varies from specified finished width by:		
	-1/2 inch or more.	X	-
	-more than 1/4 inch but less than 1/2 inch.	-	X
	Dimensions A, B, C or D	X	-
Design (stars)	Maximum measurements differ by more than 2 percent of the required dimensions.	X	-
	Dimensions of design or any part thereof out of balance or not in symmetrical alignment (stars not in horizontal or vertical line but in the aisle between the rows).		
	-seriously affecting serviceability or appearance.	X	-
	-affecting serviceability or appearance but not seriously.	-	X

4.3.2.1.3 Inspection levels and acceptable quality levels (AQL's). The inspection levels and AQL's expressed in defects per hundred units shall be as follows:

Examination	Inspection level	AQL	
		Major	Total
4.3.2.1.1	I	4.0	10.0
4.3.2.1.2	S-3	6.5	15.0

4.3.3 Examination of preparation for delivery requirements. An examination shall be made to determine whether packaging, packing and marking requirements comply with section 5 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 with the exception that it need not be sealed. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 4.0 defects per hundred units.

Examine	Defect
Marking (exterior and interior)	Omitted, incorrect, illegible, of improper size, location, sequence or method of application.
Materials	Any component missing.
Workmanship	Any component damaged, affecting serviceability. Inadequate application of components, such as incomplete closure of case liners, container flaps, loose strapping, inadequate stapling. Bulging or distortion of containers.
Preservation	Preservation improper, improperly applied or missing (when applicable).
Weight	Net weight exceeds requirements.

5. PREPARATION FOR DELIVERY.

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

5.1.1 Level A.

5.1.1.1 Preservation. Flags made of nylon and wool bunting shall be thoroughly dusted over the entire area with naphthalene flakes before being packaged (see 6.3). Flags requiring distance lines shall have the exposed portion of all attached hardware wrapped or covered in polyethylene film 0.002 inch thick (minimum).

5.1.1.2 Unit packaging.

5.1.1.2.1 Cotton, nylon, and nylon-wool bunting flags. Unless otherwise specified, each flag preserved as specified in 5.1.1.1, when applicable, shall be compactly folded or folded and rolled and placed in a transparent, close fitting, end-opening polyethylene bag. The polyethylene film shall be not less than 0.003 inch thick. All seams and closures shall be affected by heat sealing. Prior to or during the heat sealing operation excess air within the bag shall be expelled.

5.1.1.2.2 Flags of rayon banner cloth. Unless otherwise specified, each flag shall be laid out flat on two thicknesses of tissue paper conforming to type 1, grade A, class 1 of UU-P-553. The tissue paper shall overlap all edges of the flag a minimum of two inches. Each flag, combined with overlapping tissue paper, shall be rolled open width on a convolute or spiral wound chipboard tube. The tissue paper overlapping the tube shall be tucked inside the tube ends. Each flag shall be tightly wrapped with 50-pound minimum basis weight kraft paper conforming to grade B of UU-P-268. Each wrapped flag shall then be individually packaged in a snug fitting box conforming to PPP-B-636, class domestic, style optional. Closure shall be in accordance with the appendix of the box specification.

5.1.1.2.3 Civil agencies interment flag. Each interment flag shall be neatly folded and packaged in a snug fitting box conforming to PPP-B-636, class domestic, style OPF. The boxes shall meet the special requirements of Table I of PPP-B-636. Boxes shall be closed and reinforced in accordance with the appendix to PPP-B-636.

5.1.1.3 Intermediate packaging. When specified in the contract or order, flags of one size, style, material, type and class only, unit packaged as specified in 5.1.1.2, shall be neatly stacked and packaged within a snug-fitting box conforming to class domestic, style optional of PPP-B-636. Closure and reinforcing of the boxes shall be in accordance with the appendix of the box specification. The weight of the contents of each intermediate box shall not exceed 65 pounds.

5.1.2 Level C (Commercial). Flags shall be preserved and packaged in accordance with normal commercial practice. The complete package shall be designed to protect the flags against damage during shipment, handling, and storage.

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

5.2.1 Level A. Flags of one size, style, material, type and class only, packaged as specified in 5.1, shall be packed in a snug-fitting shipping container conforming to W5c, W5s, V3c or V3s, of PPP-B-636. Closure shall be in accordance with the appendix of the applicable box specification.

5.2.2 Level B. Flags packaged as specified in 5.1.1.3, shall suffice as level B shipping containers and shall require no further packing.

5.2.3 Commercial. The flags, packaged as specified in 5.1 shall be packed in fiberboard boxes to insure delivery at destination, provided for redistribution by the initial receiving activity, and be acceptable by common carrier under the National Motor Freight Classification and Uniform Freight Classification.

5.3 Marking.

5.3.1 Civil requirements. In addition to any special marking required by the contract or order, unit packages, intermediate packages and shipping containers shall be marked with FED-STD-123.

5.3.2 Military requirements. In addition to any special marking required by the contract or order, unit packages, intermediate packages and shipping containers shall be marked in accordance with MIL-STD-129.

5.3.3 Polyethylene bagged packages. Polyethylene bagged packages shall have the required information legibly printed or stamped in black on the bag across the center face, or on a white paper label inserted within the bag so as to permit ready identification. The bag or label shall indicate the following:

Stock Number
Nomenclature
Quantity

6. NOTES.

6.1 Intended use. The flag and Union Jack covered by this specification are intended to be used as the National Flag and National Ensign of the United States of America by all civil and military activities of the Government.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in the procurement documents:

- a. Title, number and date of this specification.
- b. Material^{1/}, style, heading (type and class) and size (see 1.2.1.1, 1.2.1.2, 1.2.1.3, and 1.2.1.4).
- c. When a first article is required (see 3.1).
- d. Type of distance line required (3.2.5).
- e. Cords and tassels, when required (see 3.2.11).
- f. Type of snaphook (see 3.2.7).
- g. Fringe, when required (see 3.2.10).
- h. When artificial leather is required for tabs (see 3.2.13).
- i. When "US PROPERTY" marking is required (see 3.7).
- j. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- k. When a standard sample will not be furnished (see 3.1.1).
- l. When a cartoon will not be furnished (see 3.3.1.3).

1/ When nylon is required, specify lightweight or heavyweight.

6.3 The naphthalene flake requirement is not applicable when Government furnished material of wool or part wool content has been moth-proof treated (see 5.1.1.1).

6.4 When artificial leather is required in lieu of deerskin or cattlehide for tabs, all reference to leather shall be substituted by artificial leather. It shall be noted that authoritative approval by the Department of Defense will be required for military agency procurement of flags using artificial leather tabs.

6.5 Drawings as referenced under 2.1 and throughout the document, prepared by The Institute of Heraldry, correspond to Figures 1 through 7 herein.

This is a miniature copy of
 THE INSTITUTE OF HERALRY
 Drawing No. 5-1-17
 revision dated 9 Dec. '75
 This copy is for information only.
 The divg referenced in para 2.1
 governs.

NATIONAL FLAG

NOTES:

- 1 STATUTORY AUTHORITY
 SECTION 1701, 1702 REVISED STATUTES
 AS AMENDED (4 U.S. CODE, 4, 2)
 EXECUTIVE ORDER No. 10874, AUGUST 21, 1953
 (74 DOC 29-7086, FILED AUGUST 24, 1953)
 FLAG TO BE MANUFACTURED IN ACCORDANCE WITH
 APPLICABLE CURRENT MILITARY AND FEDERAL SPECIFICATIONS
- 2 FABRIC AND WEAVING TO BE AS SPECIFIED IN CONTRACT
- 3 CABLE NUMBERS OF COLORS
 AS DETERMINED BY THE INSTITUTE OF HERALRY
 RED --- --70180
 WHITE --- --70001
 BLUE --- --70005
 YELLOW --- --85001 (FOR FRENCH WHEN APPLICABLE)
 BY DEPARTMENT OF DEFENSE
- 4 SEE IMPLEMENTATION SHEET FOR EACH SIZE USED
 BY DEPARTMENT OF DEFENSE

UNRECORDED TECH DRAWING AND 5-1-17 DATED 21 AUG 1953

REVISIONS		DATE	BY	APPROVED
1	AS SHOWN	21 APRIL 1957		
DEPARTMENT OF DEFENSE DEPARTMENT OF THE ARMY THE INSTITUTE OF HERALRY FLAG, NATIONAL UNITED STATES OF AMERICA 50 STAR UNION JACK				
DRAWING NO. 5-1-17				

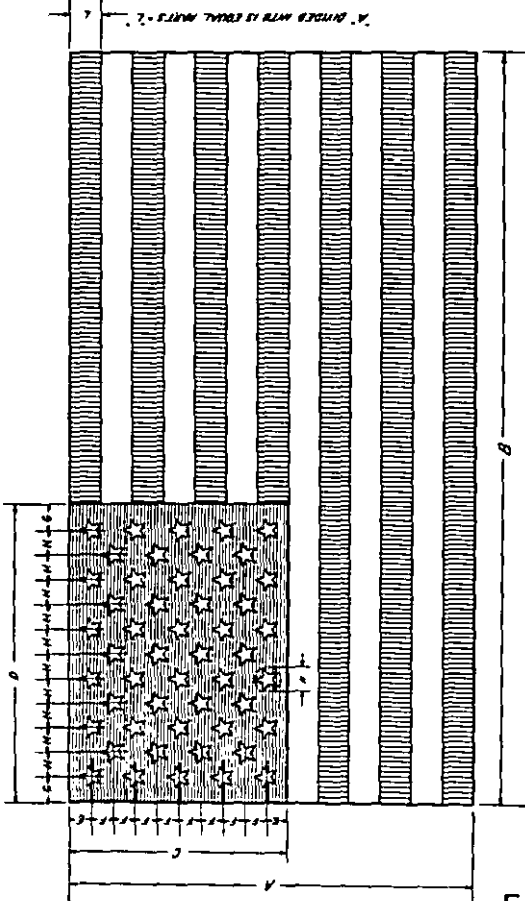


FIGURE 1

STANDARD PROPORTIONS

HEIGHT OF FLAG IN FEET	WIDTH OF FLAG IN FEET	HEIGHT OF CANTON IN FEET	WIDTH OF CANTON IN FEET	HEIGHT OF STRIPE IN FEET	WIDTH OF STRIPE IN FEET	NUMBER OF STRIPES	NUMBER OF STARS	
							IN CANTON	IN FIELD
1	1.9	0.74	0.26	0.04	0.08	13	1	1
2	3.8	1.48	0.52	0.08	0.16	26	1	1
3	5.7	2.22	0.78	0.12	0.24	39	1	1
4	7.6	2.96	1.04	0.16	0.32	52	1	1
5	9.5	3.70	1.30	0.20	0.40	65	1	1
6	11.4	4.44	1.56	0.24	0.48	78	1	1
7	13.3	5.18	1.82	0.28	0.56	91	1	1
8	15.2	5.92	2.08	0.32	0.64	104	1	1

STANDARD SIZES

DIMENSIONS IN FEET AND INCHES

DIMENSIONS OF UNION JACK THROUGH WIDTH OF UNION JACK

NO OF LINE	A		B		C		D		E		F		G		H		I		J		K		L		
	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	
1	20'-0"	30'-0"	18'-0"	27'-0"	15'-0"	22'-0"	12'-0"	18'-0"	9'-0"	13'-0"	6'-0"	9'-0"	3'-0"	4'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
2	10'-0"	15'-0"	9'-0"	13'-0"	7'-0"	11'-0"	6'-0"	9'-0"	3'-0"	4'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
3	6'-0"	9'-0"	5'-0"	7'-0"	4'-0"	6'-0"	3'-0"	4'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
4	4'-0"	6'-0"	3'-0"	4'-0"	2'-0"	3'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
5	3'-0"	4'-0"	2'-0"	3'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
6	2'-0"	3'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
7	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
8	10'-0"	15'-0"	9'-0"	13'-0"	7'-0"	11'-0"	6'-0"	9'-0"	3'-0"	4'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"

SPECIAL SIZES (NOT 1 TO 13)

DIMENSIONS IN FEET AND INCHES

NO OF LINE	A		B		C		D		E		F		G		H		I		J		K		L	
	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES	FEET	INCHES
1	7'-0"	11'-0"	6'-0"	9'-0"	5'-0"	7'-0"	4'-0"	6'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
2	6'-0"	9'-0"	5'-0"	7'-0"	4'-0"	6'-0"	3'-0"	4'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
3	5'-0"	7'-0"	4'-0"	6'-0"	3'-0"	4'-0"	2'-0"	3'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
4	4'-0"	6'-0"	3'-0"	4'-0"	2'-0"	3'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
5	3'-0"	4'-0"	2'-0"	3'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
6	2'-0"	3'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
7	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	2'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"

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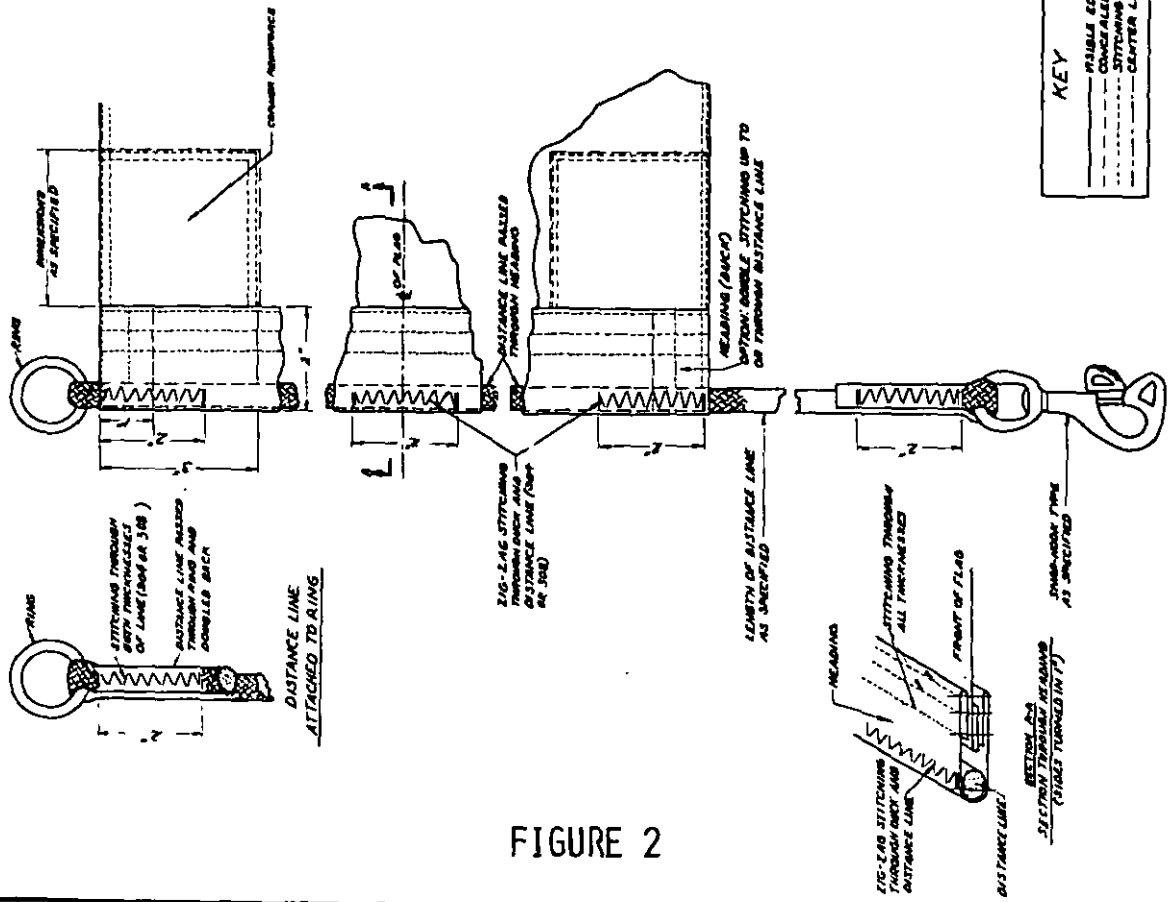


FIGURE 2

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REVISIONS		DEPARTMENT OF DEFENSE INSTITUTE OF RECAUDRY THE INSTITUTE OF RECAUDRY	
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DEPARTMENT OF DEFENSE
INSTITUTE OF RECAUDRY
THE INSTITUTE OF RECAUDRY

FLAG HEADINGS
TYPE I
CLASS I

DATE: 15 April 1959

BY: [Signature]

5-1-45A

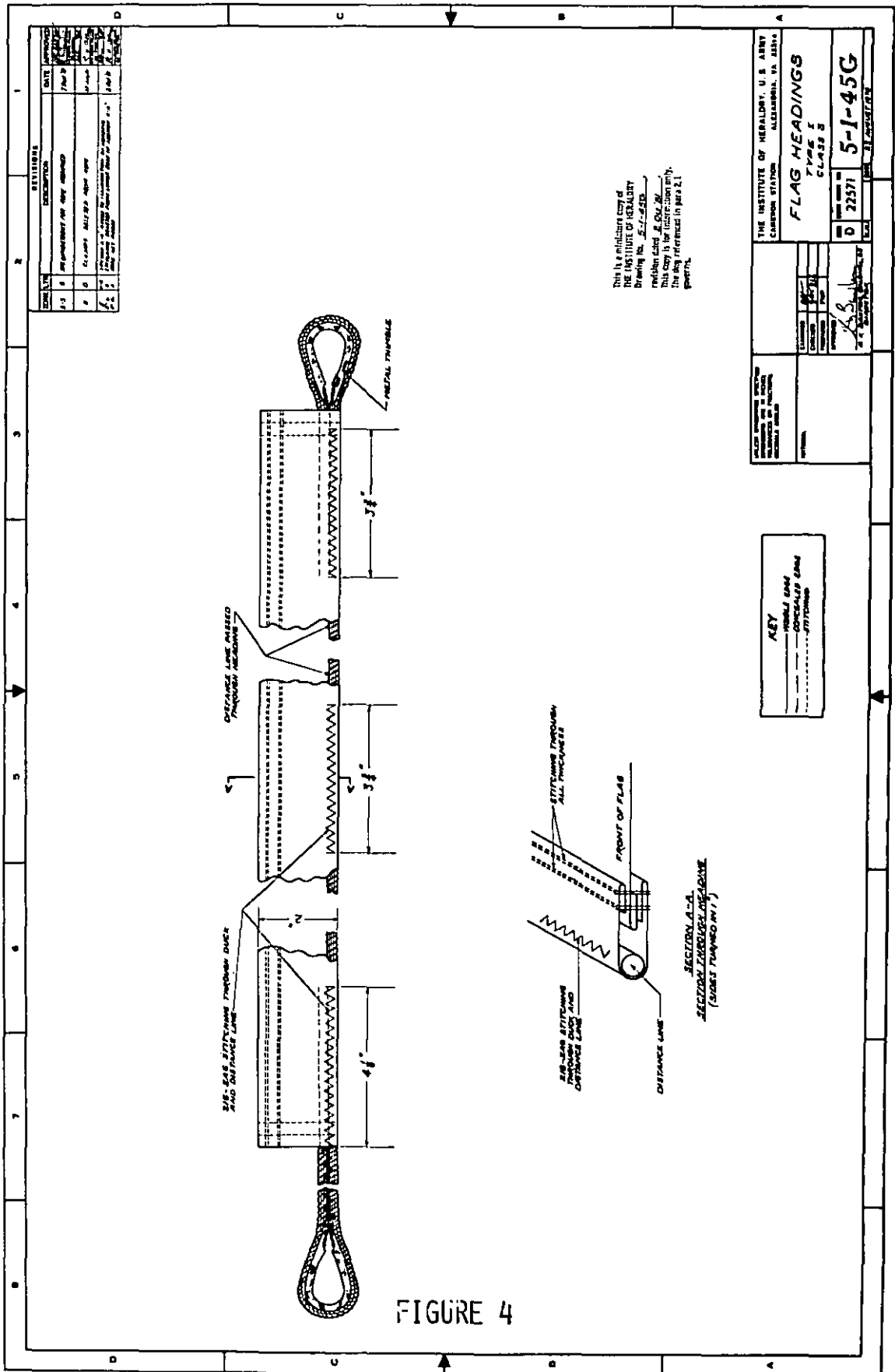


FIGURE 4

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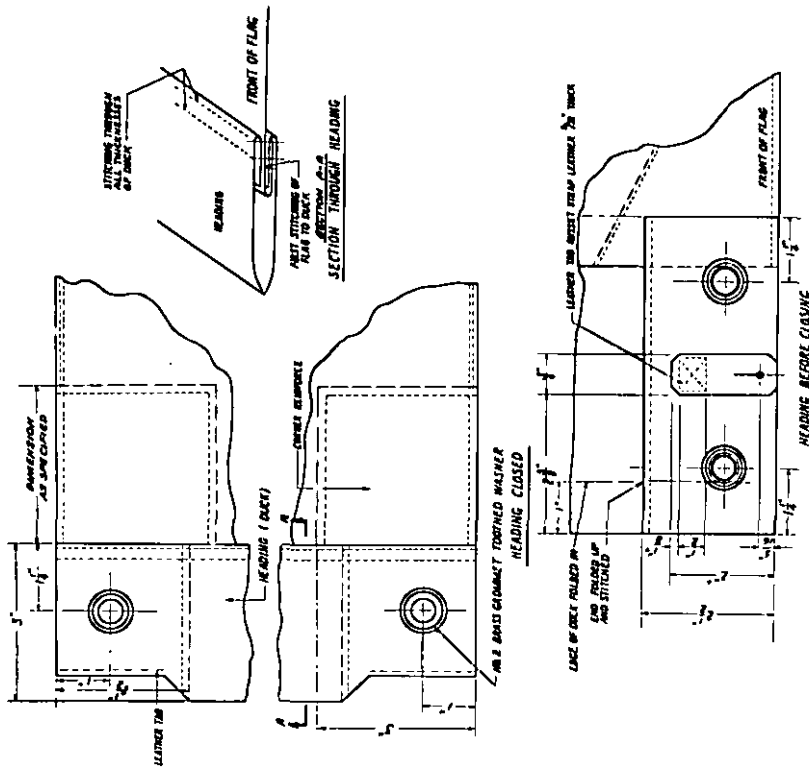
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FLAG HEADINGS
 TYPE 5
 CLASS 5

FORM NO. 1
 D 22571 5-1-45G

CLASSIFICATION

KEY
 ——— GENERAL CASE
 - - - - - SHORT TURNED IN



TYPE I CLASS 4

KEY	
—	VISIBLE EDGE
- - -	CONCEALED EDGE
· · ·	STITCHING
—	CENTER LINE

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5-1-45 D

FIGURE 5

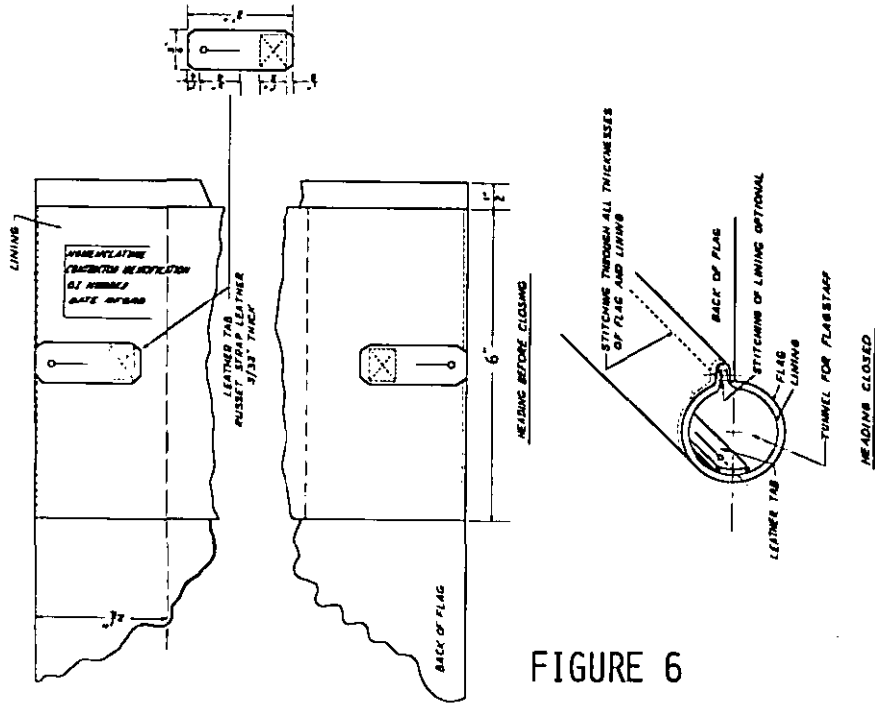


FIGURE 6

KEY
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 _____ STITCHING

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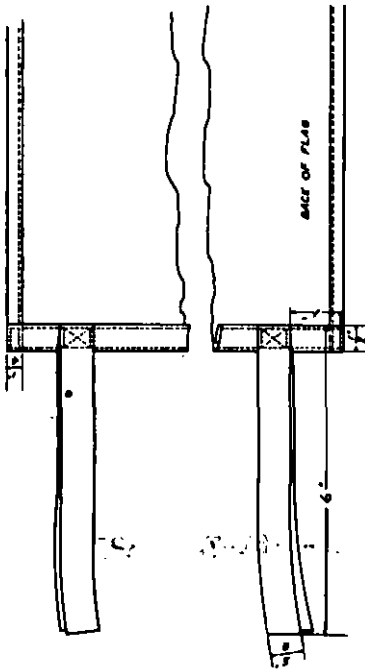
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DEPARTMENT OF DEFENSE
 DEPARTMENT OF THE ARMY
 THE INSTITUTE OF TECHNOLOGY
FLAG HEADINGS
 TYPE I

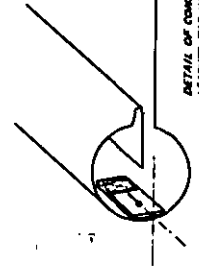
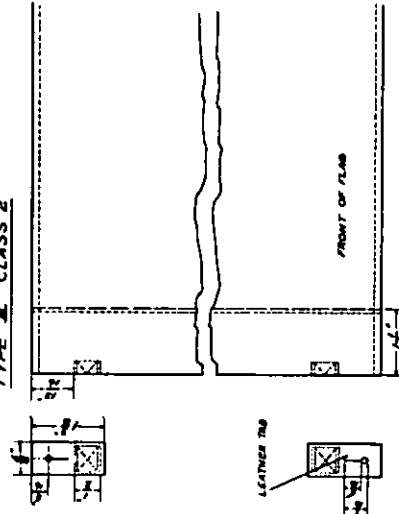
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5-1-45E

TYPE III CLASS 1



TYPE III CLASS 2



DETAIL OF CONSTRUCTION SHOWING LEATHER TAB ON THE HOIST

KEY

- VISIBLE EDGE
- CONCEALED EDGE
- STITCHING
- CENTER LINE

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DEPARTMENT OF DEFENSE
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FLAG HEADINGS
 CLASS-I AND CLASS II

DATE: 18 APRIL 1949

CHK: [Signature]

REVISED BY: [Signature]

APPROVED BY: [Signature]

5-1-45F

DDD-F-416E

MILITARY INTERESTS:

Custodians

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Air Force - 99
Navy - SA

Review Activities

Army - IH
Navy
DLA-CT

User Activities

Army
Air Force - 45
Navy - CG, MC

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA-FSS
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VA-OSS

PREPARING ACTIVITY:

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Project No. 8345-0096

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