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MILITARY SPECIFICATION

KNIFE, HUNTING, SHEATHED, SURVIVAL, PILOT'S

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 This specification covers the requirements for one type of a pilot's, survival, sheathed, hunting knife with a 5-inch blade and sharpening stone.

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

V-L-61	Laces, Nylon
V-T-295	Thread, Nylon
FF-R-556	Rivet, Solid, Small; Rivet, Split, Small; Rivet, Tubular, Small; Burr; and Cap, Rivet; General Purpose
KK-L-165	Leather, Cattlehide, Vegetable-Tanned and Chrome Retanned, Impregnated; and Soles
KK-L-271	Leather, Cattlehide, Strap, Vegetable-Tanned
QQ-A-250/4	Aluminum Alloy 2024, Plate and Sheet

FSC 7340

SPECIFICATIONS (Continued)

Federal (Continued)

TT-L-20	Lacquer, Camouflage
TT-P-1757	Primer Coating, Zinc Chromate, Low-Moisture-Sensitivity
PPP-B-636	Boxes, Shipping, Fiberboard
PPP-T-76	Tape, Pressure-Sensitive Adhesive Paper, Water Resistant (For Carton Sealing)

Military

MIL-H-6088	Heat Treatment of Aluminum Alloys
MIL-H-6875	Heat Treatment of Steels (Aerospace Practice), Process for
MIL-C-8514	Coating Compound, Metal Pretreatment, Resin-Acid
MIL-S-8559	Steel Bars, Carbon, AISI (1095), Aircraft Quality
MIL-A-8625	Anodic Coatings, for Aluminum and Aluminum Alloys
MIL-F-10884	Fasteners, Snap
MIL-P-16232	Phosphate Coatings, Heavy, Manganese or Zinc Base (For Ferrous Metals)

STANDARDS

Federal

FED-STD-66	Steel: Chemical Composition and Hardenability
FED-STD-151	Metals, Test Methods
FED-STD-595	Colors
FED-STD-751	Stitches, Seams, and Stitchings

STANDARDS (Continued)

Military

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-130	Identification Marking of U.S. Military Property
MS27981	Fasteners, Snap, Style 2A (Small Wire Spring Clamp Type)
MS27984	Fasteners, Snap, Style 5 (Scalloped Button Head Type)

(Copies of this specification and applicable documents required by contractors 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, Incorporated, Agent

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Incorporated, Tariff Order Section, 1616 P Street, N. W., Washington, DC 20036.)

Uniform Classification Committee, Agent

Uniform Freight Classification

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

3. REQUIREMENTS

3.1 First article - Unless otherwise specified, the pilot's, survival, sheathed, hunting knife furnished under this specification shall be a product which has been inspected and has passed the first article inspection specified in 4.3 through 4.3.2.

3.2 Materials and components - The materials and components shall conform to the applicable specifications and standards as listed or required herein.

3.2.1 Blade - The blade shall be of the through tang type blanked from AISI 1095 steel conforming to MIL-S-8559. The blade in the "as quenched condition" (untempered) shall have a fracture grain size of 8 minimum when compared with the Shepherd fracture grain size standard as specified in 4.5.1. The blade shall be heat treated to the specified hardness in accordance with MIL-H-6875. The blade shall be through-hardened and tempered from the tip to the heel and shall have a Rockwell hardness of C50 to C55 when inspected as specified in 4.5.2. For 3/4 inch, there shall be a hardness transition zone from the heel of the blade onto the tang. The center of the transition area, the distance of 3/8 inch above the heel of the blade, shall have a Rockwell hardness of C35 to C45. The remainder of the tang shall have a maximum Rockwell hardness of C30.

3.2.2 Leather -

3.2.2.1 Sheath and welt - The sheath and welt shall be fabricated from the leather conforming to KK-L-271, Type I, II, III, or IV, Class 1, color natural as produced by the tanning process. The sheath leather shall be 8/64 inch thick and the leather welt shall be 4/64 inch thick. The leather welt shall be 3/8 inch wide and 2-1/2 inches in length.

3.2.2.2 Grip - The grip shall be fabricated from the leather conforming to KK-L-165, Type I or II, Class 1, 2, 5, or 6, color natural as produced by the tanning process. The leather shall be treated with the paranitrophenol fungicide. The leather shall be cut into washers 1/8 inch thick (see Figure 1).

3.2.2.3 Strap and sharpening stone pocket and flap - The strap and sharpening stone pocket and flap shall be fabricated from the sheath and welt leather, 3.2.2.1.

3.2.3 Laces - The laces shall conform to V-L-61, Type II, Class 1, 36 inches long. The color of the laces shall be dull black and shall approximately match Color Number 37038 of FED-STD-595.

3.2.4 Thread - All the sewing operations shall be performed with the nylon thread conforming to V-T-295, Type II, Class 1 or 2, Size Number 4, Subclass A, colorfastness not applicable. The color of the thread shall approximately match the color of the sheath leather.

3.2.5 Snap fasteners - The snap fasteners shall conform to MIL-F-10884, Style 2A, Finish 2, MS27981-1B, -3B, -4B, and -5B for the strap and Style 5, Finish 2, MS27984-1B, -3B, -4B, and -6B for the sharpening stone pocket and flap.

3.2.6 Rivets -

3.2.6.1 Split - The split rivets for attaching the strap and the sharpening stone pocket flap to the sheath shall conform to FF-R-556, Type XI, Class 1, Grade F, nominal diameter 1/8 inch, black chemical finish. The length of the rivets shall be sufficient for proper and secure clinching without cutting or damaging the leather or the stitches.

3.2.6.2 Tubular oval head - The tubular oval head rivets for attaching the metal sheath protector and joining the sheath together shall conform to FF-R-556, Type XII, Class 3, Grade F, nominal size 1/8 inch, 5/16 inch long, black chemical finish.

3.2.7 Guard, guard plate, and end plate - The guard, guard plate, and end plate shall be fabricated from SAE 1018 or 1020 steel conforming to FED-STD-66.

3.2.8 Butt plate - The butt plate shall be fabricated from SAE 1113 steel conforming to FED-STD-66.

3.2.9 Sharpening stone - The sharpening stone shall be fabricated from silicon carbide, grain size 280, hardness P, vitrified bond, and shall be similar or equal to C280 P VUF as manufactured by the Carborundum Company, Niagara Falls, NY. The size of the sharpening stone shall be 3 by 7/8 by 1/4 inches.

3.2.10 Metal sheath protector - The metal sheath protector shall be fabricated from 0.020 inch thick aluminum sheeting conforming to QQ-A-250/4, Temper O. After forming, the metal sheath protector shall be heat treated in accordance with MIL-H-6088 to Temper T-4. The metal sheath protector shall be anodized and dyed in accordance with MIL-A-8625, Type II, Class 2. The color shall be dull black and shall approximately match Color Number 37038 of FED-STD-595 when inspected as specified in 4.5.3. The protector shall conform to Figure 4.

3.3 Design - The pilot's, survival, sheathed, hunting knife shall consist of the metal blade with the leather grip, riveted butt plate, guard, guard and end plates, leather sheath with a pocket for containing the sharpening stone, nylon laces, and the metal sheath protector to prevent the tip of the knife from penetrating the bottom or underside of the sheath. The design of the hunting knife and sheath shall conform to Figures 1 and 3.

3.4 Construction - The construction of the knife and sheath shall conform to Figures 1 through 4.

3.4.1 Sewing - The sewing together of the sheath and the attaching of the sharpening stone pocket shall be accomplished with Stitch Type 301 conforming to FED-STD-751 with 6 to 8 stitches per inch (see Figure 3). The rows of the stitching

shall be straight and parallel to the leather edges. The ends of the stitching on the sharpening stone pocket shall be securely backstitched a minimum of 1/2 inch. The thread tension shall be maintained so that there shall not be any loose or tight stitching and the lock shall be embedded in the materials sewn together. The sheath shall not contain any thread breaks, skips, run-offs, or needle chews. The sharpening stone pocket stitching shall not interfere with the insertion of the blade into the blade pocket.

3.4.2 Riveting - The sheath and the metal sheath protector shall be securely and firmly riveted together as specified in Figures 3 and 4, as applicable. The head of the rivets shall be flush with the upper side of the sheath and the peened and split portion, as applicable, shall be flat against the underside of the sheath. All sharp edges shall be removed or turned under.

3.4.3 Knife - The design of the blade and tang shall conform to Figure 2. The guard shall be inserted on the tang as specified in Figure 1. The tang shall fit into the guard so that all the edges of the slot in the guard are flush on all the sides about the tang. The wide part at the top of the guard shall contain two drilled holes. The guard plate shall be inserted on the tang and shall be located next to the guard. Sufficient leather washers shall then be inserted on the tang to form the grip. The washers shall fit snugly on the tang and shall be grooved at intervals as specified in Figure 1 so that the handle shall be capable of being securely gripped. The end plate shall be inserted on the tang and shall be between the leather washers and the butt plate. The butt plate shall be located at the end of the handle. A 3/16 by 5/16 inch rectangle shall be punched through the butt plate. The top of the rectangle shall be chamfered 3/32 inch by 45 degrees. The end of the tang shall protrude through the butt plate. The top of tang shall be upset to fill the recess and shall form a flat or oval head on the butt plate (see Figure 2). All the unspecified sharp edges shall be removed. The upset portion of the tang shall not be ground flush with the surface of the butt plate. The upsetting of the tang shall also firmly compress together all the components forming the handle. The slot in all of the components of the handle shall be centered and shall follow the shape of the tang. All the edges of the metal components of the handle shall be deburred to eliminate any sharp edge. The blade shall contain a blood groove on each side and the back of the blade shall contain sharp cutting edge saw teeth as specified in Figure 2. The cutting edge of the blade shall be ground and sharpened to a keen edge. The cutting edge at the back of the blade near the tip shall be ground. The assembled knife shall conform to Figure 1.

3.4.4 Sheath - The leather sheath shall consist of a one piece back section and a one piece front section to form the pocket for the blade as specified in Figure 3. The fleshside of the leather shall be on the underside. The leather welt shall be inserted between the front and back sections on both sides of the sheath as specified in Figure 3. The end of each leather welt that terminates between the second and third rivets from the top of the sheath shall be tapered. The front, welt, and back sections shall be sewn together along the edges as specified in Figure 3. A pocket for the

sharpening stone shall be sewn to the upper portion as specified in Figure 3. A flap for holding the sharpening stone in the pocket shall be riveted to the sheath as specified in Figure 3. The snap fasteners shall be centered and attached to the flap and the sharpening stone pocket as specified in Figure 3. The sharpening stone shall be inserted into the sharpening stone pocket. The pocket flap shall then be snapped closed. A strap for holding the handle shall be sewn and riveted to the top of the sheath as specified in Figures 3 and 4. The snap fasteners shall be centered and attached to the strap as specified in Figure 3. The strap when snapped closed shall firmly grip the handle, just below the butt plate, against the top of the sheath and shall prevent the movement of the knife when the sheath is inverted or jarred. The leather sheath and the metal sheath protector shall be riveted together along the edges as specified in Figures 3 and 4. The holes in the sheath for the nylon laces shall be punched out and not cut. The size of the holes shall conform to Figure 4. One lace shall be located at the top and one lace shall be located at the bottom. Four 1/8 inch diameter holes shall be punched out at the top of the sheath as specified in Figure 3. The punched holes shall be joined together by a slit in the length so as to permit the sheath to be attached to a belt. The sheath shall conform to Figures 3 and 4.

3.5 Performance -

3.5.1 Holding of the handle by the strap - When inspected as specified in 4.5.6, the knife shall not move out of position by more than 1/4 inch.

3.5.2 Cutting - When inspected as specified in 4.5.6, the blade shall show no undue wear, such as turning over, or the breaking of any part of the cutting edge.

3.5.3 Ductility - When inspected as specified in 4.5.7, the blade shall not break nor fail to return to the original dimensions (straightness) when bent through an angle of 9 degrees.

3.6 Finish -

3.6.1 Metal components - All the metal components of the knife shall be phosphated, coated, and impregnated in accordance with MIL-P-16232, Type Z, Class 2.

3.6.2 Tang upset and butt plate surfaces - After the tang has been upset on the butt plate surface, the upset portion of the tang and the butt plate surfaces shall be uniformly coated first with the metal pretreatment coating compound conforming to MIL-C-8514, then with the zinc chromate primer coating conforming to TT-P-1757, Color Y or Color T, and finally with the cellulose nitrate lacquer conforming to TT-L-20, color black, Color Number 37038.

3.7 Identification of product -

3.7.1 Sheath - Unless otherwise specified, the sheath markings shall be legible and durable contrasting letters and numerals which shall be thoroughly dry prior to packaging. Stenciling shall not be used for letters and numerals 1/4 inch or less in height. The marking ink shall not contain any material which is deleterious to the leather. The underside of the sheath shall be marked as follows:

KNIFE, HUNTING, SHEATHED, SURVIVAL, PILOT'S
MIL-K-8662E
NAME OF MANUFACTURER
CONTRACT NO.
DATE OF MANUFACTURE (Month and Year)

3.7.2 Knife - The hexagonal portion of the butt plate of each knife shall be indent stamped, without damage to the knife, with durable and legible letters and numerals in accordance with MIL-STD-130. The markings shall be as follows:

NAME OF MANUFACTURER OR TRADEMARK
DATE OF MANUFACTURE (Month and Year)

3.8 Workmanship - After completion of the final assembly, the pilot's, survival, sheathed, hunting knife shall be thoroughly cleaned and all thread scraps, lint, and foreign matter shall be removed. All thread ends shall be trimmed. The sheathed knives shall be uniform in quality, smooth, clean, free from waviness, splits, cracks, nicks, burrs, unspecified sharp edges and holes, tears, mends, patches, spots, stains, irregularities, or defects which could adversely affect performance, reliability, or durability. The sheathed knives shall conform to the quality and grade of product established by this specification. The occurrence of defects shall not exceed the acceptance criteria established herein.

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 as 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspection - The examination and testing of the pilot's, survival, sheathed, hunting knives shall be classified as follows:

a. First article inspection - First article inspection consists of examinations and tests performed on samples which are representative of the production item after award of a contract to determine that the production item conforms to the requirements of this specification (see 3.1 and 4.3 through 4.3.2).

b. Quality conformance inspection - Quality conformance inspection consists of examinations and tests performed on individual products or lots to determine conformance of the products or lots to the requirements set forth in this specification (see 4.4 through 4.4.1.2).

4.3 First article inspection - The first article inspection of the pilot's, survival, sheathed, hunting knife shall consist of examinations and tests for all of the requirements of this specification.

4.3.1 First article samples - Unless otherwise specified, as soon as practicable after the award of the contract or order, the manufacturer shall submit the following samples:

a. Two sheathed knives
b. Two blades in the "as quenched condition" (untempered)

The samples shall be representative of the construction, workmanship, components, and materials to be used during production. When a contractor is in continuous production of these sheathed knives from contract to contract, submission of further first article inspection samples on the new contract may be waived at the discretion of the procuring activity (see 6.2c). Approval of the first article inspection samples or the waiving of the first article inspection does not preclude the requirements for performing the quality conformance inspection. The first article inspection samples shall be furnished to the Government as directed by the contracting officer (see 6.2d).

4.3.2 Upon completion of the first article inspection, all the applicable inspection reports and when applicable, recommendations and comments pertinent for use in monitoring production will be forwarded to the cognizant Government activity. The two sheathed knives and blades will be consumed or destroyed in the first article inspection and shall not be considered as part of the quantity to be delivered under the contract.

4.4 Quality conformance inspection - The sampling and inspection levels shall conform to MIL-STD-105. The quality conformance inspection shall consist of the following:

Grain size of the blade
Hardness of the blade
Visual examination of the sheathed knives
Dimensional check of the sheathed knives
Holding of the handle by the strap
Cutting
Ductility
Preparation for delivery

4.4.1 Sampling -

4.4.1.1 Inspection lot -

4.4.1.1.1 Blades - An inspection lot size shall be expressed in units of one blade in the "as quenched condition" (untempered) made essentially under the same conditions and from the same materials. The sample unit shall be one blade in the "as quenched condition" (untempered).

4.4.1.1.2 Sheathed knives - An inspection lot size shall be expressed in units of one sheathed knife made essentially under the same conditions and from the same materials and components. The sample unit shall be one sheathed knife.

4.4.1.1.3 Preparation for delivery - An inspection lot size shall be expressed in units of one fully prepared shipping container, containing sheathed knives, fully prepared for delivery from essentially the same materials and components. The sample unit shall be one shipping container, containing sheathed knives, fully prepared for delivery with the exception that it need not be sealed.

4.4.1.2 Sampling for tests and examinations of the blades, sheathed knives, and preparation for delivery - The sample size, acceptance criteria, tests and examinations required for the blades, sheathed knives, or preparation for delivery, as applicable, shall be as specified in Table I.

4.5 Inspection methods -

4.5.1 Grain size - The fracture grain size of the blade in the "as quenched condition" (untempered) shall be determined by comparison with the Shepherd fracture grain size standards. The blade shall be notched at the middle of the length and fractured by impact (see 3.2.1).

TABLE I

SAMPLE SIZE, ACCEPTANCE CRITERIA, TESTS, AND EXAMINATIONS OF THE BLADES, SHEATHED KNIVES, AND PREPARATION FOR DELIVERY

INSPECTION	PARAGRAPH		SAMPLE SIZE	ACCEPTANCE CRITERIA
	REQUIREMENT	METHOD		
Grain size	3.2.1	4.5.1	Inspection Level S-1	An acceptable quality level of 1.5 defects per 100 units
Hardness	3.2.1	4.5.2	Inspection Level S-1	An acceptable quality level of 1.5 defects per 100 units
Visual examination	3.2.3, 3.2.4, 3.2.5 through 3.2.6.2, 3.2.9, 3.2.10, 3.3 through 3.4.4, 3.6 through 3.8, and Figures 1 through 4	4.5.4.1	Inspection Level II	An acceptable quality level of 2.5 defects per 100 units for major defects and 4.0 defects per 100 units for minor defects
Dimensional check	3.2.3, 3.2.5 through 3.2.6.2, 3.2.9 and Figures 1 through 4	4.5.4.1	Inspection Level S-3	An acceptable quality level of 4.0 defects per 100 units
Holding of the handle by the strap	3.5.1	4.5.5	Inspection Level S-1	An acceptable quality level of 1.5 defects per 100 units
Cutting	3.5.2	4.5.6	Inspection Level S-1	An acceptable quality level of 1.5 defects per 100 units
Ductility	3.5.3	4.5.7	Inspection Level S-1	An acceptable quality level of 1.5 defects per 100 units
Preparation for delivery	Section 5	4.5.4.2	Inspection Level S-2	An acceptable quality level of 2.5 defects per 100 units

4.5.2 Rockwell hardness - The Rockwell hardness of the tempered blade shall be determined in accordance with FED-STD-151, Method 243, Hardness Scale C. The hardness shall be determined at the heel, center, and point of the blade not less than 1/4 inch from the cutting edge. The hardness of the transition area shall be determined in the center of the tang 3/8 inch above the heel of the blade. Three hardness determinations shall be made on the portion of the tang inside the handle starting one inch above the heel of the blade (see 3.2.1).

4.5.3 Color matching - The color of the metal sheath protector shall be compared to the applicable approved standard shade under natural (north sky) daylight or artificial daylight having a color temperature of 7500 degrees Kelvin.

4.5.4 Visual examination -

4.5.4.1 Sheathed knives - Each of the sheathed knives, selected as a sample unit from the lot, shall be thoroughly checked dimensionally and examined visually to determine conformance to this specification. The classification and list of defects, Tables II and III, as applicable, shall be used to classify and enumerate the defects found.

TABLE II

CLASSIFICATION OF DEFECTS FOR THE VISUAL EXAMINATION OF THE SHEATHED KNIVES

DEFECT	MAJOR	MINOR
GENERAL		
a. Any non-specified hole, cut, tear, mend, burn, needle chew, abraded area, or weakening defect	X	
b. Any surface rough, misaligned, or contains any nick, unspecified sharp edge, crack, burr, dent, or metal sliver	X	
c. Any component malformed, broken, chipped, bent, distorted, or corroded	X	
d. Any component loose, detached, or otherwise not securely retained	X	
e. Any finish missing or any component improperly finished	X	
f. Color of any component not as specified	1/	
g. Any stain on the knife or on the upperside of the sheath		X

TABLE II (Continued)

DEFECT	MAJOR	MINOR
LEATHER		
a. Any leather component contains any open scratch, scar, brand, damaged grain, grub hole, hip mark, fat wrinkle, scar, thin spot, or is bony or flankey	1/	
b. Flesh side of the leather not smooth or free from coarse loose fibers; surface contains unremoved hair		X
RIVETS OR SNAP FASTENERS		
a. Any loose or insecurely clinched	X	
b. Any improperly clinched resulting in the cutting of the leather or stitches	X	
c. Any snap fastener mismated or stud and socket not aligned 2/	X	
d. Any split or peened portion of any rivet on the surface of the sheath	X	
STITCHING		
a. Ends of the stitching on the sharpening stone pocket not securely backstitched or backstitched for less than 1/2 inch	X	
b. Any thread break, run-off, or not specified type of stitch	X	
c. Gage of stitching irregular		X
d. Any loose stitching 3/	X	
e. Stitches per inch:		
1. One stitch more or less than specified		X
2. More than one stitch more or less than specified	X	

TABLE II (Continued)

DEFECT	MAJOR	MINOR
COMPONENTS AND ASSEMBLY		
a. Any component not as specified or any defect of a component or defect of assembly, not herein classified	1/	
b. Any component, component part, or required operation omitted or any operation improperly performed, not herein classified	1/	
IDENTIFICATION MARKINGS		
a. Any missing, incorrect, illegible, incomplete, or improperly located		X
b. Method of marking weakens the knife	X	

1/ The defect shall be classified and scored as a major defect when it seriously affects the serviceability, otherwise it shall be classified and scored as a minor defect.

2/ Each snap fastener shall be checked for proper function and attachment by snapping closed and unsnapping each snap fastener at least three times.

3/ A seam shall be classified as loose when the top and bobbin threads are on the same surface.

TABLE III

CLASSIFICATION OF DEFECTS FOR THE DIMENSIONS OF THE ASSEMBLED SHEATHED KNIVES

EXAMINE	DEFECT
Measure the sheath, knife, laces, and sharpening stone without damaging the knife or sheath.	Any measurement deviating from 3.2.3, 3.2.5 through 3.2.6.2, 3.2.9, and Figures 1 through 4, and applicable tolerance, shall be enumerated as a dimensional defect.

4.5.4.2 Preparation for delivery - Each of the fully prepared shipping containers, containing sheathed knives, selected as a sample unit from the lot, shall be visually examined to determine that the packaging, packing, and marking conform to this specification. The list of defects, Table IV, shall be used to enumerate the defects found.

TABLE IV

LIST OF DEFECTS FOR PREPARATION FOR DELIVERY

ITEM	DEFECT
Exterior and interior markings	Missing, incorrect, incomplete, or illegible; of improper size, location, sequence, or method of application; markings not the same on the interior and exterior containers, paper label, or polyethylene bag, as applicable; when applicable, the information on the paper label in the polyethylene bag not readable through the film or no paper label in the polyethylene bag.
Materials	Any nonconforming component; any component or component part missing, damaged, or otherwise defective.
Workmanship	Inadequate application of the components such as incomplete closure of any container flap or loose strapping; bulging or distortion of any container; any polyethylene bag damaged, any vent hole missing, or any open or noncontinuous heat sealed seam.
Exterior and interior weight or content	Number per container is more or less than required; not individually packaged within the polyethylene bag.

4.5.5 Holding of the handle by the strap - The effectiveness of the holding of the handle by the strap shall be determined by holding the tip end of the sheath with the knife fully inserted, strap ends snapped closed, and the butt plate end in the upper position head high. The blade shall not be pinched when gripping the sheath. The arm shall be dropped suddenly in a sharp downward arcing motion. When the arm has reached the straight downward position, the travel of the arc shall be stopped. The distance that the guard moved away from the edge of the blade pocket shall be determined by the use of a suitable measuring device (see 3.5.1).

4.5.6 Cutting - The knife shall be inspected for cutting performance by cutting at least 10 shavings, not less than 1/16 inch thick and 1/2 inch wide, from a strip of seasoned oak or other wood of similar hardness. In cutting the shavings, the blade shall enter into the wood at an angle of not less than 30 degrees. After 10 shavings have been cut, the blade shall be examined for turning over and for breaking of the cutting edge (see 3.5.2).

4.5.7 Ductility - The ductility of the blade shall be determined by securing the blade by inserting the tip in a contoured metal fixture to a depth of 1-1/2 inches from the point. Pressure shall be applied to the tang portion at the hilt of the blade

in the center of the 3/8 inch area above the heel of the blade. The pressure shall be of such magnitude that shall cause bending of the blade through an angle of 9 degrees. The blade shall not break during the bending and when the pressure is removed, the blade shall return to the original dimension (straightness) (see 3.5.3).

5. PREPARATION FOR DELIVERY

5.1 Packaging - Packaging shall be Level A or C, as specified (see 6.2e).

5.1.1 Level A - Each knife, prior to being packaged, shall be fully inserted into its sheath. The laces shall be coiled and inserted between the handle and the sheath and the strap shall be snapped closed around the top of the handle. The sharpening stone shall be fully inserted into the sharpening stone pocket. The pocket flap shall then be snapped closed. A paper label (see 5.3.1) shall be placed on each sheathed knife when the polyethylene bag is not imprinted with the information specified in 5.3.1. Each sheathed knife shall then be heat sealed within a snug fitting clear polyethylene bag of 0.003 ±25 percent inch gage material. The heat sealed seams shall be straight, continuous, and parallel to each other and the edges of the polyethylene bag. The heat sealed seams of the bag shall be close as possible to the edge of the bag. One corner of each bag shall contain a hole, 1/4 inch in diameter, to allow the excess air to escape. The bag may be fabricated from polyethylene film tubing or sheeting. Twelve bagged sheathed knives shall be placed within a fiberboard box conforming to PPP-B-636, Type CF, Weather Resistant Class, Variety SW, Grade W5c. The approximate inside dimensions of the box shall be 11 by 6-1/2 by 6-1/2 inches. All the seams and joints shall be sealed with the water resistant tape conforming to PPP-T-76, 3 inches wide minimum.

5.1.2 Level C - The sheathed knives shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

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

5.2.1 Level A - Eight boxes, ninety-six sheathed knives, packaged as specified in 5.1.1, shall be packed as specified in 5.2.2, except that the fiberboard container shall be Weather Resistant Class, Variety SW, Grade V3c or V3s. Each container shall be constructed and closed in accordance with the appendix to PPP-B-636, Method III, and waterproofed in accordance with Method V.

5.2.2 Level B - Eight boxes, ninety-six sheathed knives, packaged as specified in 5.1.1, shall be packed within a fiberboard shipping container conforming to PPP-B-636, Type CF or SF, Domestic Class, Variety SW, Grade 275. The

approximate inside dimensions of the shipping container shall be 23 by 13 by 13 inches. Each container shall be constructed and closed in accordance with the appendix to PPP-B-636, Method II.

5.2.2.1 When specified (see 6.2f), the fiberboard shipping container shall be a Weather-Resistant Class, Type CF or SF, Grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with Method III as specified in the appendix to PPP-B-636.

5.2.3 Level C - The sheathed knives, packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. The containers shall be in accordance with the 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 (see 6.2g), the interior boxes and the exterior fiberboard containers shall be marked in accordance with MIL-STD-129 and shall include the date of manufacture (month and year).

5.3.1 Polyethylene bag - The specified information shall be printed or stamped with legible and durable black characters directly onto the center face of the polyethylene bag or onto a white paper label. The paper label shall be placed inside each polyethylene bag in such a manner that it shall be capable of being read through the bag. The polyethylene bag or paper label shall contain the following information:

FEDERAL STOCK NUMBER
KNIFE, HUNTING, SHEATHED, SURVIVAL, PILOT'S
MIL-K-8862E
CONTRACT OR ORDER NUMBER
NAME OF MANUFACTURER
DATE OF MANUFACTURE (Month and Year)

6. NOTES

6.1 Intended use - The sheathed knife covered by this specification is intended for use by pilots as required by survival conditions.

6.2 Ordering data - Procurement documents shall specify the following:

a. Title, number, and date of this specification.

b. Quantity desired.

c. Whether first article inspection is waived (see 4.3.1).

d. Name and address of the first article inspection laboratory (see 4.3.1).

e. Selection of applicable levels of packaging and packing (see 5.1 through 5.1.2 and 5.2 through 5.2.3).

f. Whether Weather-Resistant Class fiberboard shipping containers are required for Level B Packing (see 5.2.2.1).

g. Whether any special markings are required (see 5.3).

6.3 Data - For the information of contractors and contracting officers, any of the data specified in the applicable documents listed in Section 2 of this specification or referenced lower-tier documents need not be prepared for the Government and shall not be furnished to the Government, unless specified in the contract or order. The data to be furnished shall be listed on DD Form 1423 (Contractor Data Requirements List) which shall be attached to and made a part of the contract or order. NavWeps Form 4200/25 (Drawings, Lists, and Specifications Required) shall be attached where applicable.

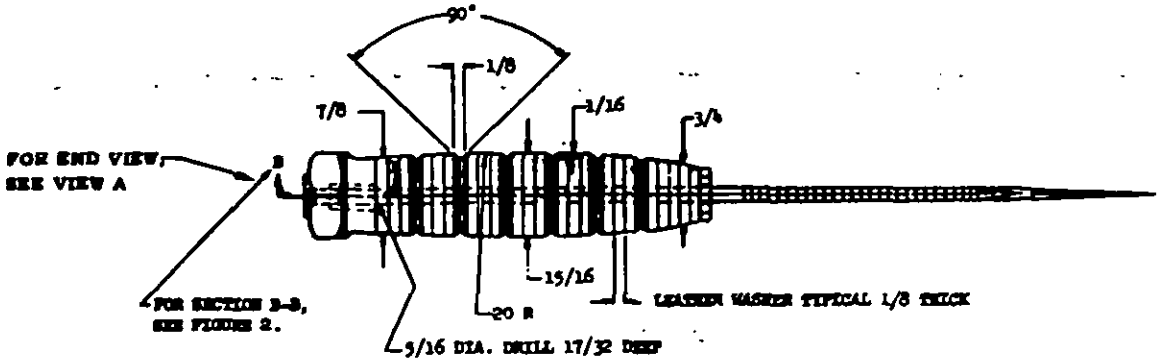
Custodians:
Army - GL
Navy - AS
Air Force - 84

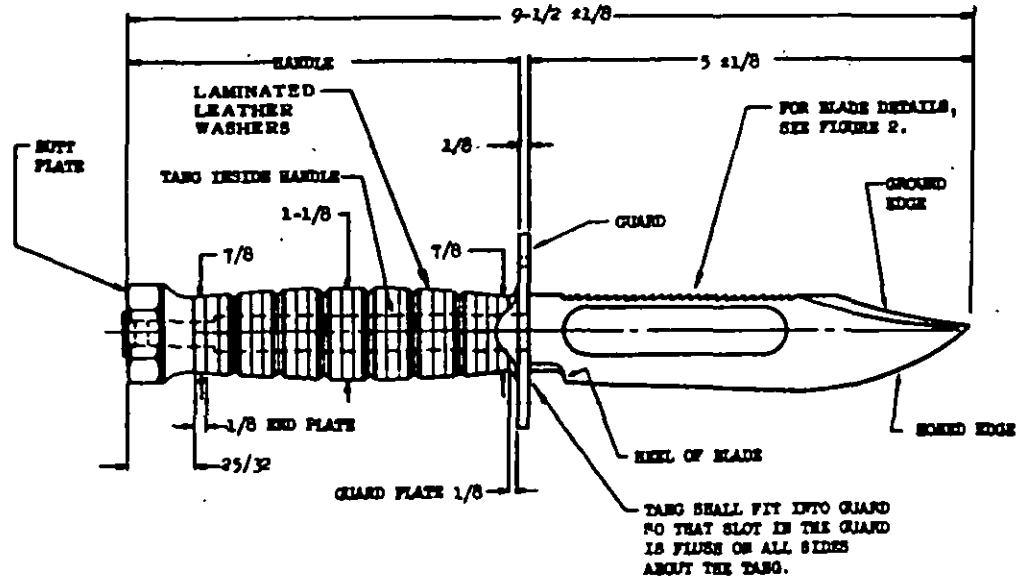
Preparing activity:
Navy - AS
(Project No. 7340-0072)

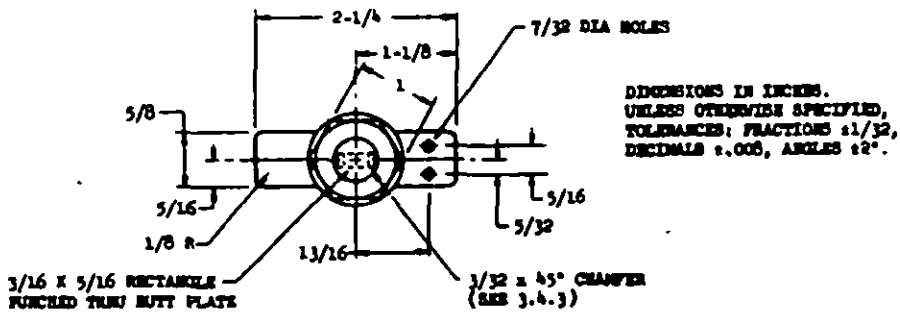
Review activities:
Army -
Air Force - 11

User activities:
Navy - CG

NOTICE - Review/user information is current as of date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current Federal Supply Classification Listing of DOD Standardization Documents.

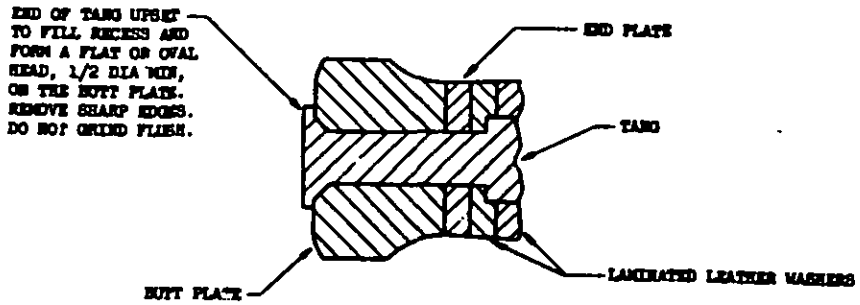




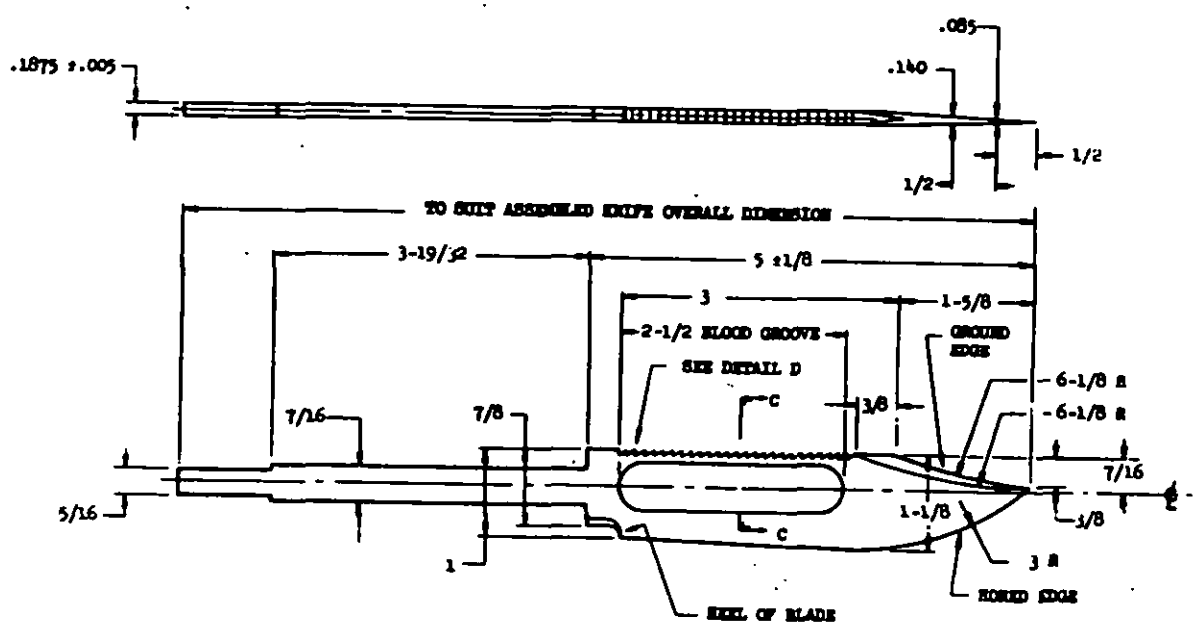


VIEW A

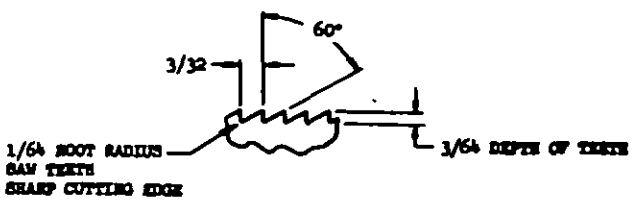
FIGURE 1
KNIFE



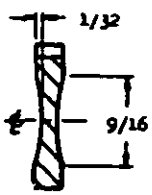
SECTION B-B



BLADE



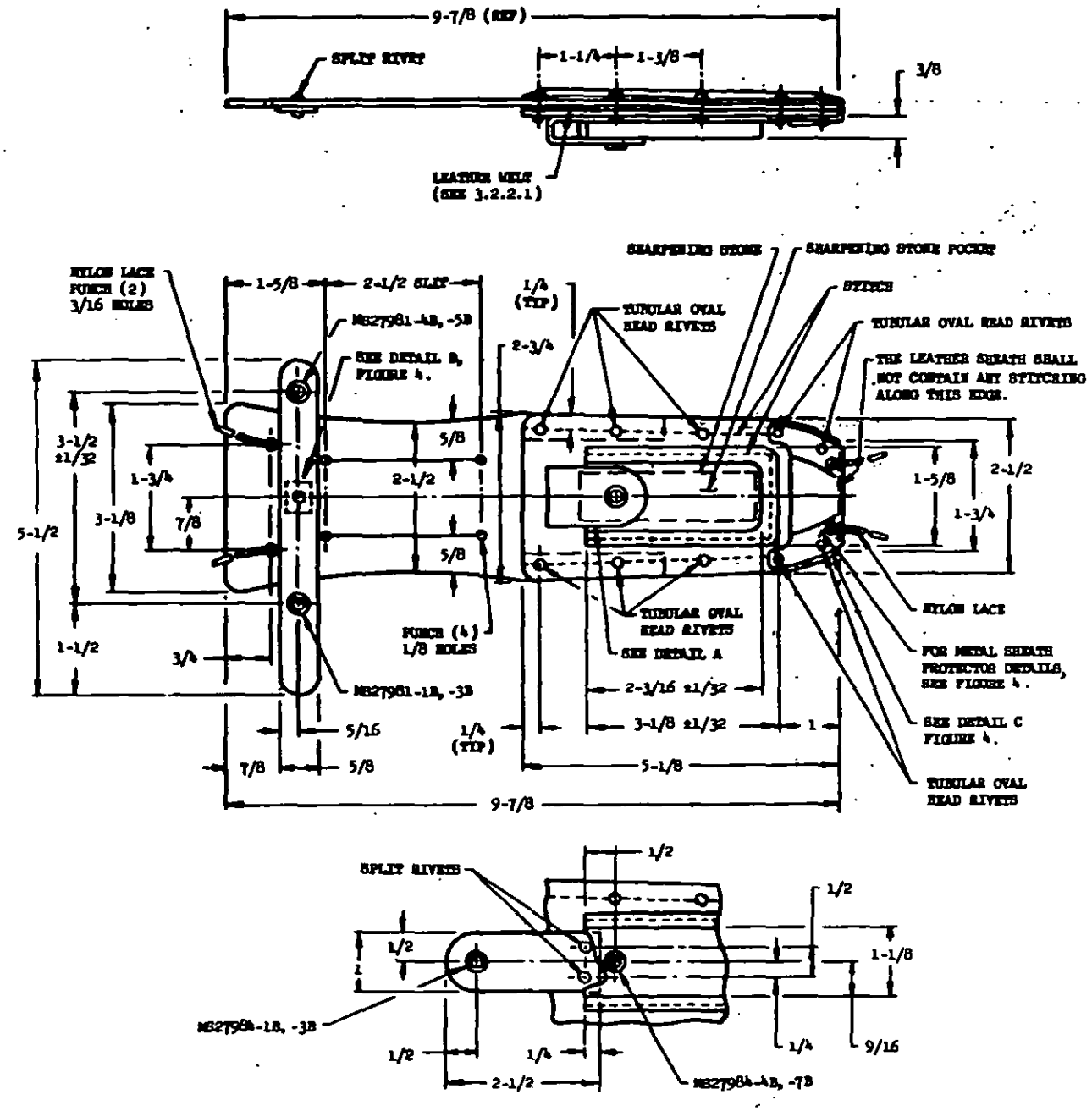
DETAIL D



SECTION C-C

DIMENSIONS IN INCHES.
UNLESS OTHERWISE SPECIFIED,
TOLERANCES: FRACTIONS ±1/32,
DECIMALS ±.005, ANGLES ±2°.

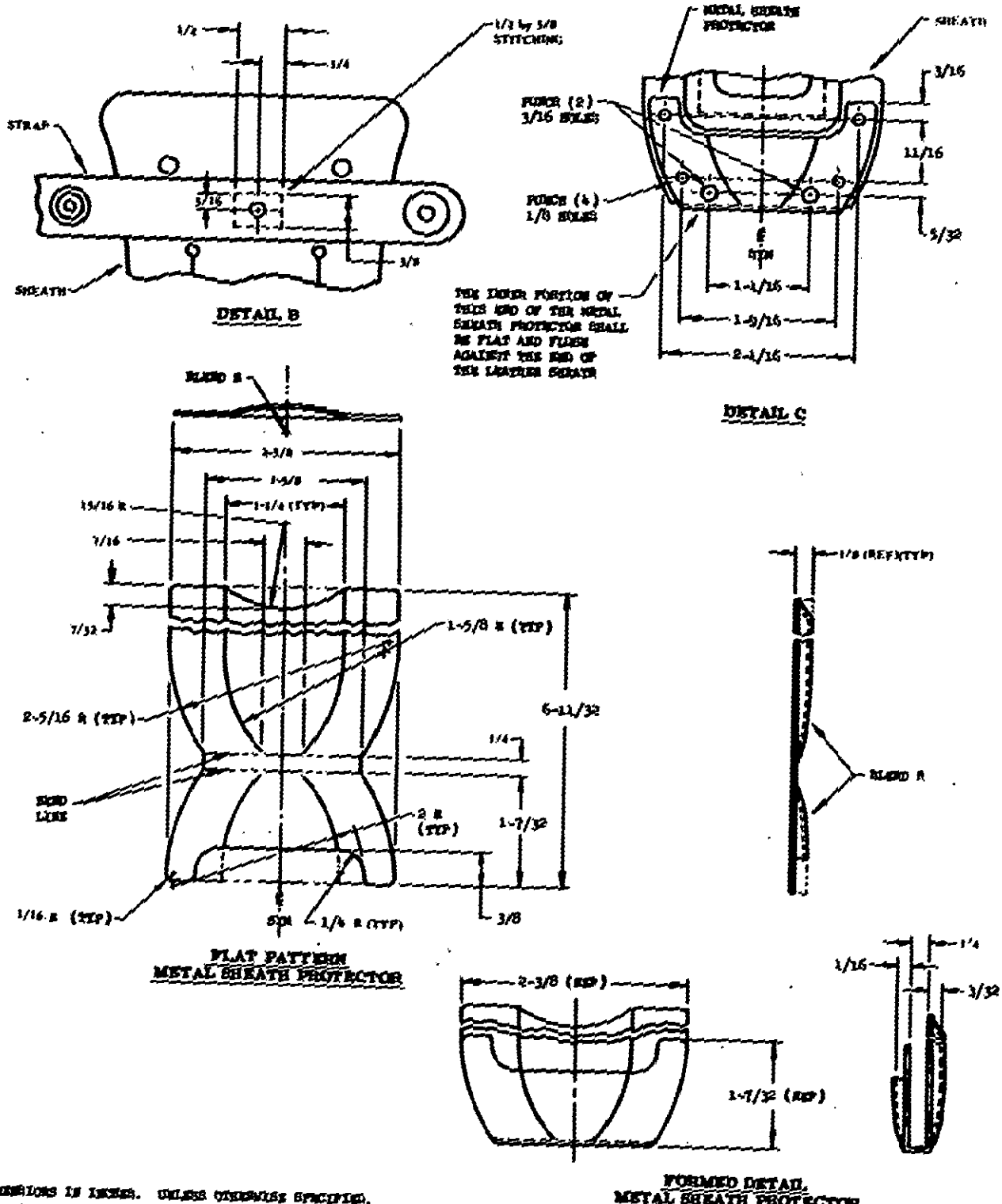
FIGURE 2
KNIFE SECTION AND BLADE DETAILS



DETAIL A

DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ±1/16. TOLERANCES SHALL NOT BE ACCUMULATIVE.

FIGURE 3. LEATHER SHEATH



DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ±1/32.

FIGURE 4. METAL SHEATH PROTECTOR AND SHEATH DETAILS

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

OMB Approval
No. 22-R255

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.

DOCUMENT IDENTIFIER AND TITLE

NAME OF ORGANIZATION AND ADDRESS

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ 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?

   ☐ YES ☐ NO *(If "Yes", in what way?)*

4. REMARKS

SUBMITTED BY *(Printed or typed name and address - Optional)*

TELEPHONE NO.

DATE

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S/N 0102-014-1802

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