I'IL-H-27614A(USAF)
30 June 1971
SUPERSEDING
IIIL-H-27614(USAF)
2 November 1961

MILITARY SPECIFICATION

HOOD, ROCKET FUEL HANDLERS, HGU-11/P

- 1. SCOPE
- 1.1 Scope. This specification covers the requirements for a hood to be worn by handlers of missile propellants that present only limited hazard, such as liquid oxygen and liquid nitrogen.
- 1.2 Classification. The hood shall be of one type and one size.
- 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 the specification to the extent specified herein.

SPECIFICATIONS

Federal

| L-P-535 | Plastic Sheet (Sheeting); Plastic |
|-----------|---|
| | Strip; Vinyl Chloride Polymer And |
| | Vinyl Chloride-Vinyl Acetate Copolymer, |
| | Firid |
| V-T-285 | Thread, Polyester |
| CCC-C-447 | Cloth, Percale, Cotton |
| DDD-L-20 | Label; For Clothing, Equipage, And |
| | Tentage (General Use) |
| GGG-E-142 | helmet, Construction Worker's |
| FPP-3-636 | Box, Fiberboard |
| PPP-T-45 | Tape, Gummed, Paper, Reinforced And |
| | Plain, For Sealing And Cecuring |
| | |

Military

| 1:IL-F-10336 | Fiber Sheet, Vulcanized | |
|--------------|-------------------------------|-------|
| MIL-F-21840 | Mastener Tage, Hock And File. | Hylon |

STANDARDS

Federal

| FED-STD-191 | Textile Test Methods |
|-------------|---------------------------------|
| FED-STD-751 | Stitches, Seems, And Stitchings |

Military

MIL-STD-105

MIL-STD-129

MS21083

MS35214

Sampling Procedures And Mables For

Inspection By Attributes

Marking For Shipment And Storage

Nut, Self-Locking, Hexagon,

Non-Metallic Insert, Low Height, 250°F

Screw, Machine-Pan Head, Cross-Recessed, Brass, Black Oxide, UNC-2A

Air Force-Navy Aeronautical

AN960

Washer, Flat

DRAWING

Air Force

611,4227

Hood, Rocket Fuel Handlers, HGU-11/P

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

3. REQUIREMENTS

3.1 <u>First article</u>. The requirements for the first article will be specified by the procuring activity (see 6.2). The first article will be inspected for compliance with requirements of this specification (see 4.2).

3.2 Materials.

- * 3.2.1 Rood cover. The basic fabric shall conform to CCC-C-447. The basic fabric shall be impregnated with a rigmented coating compound at a rate to meet the overall weight requirements and in such a manner that one side of the fabric shall have 2.5 to 3.0 ounces of coating per square yard, and the other side of the fabric shall have 7.0 to 9.0 ounces of coating per square yard. The coated fabric shall have a smooth finish on the heavily-coated side and shall conform to the additional requirements of Table I.
 - 3.2.1.1 Coating compound. The coating compound shall be a virgin polyvinyl chloride suitably plasticized with dioctyl phthalate and not extended. The color of the coating compound shall be pigmented white.
 - 3.2.2 <u>Crown loop</u>. The crown loop shall be made of the coated fabric used for the hood cover.
 - 3.2.3 Frame. The frame shall be made of fibrous glass reinforced polyester resin, 0.045, plus or minus 0.005, inch thick. The frame shall be free from uncured or unbonded areas, gaps, cracks, holes, blisters, resin pockets, areas lacking resin, excess surface resin, air or gas pockets, and any other similar defects. The frame shall possess sufficient strength to support the attachment of the helmet, the chin rest, the facepiece, and the hood cover.

TABLE I - Requirements of the Coated Fabric

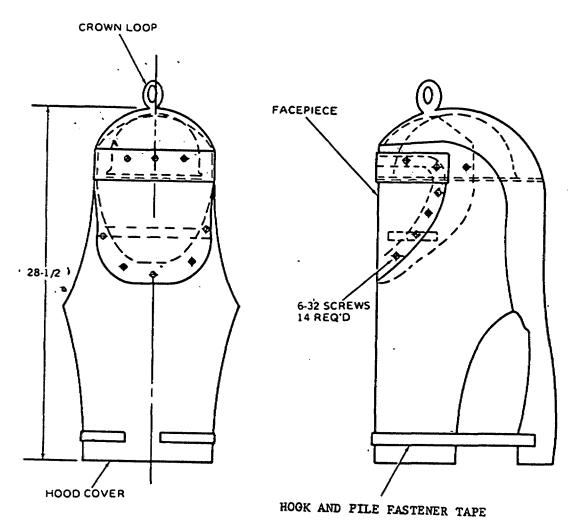
| | Requirement | |
|---|-------------------------|---------|
| Characteristic | Minimum | Kaximum |
| Overall weight, oz/sq yd | 12.5 | 15.5 |
| Breaking strength, pounds | | |
| Warp | 65 | |
| Filling | 115 | |
| Breaking strength, percent after | | |
| 200-hours weatherometer, exposure | | |
| Warp | <u>1</u> / 1/ | |
| Filling | 1/ | |
| Tearing strength, pounds | | |
| Warp | 1.0 | |
| Filling | 1.0 | |
| Adhesion of coating, l-inch strip, pound/inch | 3.0 | |
| Hydrostatic resistance after abrasion | | |
| Flame resistance: | 31811 31 1001108 | |
| After flame time, seconds | | 2.0 |
| After glow time, seconds | | 2.0 |
| Char length, inches | | 3.5 |
| Cold crack at -40°F, plus | No evidence of cracking | |
| minus 2°P | flaking or separation | |
| | of the coating from | |
| | the fabric | |
| Blocking, scale | No greater numerically | |
| | than No. 2 | |

^{1/} Shall retain 90 percent of initial breaking strength.

- 3.2.4 <u>Facepiece</u>. The transparent facepiece shall be made of viryl chloride polymer sheet conforming to composition "/," type I, class 3 of L-F-535, shall be optically clear and coldrless, and shall have a highly reliable finish on both sides. A slight green tint is permissible, but the tinting shall not affect the optical clarity of the facepiece. The thickness shall be 9.000, plus or minus 0.000, inch. A certificate stating that the raterial used for the facepiece conforms to the requirements of class 3 of L-P-535 shall be submitted to the procuring activity by the manufacturer.
- * 3.2.5 Waist adjustment. The tape used for the waist adjustment shall be 1 inch wide, white, nylon tape fasteners conforming to closure class 1, type II of MIL-F-21640.
- * 3.2.6 Chin rest. The chin rest shall be made of 3/32-inch thick, bone-hard fiber conforming to MIL-F-10336.
- * 3.2.7 Thread. The thread for seaming and stitching shall conform to type I, class 3 of V-T-285. The color shall be white.

- 3.2.8 Hardware for attaching the facepiece to the hood.
- * 3.2.8.1 Screws. The screws shall conform to No. 6 (.138 32MC) of MS35214-28.
- * 3.2.8.2 Nuts. The nuts shall conform to MC21083-DO6.
- * 3.2.8.3 Washers. The washer shall conform to AN960-D6.
 - 3.3 <u>Design</u>. The hood shall consist of an inner rigid frame with a pivoting helmet which is attached to an outer vinyl-coated, cotton front and back bib covering and an optically clear facepiece. The assembled hood shall be as shown in Figure 1.
- * 3.3.1 Helmet. The helmet shall conform to type II of GGG-H-142. It shall attach to and pivot on the inner rigid frame in a manner that shall secure the following results:
 - a. The facepiece shall project beyond the face to permit clearance of the nose and the eyeglasses.
 - b. The assembled hood shall tilt easily upward to a point where the center of the lottom edge of the frame will be out of the line of vision and will be projected from the eyes at an angle of at least 30 degrees above the horizontal and shall remain firmly in place after being adjusted.
 - c. The tightness of the hinge shall be adjustable.
 - d. All attaching and adjusting fittings shall have sufficient strength and flexibility for their intended purpose.
 - 3.3.2 Frame. The frame shall be a one-piece, molded type, not less than 0.045 inch, plus or minus 0.005, inch thick and shall conform to the dimensions specified in Figure 2. The face opening shall be cut to correspond to the size of the hood cover.
- * 3.3.3 Chin rest. The chin rest shall extend across the inside bottom of the frame connecting on each side approximately 3-5/8 inches from the bottom edge. The chin rest shall be arched to provide additional strength. The length of chin rest shall be adjustable.
 - 3.4 <u>Construction</u>. The hood shall be constructed in accordance with Table II, but the manufacturer is not required to follow the exact sequence of operations as listed therein.
 - 3.4.1 Stitches, seams, and stitchings. Unless otherwise specified in Table JI, the stitches, seams, and stitchings shall conform to FED-STD-751. Mherever two or more methods, seams, or stitches are specified for the same operation any one of them may be used. Unless caught in other seams or cross stitching, all ends of stitchings shall be securely backstitched, not less than 1/2 inch, with a continuous stitch. Thread breaks shall be backstitched not less than 1/2 inch.

::X::



NOTE: UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

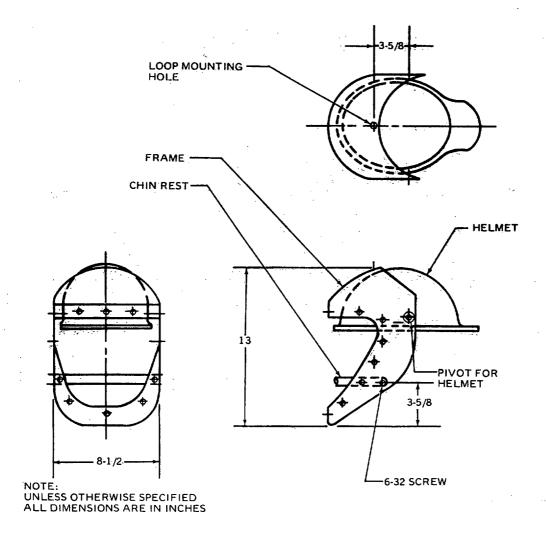


FIGURE 2 FRAME ASSEMBLY

TABLE II - SEWING OPERATIONS

| .io | Description of Operation | Stitch Type | Seam and Stitching Type | Stitches Per Inch |
|------------|--|----------------|-------------------------------|----------------------|
| ri . | CUTTING. Cut all component parts of the hood in strict accordance with the patterns, which show size, shape, and notches for the proper assembling of all parts. Cut and assemble the vinyl-conted, cotton naterial so that the heavier-coated side of the cloth forms the outer surface of the hood. Cut all components from one piece of material. | | | |
| તં | CROW: LOOP. Fold the loop at the center lengthwise; turn both edges . to the inside $1/l$ inch, and sew with a single row of stitching, $1/l$ inch from the edges. Overlap the ends of the loop 1 inch, forming a box and an "X" stitch 7-8 by $1/2$ inch at each end. | 301 | £\$c−1. | } |
| ъ. | FACEPINCE FLAP. Fold the flap at the center lengthwise inside out, and sew across the ends, with a single row of stitching $1/h$ inch from the edge. Both raw edges are to be turned in. | 303 | Csc-1 | |
| | a. Turn, fold raw edge $1/h$ inch to the inside, and raise with a single row of stitching, $1/16$ inch from the edge. | 331 | :5e-2(b) 0Sf-1 | |
| <u>.</u> ; | FROM: OPENING PACING. Join the facing to the face opening with a single row of stitching, $1/^{6}$ inch from the edge. | 301 | Leq-2(a) | _ |
| | a. Turn and raise on the facing, with a single row of stitching, 1/16 inch from the folded edge. | 30.1 | La-2(b) | ! |
| | b. Join the lottom cdge, with a single row of stitching, $1/R$ inch from the cdge. | 301 | g6a-1 | - |
| .i | it inch gage. If the double row of stitching, $1/16$ inch from the edge, $1/4$ inch gage. | 301 | 2-888- | ~ |
| | | | | |

SEWING OPERATIONS (Cont'd)

1

TABLE II

Stitches Per Inch Stitching and FFa-1 LSa-2 Seam Type Stitch Type 301 S E 301 301 301 301 301 edge, at the Fatterns, forming a box and a "X" stitch 3/4 inch by 1-1/2 reinforcement piece, with a single row of stitching, 1/16 inch from the tape 1 inch, with the hook sides together, and join with a single row of stitching, 1/16 inch from the edge on four sides, forming a box and a "X" stitch 7/8 by 7/8 inch. panels, with a single row of stitching, 1/16 inch from the edge on all With the hook side next to the back panel and the loose end toward HEM BOTTOM. Fold 1/4 inch to the inside at the bottom and around the 3/4 inch up from the lower edge of the panel. Join with a single row Cut two pieces of hook tape 15 inches long. Fold one end of each of stitching at the top, the bottom, and the ends, 1/16 inch from the to the front panel at the pattern marks, the lower edge approximately the front, join the 15 inch long hook tage to the back panel and the arm openings, and sew with a single row of stitching, 1/16 inch from the inside of the garrent at the hook tare pattern marks on the back double row of stitching, 1/8 inch from the edge, 1/4 inch gage, with stitching, 1/8 inch from the edge, 1/4 inch gage, with the back and JOIN PROWT PAWEL TO BACK AND TOP PAWELS. Join with a double row of Cut one piece of the loop tape 16-3/4 fhehes long, and join Attach a 2 inch square reinforcement piece of self material on edges, with a Join at the straight the top panel overlapping the back panel. top panel overlapping the front panel. Description of Operation JOIN TOP PANEL TO BACK PANEL. four sides. the edge. inches. TAPE. . 얼 ė $\dot{}$ ġ. ဆံ

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TABLE II - SEWING OPERATIONS (Cont'd)

| ilo. | Description of Operation | Stitch Type | Sear and Stitching Type | Stitches Per Inch |
|------|---|----------------|-------------------------------|----------------------|
| 10. | ATTACH LOOD TO FRALL. Attach the hood and faceriece around the faceriece opening, with a screw, nut, and washer combination. Washers shall he located beneath the heads of the screws. Screw heads shall te on the outside of the facerice and the crown loop. The holes around the hood cover and the frame opening shall be in alignment with the holes in the faceriece. | | | |
| i. | a. Attach the crown loop to the top of the cover at the center of the box stitch to the frame, at the loop mounting hole indicated on Figure 2. TOLINAMES | | | |
| | a. A tolerance of plus or minus 1 stitch per inch is allowed. | | | |
| | b. A tolerance of plus 1/16, minus 0, inch is allowed for dirensions under 1/2 inch; a tolerance of plus or minus 1/8 inch is allowed for dimensions 1/2 inch and over. | | | |
| | | | A | |
| | | | | |
| | | | | |

- * 3.4.2 Sealing of joining seams. All joining seams shall be sealed on the outer surface of the hood with a strapping made from an unsupported film of the coating compound specified in 3.2.1.1. The strapping shall be not less than 0.008 inch thick and 3/4 inch (plus or minus 1/8 inch) wide. The strapping shall be centered over the stitching and shall be fused to the seam and the surrounding coated fabric.
 - 3.4.3 Repairs. Abraded areas, areas of no coating, and separation of coating on the material that are no longer than 1/8 inch in the largest dimension may be repaired by an application of the coating compound specified in 3.2.1.1, provided that the compound is neatly applied and is completely fused to the surrounding coated material. A patch shall not be used for repair.
 - 3.5 <u>Patterns</u>. The dies or patterns for cutting all parts of the hood shall be furnished by the manufacturer and shall be of the proper proportions to provide good fitting. The manufacturer's working patterns shall be identical in size and shape to the patterns referenced on Drawing 61K4227. The manufacturer's working patterns shall be duplicates of the Covernment patterns (6.3) which show size and notches for the proper assembly of all parts.

3.6 Performance.

- * 3.6.1 Testing of the seam coating. All seams referenced in 3.4.2 shall show no sign of water leakage, of lifting of the surrounding coating, or of lifting of the seam sealing strip when tested as specified in 4.3.2, using only straight sections of the seams of finished hoods.
- * 3.7 <u>Identification of product</u>. Each hood shall be marked for identification in accordance with DDD-L-20. The marking shall be centered on the inside of the rear flap, commencing approximatley 6 inches from the bottom seam and shall contain the following information:

Hood, Rocket Fuel Handlers, HGU-11/F MIL-H-27614A(USAF) Order No. * Stock No. * Manufacturer's Name or Trademark * U. S.

- * The manufacturer shall insert the applicable data.
- 3.8 Workmanship. The finished hood shall be clean, well-made, and free from any defects that might affect appearance or serviceability.
- 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.

* 4.1.1 <u>Certificates of compliance</u>. The components and materials listed below may be accepted on the basis of a manufacturer's certification of compliance with the specified requirements. The Government reserves the right to check test such items to determine the validity of the certificate.

Coating Compound (3.2.1.1)
Frame (3.2.3)
Facepiece (3.2.4)
Screws (3.2.8.1)
Nuts (3.2.8.2)
Washers (3.2.8.3)

- * 4.2 <u>First article inspection</u>. The first article submitted in accordance with 3.1 shall be inspected for compliance with design, construction, workmanship and dimensional requirements (see 4.4.1).
- * 4.3 Sampling for inspection. Unless otherwise specified, inspection shall be in accordance with MIL-STD-105.
- * 4.3.1 Materials and components. In addition to the quality assurance provisions of the subsidiary specifications and drawings, the coated cloth shall be tested as specified in Table III. The method of testing specified in FED-STD-191 wherever applicable shall be followed. For all characteristics other than flame resistance the sample unit shall be 3 continuous yards full width of the coated cloth. The sample unit for flame resistance shall be 2 yards full width. The lot shall be expressed in terms of 1 yard. The sample size (number of sample units) shall be as shown telow. The lot shall be unacceptable if one or more sample units fail to meet and test requirement specified. All test reports shall contain the individual values utilized in expressing the final results. For flame resistance the Government will test each lot and acceptance will be based on Government test results.

| Lot Size (Yards) | <u>Sample Size</u> |
|------------------|--------------------|
| 800 or less | 5 |
| 801 - 22,000 | 3 |
| 22,001 or over | 5 |

4.3.1.1 Abrasion. A specimen of the coated fabric 10 by 10 inches shall be abraded with a 2 inch square piece of grade 1/0 garnet paper which is uniformly leaded with an 8 ounce, plus or minus 0.1 ounce, weight. The specimen shall be abraded on the heavier-coated side by moving the weighted garnet paper fillingwise five times in each direction. The abraded area shall be placed across the center line of the hydrostatic tester specified in method 5514 of FED-STD-191. The height of the water shall be raised to 20 inches and shall be maintained at that level for 10 minutes. The abraded portions shall show no sign of leakage.

TABLE III - TEST REQUIREMENTS

| Characteristic | Rqmt | Test | Results |
|---|---|---|---|
| | Para | Procedures | Reported as |
| Overall Weight Breaking Strength, Initial Breaking Strength, After Weatherometer Exposure Tearing Strength Hydrostatic Resistance Flame Resistance After Flame Time After Glow Time Char Length Cold Crack Blocking | Table I Table I Table I Table I Table I | 50 ¹ 1 5100 580 ¹ /5100 513 ¹ 4.3.1.1 5903.1 587 ¹ 1/ 5872 | To nearest 0.1 oz To nearest 1.0 lb To nearest 1.0 lb To nearest 1.0 lb Pass or fail To nearest 1/5 sec To nearest 1/5 sec To nearest 0.1 inch Pass or fail Scale reading |

^{1/} There shall be no evidence of cracking, flaking or separation of the coating from the fabric.

* 4.3.2 End item testing. The seam coating of the fabricated hood shall be tested in accordance with method 5512 of FED-STD-191 for the requirements specified in 3.6.1. The test specimen with the seam in the center shall be subjected to a pressure of 10 pounds per square inch. The pressure shall be maintained for 20 seconds with the water contacting the outside of the seam. Except that the facepiece, the helmet, and the frame do not need to be included, the sample unit shall be one hood. The test requirement shall be applicable to the individual unit. The inspection level shall be S-1 of MIL-STD-105. Four determinations, two each side, shall be made, and the results shall be reported as pass or fail. Any failure encountered in testing shall be cause for rejection of the lot represented by the sample.

4.4 Examination for acceptance.

- 4.4.1 End item examination. Defects found during examination of the end item shall be classified in accordance with 4.4.1.1 and 4.4.1.2, and the lots shall be inspected in accordance with 4.4.1.3. The sample unit for these examinations shall be one hood completely fabricated.
- 4.4.1.1 <u>Visual examination of the hood</u>. The hoods shall be visually examined for defects in finish, design, material, construction, workmanship, and marking. Defects with an asterisk (*) in the critical column shall be classified as critical defects when the defect may result in injury to the user, as a major defect when the defect affects serviceability seriously but is not expected to result in injury to the user, and as a minor defect when affecting serviceability but not seriously. Defects with an asterisk (*) in the major column shall be classified as a major defect when the defect affects serviceability seriously and as a minor defect when affecting serviceability but not seriously.

| Examine | Defect | Critical | Major | Minor |
|--|--|----------|-------|-------|
| Finish | Any component not finished as required or not specified color | | | х |
| Cleanliness | Any spot, stain, or foreign matter that is clearly noticeable at a distance of 3 feet | | | х |
| Design | Unless otherwise indicated herein, any characteristic not in accordance with specified requirements | * | | , |
| Material (General) | Any component not fabricated of the specified material | | х | |
| Coated fabric and strapping, as applicable | Any hole, cut, tear, or rip through the material or exposing the base fabric: | 1 | | |
| | on hem or crown loop on face piece flap or on front or back panel up to 14 inches from bottom of the hood on all other areas | x | x | Х |
| | Any brittle area that, when bent, results in a crack on facepiece flap or lower area of the front or back panel up to 14 inches from bottom, except hem | | x | |
| | Any brittle area that, when bent, results in a crack on front or back panel above 14 inches from the bottom of the hood, except crown loop or sealing strip | x | | |
| | Any brittle area that, when bent, results in a crack on hem, crown loop, or sealing strip | | | х |
| | Any area of excessive coating, i.e. solid runs, ridges, or lumps | 3 | | х |
| | Any permissible repair not properly accomplished or beyond the limit specified on any area except face-piece flap, hem, crown loop, or inside seam portion of scaling stri | | x | |

| Examine | Defect | Critical | Major | Minor |
|--|---|------------|-------|-------|
| Coated fabric and strapping, as applicable (Cont'd) | Any permissible repair not properly accomplished or beyond the limit specified on facepiece flap, hem, crown loop, or inside seam portion of sealing strip | | | Х |
| | Any patch | | х | |
| | Any pit, abraded area, area of no coating, or separation of coating, exposing base fabric: - on hem or crown loop - on face flap or on front or back panel up to lh inches from the | | 5 | х |
| | bottom of the hood - on all other areas | х | Х | |
| | Any imbedded foreign material easily removed so that base fabric is exposed | * | | |
| | Any imbedded foreign material that cannot be readily removed, or if removable, does not expose base fabric | | | X |
| | Any blister that is expected to develop into a hole that will expose base fabric | . * | | |
| Construction and workmanship, general (applicable to all | Any component misplaced, operation omitted or improperly performed, or any factory damage | * | | |
| components and assemblies unless | Any component missing | | Х | |
| otherwise indicated herein) | Heavier-coated side not on exterior of hood | | х | |
| | Any component or assembly malformed | * | | |
| | Any exposed drill hole | * | | , |
| Seam sealing strip | Any portion of joining seam not strapped | X | | |
| | Any opening into the crosswise section of the strapping more than 1/8 inch but does not penetrate to the stitching or seam. | | | X |

| Examine | Defect | Critical | liajor | Minor |
|--------------------------------|---|----------|----------------|-------|
| Seam sealing strip (Cont'd) | Any opening into the crosswise section of the strapping penetrating to the seam or stitching | g X | | |
| • | Any portion of strapping improperly applied resulting in the edges fuse but the center not fused | | x | |
| Metal components | Any part of screw, nut, or washer missing, malformed, damaged, or malfunctioning, sharp burr or edge, or improperly affixed | | 8 | |
| | Two or more screw nut assemblies loosely joined | | | Y. |
| | Any screw nut assembly joined too tightly, resulting in damage to the facepiece | | X | |
| | Position of nut and screw reversed, i.e., nut appears on the outside of hood | | | x |
| Facepiece | Not optically clear | | х | |
| | Both sides not highly polished | | х | |
| | Any permanent stain or discolora- tion affecting optical clarity seriously | | х | |
| | Any permanent stain or discolora- tion affecting optical clarity but not seriously | | | X |
| | Any hole, cut, crack, deep scratch, crazing, or cloudiness | | X | |
| | Edge not shooth | | | ж |
| Frame | Not type specified | | X. | |
| - | Damaged or malformed | | es | |
| | Any uncured or unbonded area, gap, crack, hole, blister, or air or gas pocket | | (1) | |
| | Any area of no resin or excess resin | | ¢s | |
| | Pivot assembly malformed, damaged, missing, or malfunctioning | | æ | |

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| Examine | Defect | Critical | Major | Minor |
|---------------------|--|----------|----------|-------|
| Waist adjustment | Not type specified | | х | |
| · | Damage, malformed, inoperative, or out of alignment | | * | |
| Helmet . | Not type specified | | х | |
| | Any part of helmet components missing, damaged, malfunctioning, or misplaced | | * | |
| | Any cut, tear, hole, or rip in headband | | Х | |
| | Any cut, tear, hole, or fraying in tape | | Х | |
| | Any dent or crack | | * | - |
| Seams and stitching | Seam or stitch type not as specified | | X | . • |
| | Any row of stitching omitted | | X | |
| | One stitch per inch less than specified | | | X |
| | Two or more stitches per inch less than specified | | X | |
| | More than specified number of stitches per inch, damaging material | | <u>"</u> | |
| | Open seam on hem or crown loop -more than 1/h inch | | | х |
| | Open seam on joining seam -up to 1/4 inch -1/4 inch or more | | X | X |
| | Open seam on waist tape -1/4 inch or less -more than 1/4 inch | , | . X | Х |
| - | Open seam on helmet -more than 1/4 inch | | | Х |

Note: Run-offs or skipped stitch shall constitute an open scam.

| Examine | Defect | Critical | l'ajor | Minor | |
|--|--|----------|--------|-------|--|
| | End of stitching not backstitched | | Х | | |
| | End of stitching backstitched -less than 1/2 inch | | | х | |
| Note: Eackstitching defects are not applicable to end of stitching that is caught in a cross row of other stitching or in a hem. | | | | | |
| Marking | Missing, incomplete, incorrect, not legible, not specified type or size, not in proper location, or not accomplished in the specified manner | | | × | |
| | - | | | | |

- 4.4.1.2 Examination of dirensions of finished hoods for defects. Any dimension of the finished hood that is not within the specified tolerance shall be classified as a defect.
- 4.4.1.3 <u>Inspection levels</u>. The inspection levels shall be II of MIL-STD-105 for 4.4.1.1 and S-3 of MIL-STD-105 for 4.4.1.2.
- * 4.4.1.4 Acceptable quality level (ACL). The ACL for 4.4.1.1 shall be 10.0 defects per hundred unit for total defects, 2.5 defects per hundred unit for major defects, and any critical defect found in sample inspection for major and total defects shall be cause for rejection of the lot represented by the sample. One-hundred percent inspection shall be performed for critical defects on each lot found acceptable under sample inspection. Any hood found to contain a critical defect during 100 percent inspection shall be rejected. The ACL for 4.4.1.2 shall be 4.0 defects per hundred unit for total defects. At its discretion, the Government may verify the results of the supplier's examination by 100 percent examination or by sampling inspection.
 - 4.4.2 Examination of preparation for delivery requirements. An examination shall be made to determine if packaging, packing, and marking requirements of Section 5 of this specification have been met. The sample unit shall be one shipping container fully prepared for delivery with the exception that it need not be sealed. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 of MIL-STD-105, and the AQL shall be 4.0 defects per hundred unit. Shipping containers fully prepared for delivery shall be examined for defects of closure and shall be scored as follows:

<u>Examine</u> <u>Defect</u>

Markings Omitted, incorrect, illegible, or of

(exterior and interior) improper size, location, sequence, or

method of application

Materials Any component missing or any component

damaged, affecting serviceability

Workmanship Inadequate application of components,

such as: incomplete closure of case liners, container flaps, loose strap-

ping, inadequate stapling.

Bulging or distortion of containers

Weight or content Number of intermediate packages is

(exterior and interior) more or less than required.

Gross or net weight exceed requirement

5. PREPARATION FOR DELIVERY

- * 5.1 Packaging. Packaging shall be level A or C as specified (see 6.2).
- * 5.1.1 Level A. Each hood shall have the bib and skirt tucked inside the body of the hood. Each hood shall be placed in a snug fitting fiberboard box conforming to class domestic, type CF, style RSC or OFF of PPP-B-636. Closure shall be made with gurmed, paper tape conforming to FPP-T-45
- * 5.1.2 <u>Level C</u>. Hoods shall be packaged in a manner that will afford adequate protection against physical damage from the manufacturer's facility to the first receiving activity. The manufacturer may use his commercial practice when it meets this requirement.
- * 5.2 Packing. Packing shall be level A, B or C as specified (see 6.2).
- * 5.2.1 Level A. Fight hoods packaged as specified in 5.1.1 shall be packed in fiberboard shipping container conforming to class weather-resistant style RCC, type SF, grade V2S or V3S of PPP-B-636. The hoods shall be packed 2 in length, 2 in width, and 2 in depth. Closure and strapping shall be in accordance with the appendix of the container specification.
- * 5.2.2 <u>Level B.</u> Level B shall be the same as specified in 5.2.1, except the shipping container shall conform to class domestic, style RSC, type CF, variety DW, grade 275 of PPF-B-636, and reinforcing requirements do not apply.
 - 5.2.3 <u>Level C.</u> Hoods shall be packed in a manner that will insure acceptance by the carrier and safe delivery at destination. Shipping containers shall conform to rules and regulations applicable to the mode of transportation.
 - 5.3 <u>Marking</u>. Interior packages and shipping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 <u>Intended use</u>. The hood covered by this specification is intended to be a component part of a clothing assembly worn to protect personnel who are exposed to liquid oxygen or liquid nitrogen during missile fueling operations.

- 6.2 Ordering data. Frocurement documents should specify the following:
 - a. Title, number, and date of this specification.
- b. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
 - c. Preproduction requirement (3.1 and 4.2).
- 6.3 Government patterns. Government patterns may be obtained from the procuring activity (3.5).
- 6.4 The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

\$ U. S. GOVERNMEINT PRINTING OFFICE: 1971-714-154/12054

Custodian:

Air Force - 82

Review Activity:

Air Force - 82

Preparing Activity: Air Force - 82

Project No. 8415-F679

| SPECIFICATION ANALYSIS SH | Form Approved Budget Bureau No. 22-R255 | | | | |
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| INSTRUCTIONS: This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, steple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements. | | | | | |
| SPECIFICATION . | | | | | |
| ORG ANIZATION | | | | | |
| CITY AND STATE | CONTRACT NUMBER | | | | |
| MATERIAL PROCURED UNDER A DIRECT GOVERNMENT CONTRACT SUBCONTRACT | | | | | |
| I. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCURE- MENT USET. A. GIVE PARAGRAPH NUMBER AND WORDING. | | | | | |
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| B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES | | | | | |
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| 2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID | | | | | |
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| 3. IS THE SPECIFIC ATION RESTRICTIVE? | | | | | |
| YES NO (If "yea", in what way?) | | | | | |
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| 4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity) | | | | | |
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| SUBMITTED BY (Printed or typed name and activity - Optional |) | DATE | | | |