

ORGANIZATION AND INTERMEDIATE MAINTENANCE

DESCRIPTION AND PRINCIPLES OF OPERATION

PCU-17/P CREW RESTRAINT HARNESS ASSEMBLY

PART NO. 814AS900-1

List of Effective Work Package Pages

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PCU-17/P Crew Restraint Harness Assembly, Illustrated Parts Breakdown WP 006 04

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Record of Applicable Technical Directives

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None

1. DESCRIPTION.**2. GENERAL.**

■ a. The Crew Restraint Harness Assembly, Part Number 814AS900-1, provides for integration of the (USAF) PCU-17/P Personnel Restraint Harness and the (USAF) HBU-6/P Safety Strap Assemblies, as the authorized USN Search and Rescue/Loadmaster crew safety/restraint system.

■ b. The personnel restraint harness is mated with the safety strap by routing the quick ejector end of the HBU-6/P Safety Strap thru the backstrap retaining loop, at the junction of the diagonal back straps on the PCU-17/P Harness Assembly, and placing the connector link into the quick ejector snap and closing the latch on the quick ejector snap.

■ c. The service life of the Crew Restraint Harness Assembly (814AS900-1) is established at 13 years from the Date of Manufacture (DOM) of the independent subassemblies (PCU-17/P Harness or HBU-6/P Safety Strap).

3. AIRCRAFT APPLICATIONS.

■ a. To provide a crew restraint system when performing Search and Rescue kit/air drop duties from the P-3 and E-6 Aircrafts, and Loadmaster/air drop duties from the C-2 and C-130 Aircrafts.

4. CONFIGURATIONS.

■ a. This configured restraint harness is the only one authorized for use aboard applicable Navy Aircraft and shall not be used in conjunction with any Navy Emergency Personnel Parachute Assemblies or Systems (Figure 1).

5. FUNCTIONS.

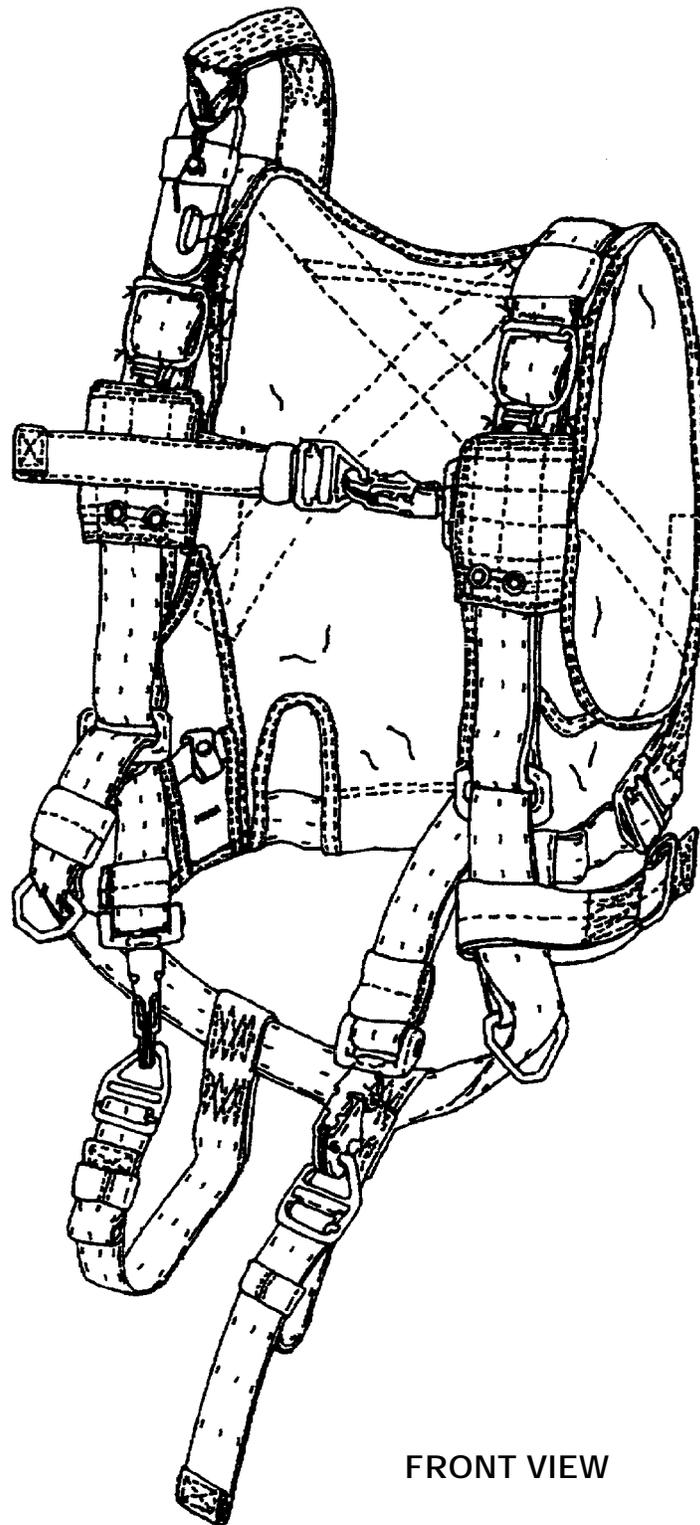
■ a. The harness must fit the aircrew properly to provide the required restraint and protection. The length of the adjustment straps loose ends will vary due to the varying sizes of the crewmember. The locally fabricated webbing retainer, P/N 50B6868 will be used to secure the loose ends of the straps. An optional restraint line stowage pocket may be installed.

6. AIRCREW SYSTEMS RECORD.

■ a. Refer to OPNAVINST 4790.2 (series) for filling out the Aircrew Personnel Equipment Record (OPNAV 4790/159).

7. ORDERING AND REPORTING INFORMATION.

■ a. When ordering new assemblies (personnel restraining harnesses, safety straps and hardware), order part numbers and quantities specified in the Illustrated Parts Breakdown section Work Package 004 05. The top assembly configuration part number (814AS900-1) shall be reported when inspection or maintenance is performed throughout the service life of the Crew Restraint Harness Assembly.



FRONT VIEW

6.2-8001

Figure 1. PCU-17/P Crew Restraint Harness Assembly (Sheet 1 of 3)

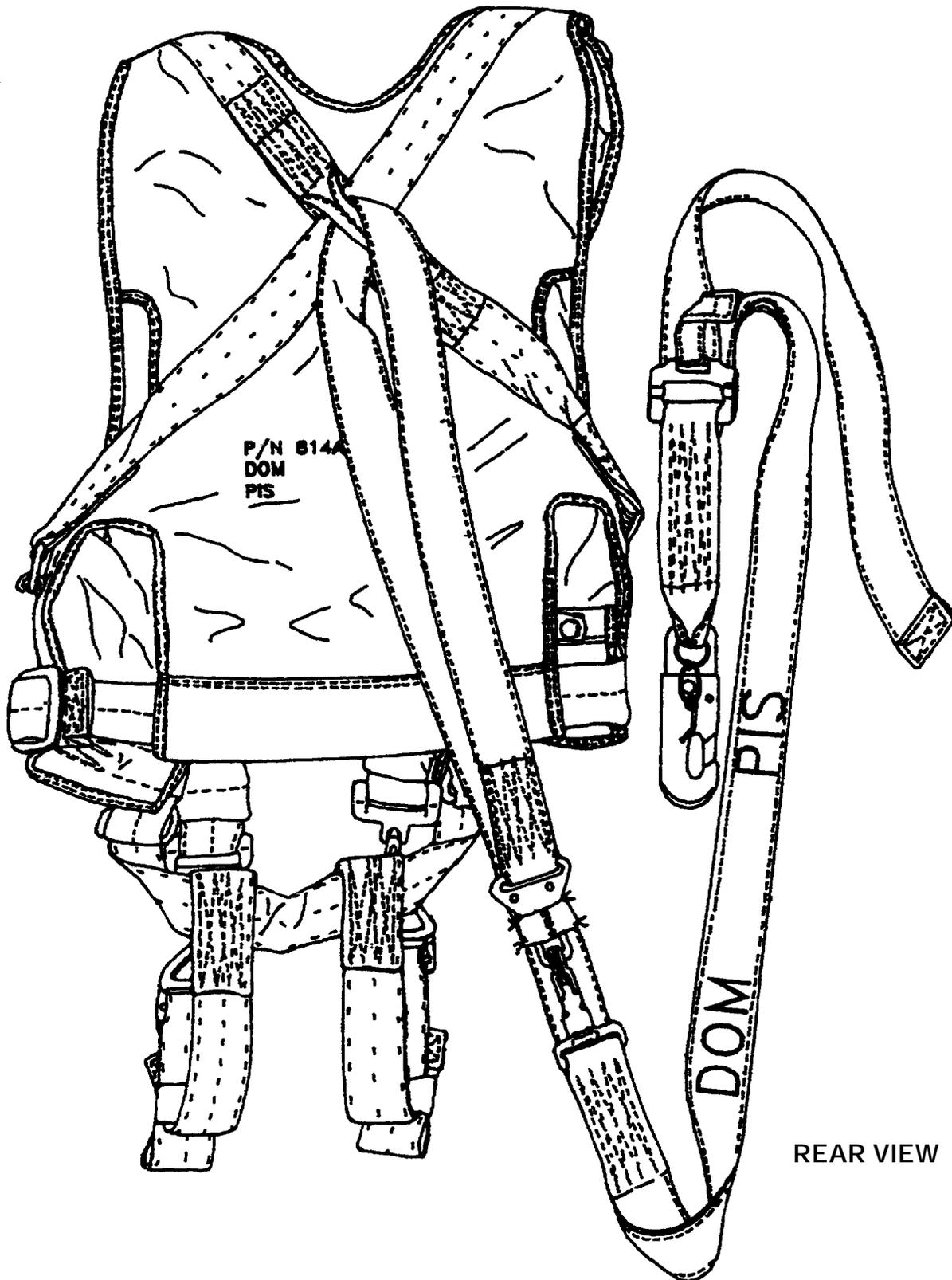
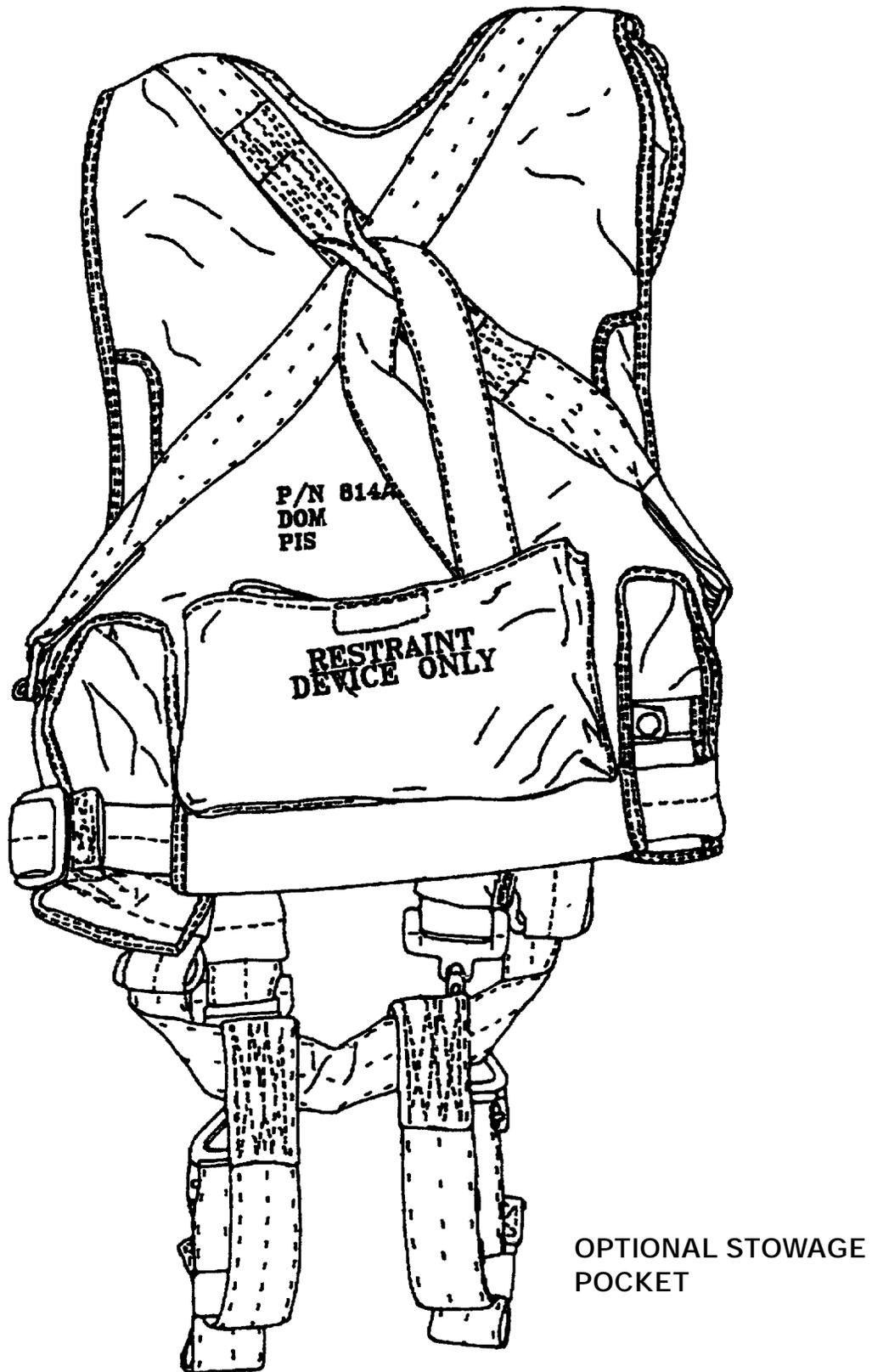


Figure 1. PCU-17/P Crew Restraint Harness Assembly (Sheet 2 of 3)



6.2-8000

Figure 1. PCU-17/P Crew Restraint Harness Assembly (Sheet 3 of 3)

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ORGANIZATIONAL AND INTERMEDIATE MAINTENANCE

ORIGINAL ISSUE RIGGING PROCEDURES

PCU-17/P CREW RESTRAINT HARNESS ASSEMBLY

PART NO. 814AS900-1

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| Illustrated Parts Breakdown, Crew Restrain Harness, PCU-17/P | WP 006 04 |
| Parachute Loft Requirements/Administration | WP 003 00 |

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Record of Applicable Technical Directives

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| None | | | | |

1. GENERAL.

2. This Work Package (WP) provides rigging procedures for the original issue of the Crew Restraint Harness Assembly (PCU-17/P).

3. Quality Assurance (QA) points have been included in the rigging procedures. When a procedural step is followed by “(QA)” there is a quality assurance requirement. Witnessing of QA steps may be delayed by QA if their satisfactory completion is verified in later steps.

4. PRELIMINARY PROCEDURES.

5. To prepare the crew restrain harness assembly for original issue rigging, do as follows:

Support Equipment Required

| Specification or Part Number | Nomenclature |
|------------------------------|---------------------------------|
| --- | Punch, 3/32” Dia. or equivalent |
| --- | Hot knife |
| MIL-S-22473 | Sealing Compound Grade H |
| --- | Straight Edge |

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|------------------------------------|
| 68E417-10 | Strap Assembly, Safety |
| 68D33721-3 | Snap, Quick Ejector (3) |
| MS27765-1 | “V” Ring, Quick Fit (3) |
| A-A-59291 | Ink Marking, Parachute, Light Blue |

V-T-295 Thread, Nylon Size 6, Type I or II Class A

V-T-295 Thread, Nylon Size E, Type I or II Class A

MIL-C-7219 Cloth, Duck, Nylon Type III, Class 3

A-A-55126 Fastener Tape, Hook Type II, Class 1

A-A-55126 Fastener Tape, Pile Class 1

6. REMOVAL OF CANOPY RELEASE COVER AND LATCH ARM.

- a. Open the canopy release cover.
- b. Place fitting in a vice with the rolled edge of the cover pivot pin facing up (Figure 1).

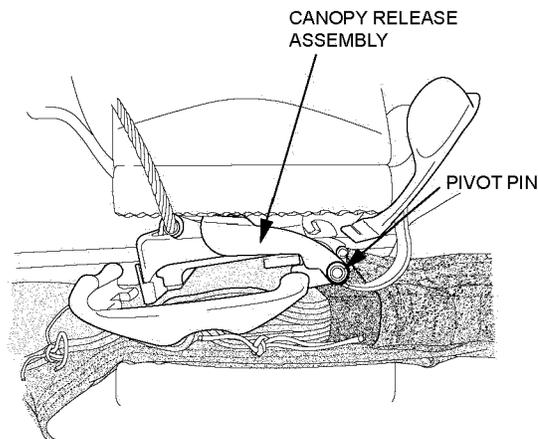


Figure 1. Removal of Canopy Release Assembly

- c. Place punch into the rolled edge of the pivot pin (Figure 2).

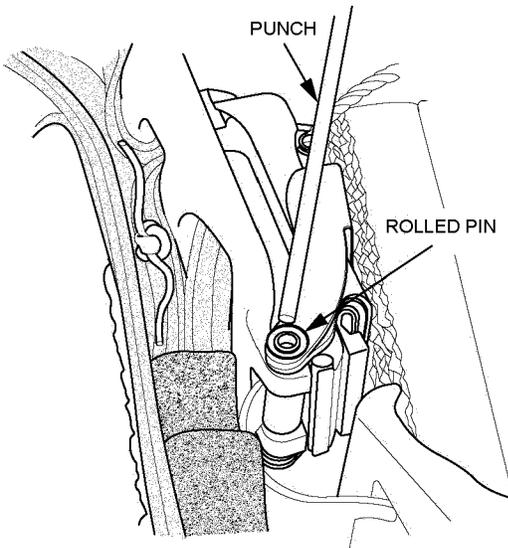


Figure 2. Removal of Rolled Edge of Rivet

- d. Strike several sharp blows with 8 - 12 ounce hammer to break off riveted head of pin.
- e. Drive out assembly pin.
- f. Discard the canopy release cover and latch arm.
- g. Remove the fitting/harness from vice (Figure 3).

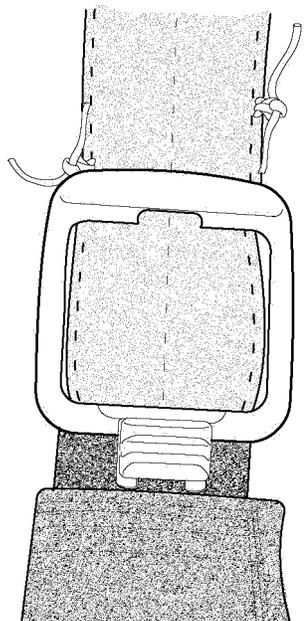


Figure 3. Cover and Latch Arm Removed

7. ATTACHMENT OF HARDWARE.

- a. Using hot knife, cut split end off free ends of chest and leg adjustment straps (Figure 4).

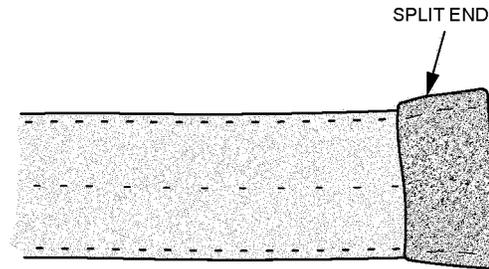


Figure 4. Split End

- b. Install "V" Rings to the chest and leg straps (Figure 5).

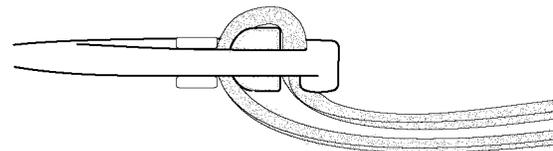


Figure 5. Routing of Leg and Chest Straps thru "V" Rings

- c. Fold free ends of chest and leg adjustment straps over (two folds) 1 1/2-in. and box stitch with size 6 thread.

- d. Remove roller sleeves from quick ejector and insert in chest (1) and leg (2) webbing loops (Figure 6).

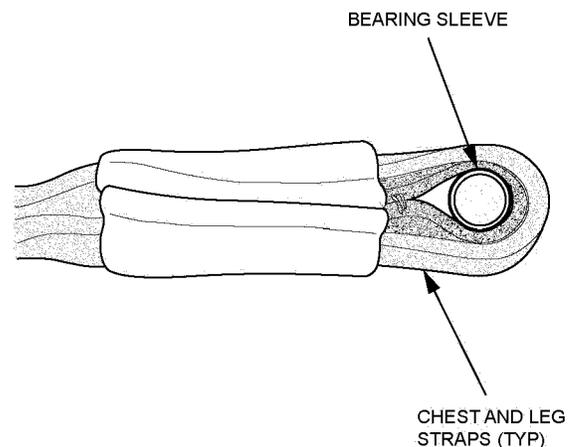


Figure 6. Bearing Sleeve Installation

- e. Apply one drop of sealing compound, to first three threads of screw pin. Insert screw pin thru prongs and roller sleeve; tighten screw pin. (QA)

8. ATTACHMENT OF SAFETY STRAP.

a. Route the quick ejector end of the safety strap through the loop at the junction of the back strap (Figure 7).

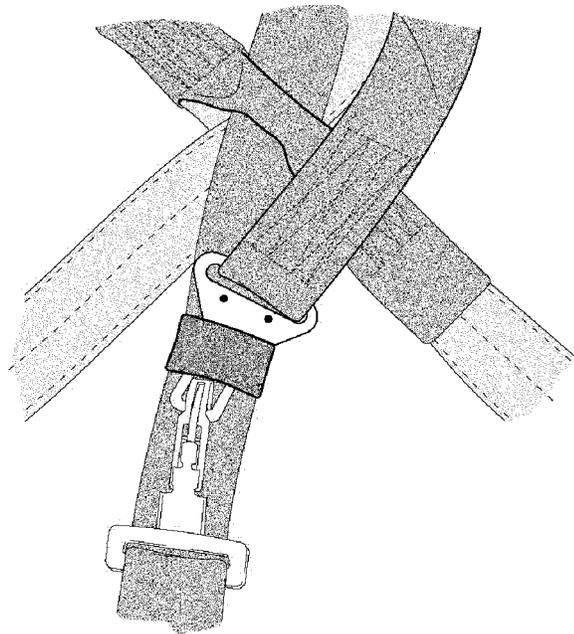


Figure 7. Safety Strap Routing

b. Place the connector link into the quick ejector snap lobe and latch the quick ejector.

9. FABRICATION OF SAFETY STRAP STOWAGE POCKET (OPTIONAL).

a. Lay out nylon cloth per figure 8.

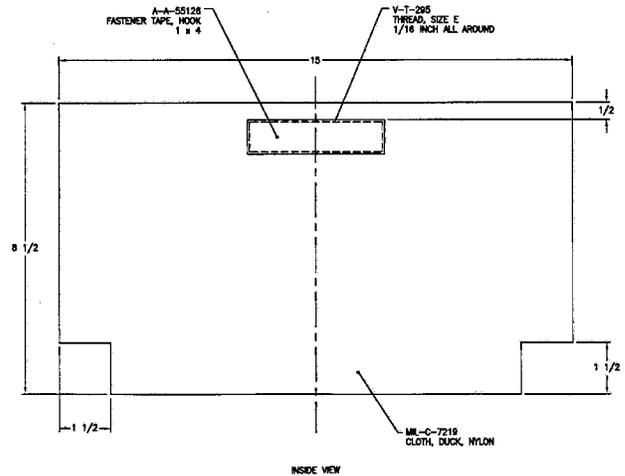


Figure 8. Stowage Pocket Layout

b. Using hot knife and straight edge, sear cut on lines drawn in step a.

c. Fold edges under 3/8-in. and sew using “E” thread.

d. Sew 1 x 4-in. fastener tap hook to inside top center of stowage pocket.

e. On the two bottom corners, fold the two inside edges together and sew using 3 rows of “E” thread.

f. Using completed pocket, mark location on harness assembly.

g. Mark location for 1 x 4-in. pile fastener and sew using “E” thread.

h. Sew pocket to harness.

WARNING

Do not sew thru harness webbing.

10. MARKING.

a. Stencil the following on back of harness, above stowage pocket (if installed):

P/N 814AS900-1

Date of Manufacturer (DOM)

Place in Service (PIS)

b. On stowage pocket (if installed) stencil the following:

RESTRAINT DEVICE ONLY

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ORGANIZATIONAL MAINTENANCE
REPAIR AND INSPECTION PROCEDURES
PCU-17/P CREW RESTRAINT HARNESS ASSEMBLY
PART NO. 814AS900-1

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Reference Material

None

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Record of Applicable Technical Directives

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| None | | | | |

1. INTRODUCTION.

a. This work package (WP) contains instructions for organizational level repair and inspection to ensure that the Crew Restraint Harness Assembly remains in ready-for-issue (RFI) status.

b. When performing repairs detailed in the WP, refer to these guidelines:

(1) Review all applicable instructions prior to starting repair.

(2) Ensure all necessary material and equipment are available prior to starting repair.

(3) When required, remove enough material from it's source for immediate use only. Assure material identification ticket/label remains with the source material at all times.

(4) A quality assurance (QA) inspector shall examine the finished work.

2. REPLACEMENT OF ELASTIC RETAINER WEBBING (50B6868 AND 50B6873).

Support Equipment Required

| Part Number | Nomenclature |
|--|------------------------|
| 3233K83 McMaster-Carr 6100 Fulton Industrial Blvd. Atlanta, GA 30336-2852 www.mcmaster.com | Pot, Melting, Electric |

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|--|
| MIL-W-5664 | Webbing, Elastic, Cotton, Type I Class 2 |
| V-T-295 | Thread, Nylon, Size E, Type I or II, Class A |

a. Remove damaged retainer from harness.

b. Cut a 5-in. length of 1-in. wide cotton elastic webbing for retainer 50B6868 or 1 1/2-in. wide for 50B6873. Dip ends in a wax melting pot to prevent raveling.

c. Fold webbing in half and wrap webbing around harness, and align ends. Sew a row of stitching 1/4-in. from the aligned ends, sewing the entire width of the webbing.

d. Turn retainer inside out, so ends are on the inside, and slide it into position.

3. REPLACEMENT OF HARNESS TACKING.

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|--|
| V-T-295 | Thread, Nylon, Size 6, Type I or II, Class A |

NOTE

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

a. Remove damaged tacking from harness.

b. Hand tack shoulder pads with one turn of size 6 thread, doubled and waxed; tie off. Trim end to 1-in.

4. REPLACEMENT OF EJECTOR SNAP.

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|---------------------------|
| MIL-S-22473 | Sealing Compound, Grade H |

a. Inspect replacement hardware for damage, corrosion, security and ease of operation.

b. Install 68D37721-3 Parachute Harness Snap as follows:

(1) Remove screw pin of ejector snap allowing the roller sleeve to fall free (Figure 1).

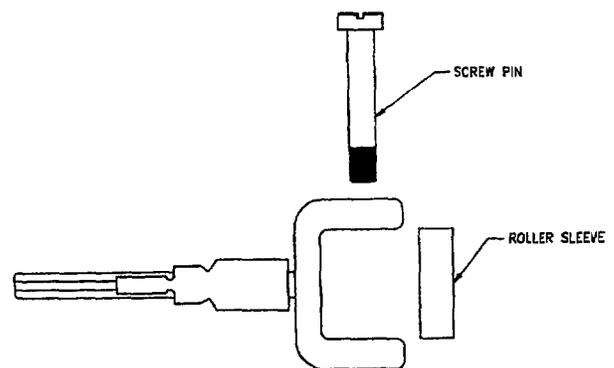


Figure 1. Ejector Snap

6.2-8004

(2) Insert roller sleeve thru loop in chest or leg strap.

NOTE

Ensure the ejector snaps are installed so that the latch arm mechanism opens outward.

(3) Apply one drop of sealing compound, to first three threads of screw pin. Insert screw pin thru prongs and roller sleeve; tighten screw pin. (QA)

5. INSTALLATION OF HBU-6/P SAFETY STRAP.

a. Route the quick ejector end of safety strap thru the backstrap retaining loop, at the diagonal junction of the backstraps, on the PCU-17/P Harness.

NOTE

Use either of the existing Elastic Retainers, P/N 50B6873, as an over the shoulder storage sheath for the MS70120 Snap Hook. The Elastic Retainers are located on the front of the PCU-17/P Restraint Harness and above the (male) canopy release hardware.

b. Place the connector link into the quick ejector snap and close the latch on the quick ejector snap.

6. FABRICATION OF SAFETY PIN AND LANYARD.

Materials Required

Specification or Part Number

Nomenclature

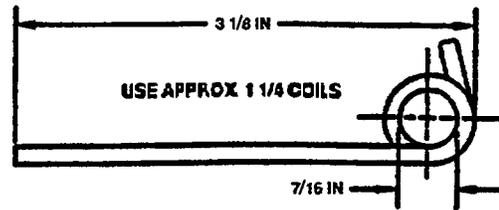
PIA-C-5040

Cord, Nylon Type II or III

ASTM A580

Safety Wire 0.080-in.

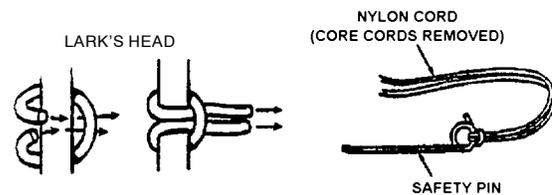
a. Cut a 5-in. length of 0.080-in. diameter corrosion resistant steel wire and form a 3 1/8-in. safety pin. Round off sharp edges with a file (Figure 2).



6.2-8010

Figure 2. Cut a Length of Safety Wire

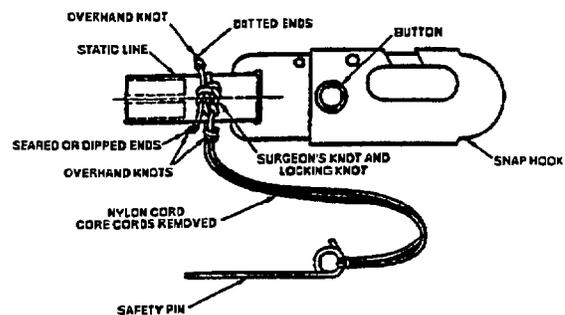
b. Remove core cords from a 20-in. length of Type II or III nylon cord. Fold cord in half and attach to safety pin with a Lark's Head (Figure 3).



6.2-8011

Figure 3. Attachment of Cord to Safety Pin

c. Tie an overhand knot in each end and sear ends. Tie an overhand knot in the cord no closer than 5-in. from safety pin. Run one end of the cord thru the static line loop where the snap hook is attached and secure on top of the static line with a surgeon's knot and a locking knot (Figure 4).



6.2-8012

Figure 4. Attachment of Cord to Static Line

7. HARNES INSPECTION.

a. The Crew Restraint Harness Assembly used as in-flight safety/restraint device shall be given a special inspection every 224 days, plus or minus 30 days to coincide with aircraft inspections.

b. Inspect harness and safety strap webbing for fraying, discoloration, cuts, tears, loose stitching, contamination, and general serviceability.

- c. Inspect harness and safety strap hardware for damage, corrosion, security of attachment, ease of operation, and proper installation.
- d. Each harness assembly will have serviceable elastic excess webbing keepers on each chest, back, and leg strap. If keepers are unserviceable or missing, they will be replaced.
- e. Inspect ejector snaps:

(1) Inspect ejector snaps for alignment of guard with hook. Allowable positions of snap guard are between positions A and B where the top of the guard is aligned with the points of hook (position A) or the bottom of the guard is aligned with the point of the hook (position B) (Figure 5).

(2) Using "V" ring, insert into ejector snap. Ensure ejector snap safety guard closes.

(3) Perform pull force test on ejector snaps. Pull force required to release ejector snap should be 7 ± 2 lbs. The ejector snap lever may be adjusted (spread or crimped) to obtain the required pull (Figure 5).

(4) Ejector snaps failing the routine inspection shall be adjusted/removed from service. It shall be the responsibility of the routine inspection to remove and replace ejector snaps found defective during this inspection.

NOTE

When either the harness or safety strap lack legible date of manufacture or date place in service and a service/total life check cannot be verified, the applicable subassembly shall be considered not RFI and removed from service.

f. The total service life for each subassembly (harness or safety strap) is 13 years, computed from the date of manufacture.

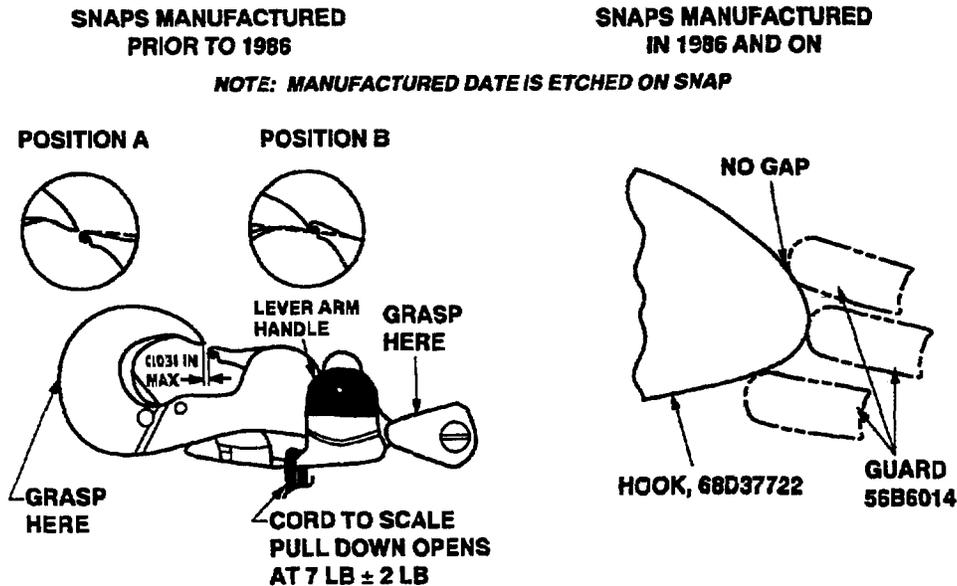


Figure 5. Hook and Guard Alignment

INTERMEDIATE MAINTENANCE

REPAIR PROCEDURES

PCU-17/P CREW RESTRAINT HARNESS ASSEMBLY

PART NO. 814AS900-1

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Common Repairs WP 004 00

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|-----------------|-------------|--------------------------|------------------|------------------------|
|-----------------|-------------|--------------------------|------------------|------------------------|

None

1. INTRODUCTION.

2. This work package (WP) contains instructions for intermediate level repair to ensure that the Crew Restraint Harness Assembly remains in a ready-for-issue (RFI) status.

3. When performing repairs detailed in this WP, refer to these guidelines:

a. Review all applicable instructions prior to starting repair.

b. Ensure all necessary material and equipment are available prior to starting repair.

c. To ensure conformity, all repair work shall be carefully inspected and compared to applicable instructions at completion of work.

d. A quality assurance (QA) inspector shall examine the finished work.

4. REPAIRS.

5. GENERAL.

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|--|
| V -T-295 | Thread, Nylon Size E, Type I or II Class A |

a. Repair of restraint harness and safety strap is limited to cleaning, parts replacement specified herein, replacing of stitching and patching the vest material (MIL-C-7219) on the PCU-17/P harness assembly. Each assembly that has damaged webbing and its serviceability is questionable shall be removed from service and replaced with a new assembly.

NOTE

The primary concern in repairing an assembly is ensuring that the basic structural integrity designed into the assembly is maintained.

b. PCU-17/P Harness repair: Repair broken stitching that attaches the vest material to the harness webbing on the back portion only on the PCU-17/P Harness as follows:

(1) Remove the broken stitching only.

(2) Use size E thread to make repair.

(3) Following the existing stitch pattern, the repair stitching shall overlap the ends of existing stitching a minimum of 1 1/2-in. on each end.

6. CLEANING.

7. **GENERAL.** Cleaning of restraint harness and safety strap should be held to a minimum and performed only when necessary to avoid deterioration of the materials. Cleaning by hand washing should be attempted first. If hand washing does not clean the part; try machine wash. No harness shall be machine washed more than two times.

Support Equipment Required

| Part Number | Nomenclature |
|-------------|----------------------------------|
| P-S-1792 | Laundry Soap |
| MIL-B-15319 | Brush |
| CCC-C-458 | Cloth, Flannel (Any Suitable) |

a. Prepare a concentrated soap and water solution, using laundry soap. If hot water is used in preparing the soap solution, cool the solution to approximately 120°F (49°C), prior to applying to webbing.

b. Dampen a clean brush with the soap solution and rub lightly over the affected surface or, if available, a tumble type washing machine (without agitator) will be used. If machine washing, remove hardware. Wrap all nonremovable hardware in heavy flannel cloth.

c. Rinse with clear warm water.

d. Dry by hanging in a drying room or a similar ventilated room to facilitate drying.

NOTE

Do not expose the wet webbing to freezing temperatures or direct sunlight during cleaning, drying, or storage.

e. After machine cleaning, record date of machine wash on aircrew systems record. (QA)

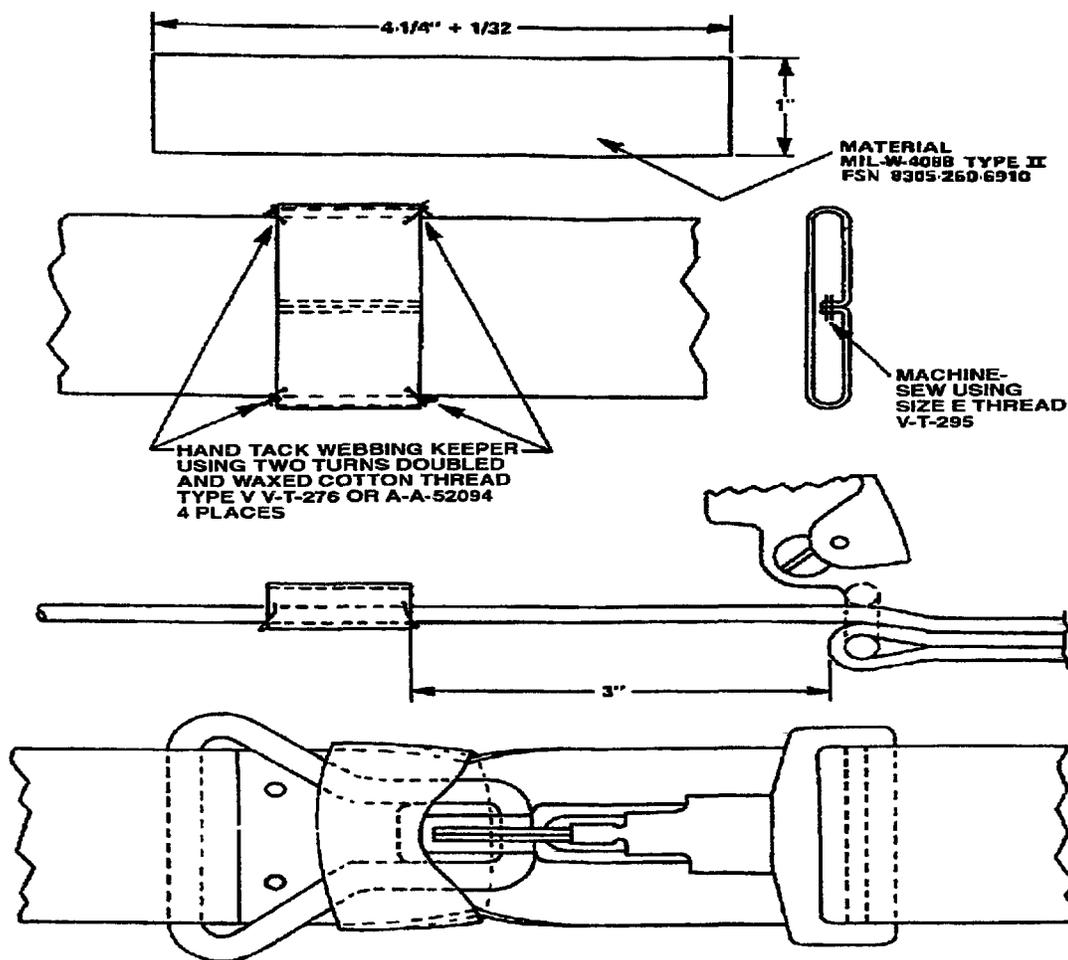


Figure 1. Safety Strap Keeper

6.2-8006

8. SAFETY STRAP KEEPER INSTALLATION RE-PLACEMENT.

Specification or Part Number

Nomenclature

Materials Required

A-A-52094

-or-
Thread, Cotton
Size 30/3, Red

Specification or Part Number

Nomenclature

NOTE

MIL-W-4088

Webbing, Nylon
Type II
Class 1, 1A or 2

Tie off all tackings with a surgeon's knot topped with a square knot, followed with a binder knot per WP 002 00. Trim off excess leaving 1/2-in.

V-T-295

Thread, Nylon
Size E, Type I or II
Class A

a. Use of locally fabricated keeper for safety strap, P/N 68E417-10 will prevent accidental opening of the ejector snap and shall be used.

V-T-276

Thread, Cotton
Type V
Size 8/7

b. Fabrication the keeper as follows:

(1) Cut a length of webbing 4 1/4-in. long, and sear ends (Figure 1).

(2) Position webbing around safety strap at the ejector snap and align ends of webbing together. Sew 1/8-in. from end with two rows of size E thread, backstitch a 1/2-in. (Figure 1)

(3) Turn inside out and position per (Figure 1).

(4) Tack safety strap keeper in four places with two turns of size 8/7 thread, doubled and waxed; tie off (Figure 1).

9. CHEST AND LEG ADJUSTMENT STRAPS V-RING REPLACEMENT.

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|--|
| V-T-295 | Thread, Nylon Size 6, Type I or II Class A |
| MS27765 | V-Ring, Quick Fit |

a. Cut the box stitching on the folded end of webbing strap and remove V-ring.

b. Install new MS27765 V-ring to the Chest and Leg adjustment straps as follows:

(1) Lace chest or leg straps thru V-ring. Observe that the slotted end of the moving bar in the V-ring is larger on one side of the slot and that there is a lip on one side of the straight end of the V-ring (Figure 2).

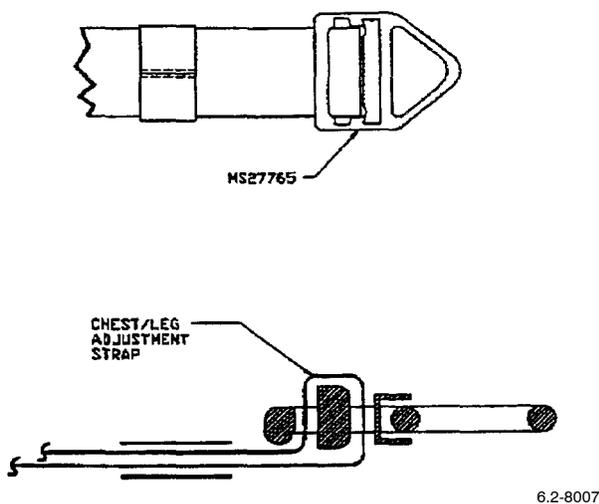


Figure 2. V-Ring

(2) Lace webbing over large side of moving bar, and webbing tensioner, and back over bar so that lip on V-ring frame is against webbing.

(3) Refold end of strap (two folds) 1 1/2-in. and machine cross box stitch in place, with size 6 thread.

10. PARACHUTE HARNESS SNAP REPLACEMENT.

a. Remove screw pin of ejector snap allowing roller to fall free.

b. Insert new roller thru loop in chest or leg strap (Figure 3 and 4).

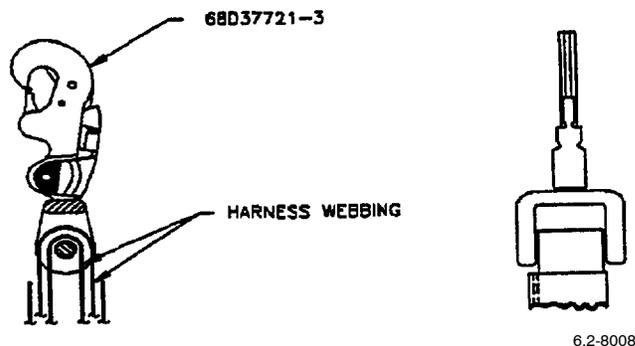


Figure 3. Routing of Quick Ejector Snap

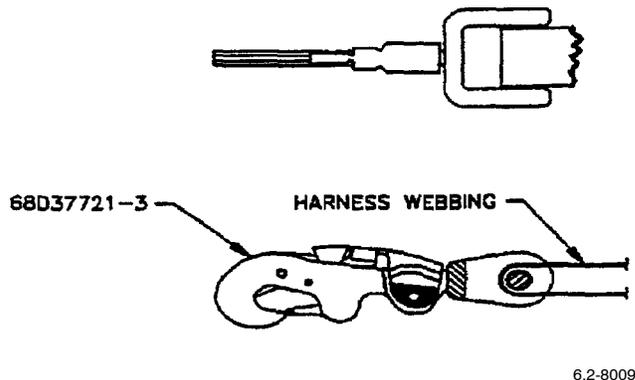


Figure 4. Routing of Quick Ejector Snap

c. Apply one drop of sealing compound for first three threads of screw pin. Insert screw pin thru ejector snap prongs and roller and tighten.

11. COMFORT PADS (OPTIONAL).

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|--|
| MIL-C-7219 | Cloth, Duck, Nylon Type III, Class 3 |
| MIL-R-5001 | Rubber, Sheet, Cellular |
| V-T-295 | Thread, Nylon Size E, Type I or II Class A |

- a. Cut comfort pad to fit.
- b. Cut to size nylon cloth whereby it may be folded over the foam pad.

c. Fold and machine sew two sides with size E thread.

d. Turn inside out, slide foam pad in opening, and sew closed (Figure 5).

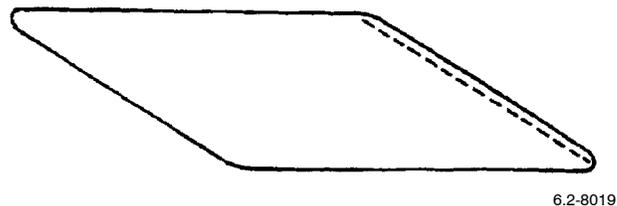


Figure 5. Turn Material Inside Out

e. Different sizes of comfort pads (optional) (Figure 6).

FOAM PADS REQUIRED (OPTIONAL)
USE ANY SUITABLE FOAM PAD MATERIAL
1 EACH 4 X 32 INCHES
4 EACH 4 X 12 INCHES
3 EACH 4 X 8 INCHES

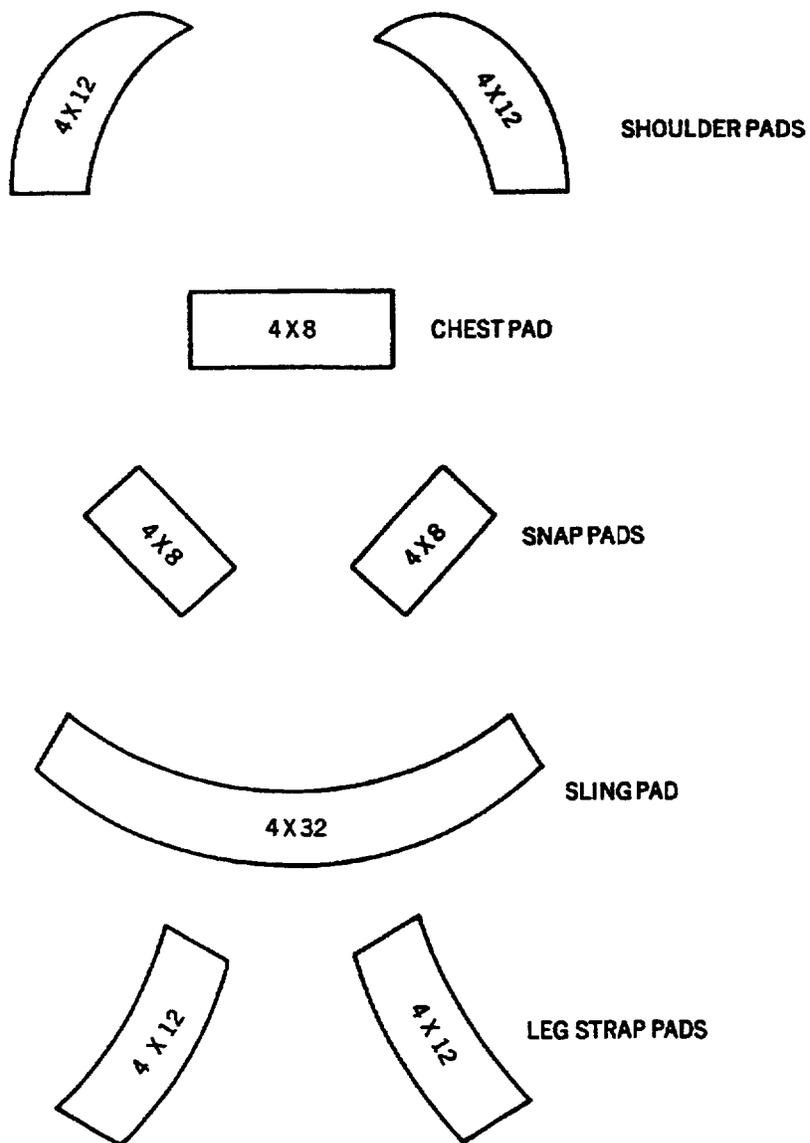


Figure 6. Different Comfort Pads

ORGANIZATIONAL AND INTERMEDIATE MAINTENANCE

ILLUSTRATED PARTS BREAKDOWN

PCU-17/P CREW RESTRAINT HARNESS ASSEMBLY

PART NO. 814AS900-1

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None

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| Crew Restraint Harness Assembly | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

a. This Work Package (WP) contains information for ordering and indentifying parts for the Crew Restraint Harness Assembly (Figure 1).

2. USABLE ON CODES.

a. The usable on codes in this WP refer to aircraft application for the Crew Restraint Harness Assembly.

b. The following usable on code apply to this WP.

A - P-3, C-2, E-6, C-130

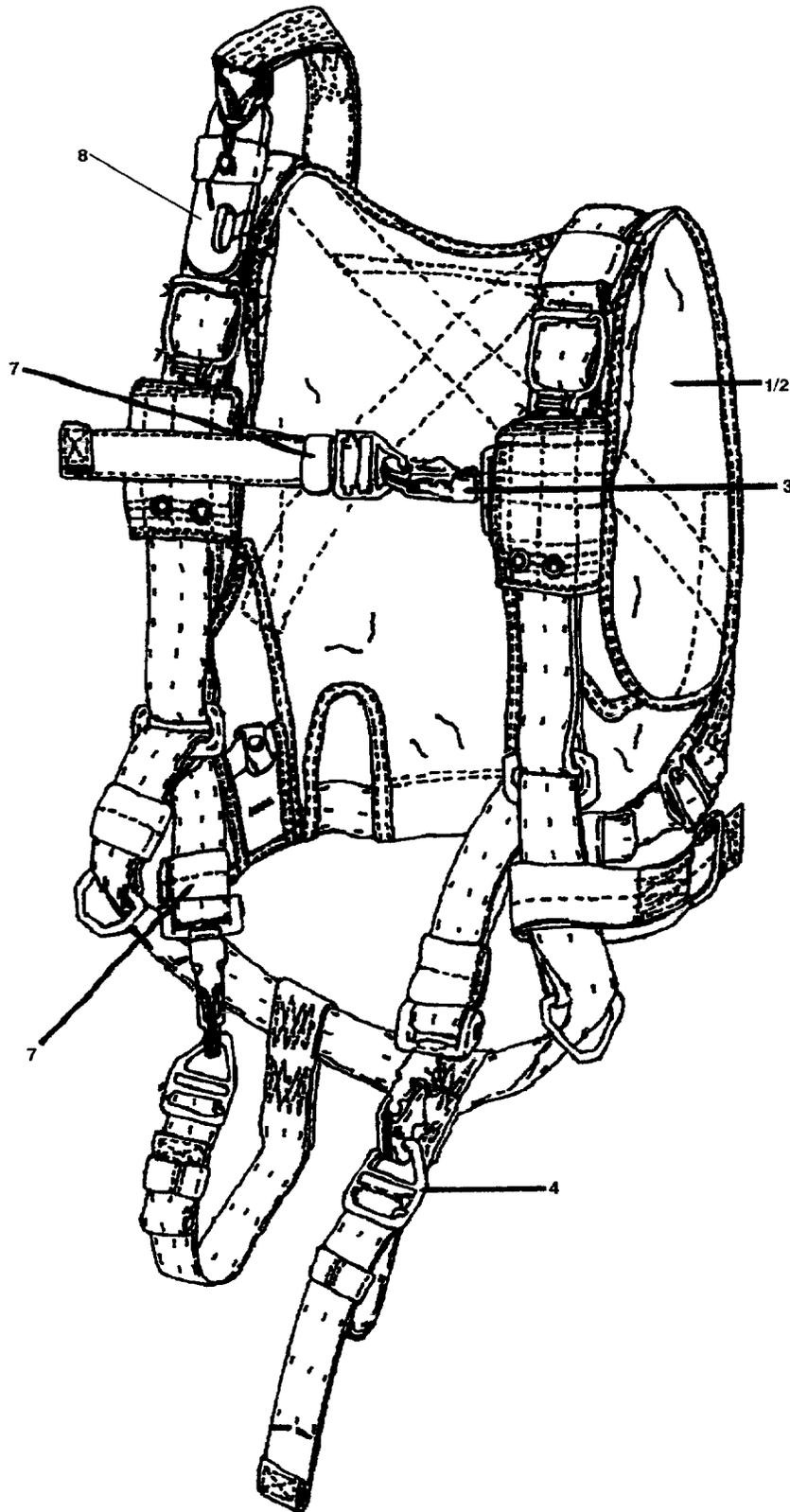


Figure 1. Crew Restraint Harness Assembly (Sheet 1 of 4)

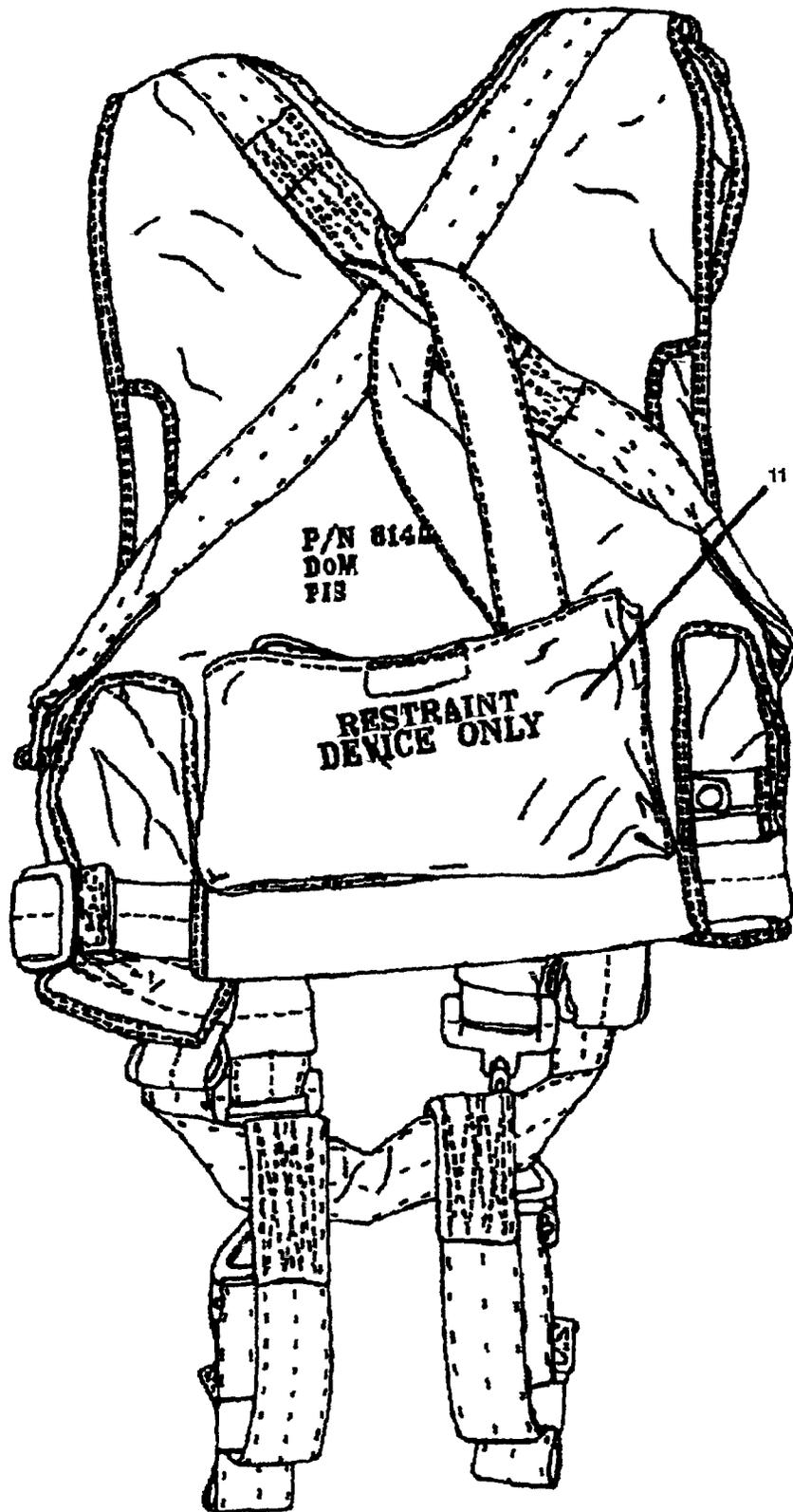


Figure 1. Crew Restraint Harness Assembly (Sheet 2 of 4)

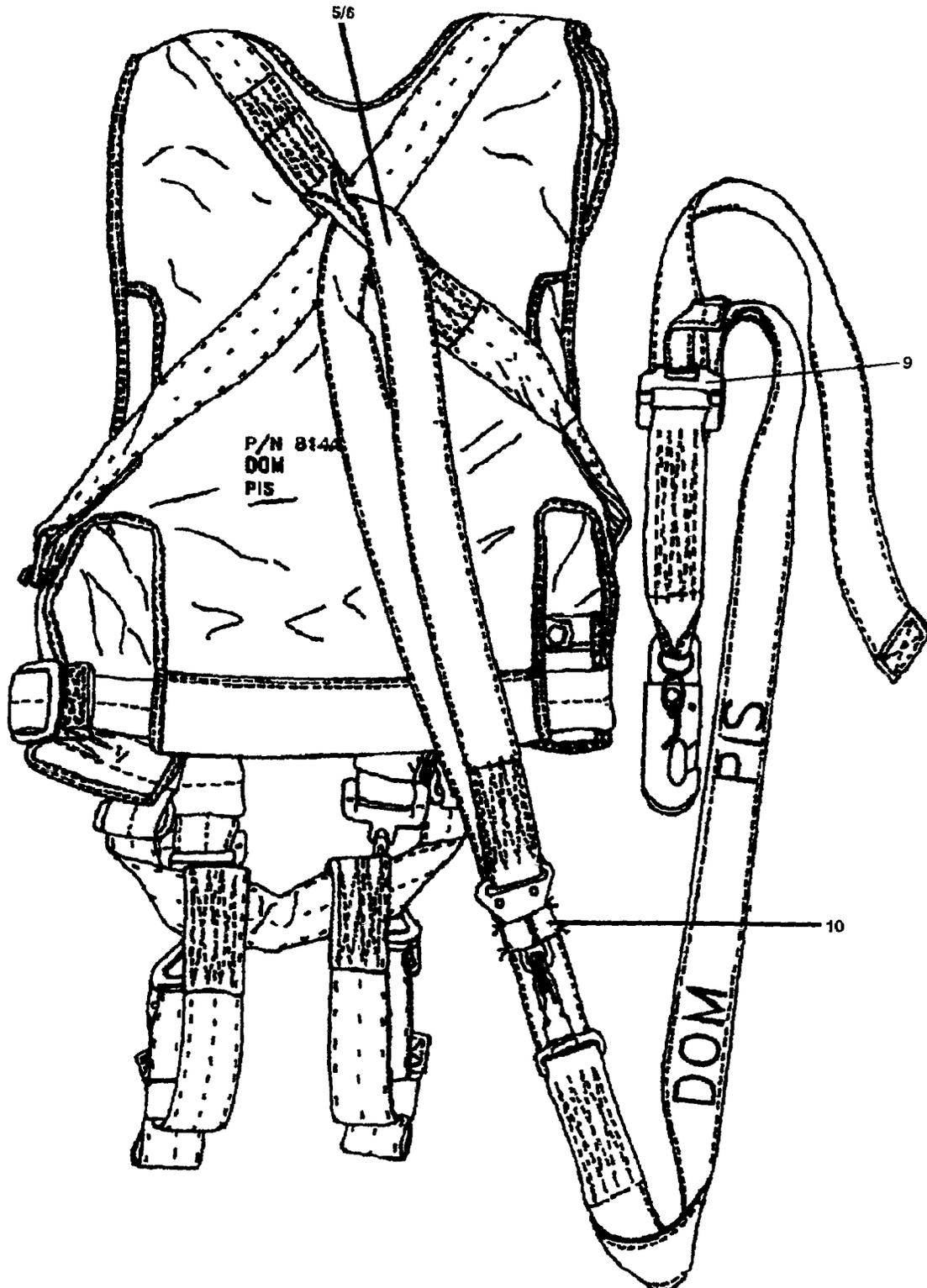


Figure 1. Crew Restraint Harness Assembly (Sheet 3 of 4)

| INDEX NO. | PART NUMBER | DESCRIPTION 1 2 3 4 5 6 7 | UNITS PER ASSY | USABLE ON CODE | SM&R CODE |
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| | | | | | |
| | 814AS900-1 | CREW RESTRAINT HARNESS ASSEMBLY | REF | A | AGOGG |
| 1 | 814AS900-3 | . RESTRAINT HARNESS ASSEMBLY | | | MGOGG |
| 2 | 68J420-101 | . . HARNESS ASSEMBLY, PCU-17/P | 1 | | PGOGG |
| 3 | 68D37721-3 | . . EJECTOR SNAP, PARACHUTE | 3 | | PAGZZ |
| 4 | MS27765 | . . V-RING, QUICK FIT ADJUSTER | 3 | | PAGZZ |
| 5 | 814AS900-2 | . STRAP, SAFETY, ASSEMBLY | | | MGOGG |
| 6 | 68E417-10 | . . STRAP, SAFETY, HBU-6/P | 1 | | AGOGG |
| 7 | 814AS900-7 | . . . KEEPER, SAFETY STRAP | | | MGOGG |
| 8 | MS70120 | . . SNAP ASSEMBLY, STATIC LINE | | | PAGZZ |
| 9 | MS22017 | . . SNAP, QUICK FIT, ADJUSTER | | | PAGZZ |
| 10 | 44B26454 | . . LINK, SAFETY BELT, LATCH | | | PAGZZ |
| | | FASTENER | | | |
| 11 | 814AS900-4 | . . STOWAGE POCKET | 1 | | AAGZZ |

Figure 1. Crew Restraint Harness Assembly (Sheet 4 of 4)

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ORGANIZATIONAL AND INTERMEDIATE MAINTENANCE

DESCRIPTION AND PRINCIPLES OF OPERATION

AIRCRAFT SAFETY HARNESS ASSEMBLY

PART NO. 1680EG033

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| Organizational and Intermediate Maintenance, Illustrated Parts Breakdown, Aircraft Safety Harness Assembly | WP 006 07 |
|---|-----------|

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| Aircrew Systems Record | 2 |
| Configurations | 2 |
| Functions | 2 |
| General | 2 |

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| <u>Type/No.</u> | <u>Date</u> | <u>Title and ECP No.</u> | <u>Date Inc.</u> | <u>Rescission Date</u> |
|-----------------|-------------|--------------------------|------------------|------------------------|
|-----------------|-------------|--------------------------|------------------|------------------------|

None

1. DESCRIPTION.**2. GENERAL.**

a. The Aircraft Safety Harness Assembly, Part Number 1680EG033, is the authorized USN Search and Rescue/ Loadmaster crew safety/restraint system.

b. The service life of the Aircraft Safety Harness Assembly is established at 13 years from the Date of Manufacture (DOM).

3. AIRCRAFT APPLICATIONS.

a. To provide an aircrew restraint system when performing Search and Rescue kit or air drop duties from the P-3, C-130 and E-6 aircrafts, and loadmaster or air drop duties from the C-2 aircraft.

4. CONFIGURATIONS.

a. This configured restraint harness is one of the authorized harnesses for use aboard applicable Navy aircraft and shall not be used in conjunction with any Navy Emergency Personnel Parachute Assemblies or Systems (Figure 1).

5. FUNCTIONS.

a. The harness must fit the aircrew properly to provide the required restraint and protection. The length of the adjustment straps' loose ends will vary due to the varying sizes of the aircrew.

6. AIRCREW SYSTEMS RECORD.

a. Refer to OPNAVINST 4790.2 (series) for filling out the Aircrew Personnel Equipment Record (OPNAV 4790/159).

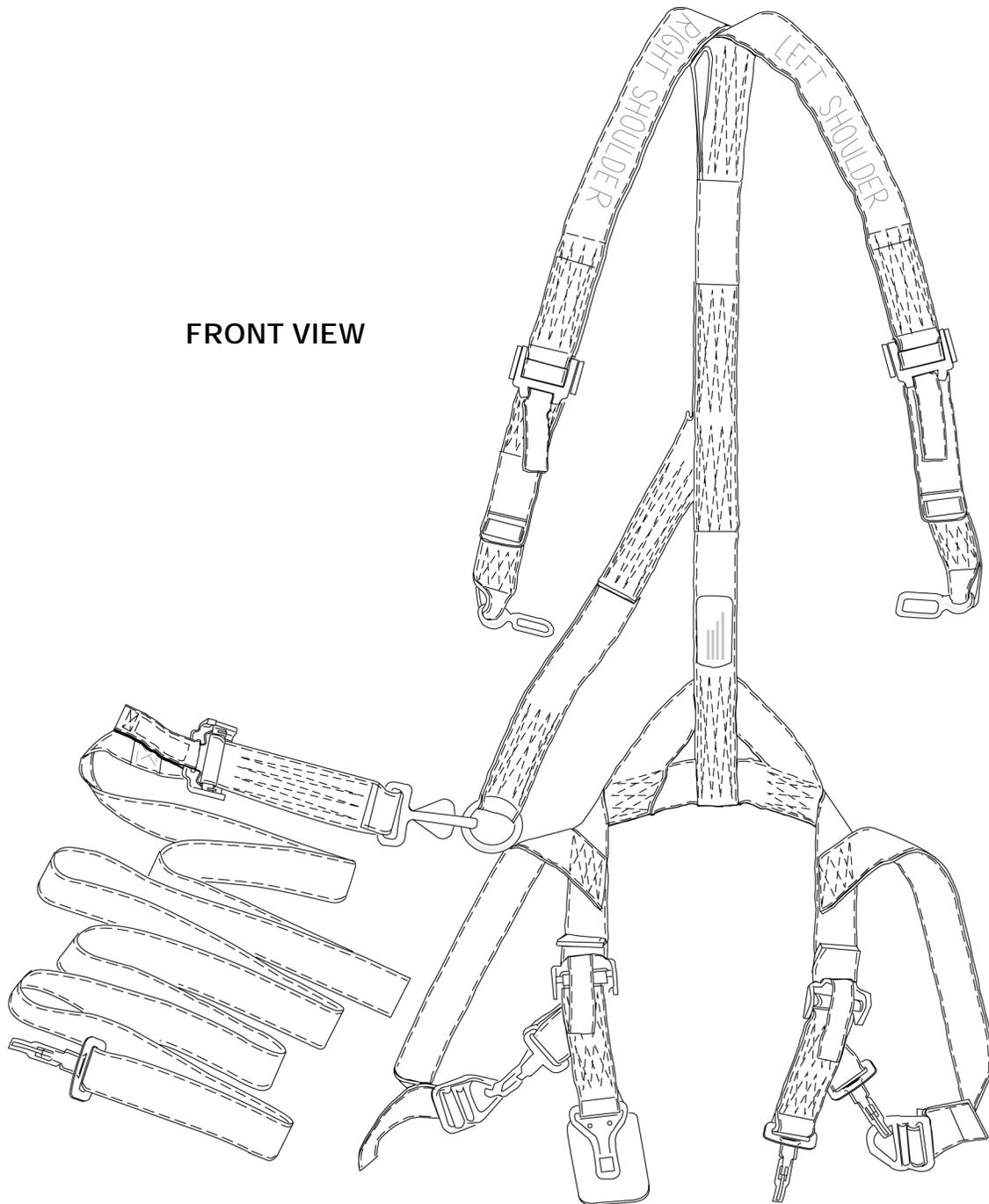
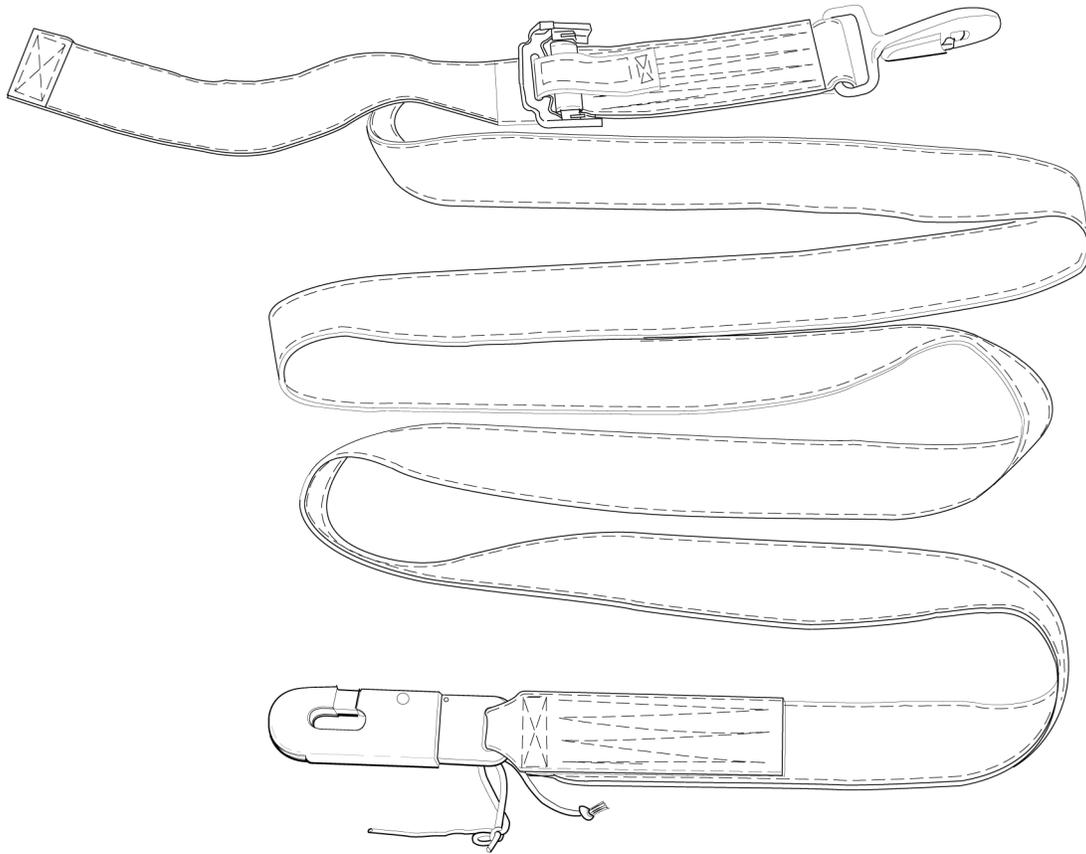


Figure 1. Crew Restraint Harness Assembly (Sheet 1 of 2)



**AIRCRAFT SAFETY HARNESS ASSEMBLY
MODIFIED TIE DOWN STRAP**

Figure 1. Crew Restraint Harness Assembly (Sheet 2 of 2)

INTERMEDIATE MAINTENANCE
REPAIR PROCEDURES
AIRCRAFT SAFETY HARNESS ASSEMBLY
PART NO. 1680EG033

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| Tie Down Strap Modification | 2 |

Record of Applicable Technical Directives

| <u>Type/No.</u> | <u>Date</u> | <u>Title and ECP No.</u> | <u>Date Inc.</u> | <u>Rescission Date</u> |
|-----------------|-------------|--------------------------|------------------|------------------------|
| None | | | | |

1. INTRODUCTION.

a. This work package (WP) contains instructions for intermediate level repair to ensure that the Aircraft Safety Harness Assembly remains in a ready-for-issue (RFI) status.

b. When performing repairs detailed in this WP, refer to these guidelines:

(1) Review all applicable instructions prior to starting repair.

(2) Ensure all necessary material and equipment are available prior to starting repair.

(3) To ensure conformity, all repair work shall be carefully inspected and compared to the applicable instructions at completion of work.

(4) A quality assurance (QA) inspector shall examine the finished work.

2. TIE DOWN STRAP MODIFICATION.

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|--|
| V-T-295 | Thread, Nylon, Size 6, Type I or II, Class A |

a. Carefully cut tie down strap from snap parachute assembly P/N MS22017 (Figure 1). Remove snap parachute assembly and remove cut stitching.

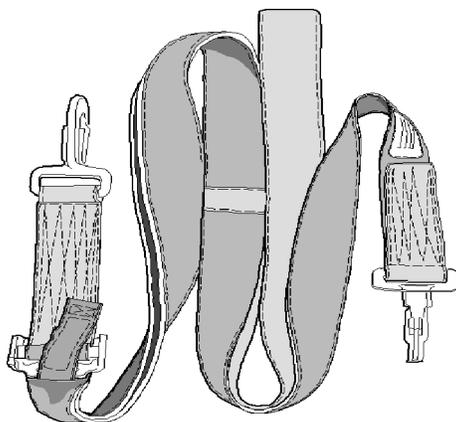


Figure 1. Removal of Quick Ejector Snap

b. Fabricate the modified tie down strap as follows:

(1) Reeve one end of the webbing thru the snap parachute assembly P/N MS70120.

(2) Fold webbing per Figure 2.

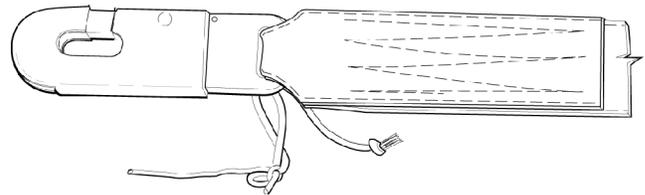


Figure 2. Folded Webbing

(3) Sew length wise with Size 6 thread, using 4 point cross-stitch pattern, 5-in. long (Figure 2). (QA)

(4) See pictorial of modified Tie Down Strap Assembly (Figure 3).

c. Connect snap assembly P/N MS70121-2 to ring (P/N RR-C-271) on main harness assembly.

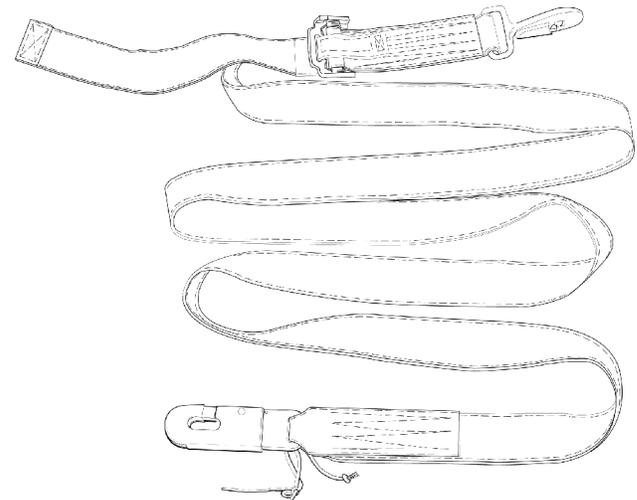


Figure 3. Modified Tie Down Strap Assembly

3. HARNESS INSPECTION.

4. The Crew Restraint Harness Assembly used as inflight safety/restraint device shall be given a special inspection every 224 days, plus or minus 30 days to coincide with aircraft inspections.

a. Inspect harness and safety strap webbing for fraying, discoloration, cuts, tears, loose stitching, contamination, and general serviceability.

b. Inspect harness and safety strap hardware for damage, corrosion, security of attachment, ease of operation, and proper installation.

c. Each harness assembly will have serviceable elastic excess webbing keepers on each chest, back, and leg strap. If keepers are unserviceable or missing, they will be replaced.

d. Inspect ejector snaps:

(1) Inspect ejector snaps for alignment of guard with hook. Allowable positions of snap guard are between positions A and B where the top of the guard is aligned with the points of hook (position A) or the bottom of the guard is aligned with the point of the hook (position B) (Figure 4).

(2) Using "V" ring, insert into ejector snap. Ensure ejector snap safety guard closes.

(3) Perform pull force test on ejector snaps. Pull force required to release ejector snap should be 7 ± 2 pounds. The ejector snap lever may be adjusted (spread or crimped) to obtain the required pull (Figure 4).

(4) Ejector snaps failing the routine inspection shall be adjusted/removed from service. It shall be the responsibility of the routine inspection to remove and replace ejector snaps found defective during this inspection.

NOTE

When either the harness or safety strap lack legible date of manufacture or date place in service and a service/total life check cannot be verified, the applicable subassembly shall be considered not RFI and removed from service.

e. The total service life for each subassembly (harness or safety strap) is 13 years, computed from the date of manufacture.

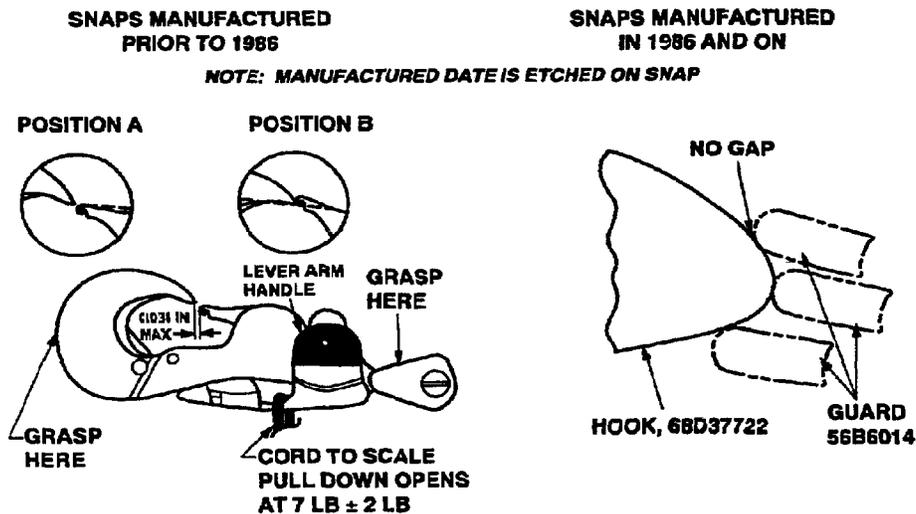


Figure 4. Hook and Guard Alignment

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ORGANIZATIONAL AND INTERMEDIATE MAINTENANCE

ILLUSTRATED PARTS BREAKDOWN

AIRCRAFT SAFETY HARNESS ASSEMBLY

PART NO. 1680EG033

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Reference Material

Organizational and Intermediate Maintenance, Description and Principles of Operation,
Aircraft Safety Harness Assembly WP 006 05

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Record of Applicable Technical Directives

None

1. INTRODUCTION.

a. This Work Package (WP) contains information for ordering and indentifying parts for the Aircraft Safety Harness Assembly (Figure 1).

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a. The usable on codes in this WP refer to aircraft application for the Crew Restraint Harness Assembly.

b. The following usable on code apply to this WP.

A - P-3, C-2, E-6, C-130

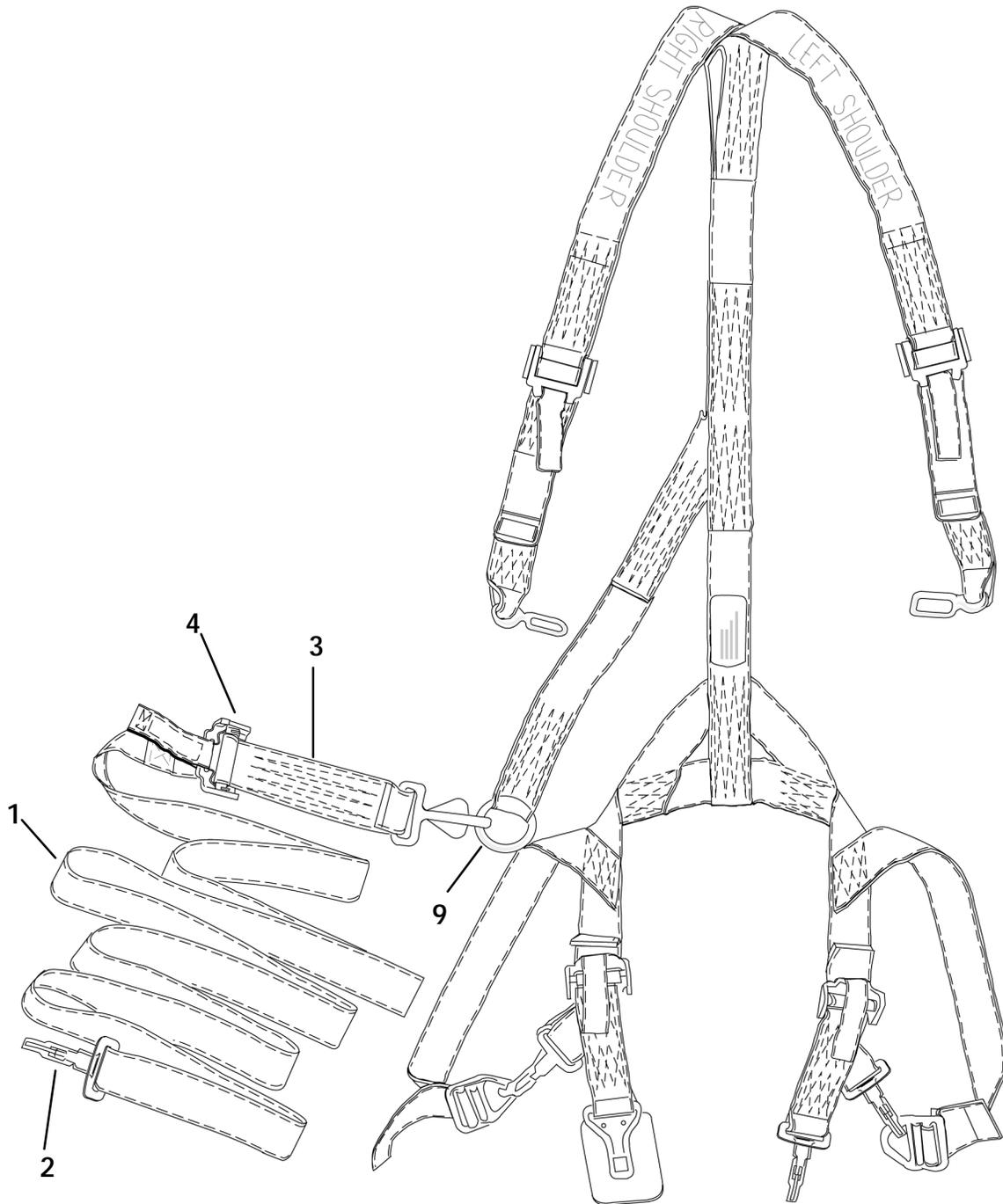


Figure 1. Aircraft Safety Harness Assembly (Sheet 1 of 3)

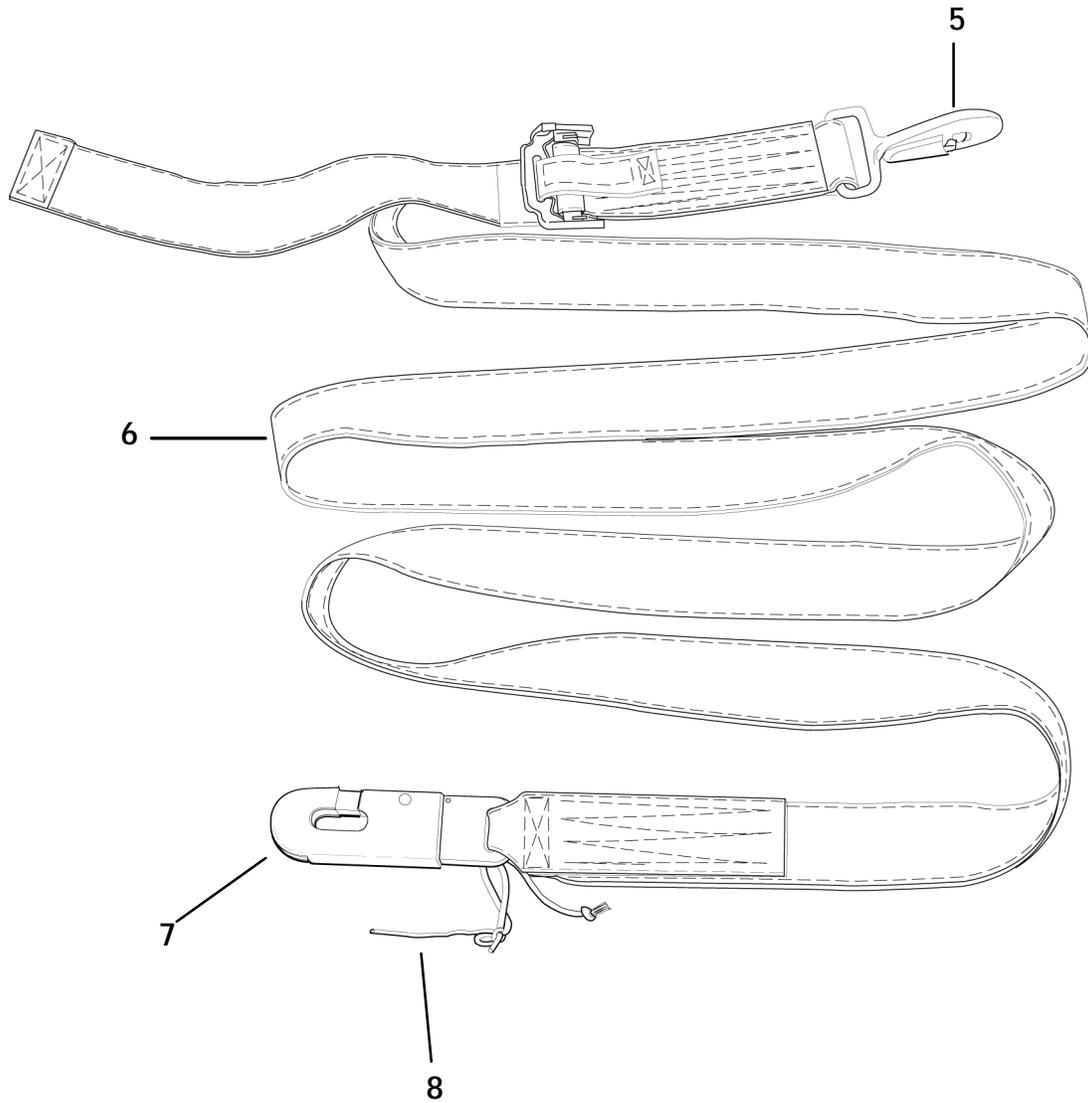


Figure 1. Aircraft Safety Harness Assembly (Sheet 2 of 3)

| INDEX NO. | PART NUMBER | DESCRIPTION 1 2 3 4 5 6 7 | UNITS PER ASSY | USABLE ON CODE | SM&R CODE |
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| | | | | | |
| | 1680EG033 | AIRCRAFT SAFETY HARNESS ASSEMBLY | REF | A | PAOZZ |
| 1 | 1680EG033-20 | . RESTRAINING STRAP ASSEMBLY | 1 | | XAOZZ |
| 2 | MS22017 | . . SNAP, PARACHUTE ASSEMBLY | 1 | | XAOZZ |
| 3 | 1680EG033-9 | . .TIE DOWN STRAP ASSEMBLY | 1 | | XAOZZ |
| 4 | MS22007-2 | . . ADJUSTER ASSEMBLY | 5 | | PAOZZ |
| 5 | MS70121-2 | . SNAP ASSEMBLY | 1 | | PAOZZ |
| 6 | 814AS900-7 | . .TIE DOWN STRAP ASSEMBLY (MODIFIED) (Note 1) | 1 | | MDGZZ |
| 7 | MS70120 | . .SNAP, PARACHUTE ASSEMBLY | 1 | | PAGZZ |
| 8 | 55B6261 | . .PIN, SAFETY (Note 2) | 2 | | MDGZZ |
| 9 | RR-C-271 | . .RING, CONNECTING | 1 | | PAGZZ |

NOTES:

1. Modified in accordance with WP 006 06.
The Modified assembly was originally P/N 1680EG033-9.
2. Make from Wire, Steel, P/N QQ-W-423,
Composition 430 CO Type 2, OG.

PAGZZ

PAGZZ

Figure 1. Aircraft Safety Harness Assembly (Sheet 3 of 3)