

## CHAPTER 6

# SKU-6/A SEAT SURVIVAL KIT

### Section 6-1. Description

#### 6-1. GENERAL.

6-2. The SKU-6/A Seat Survival Kit Assembly is designed for use with the SJU-4/A Aircrew Automated Escape System and functions as a seat for the aircrewmember as well as a platform for mounting emergency oxygen and other survival items (figures 6-1 and 6-2). The SKU-6/A Seat Survival Kit Assembly P/N 14070-3 is supplied by Stencel Aero Engineering Corp. (CAGE 24632) and manufactured by East/West Industries.

#### 6-3. CONFIGURATION.

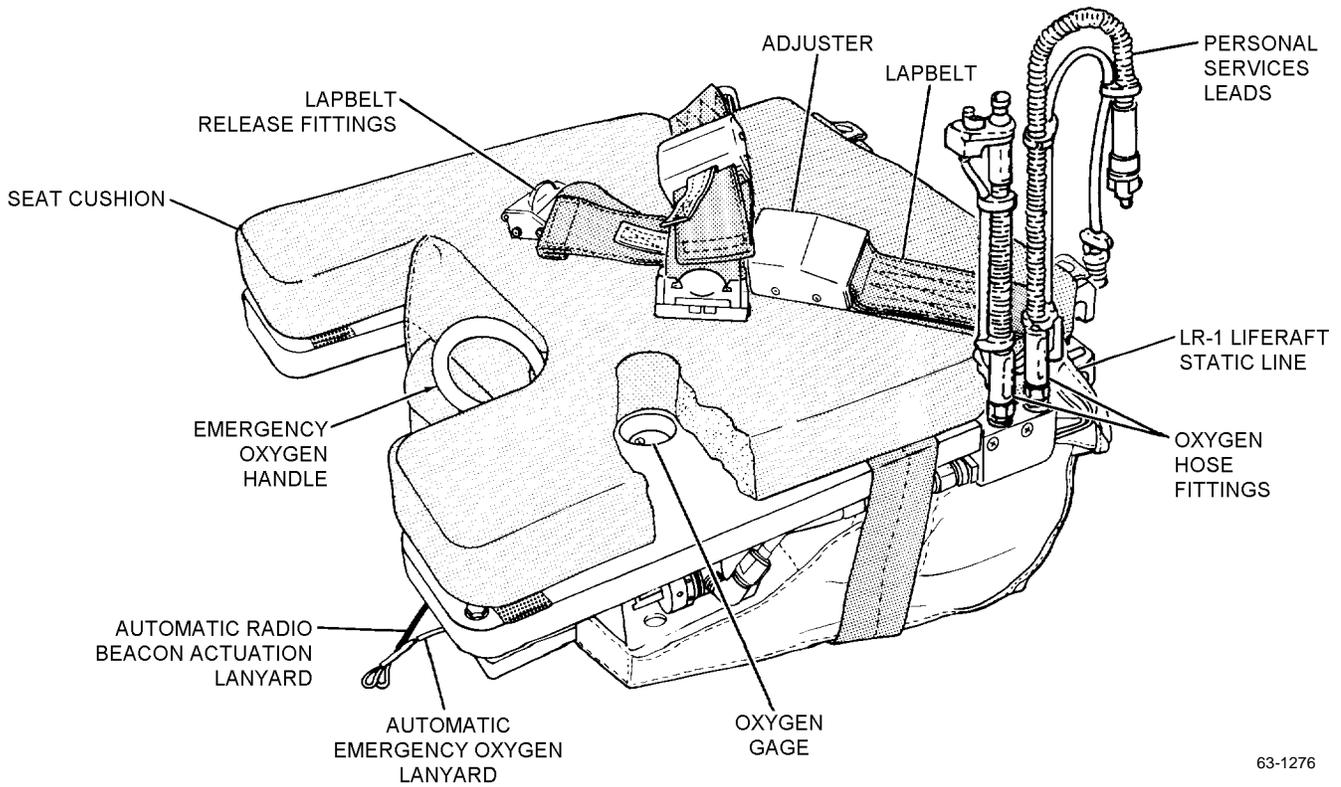
6-4. The SKU-6/A Seat Survival Kit Assembly consists of a bonded aluminum honeycomb seat panel, an emergency oxygen system, an AN/URT-33A radio beacon, a rucksack/survival package assembly, and a seat cushion. The seat panel is the primary SKU-6/A Seat Survival Kit Assembly structure and functions as the sitting platform for the aircrewmember as well as a mounting platform for survival gear and emergency oxygen system. Two lapbelts are attached to the seat panel at the aft outboard edges and are fitted with connectors which are attached to the aircrewmember's torso harness. The AN/URT-33A radio beacon is mounted on the top side of the seat panel. A flexible oxygen and communications hose assembly is installed on the aft left side of the upper seat panel assembly and provides a connection for communications and oxygen functions between the aircraft and crewmembers. In the event of a failure of the aircraft oxygen system or an ejection, over 10 minutes of emergency oxygen is available. The emergency oxygen system is mounted on the bottom forward side of the seat panel. The system consists of a 100 cubic inch, 1800 psi bottle and gage, a pressure reducer assembly, and two actuation devices. The actuation devices consist of a green-ring for manual actuation

and a quick-disconnect snubbing lanyard for automatic actuation.

6-5. The rucksack/survival package assembly is a fabric container with four flaps, all of which will be secured by the release lanyard assembly. The rucksack/survival package assembly is divided into two compartments. One compartment contains a liferaft and the other compartment contains basic survival items. A liferaft actuation cylinder is attached to the seat pan via a dropline stowed on the exterior of the rucksack/survival package assembly in a series of stowage bights. The rucksack/survival package assembly is installed against the underside of the seat panel and is retained in position by the buckle strap assembly.

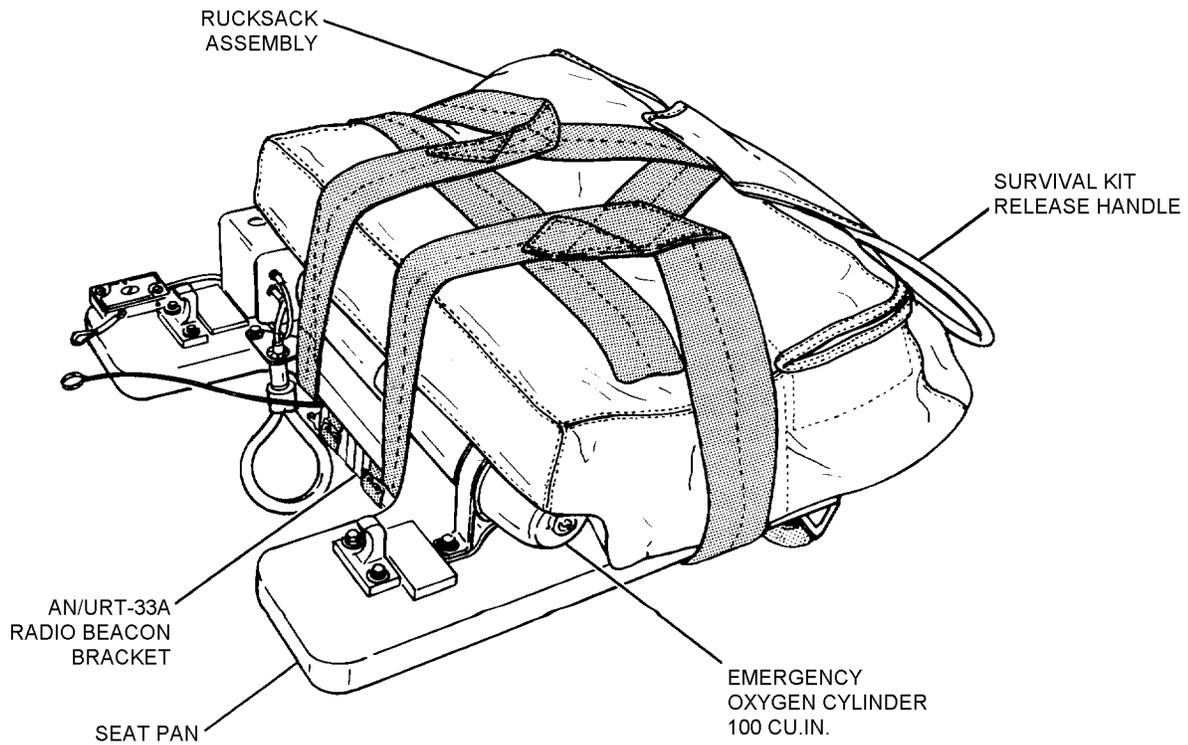
6-6. The buckle strap assembly and the four rucksack/survival package assembly flaps are secured by the release lanyard assembly. The release lanyard assembly consists of two release pins attached by a 1/2-inch lanyard to an orange ring. A fabric cover with hook and pile fastener tape is used to cover the lanyard when not in use. The orange ring remains exposed at the aft right-hand corner for ease of operation.

6-7. The seat cushion is positioned on the upper side of seat panel and is secured in front by two strips of hook and pile fastener tape and two snap fasteners in rear on the seat pan locking lugs. Cutouts in the seat panel and cushion allow viewing of emergency oxygen system gage. Two oxygen hoses, input and output, are attached to the interface assembly on left aft side of seat panel. One end of a communication lead is attached to the output oxygen hose and the other end to a communication quick disconnect mounted on the aircraft cockpit console.



63-1276

Figure 6-1. SKU-6/A (Top)



63-1277

Figure 6-2. SKU-6/A (Bottom)

**6-8. SUBASSEMBLIES.** The major subassemblies of the SKU-6/A are:

1. Seat Panel Assembly
2. Emergency Oxygen Assembly
3. Rucksack/Survival Package Assembly
4. Seat Cushion Assembly

### **6-9. REFERENCE NUMBERS, ITEMS AND SUPPLY DATA.**

6-10. [Figures 6-14 through 6-20](#) contain data for each assembly, subassembly and component part of the SKU-6/A Seat Survival Kit Assembly. Figure and index number, reference or part number, description and units per assembly are provided.

### **6-11. APPLICATION.**

6-12. The SKU-6/A Seat Survival Kit Assembly is a part of the survival equipment used by aircrewmembers aboard AV-8B aircraft using the SJU-4/A ejection seat.

### **6-13. FUNCTION.**

**6-14. SYSTEM OPERATION.** Initiation of the aircraft's seat ejection system automatically sets other systems in motion. During the ejection seat's initial movement up the rails, the AN/URT-33A Beacon Radio Set and the Emergency Oxygen System are automatically actuated by quick-disconnect fittings ([figure 6-3](#)). Actuation of the automatic oxygen release opens a metering valve within the pressure reducer of the emergency oxygen system. This permits the flow of emergency oxygen to the aircrewmember. Should automatic actuation fail, emergency oxygen flow may be initiated manually by pulling the green emergency handle located inboard of the aircrewmember's left knee. As the seat continues upward, the aircraft oxygen input hose and communication leads are separated from the aircraft at a quick-disconnect fitting. A check valve at the oxygen input connection point prevents loss of emergency oxygen to the atmosphere ([figure 6-3](#)).

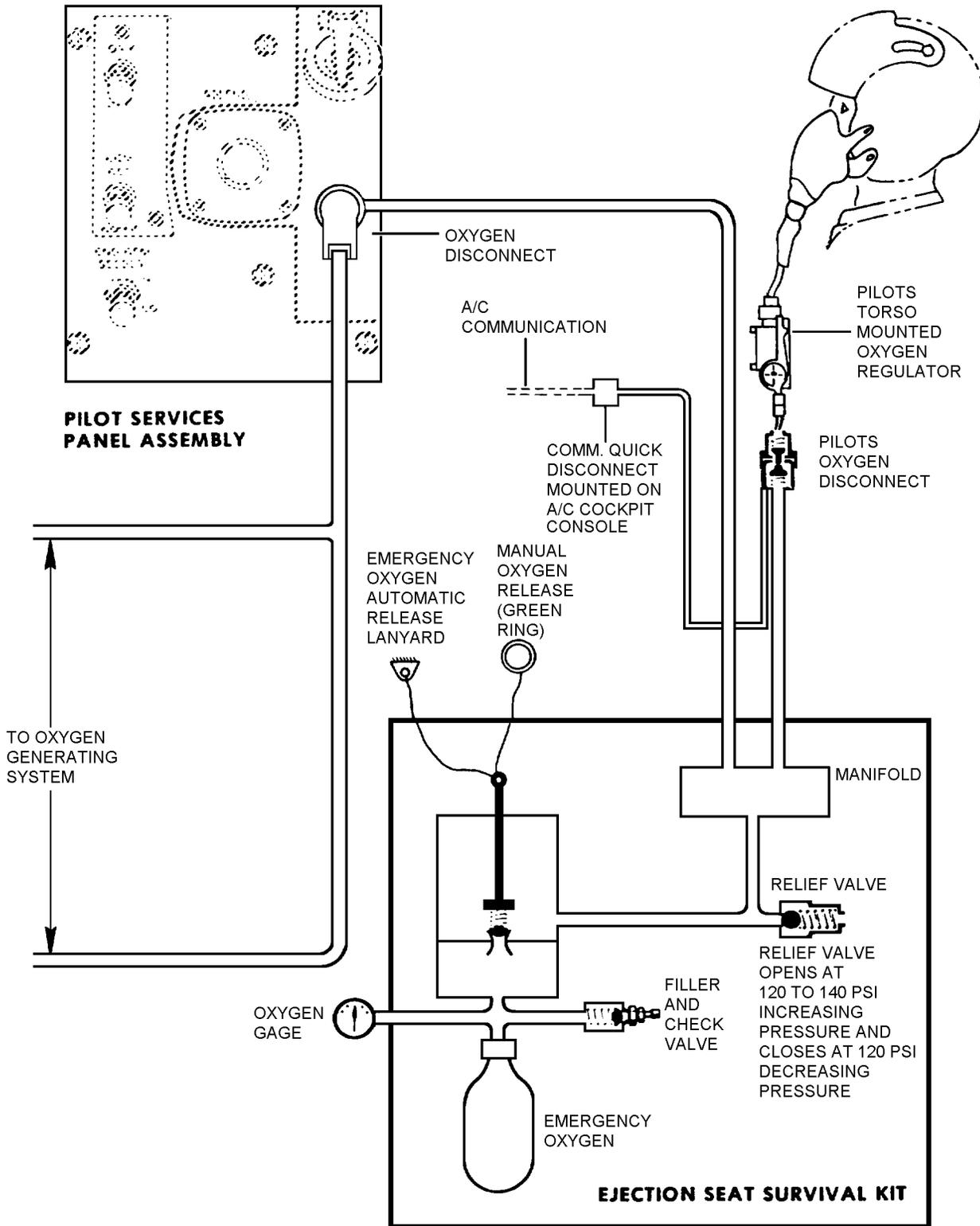


Figure 6-3. SKU-6/A Oxygen System Schematic

63-1278

## Section 6-2. Modifications

### 6-15. GENERAL.

6-16. The SKU-6/A Seat Survival Kit assembly shall be updated by comparing the configuration of the assembly with the directives listed in [table 6-1](#).

**Table 6-1. SKU-6A Directives**

Description of Modification	Application	Modification Code
Incorporation of ACEL-Compatible OBOGS Hoses	All SKU-6/A Seat Survival Kits	66-489
Incorporation of washer to Automatic Oxygen Release Assembly	All SKU-6/A Seat Survival Kits	66-656/RAMEC 4261-01-99

## Section 6-3. Rigging and Packing

### 6-17. GENERAL.

6-18. Unless operational requirements demand otherwise, rigging and packing of the SKU-6/A shall be accomplished at the Intermediate Level of maintenance by qualified personnel every 448 days.

**NOTE**

Quality assurance steps are provided for critical operations. When a step is underlined, the Aircrew Survival Equipmentman shall perform the operation and then have performance verified by Quality Assurance (QA).

### 6-19. RIGGING AND PACKING PROCEDURES.

**NOTE**

Unless otherwise specified, orientation of equipment in the following paragraphs will refer to the packer facing the equipment.

6-20. Rigging and packing of the SKU-6/A Seat Survival Kit Assembly is accomplished in six separate operations as follows:

1. Preliminary Procedures
2. Survival Equipment Binding
3. Survival Package Packing
4. Liferaft Folding, Rigging and Packing; Dropline Stowage; and Survival Package Assembly Installation
5. Release Handle Pull Test
6. Installation of Radio Beacon

**CAUTION**

Ensure the survival kit assembly is rigged and packed in a properly designated work area. Extreme care should be taken to prevent the survival kit from being damaged. Do not expose the survival kit to any oily substances. Do not slide kit on abrasive surfaces or into sharp objects which may damage, puncture or tear the rucksack/survival package or liferaft assembly.

**6-21. PRELIMINARY PROCEDURES.** The following preliminary procedures shall be accomplished prior to rigging and packing the SKU-6/A Seat Survival Kit Assembly.

1. Ensure SKU-6/A and components have been inspected in accordance with [Section 6-5](#).
2. Inspect oxygen hose assemblies in accordance with NAVAIR 13-1-6.3-1.
3. Remove upper container assembly from lower container assembly.

**WARNING**

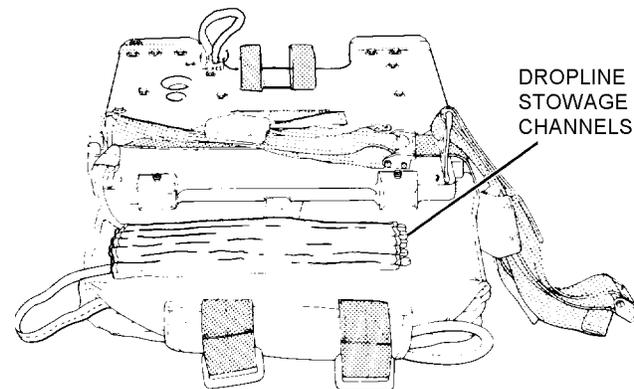
CO<sub>2</sub> bottle is under pressure. Use caution when disconnecting CO<sub>2</sub> bottle from liferaft. Do not loosen or attempt to remove inflation valve assembly from CO<sub>2</sub> cylinder.

**CAUTION**

Ensure actuating line is disconnected from CO<sub>2</sub> cylinder inflation valve before removal of CO<sub>2</sub> cylinder from liferaft.

4. Disconnect CO<sub>2</sub> cylinder from liferaft as follows:

- a. Carefully remove liferaft from container
- b. Disconnect actuation line from CO<sub>2</sub> cylinder
- c. Disconnect CO<sub>2</sub> cylinder from liferaft
- d. Remove large loop of drop line from CO<sub>2</sub> cylinders neck.
- e. Ensure anti-chafing disc is installed. Reconnect CO<sub>2</sub> cylinder to liferaft finger tight. If functional test is required torque valve 80 to 90 in-lbs.



63-1298B

**Step 6 - Para 6-21**

**NOTE**

A newly fabricated or procured dropline assembly will have a final dimension of 22 feet, 4 inches  $\pm 2$  inches. However, a dropline assembly is subjected to a certain amount of stretch during its stowing process, and shrinkage during its cleaning process, therefore a tolerance of  $\pm 12$  inches is acceptable for an older dropline assembly.

7. Inspect dropline to ensure proper attachment to upper and lower containers. Also ensure dropline length is 22 feet, 4 inches  $\pm 12$  inches.

8. Ensure survival items have been inspected in accordance with NAVAIR 13-1-6.5.

**NOTE**

Ensure battery service life does not expire prior to the next scheduled inspection cycle of the assembly in which the radio set is installed. Refer to NAVAIR 16-30URT33-1 for battery service life.

9. Remove radio beacon set from kit and ensure that the battery and radio beacon have been inspected in accordance with NAVAIR 16-30URT33-1.

10. Check seat pan and cushion assembly for cuts, tears, and abrasions, and hardware for security of attachment, corrosion, damage, wear, and ease of operation.

**6-22. SURVIVAL EQUIPMENT BINDING.** Ensure all survival items have been inspected in accordance with NAVAIR 13-1-6.5 before binding. To bind survival items, proceed as follows ([table 6-2](#)).

**NOTE**

To prevent loss of survival items, tie them individually and then tie them to a 140-inch length of nylon cord. Nylon cord of the prescribed lengths required for this procedure shall be seared at both ends to prevent fraying ([table 6-2](#)). All cord used shall be nylon (MIL-C-5040, Type I).

1. Tie overhand knot in both ends of a 36-inch length of nylon cord. Wrap end of cord two overlapping turns around end of one signal flare. Tie cord using surgeon's knot with the cord-end overhand knot positioned snugly against surgeon's knot.

Table 6-2. Survival Kit Items (Note 1)

Item Name	Quantity	Reference Number
Cord, (Nylon), Fibrous Type I	50 ft	NAVAIR 13-1-6.5
Signal, (Flare), Smoke and Illumination, MK-13 MOD 0 or MK-124 MOD 0 (Note 2)	2	NAVAIR 13-1-6.5
Sea (Dye) Marker, Fluorescent	2	NAVAIR 13-1-6.5
Sponge, (Bailing), Cellulose Type II, Class 2	1	NAVAIR 13-1-6.5
SRU-31/P Survival Kit, Packet (#1) (Medical) (Note 3)	1	NAVAIR 13-1-6.5
SRU-31/P Survival Kit, Packet (#2) (General) (Note 3)	1	NAVAIR 13-1-6.5
SRU-31A/P (Note 5)	Optional	NAVAIR 13-1-6.5
Bag, Drinking Water (50 ml) (Note 4) or Water, Drinking, Emergency (118 ml) (Note 4)	6 3	NAVAIR 13-1-6.5 NAVAIR 13-1-6.5
Opener, Can, Hand	1	NAVAIR 13-1-6.5
Ground/Air Emergency Code Card	1	NAVAIR 13-1-6.5
Blanket, Combat Casualty, (3 oz)	1	NAVAIR 13-1-6.5
Envelope, Packing List	2	NAVAIR 13-1-6.5
Beacon Set, Radio	1	NAVAIR 13-1-6.5
Liferaft, Inflatable	1	NAVAIR 13-1-6.1-1

- Notes:
1. The items listed are typical and are considered mandatory for inclusion in the survival kit container. Deviation from the listed items may be required by certain Functional Air Wings (FUNCWINGS), Carrier Air Wings (CVW), COMFAIRS, or Marine Air Wings (MAW). Requests for deviations must be forwarded to and authorized by TYCOMS and with information to Fleet Support Team (FST) at NAVAIR-WARCENACDIV Patuxent River MD via Naval Message. When optional items are substituted, particular attention must be paid to the binding sequence so that physical sizes and binding order of substituted items remain approximately the same. That portion of an item name in parentheses is a common-use name or container size and is not intended for supply requisition purposes.
  2. MK-13 MOD 0 shall be used until stocks are depleted. MK-124 MOD 0 will replace MK-13 MOD 0 as stocks become available.
  3. SRU-31/P complete kits including Medical Packet (#1) and General Packet (#2) may be ordered; instructions for packing and ordering these kits are found in NAVAIR 13-1-6.5.
  4. If Bag, Drinking Water (50 ml), is not available, substitute Water, Drinking, Emergency (118 ml), in accordance with NAVAIR 13-1-6.5.
  5. The selection of SRU-31/P or SRU-31A/P Individual Aircrewmember's Survival Kit will be at the discretion of the TYPE COMMANDER depending on mission requirements, reference NAVAIR 13-1-6.5, Chapter 9, for detailed information.

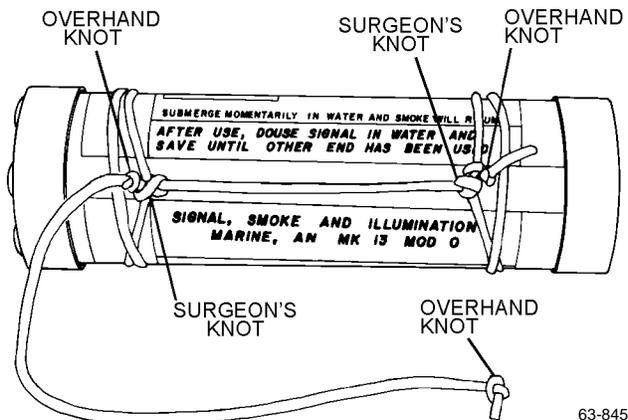
**Table 6-3. Nylon Cord Lengths Required for Binding**

Length (Inches)	Number Required
140	1
12	6
30	4
36	2

**NOTE**

Cord between end-ties shall be drawn tight.

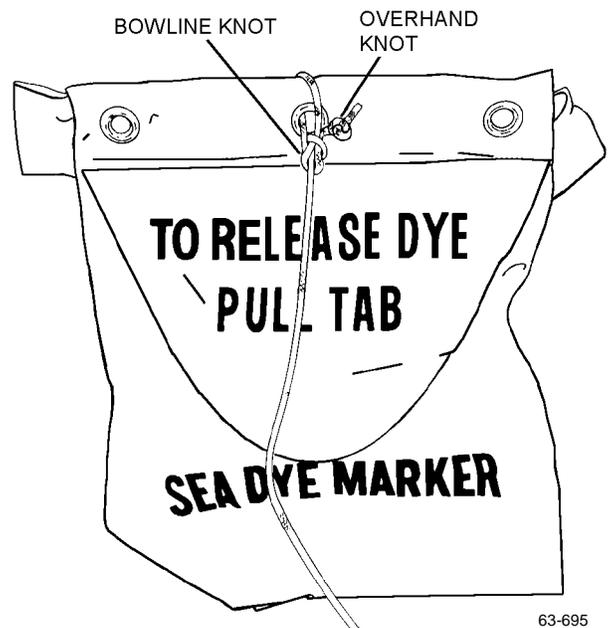
2. Route cord to opposite end of signal flare keeping cord tight between ties. Wrap cord two overlapping turns around end of flare and tie using surgeon's knot. Follow surgeon's knot with an overhand knot positioned snugly against surgeon's knot.



**Step 2 - Para 6-22**

3. Tie second MK-13 MOD 0 signal flare in same manner as steps 1 and 2.

4. Tie overhand knot near both ends of a 12-inch piece of nylon cord. Pass overhand knot through center grommet in dye marker and tie a bowline knot, allowing an approximate 1-inch loop. Bowline knot shall be snugly against cord-end overhand knot.



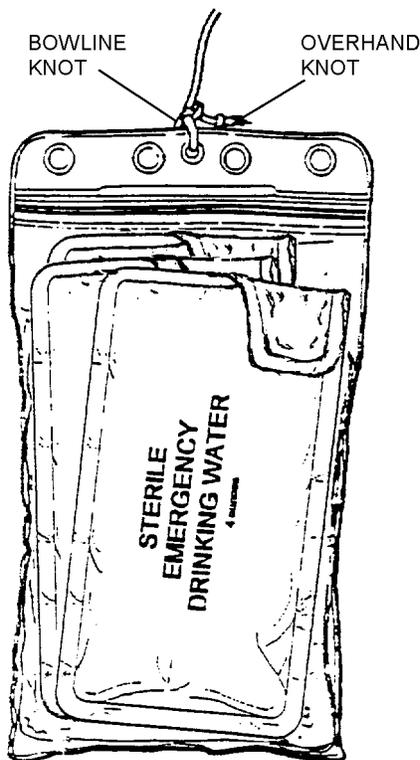
**Step 4 - Para 6-22**

5. Tie second sea dye marker in same manner as step 4.

**NOTE**

Replacement rate of canned water with bagged emergency water shall be in accordance with NAVAIR 13-1-6.5. Bagged water shall be stowed in the same order as canned water and in a flat configuration.

6. Bagged water. Place a maximum of three 4-ounce bagged emergency drinking water flat inside a clear vinyl envelope (MIL-B-117) with pour spout folded down. Bagged water must be able to fit into envelope without disrupting the closure of the sealing slide fastener. Using a 12-inch length of cord, tie an overhand knot on each end and pass knot through center hole in envelope. Secure with bowline knot, allowing an approximate 1-inch loop. Position an overhand knot snugly against the bowline knot. Ensure overhand knot is snug against bowline knot.



63-22

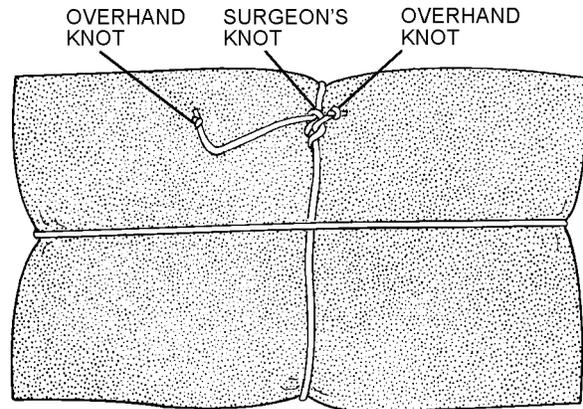
**Step 6 - Para 6-22**

**NOTE**

The bailing sponge should be compressed to a minimum thickness by compressing

while damp and then allowing to dry in the compressed state before tying.

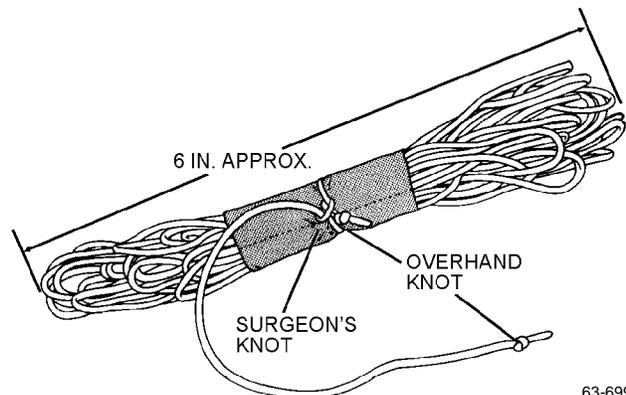
7. Tie overhand knot near ends of a 30-inch length of nylon cord. Wrap cord around sponge until both ends meet, then rotate cord 1/4 turn and wrap cord ends around opposite sides of sponge. Tie using surgeon's knot with cord-end overhand knot positioned snugly against surgeon's knot.



63-698

**Step 7 - Para 6-22**

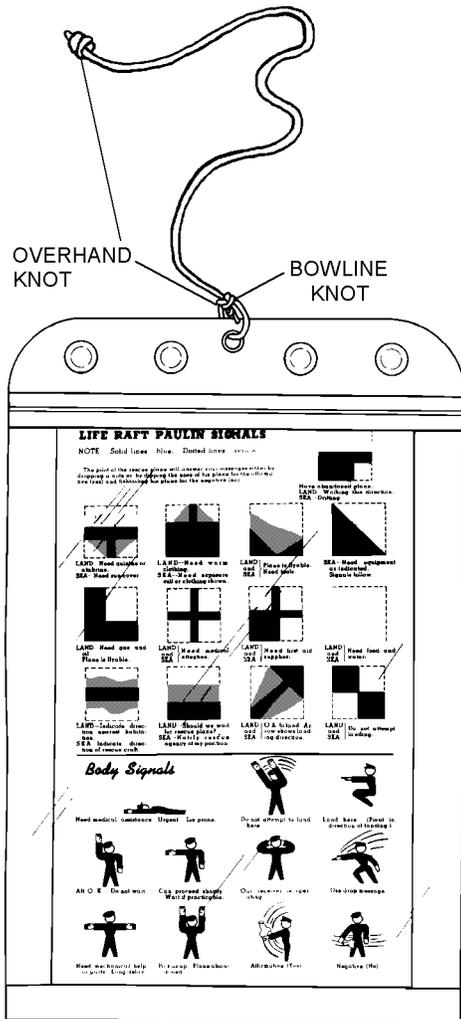
8. Cut one 2- x 3-inch piece of nylon duck material. Accordion-fold 50-foot length of nylon cord in 6-inch bights, and wrap material around center of accordion folded cord. Using 12-inch piece of nylon cord, tie over hand knot near each end and secure one end of cord to center of material with surgeon's knot. Knots shall be positioned with cord-end overhand knot snugly against surgeon's knot.



63-699

**Step 8 - Para 6-22**

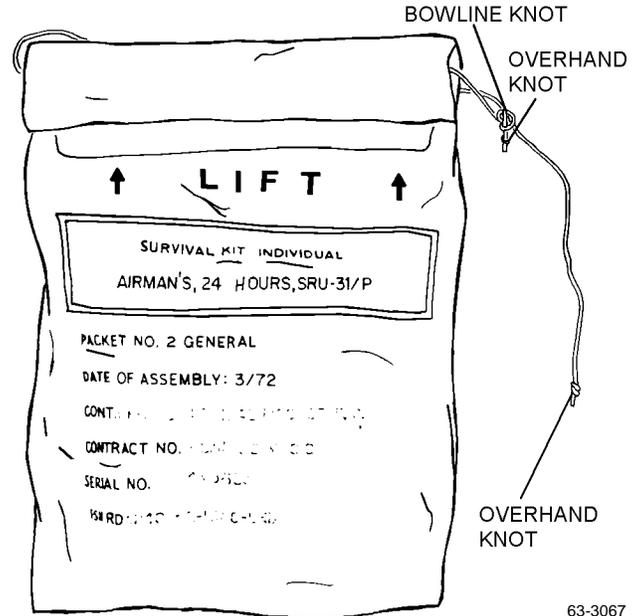
9. Place Ground/Air Emergency Cord Card into clear vinyl plastic envelope (MIL-B-117) and close sealing slide fastener. Using 12-inch piece of nylon cord, tie overhand knot on each end and pass knot through center hole in envelope. Secure with bowline knot, allowing an approximate 1-inch loop. Ensure knots are positioned with cord-end overhand knot snugly against bowline knot.



Step 9 - Para 6-22

63-700

10. Tie overhand knot in both ends of a 40-inch length of nylon cord. Route one end of the cord through to channel across the top of the packet and tie to form an approximate 7-inch loop. Tie using a bowline knot positioned with the cord-end overhand knot snugly against bowline knot.

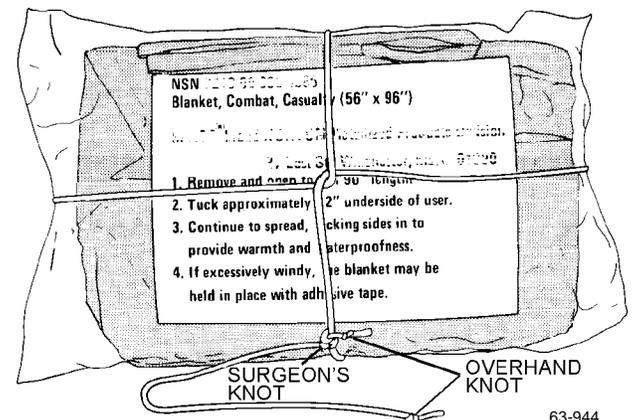


Step 10 - Para 6-22

63-3067

11. Secure second SRU-31/P packet in same manner as step 10.

12. Tie overhand knot in each end of a 30-inch length of nylon cord. Wrap cord around combat casualty blanket. Rotate cord 1/4 turn as shown and wrap cord ends around opposite side of blanket. Tie with surgeon's knot. Ensure that overhand knot is snugly against surgeon's knot.



Step 12 - Para 6-22

63-944

## NAVAIR 13-1-6.3-2

13. Ensure survival items are properly tied.

14. Tie overhand knot in each end of a 12-inch length of nylon cord. Pass overhand knot through hole in can opener, and tie a bowline knot with 1-inch loop. Ensure that overhand knot is snugly against bowline. Wrap pointed end of can opener with chafing material and secure in place with a rubber band.

15. Using a 140-inch length of type I nylon cord, form a 3/4 to 1-inch overhand loop approximately 12 inches from one end. Continue forming loops every 5 inches until there are enough to accommodate all required survival items.

### NOTE

Tie survival items to the 140-inch cord in the order shown in [figure 6-4](#).

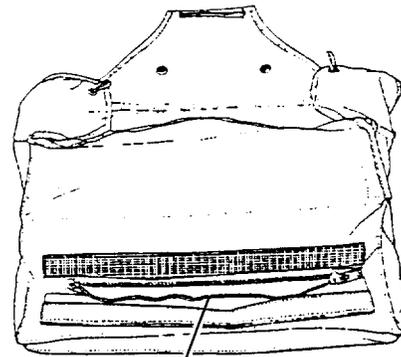
16. Tie each survival item to an overhand loop on the 140-inch cord using a surgeon's knot. The cord-end overhand knot of each item's attaching cord shall be positioned snugly against the surgeon's knot.

**6-23. SURVIVAL PACKAGE PACKING.** To stow survival items in equipment bag, proceed as follows:

### NOTE

No item has a top or bottom designation; however, its longitudinal axis may be important.

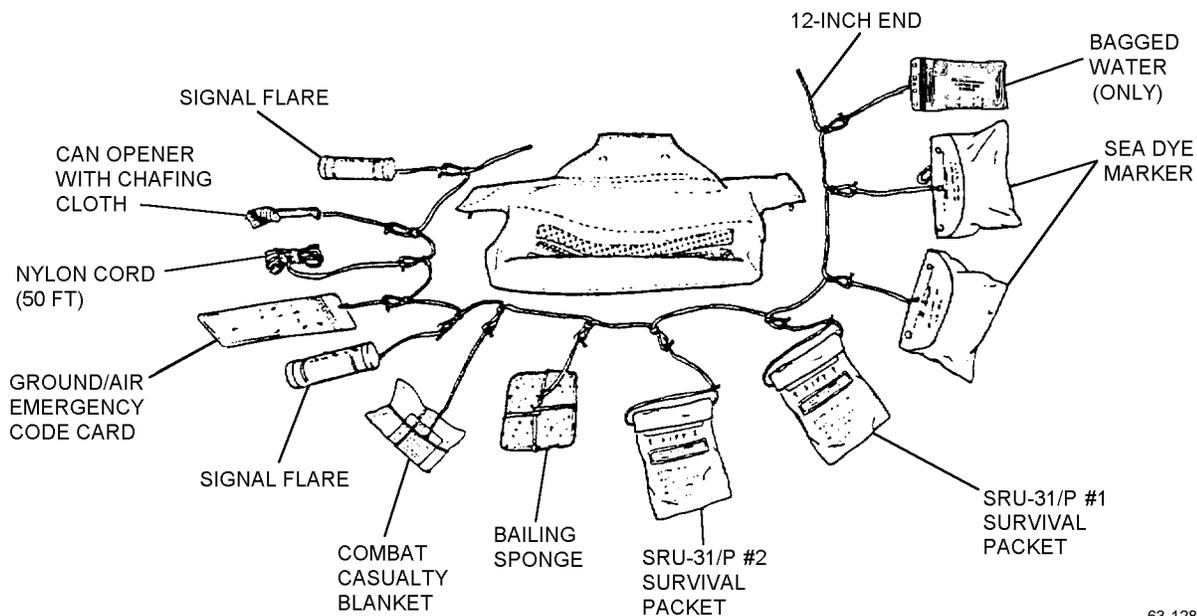
1. Position survival package assembly so that drop-line loops are on bottom and slide fastener of survival package is on top.



SLIDE FASTENER

63-1282A

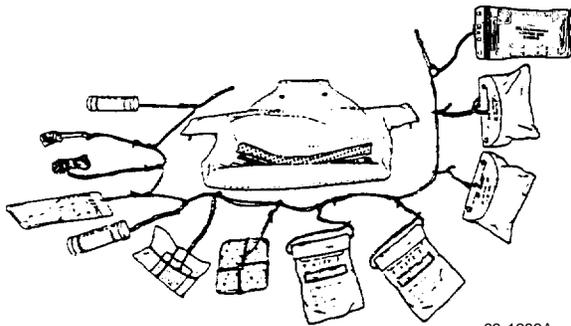
### Step 1 - Para 6-23



63-1281A

**Figure 6-4. Binding Survival Items**

2. Position bound items to be packed in front of survival package.



63-1283A

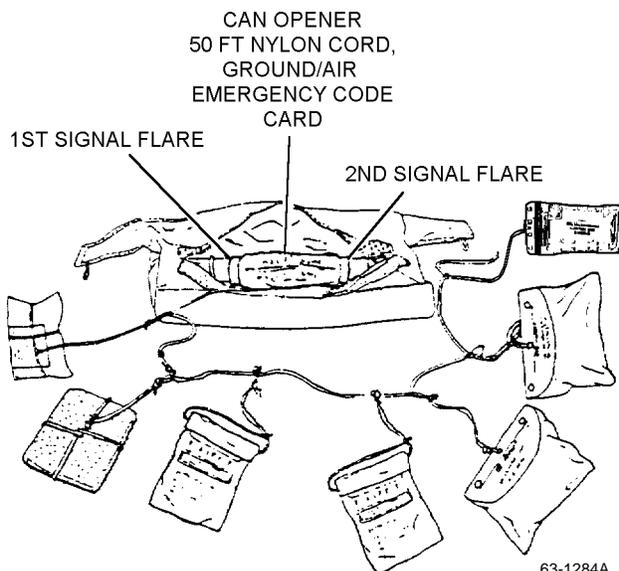
Step 2 - Para 6-23

3. Pack bound survival items into survival package as follows.

a. Place first signal flare in back left corner of survival package so that longitudinal axis is parallel to slide fastener.

b. Wrap can opener and 50 feet of nylon cord with Ground/Air Emergency Code Card. Place in back center section of survival package next to the first signal flare. Position so that the longitudinal axis is parallel to the slide fastener.

c. Place the second signal flare in back right corner of survival package so that the longitudinal axis is parallel to the slide fastener.

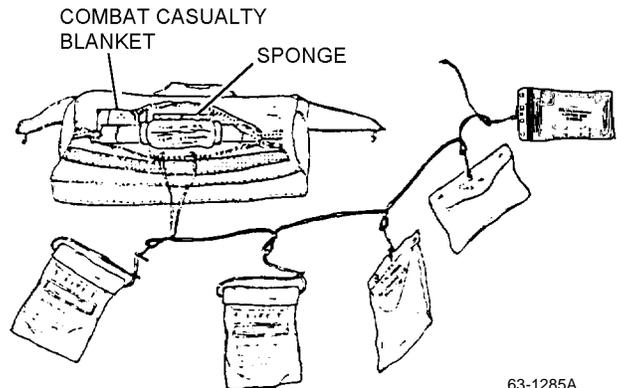


63-1284A

Step 3c - Para 6-23

d. Place the combat casualty blanket on the left side of the survival package on top of the first signal flare. Position so that the longitudinal axis is parallel to the slide fastener.

e. Place the sponge in center section of survival package in back of the Ground/Air Emergency Code Card. Position so that the longitudinal axis is parallel to the slide fastener.



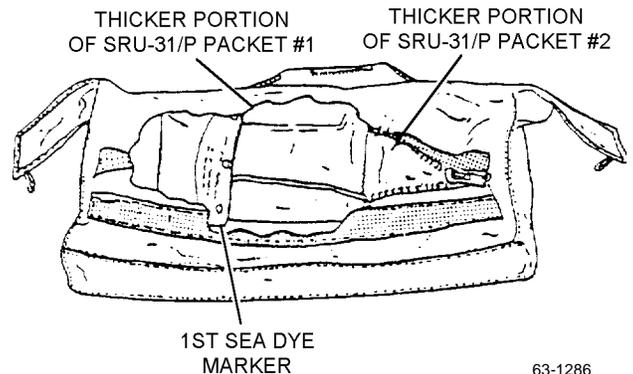
63-1285A

Step 3e - Para 6-23

f. Place SRU-31/P packet #2 in the right side of the survival package with the thick portion towards the rear. Position so that the longitudinal axis is perpendicular to the slide fastener.

g. Place SRU-31/P packet #1 in the center section of the survival package with the thick portion towards the rear. Position so that the longitudinal axis is perpendicular to the slide fastener.

h. Place first sea dye marker on the left side of the SRU-31/P packet #1.



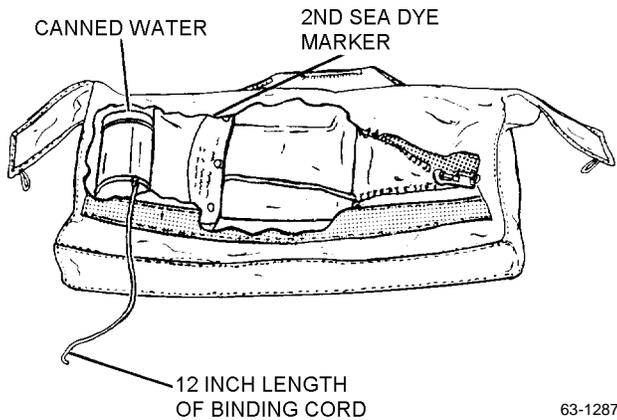
63-1286

Step 3h - Para 6-23

i. Place bagged water in left section of survival package so that the longitudinal axis is perpendicular to the slide fastener.

## NAVAIR 13-1-6.3-2

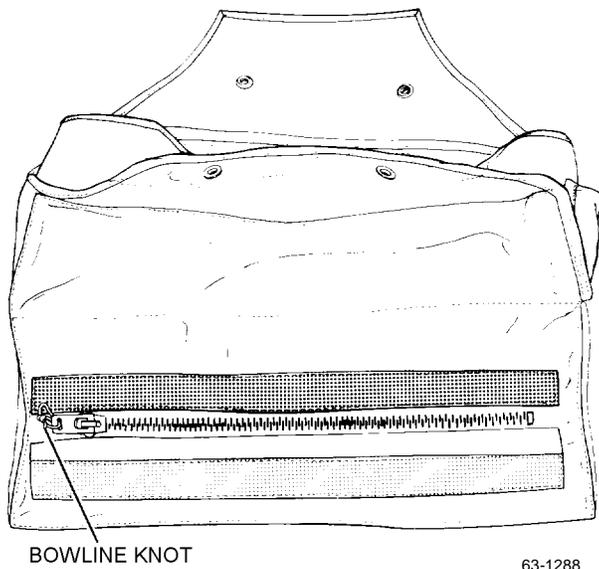
j. Place second sea dye marker on top of the first sea dye marker.



### Step 3j - Para 6-23

4. Ensure that survival items are properly stowed. Ensure that the 12-inch length of binding cord protrudes from the survival package.

5. Close survival package, allowing 12-inch length of binding cord to protrude from survival package to tie to slide fastener tab. Tie end of cord to slide fastener using a bowline knot followed by an over-hand knot positioned snugly against bowline knot. Stow excess line in container.



### Step 5 - Para 6-23

6. Ensure that binding cord is secured to slide fastener tab.

7. Close slide fastener protective cover.

## 6-24. LIFERAFT FOLDING, RIGGING, AND PACKING; DROPLINE STOWAGE; AND SURVIVAL PACKAGE INSTALLATION.

### Materials Required

Quantity	Description	Reference Number
As Required	Cord, Nylon, Type III 550-Pound	MIL-C-5040 NIIN 00-240-2146
As Required	Thread, Nylon, Type II, Class A, Size E	V-T-295 NIIN 00-244-0609
As Required	Thread, Nylon, Type II, Class A, Size 6	V-T-295 NIIN 00-559-5211
As Required	Cord, Nylon, Type I 100-Pound	MIL-C-5040 NIIN 00-240-2154
As Required	Talc, Technical, T1	MIL-T-50036A NIIN 01-080-9589
2	Rubber Band, Type I	MIL-R-1832 NIIN 00-567-0323
1	Plug, Diffuser	1614703-1 (CAGE 26869) NIIN 01-077-1734

### Support Equipment Required

Quantity	Description	Reference Number
1	Packing Aid, Liferaft	Fabricate IAW <a href="#">paragraph 6-67</a>
2	Closure Aids, Flap	—
1	Stowage Aid, Dropline	Fabricate IAW <a href="#">paragraph 6-66</a>
1	Torque Wrench, 0-100pound-inch	—

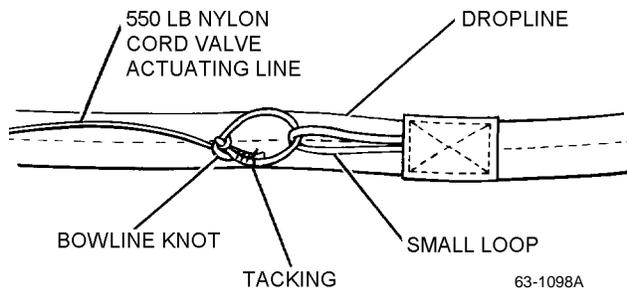
**NOTE**

Because of the complexity of rigging and packing this assembly, it is imperative that these procedures be combined and performed at the time and manner indicated in the instructions that follow.

If valve actuating line is damaged, incorrectly installed, or not installed, install new line in accordance with [steps 1 and 2](#).

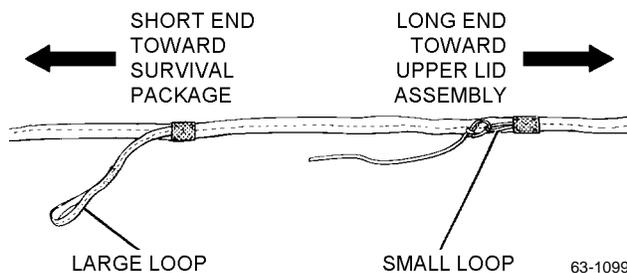
1. Cut a 15-inch length of 550-pound, Type III nylon cord and sear ends.

2. Route one end through small loop on dropline and tie with a bowline knot. Tack with three turns of waxed, size E nylon thread, single. Tie ends with surgeon's knot followed by a square knot.



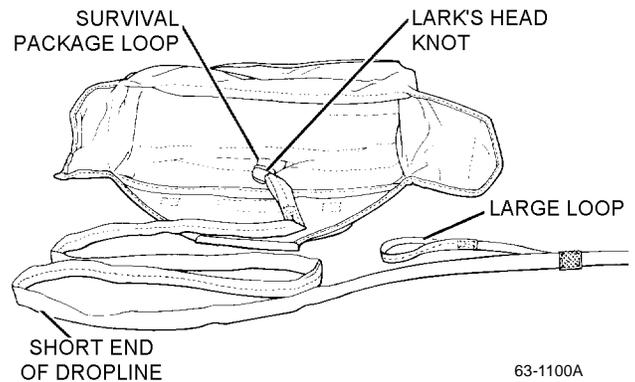
**Step 2 - Para 6-24**

3. Lay dropline out between survival package and upper lid assembly. Remove all twists. Ensure that large loop and short end are toward survival package and that small loop and long end are toward upper lid assembly.



**Step 3 - Para 6-24**

4. Attach short end of dropline assembly to survival package loop by means of lark's head knot.



**Step 4 - Para 6-24**

5. Prepare and fold liferaft assembly. To prepare and fold liferaft assembly, proceed as follows:

a. Lay liferaft assembly flat with inside facing upward and bow end to right ([step A, figure 6-5](#)).

b. Ensure that all trapped air is expelled from liferaft and oral inflation valve is locked and stowed in pocket prior to folding.

c. Lightly dust entire liferaft assembly with talc.

d. Secure sea anchor line in 3-inch bights. Fold and stow in pocket ([step B, figure 6-5](#)).

e. Roll and secure weathershield ([step C, figure 6-5](#)).

f. Fold stern of liferaft over approximately 4 inches ([step D, figure 6-5](#)).

g. Fold liferaft over at rear of CO<sub>2</sub> cylinder ([step E, figure 6-5](#)).

h. Fold bow of liferaft over to fold formed in step g ([step F, figure 6-5](#)).

i. Fold bow portion of liferaft over on top of previous folds. Approximate width of folded liferaft shall be 15 inches. Adjust folds as necessary ([step G, figure 6-5](#)).

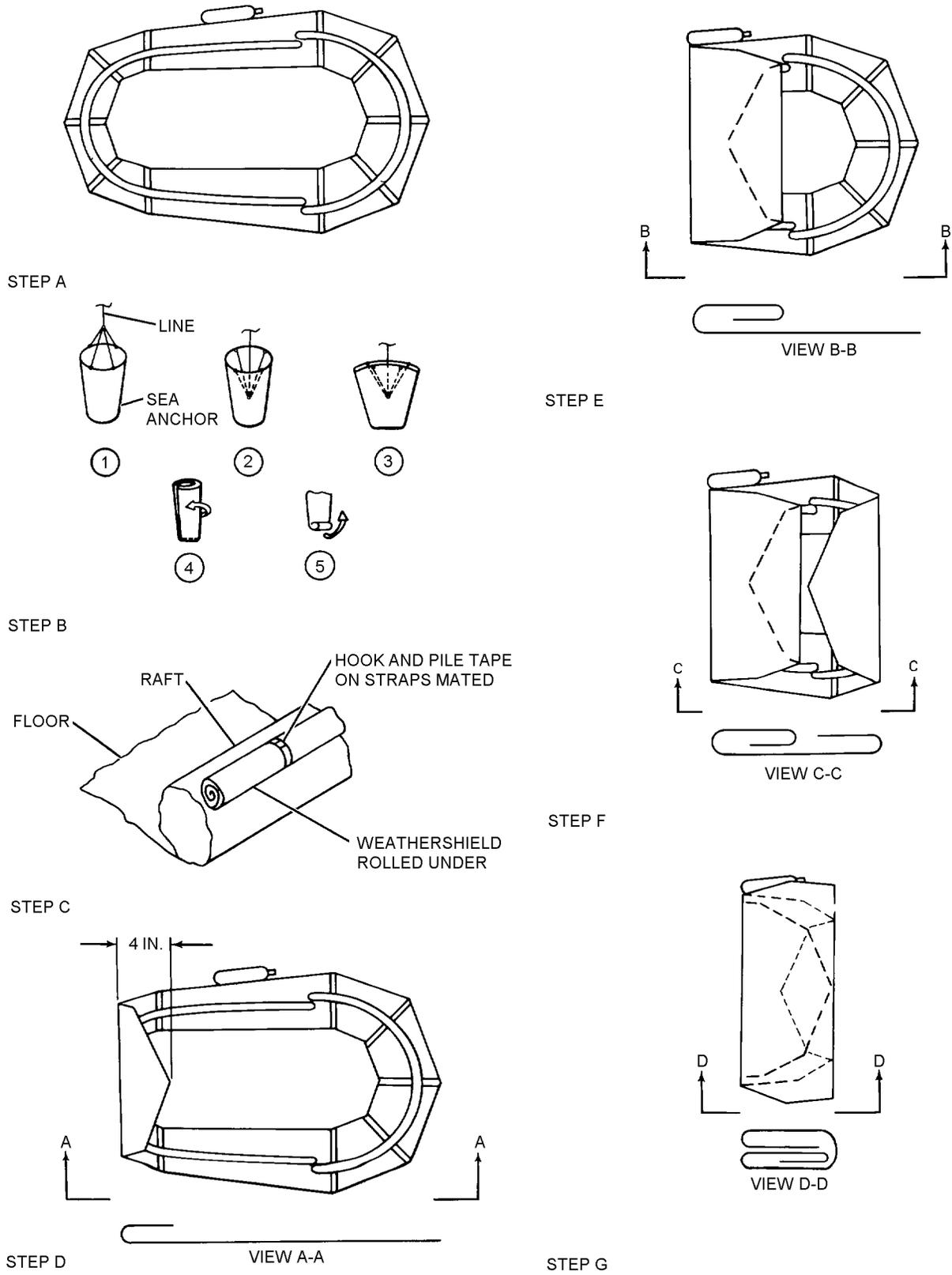
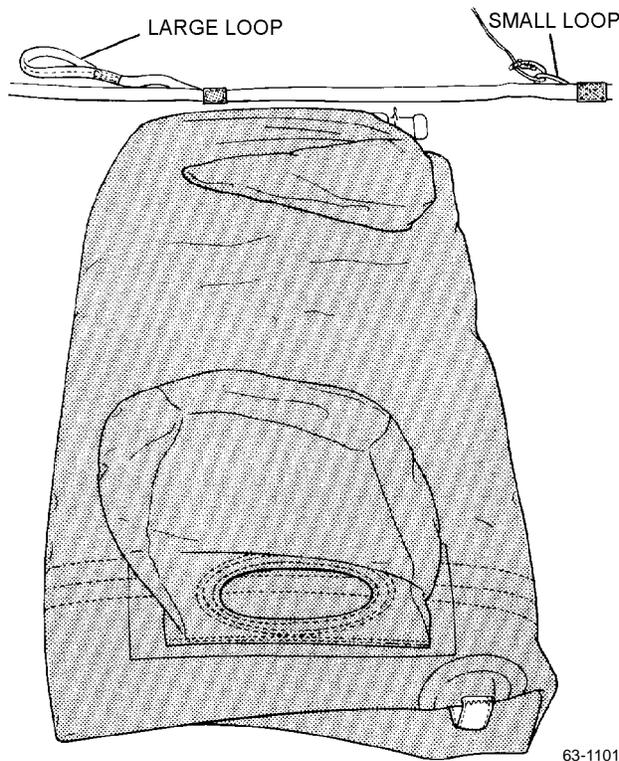


Figure 6-5. Folding Liferaft

j. Position folded liferaft assembly between small and large loop of dropline.



Step 5j - Para 6-24

**WARNING**

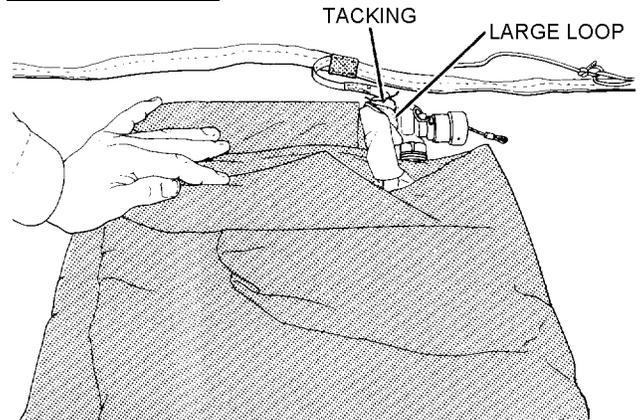
Gas under pressure. Do not loosen or attempt to remove inflation valve assembly from CO<sub>2</sub> cylinder.

Ensure diffuser plug is installed in inflation valve.

k. Disconnect inflation valve from liferaft. Do not remove cylinder from stowage pocket. Install diffuser plug in inflation valve. Retain antichafing disc/discs on inlet check valve.

l. Ensure that retaining line is properly connected to cylinder in accordance with NAVAIR 13-1-6.1.

m. Attach large loop of dropline around neck of inflation valve at cylinder with lark's head knot. Pull knot tight and tack with two turns of waxed, size 6 nylon thread. Tie ends with a surgeon's knot followed by a square knot.



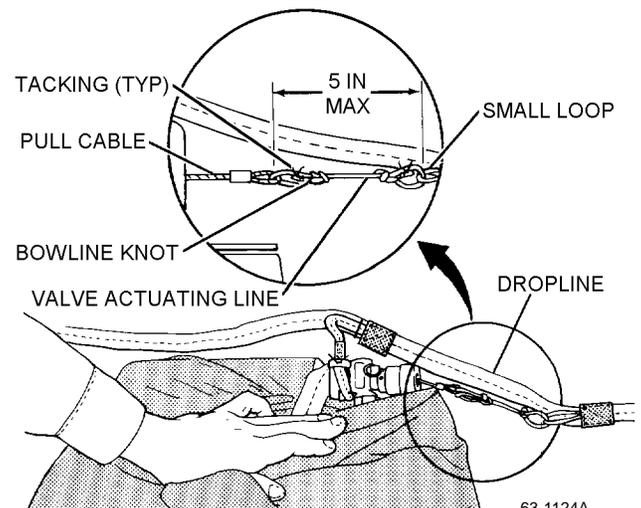
Step 5m - Para 6-24

n. Ensure CO<sub>2</sub> cylinder antichafing disc/discs are installed. Remove diffuser plug from inflation valve. Attach inflation valve to liferaft inlet valve and torque coupling nut to 80-90 lb-in.

**WARNING**

Final dimension of valve actuating line is critical. Finished length shall not exceed 5 inches.

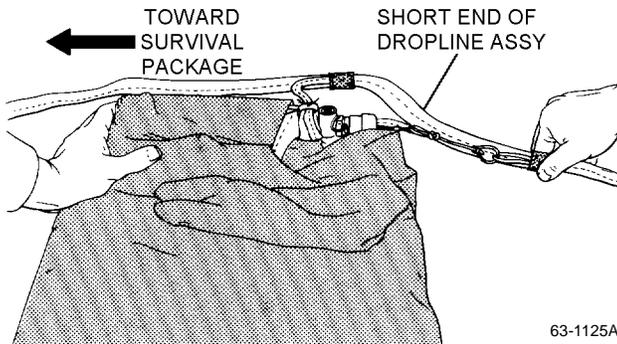
o. Pass actuating line through loop in end of pull cable. Tie loop, using a bowline knot. Tack with three turns of waxed, size E nylon thread. Tie ends with surgeon's knot followed by square knot. Finished length shall not exceed 5 inches.



Step 5o - Para 6-24

**NAVAIR 13-1-6.3-2**

p. Position short end of dropline leading to survival package clear of CO<sub>2</sub> cylinder. Prepare liferaft to be rolled.



**Step 5p - Para 6-24**

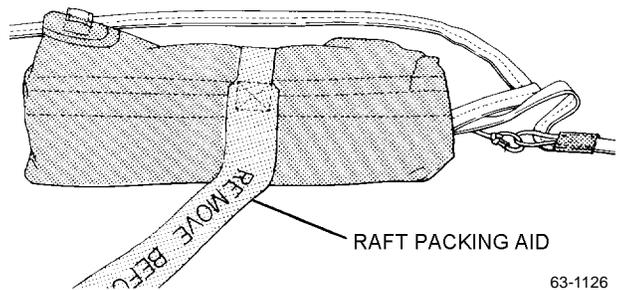
**NOTE**

Ensure that short end of dropline does not become tangled in the liferaft during the rolling operation.

Tight, even rolls will be necessary to achieve the desired height upon completion.

q. Beginning at CO<sub>2</sub> cylinder, tightly roll liferaft to a 5-inch maximum diameter, ensuring that dropline does not become tangled in liferaft rolling operation.

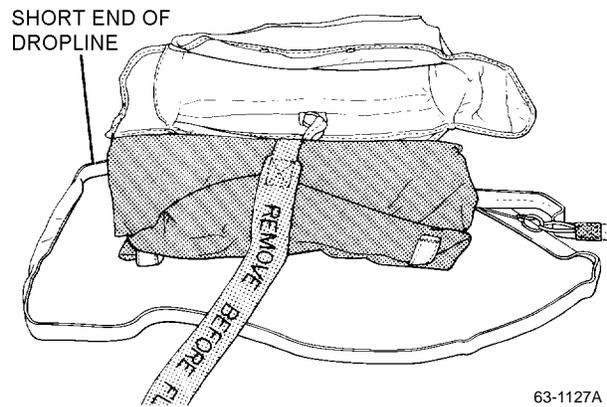
r. Retain liferaft in rolled position using liferaft packing aid, and remove all twists from dropline assembly.



**Step 5r - Para 6-24**

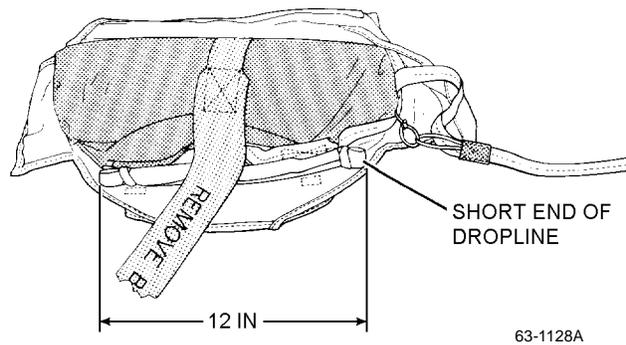
6. Install liferaft assembly into survival package. To install liferaft assembly into survival package, proceed as follows:

a. Position rolled liferaft in front of survival package assembly with the CO<sub>2</sub> cylinder inflation valve positioned to the right. Position short end of dropline in a manner that will not interfere with liferaft installation.



**Step 6a - Para 6-24**

b. Position rolled liferaft assembly into survival package. Fake short end of dropline assembly in 12-inch bights and secure with rubber bands. Position secured dropline in front of rolled liferaft assembly.



**Step 6b - Para 6-24**

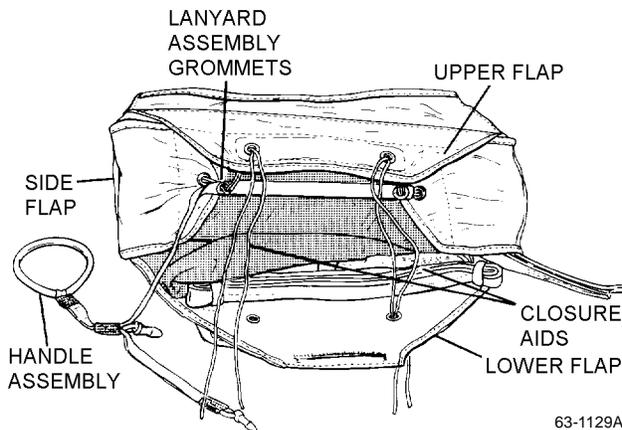
c. Cut two 30-inch lengths of Type I nylon cord.

d. Insert 30-inch lengths (closure aids) through fabric eyelets attached to side flaps to aid in flap closure procedures.

**WARNING**

Ensure that liferaft packing aid is removed from rolled liferaft assembly.

e. Remove liferaft packing aid from rolled liferaft assembly. Fold side flaps over ends of rolled liferaft. Place grommets of lanyard assembly over fabric eyelets ensuring lanyard handle assembly is positioned to left. Pass closure aids through lanyard grommets and pull fabric eyelets through.

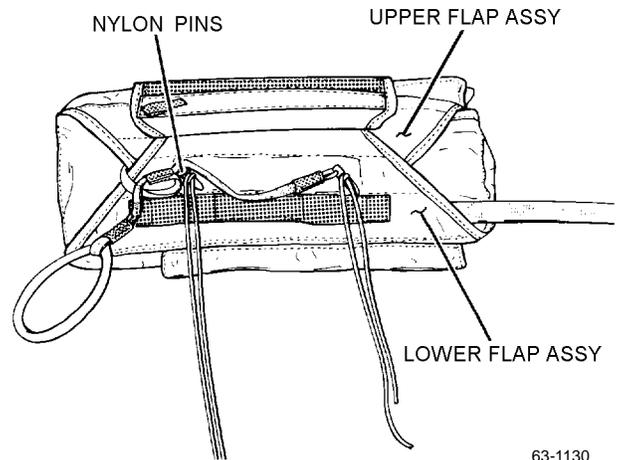


63-1129A

**Step 6e - Para 6-24**

f. Pass flap closure aids through grommets in upper flap assembly and pull fabric eyelets through. Retain flap in closed position.

g. Pass flap closure aids through grommets in lower flap assembly and pull fabric eyelets through. Insert nylon pins into fabric eyelets to retain flaps in closed position.



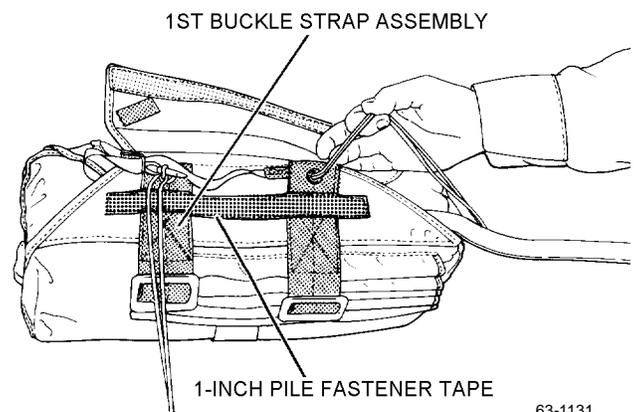
63-1130

**Step 6g - Para 6-24**

h. Pass first buckle strap assembly through slot in 1-inch pile fastener tape with large slot in buckle facing downwards.

i. Pass flap closure aid through grommet in first buckle strap assembly, remove nylon pin, and pull fabric loop through. Secure in place by reinserting nylon pin.

j. Pass second buckle strap assembly through slot in 1-inch pile fastener tape with large slot in buckle facing downwards. Pass flap closure aid through grommet in second buckle strap assembly.



63-1131

**Step 6j - Para 6-24**

## NAVAIR 13-1-6.3-2

k. Remove nylon pin and pull fabric loop through. Secure in place by reinserting nylon pin.

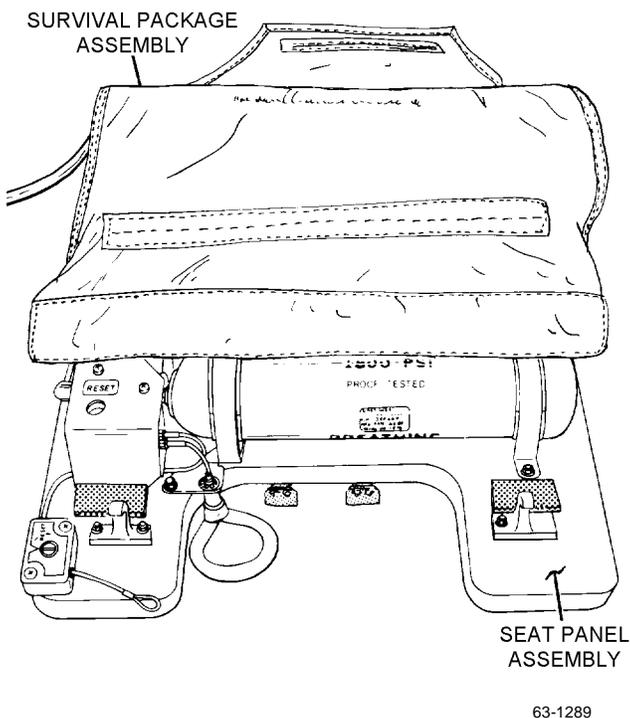
7. Stow dropline assembly and install survival package to seat panel assembly. To stow dropline assembly and install the survival package, proceed as follows:

### NOTE

The oxygen/communication hoses would normally be installed on the survival kit at this point in time. However for clarity and simplicity of illustrations they have been removed.

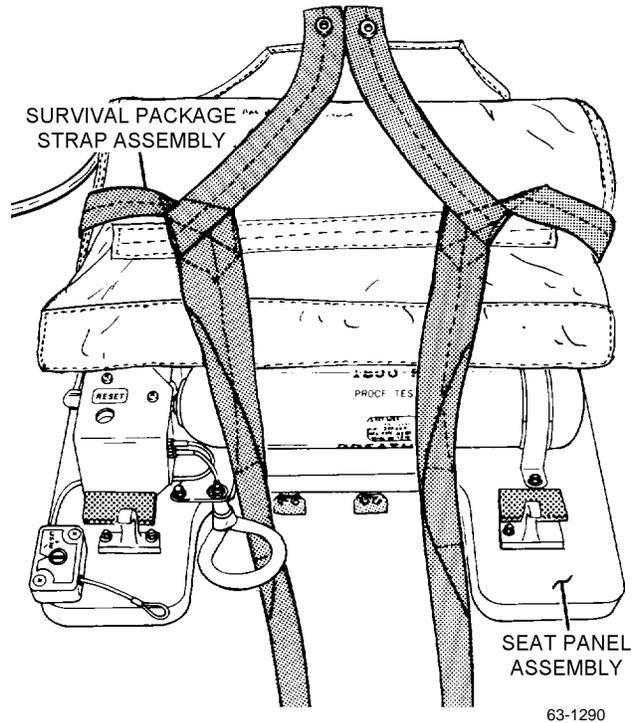
a. Position seat panel assembly so that the oxygen cylinder is located on top.

b. Place the survival package assembly on top of seat panel assembly so that dropline stowage loops are facing down.



Step 7b - Para 6-24

c. Place the survival package strap assembly under seat panel assembly and around survival package. Remove all twists.

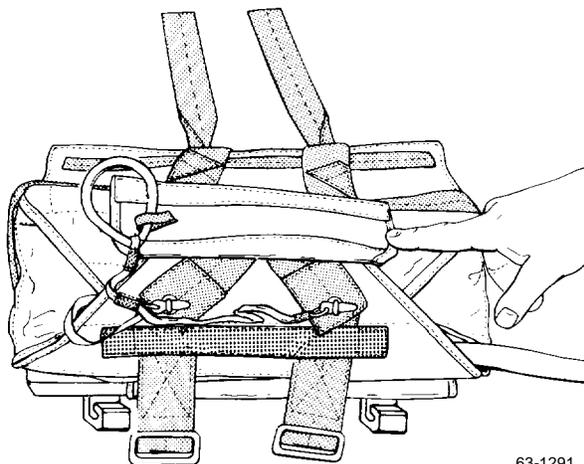


Step 7c - Para 6-24

d. Cross ends of strap assembly with grommets and slide through 3-inch slot.

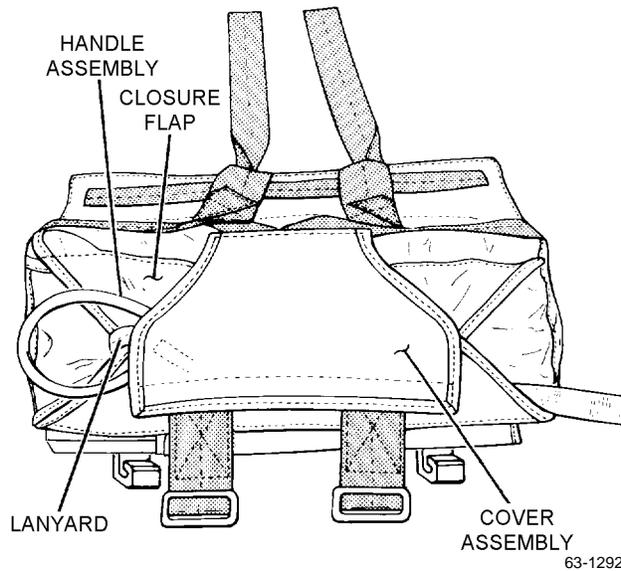
e. Pass flap closure aids through grommets in strap assembly. Remove nylon pins and pull fabric loop through. Secure in place by reinserting nylon pins.

f. Secure handle assembly under 5/8-inch hook and pile fastener tape.



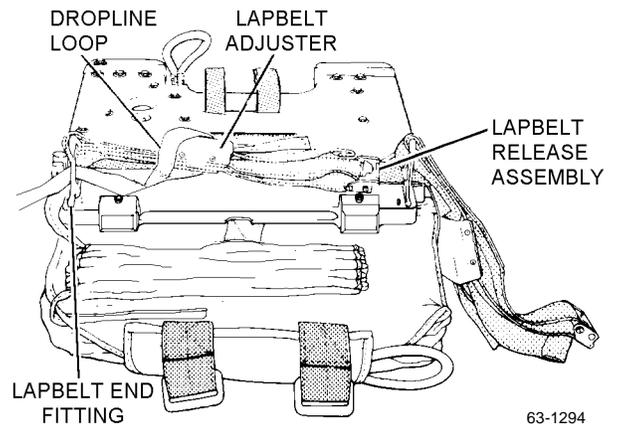
Step 7f - Para 6-24

g. Close cover assembly and push remaining lanyard under closure flap.



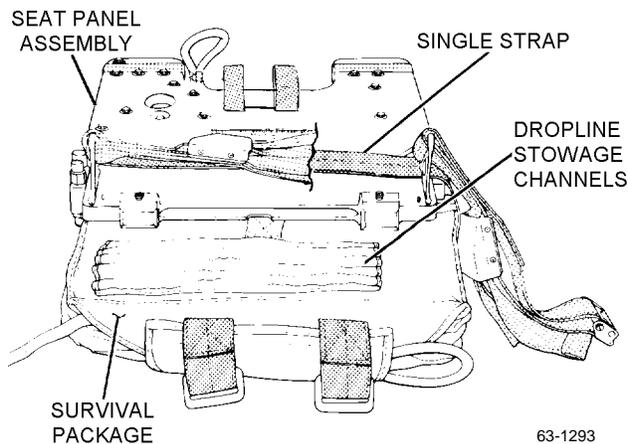
Step 7g - Para 6-24

i. Remove all twists from dropline. Route loop in end of dropline through lappbelt end fitting and over lappbelt release assembly and adjuster.



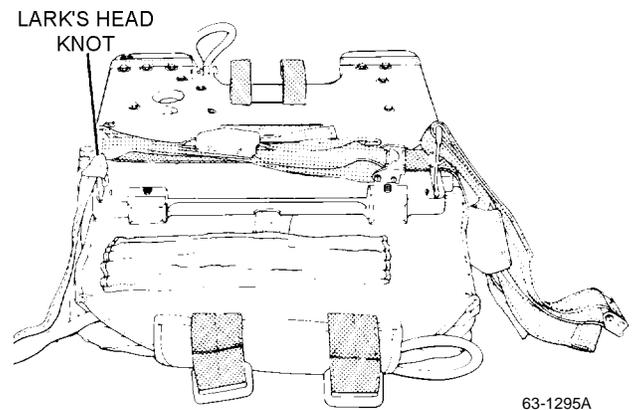
Step 7i - Para 6-24

h. Turn assembly over so that the lappbelts are on top and dropline stowage channels are exposed.



Step 7h - Para 6-24

j. Continue passing dropline loop over lappbelt, forming a lark's head knot at lappbelt end fitting. Tack with one turn of waxed nylon 6 thread. Tie ends with a surgeon's knot followed by a square knot.



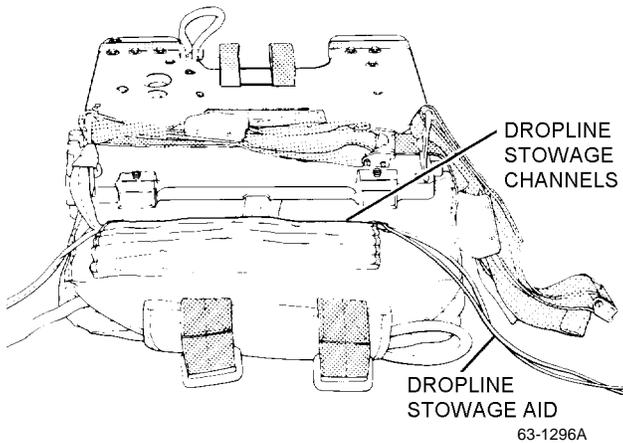
Step 7j - Para 6-24

**NOTE**

The oxygen communication hoses would normally be installed on the survival kit at this time. However, for clarity and simplicity of illustrations, they have been removed.

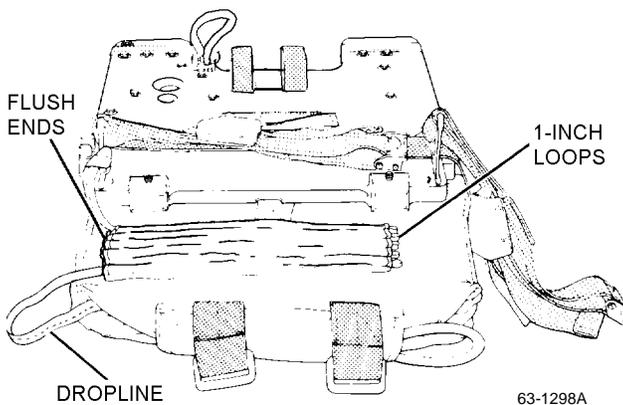
## NAVAIR 13-1-6.3-2

k. Starting at left side of stowage channels begin stowing dropline in the most forward dropline stowage channel, using dropline stowage aid. Form a 1-inch loop in dropline at right end of stowage channel. At left end of stowage channel, loop shall be flush.



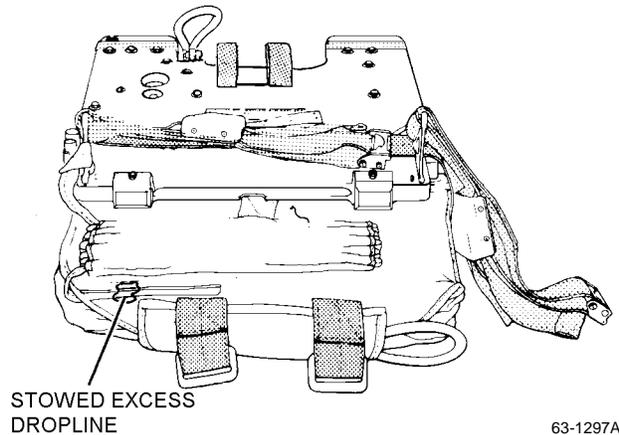
**Step 7k - Para 6-24**

l. Continue stowing dropline until all five dropline stowage channels are filled. Ensure no twists occur.



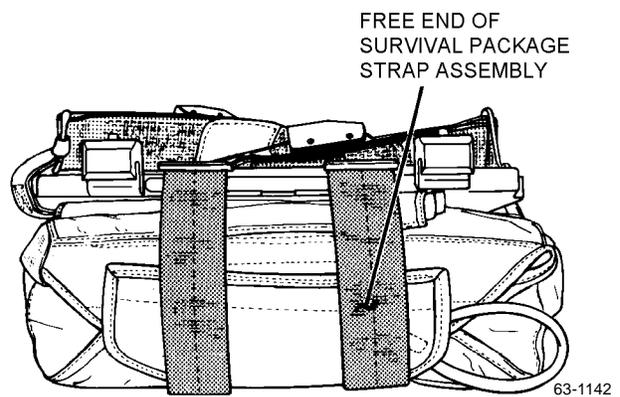
**Step 7l - Para 6-24**

m. Stow excess dropline along inside upper portion of flap assembly, using stowage aid.



**Step 7m - Para 6-24**

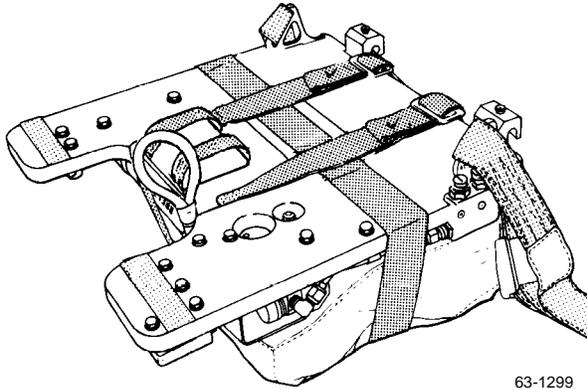
n. Position seat panel assembly directly on top of survival package. Reeve free end of strap assembly through buckles and pull snug. Pass free end of strap back up through buckles and lock into position.



**Step 7n - Para 6-24**

o. Perform release handle pull test in accordance with [paragraph 6-25](#).

p. Retighten straps. Fold both strap ends under and tack with one turn of waxed, size 6 nylon thread, double. Tie ends with a surgeon's knot followed by a square knot.



Step 7p - Para 6-24

q. Rig and install radio beacon in accordance with [paragraph 6-26](#).

r. Make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

**6-25. RELEASE HANDLE PULL TEST.** To perform a release handle pull test, proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Nylon Cord, Type I	MIL-C-5040 NIIN 00-240-2154

Support Equipment Required

Quantity	Description	Reference Number
1	Dial Push/Pull Gage, 0-50 Pounds	DPP-50 (CAGE 11710) NIIN 00-880-7583
2	Closure Aids, Flap	—

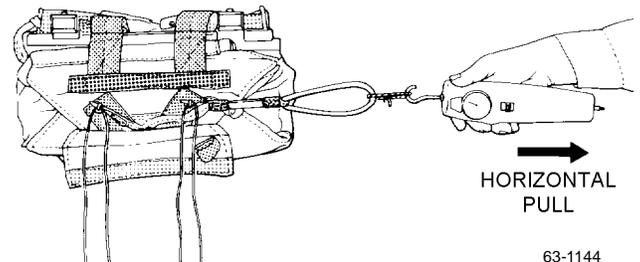
1. Open survival package cover assembly.

**NOTE**

Ensure the flap closure aids do not become wedged between the nylon pins and the fabric loops as this condition will increase the pull forces required to extract the nylon pins from the container.

2. Using 5 inches of Type I nylon cord, form a loop around orange release handle.

3. Insert hook of dial push/pull gage into nylon cord loop.



Step 3 - Para 6-25

**NOTE**

Discontinue pull when nylon pins are removed.

4. With one short, quick horizontal pull, extract nylon pins from fabric loops. Force required to extract pins shall be 25 ± 10 pounds.

**NOTE**

If pull forces cannot be met, repack survival package assembly in accordance with [paragraph 6-24](#).

5. Using flap closure aids, close flap assemblies.

6. Remove flap closure aids, close survival package cover assembly, and refer to [step 7p of paragraph 6-24](#) for final tacking and closing procedures.

## NAVAIR 13-1-6.3-2

**6-26. RADIO BEACON RIGGING AND INSTALLATION.** To rig and install the AN/URT-33A radio beacon, proceed as follows:

### Materials Required

Quantity	Description	Reference Number
1	Beacon Set, Radio	AN/URT-33A NIIN 00-160-2136
1	Actuator, Indicator Assembly	125B300-1 (CAGE 30941) NIIN 01-167-0627
1	Pin, Cotter, Hairpin	LHCOTC NIIN 00-956-5633 (CAGE 96652)
1	Actuating Lanyard	12227-1 NIIN 01-170-8367 (CAGE 24632)
2	Rubber Band, Type I	MIL-R-1832 NIIN-00-568-0323
As Required	Thread, Nylon Size E, Type II, Class A	V-T-295 NIIN 00-244-0609

### Support Equipment Required

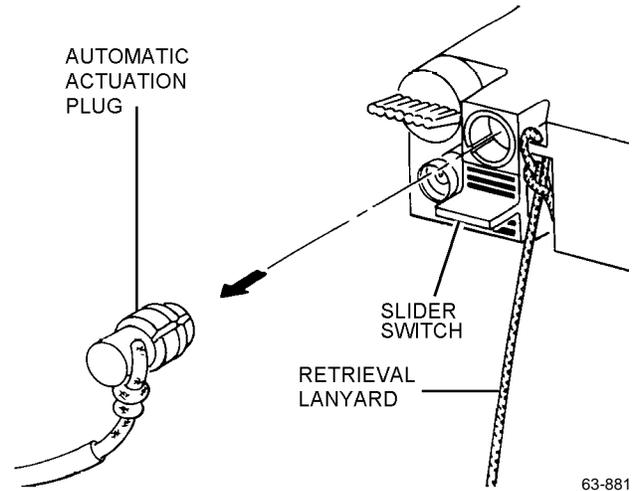
Quantity	Description	Reference Number
1	T-wrench	Fabricate IAW <a href="#">paragraph 6-69</a>

### NOTE

Ensure that slider switch on radio beacon is OFF. Slider switch is in OFF position when word ON is not visible on radio beacon housing.

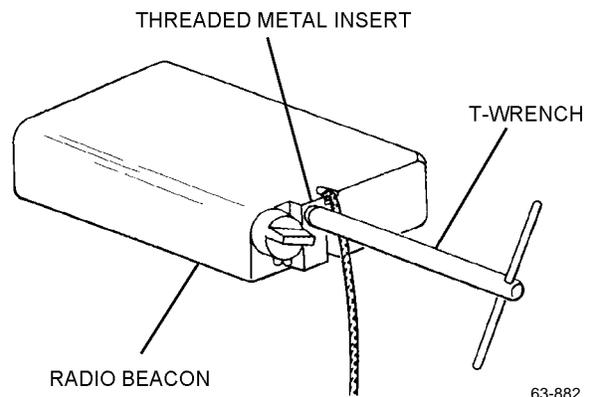
Determine if beacon has been modified in accordance with [steps 1 through 4](#) before proceeding to [step 5](#).

1. Remove automatic actuation plug and lanyard from radio beacon assembly.



### Step 1 - Para 6-26

2. Remove threaded metal insert from beacon using locally fabricated T-wrench (see [paragraph 6-69](#) for fabrication).



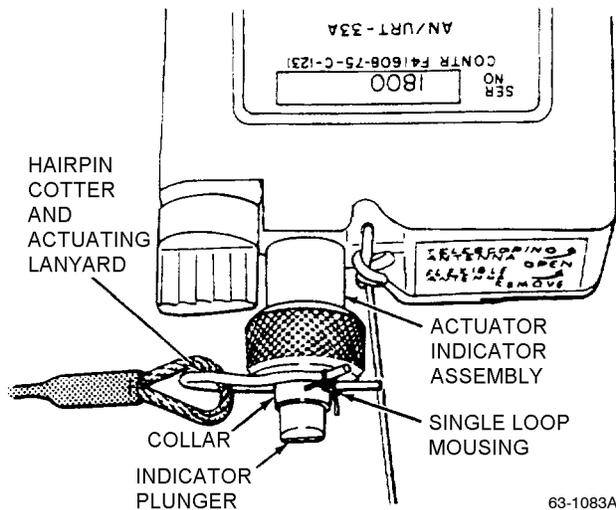
### Step 2 - Para 6-26

3. Install actuator indicator assembly handtight into position in beacon from which threaded metal insert was removed.

4. Depress indicator plunger, align holes in collar and plunger, and insert hairpin cotter attached to actuating lanyard.

5. Ensure hairpin cotter and collar are free to rotate 360° without binding. If hairpin cotter and collar are free to rotate, proceed to [step 6](#). If hairpin cotter and collar do not rotate freely, refer to NAVAIR 16-30URT33-1.

6. Safety-tie open end of actuator indicator hairpin cotter by applying single-loop mousing, using size E nylon thread. Secure mousing loop with square knot. Cut off excess approximately 1/8 inch from knot.



63-1083A

**Step 6 - Para 6-26**

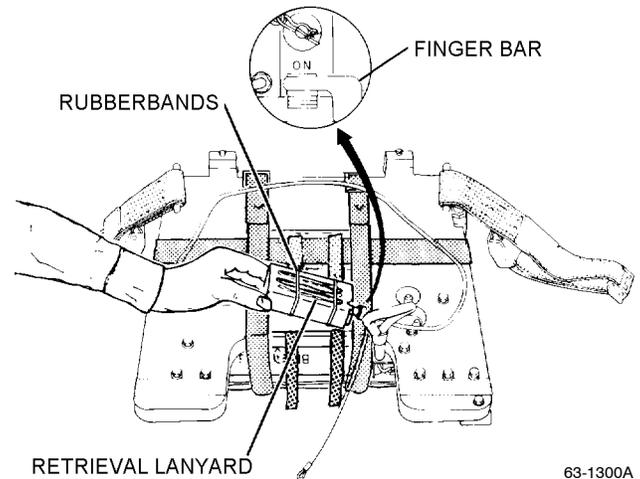
7. Accordion-fold retrieval lanyard on top of radio beacon and secure with rubber bands. Ensure retrieval lanyard is attached at both ends with a bowline knot, with an overhand knot tied at the tag end.

8. Connect flexible antenna to radio beacon receptacle by pushing bayonet type fitting in and rotating clockwise.

**NOTE**

To prevent accidental transmission of inaudible emergency distress signal, ensure indicator plunger is secure in depressed position before beacon ON/OFF slider switch is placed in ON (armed) position.

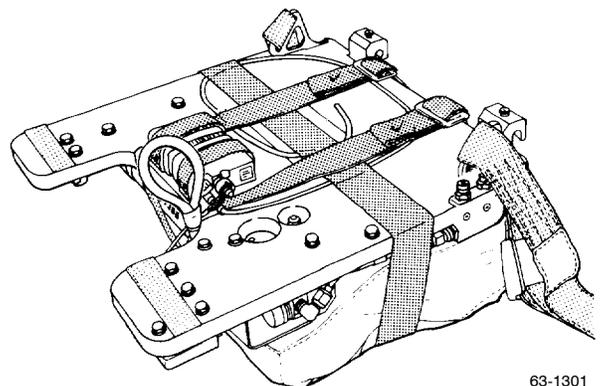
9. Place beacon ON/OFF slider switch in ON (armed) position and install beacon in radio beacon bracket. Hold beacon at a 45 degree angle, position slider ON/OFF switch under bracket finger bar, and press beacon into position in bracket assembly. Ensure slider switch is secure in ON position under finger bar, then secure beacon in bracket with hook and pile tape.



63-1300A

**Step 9 - Para 6-26**

10. Pass radio beacon antenna around seat panel assembly under all survival package straps.



63-1301

**Step 10 - Para 6-26**

## Section 6-4. Turnaround/Daily/Preflight/Postflight/ Transfer/Special/Conditional Inspection

### 6-27. GENERAL.

6-28. The Turnaround/Daily/Preflight/Postflight or Transfer Inspections consist of a visual type inspection performed in conjunction with the aircraft inspection requirements for the aircraft in which the survival kit is installed. These inspections shall be performed by line personnel (plane captain) or delegated aircrewmembers who have been instructed and found qualified by the Aviator's Equipment Branch.

6-29. The Conditional Inspection is an unscheduled inspection required as the result of a specific situation or set of conditions; e.g., hard-landing inspections or any inspection directed by higher authority that is not ordered in a technical directive.

6-30. The Special (7/14 day, etc.) Inspection shall be performed on inservice survival kits installed in aircraft and in ready room issue. This inspection shall be performed at the Organizational Level of maintenance

by personnel assigned to the Aviator's Equipment Branch. Completion and date of inspection shall be documented by making necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

6-31. Perform the Turnaround/Daily/Preflight/Postflight/Transfer or Special Inspections in accordance with Periodic Maintenance Requirement Manual (PMRM) Number A1-AV8BB-MRC-200.

6-32. If discrepancies are found or suspected, Maintenance Control shall be notified.

6-33. Survival kits which do not pass inspection and cannot be repaired in the aircraft shall be removed in accordance with applicable aircraft manual and replaced with a Ready for Issue (RFI) survival kit. Non-RFI survival kits shall be forwarded to the nearest maintenance activity having repair capability for corrective action.

## Section 6-5. Acceptance/Special-Off Aircraft Inspection

### 6-34. GENERAL.



6-35. An Acceptance Inspection shall be performed on a survival kit when it is placed into service or received installed in an aircraft received from another organization or SDLM. Special-Off Aircraft Inspection cycle of a survival kit shall correspond to the aircraft maintenance inspection cycle as directed by applicable planned maintenance system (PMS) publications for specific intervals. In no case shall the phased interval exceed 448 days.

Ensure that maintenance on survival kit assembly is performed in a properly designated work area. Extreme care should be taken to prevent the survival kit from being damaged. Do not expose to any oily substances. Do not drop or slide on abrasive surfaces or into sharp objects which may puncture, tear, or otherwise damage the rucksack/survival package assembly or liferaft.

**6-36. VISUAL INSPECTION.** This inspection shall be performed prior to the functional check of the kit. Visually inspect the following:

**NOTE**

The following inspection is performed with seat cushion and survival package removed.

If discrepancies are found, refer to Section 6-6, Maintenance

1. Seat panel for structural damage to honeycomb panel, damaged or missing neoprene pads, corrosion, damaged or deteriorated finishes, and worn or damaged hook and pile fasteners; all seat panel attaching screws and connectors for disturbed tamper dots.
2. Lapbelts for frayed or torn webbing, torn stitching, damaged or corroded connectors, adjusters, and seat pan attachment fittings.
3. Lapbelt release assembly for wear, damage, corrosion, loose or missing screws, and proper operation.
4. Lapbelt attachment fittings for limited rotation and security of attachment.
5. Oxygen hose assembly for secure attachment, deterioration, corrosion, bent electrical connector pins and foreign matter in fittings.
6. Oxygen cylinder for distortion and chipped paint.
7. Emergency oxygen system for contamination, corrosion, damaged oxygen gage, rounded edges on pressure reducer lever, crimped cable housing, and security of swaged balls at ends of both release cables, and retention of cables in toggles.
8. Rucksack/survival package assembly for stains, torn stitching, damaged fabric, damaged or worn loops and grommets; slide fastener for corrosion and damage; dropline for damage, and loose or damaged hook and pile tape fasteners.
9. The release lanyard assembly for security of the two locking pins and grommets; cuts, breaks, and security of orange pull ring.

10. The buckle strap and strap assemblies for frayed or torn webbing, torn stitching, damaged or loose grommets, and corroded adjusters.

11. Cable assemblies for damage, broken strands, and bent, broken, or crushed conduits.

12. Radio beacon bracket assembly for damage, bent flanges, worn, torn, frayed, or loose hook and pile fastener tapes, and scratches which penetrate finish.

**6-37. FUNCTIONAL CHECK.** The functional check shall be performed any time a kit is placed in service, after any adjustment procedures, or when equipment condition, visual external inspection, or record examination indicates such action is warranted to determine the condition of the kit. To perform a functional check, proceed as follows:

Materials Required

Quantity	Description	Reference Number
1	Leak Detection Compound, Type I	MIL-L-25567
As Required	Lint-free Cloth Type II	MIL-C-85043 NIIN 00-044-9281

Support Equipment Required

Quantity	Description	Reference Number
1	Test Stand	59A120 (CAGE 02551) 31TB1995-1 (CAGE 99251)
1	Dial Push/Pull Gage, 0-50 Pounds	DPP-50 (CAGE 11710) NIIN 00-880-7583
1	Hose	14072-3 (CAGE 24632) or A11206-2 (CAGE 28445)

**WARNING**

Before use, inspect leak detection compound. Compound which is not clear and free from suspended material/sediment is considered contaminated and shall be disposed of. Compound exhibiting peculiar odors, such as acetone or alcohol, is considered contaminated and shall be disposed of.

**CAUTION**

Discontinue functional test if seat kit fails to pass any steps of test procedures. Repair malfunction before continuing procedures or damage to the seat kit may result. After repair, the entire test procedure shall be performed.

**NOTE**

Performance of the test stand is dependent upon skill of operator. Therefore, only trained operators, thoroughly familiar with instruments, controls, and connections that comprise systems incorporated in test stand shall perform the following tests. See NAVAIR 17-15BC-20 and NAVAIR 13-1-6.4-4 to familiarize yourself with 59A120 or 31TB1995 series liquid oxygen converter test stands.

Emergency oxygen cylinder pressures used in this functional test were derived under ideal shop conditions of 70°F (21°C). Variances in ambient air temperatures directly affect charging pressures. Refer to [table 6-5](#) for details.

Ensure that emergency oxygen cylinder is filled to 1800 to 2000 psi.

If discrepancies are found, refer to [Section 6-6](#), Maintenance.

1. Remove bell jar and connect oxygen outlet hose of survival kit to fitting (C-1) on test stand. Open valve (V-2) and be sure all other test stand valves are closed ([figure 6-6](#)).

2. Attach dial push/pull gage to manual emergency oxygen release handle.

3. Measure force required to disengage manual oxygen release. Force required shall be 10 to 30 pounds and emergency oxygen system shall actuate and indicate 45 to 80 psi on test stand gage (PG-1).

4. Reset reducer assembly.

5. Turn oxygen supply cylinder to test stand on.

6. Slowly open valve (V-6) on test stand and adjust pressure on gage (PG-1) to 90 psi.

7. Measure force required to disengage the manual oxygen release with a dial push/pull gage. Force required shall be 10 to 30 pounds.

8. Use leak test compound to check all pressure lines and fittings on survival kit for leakage. If leakage is detected, refer to [Section 6-6](#), Maintenance.

9. Reset reducer assembly.

**CAUTION**

Do not increase pressure above 150 psi.

**NOTE**

Unseating can be determined by listening and observing gage (PG-1) on test stand.

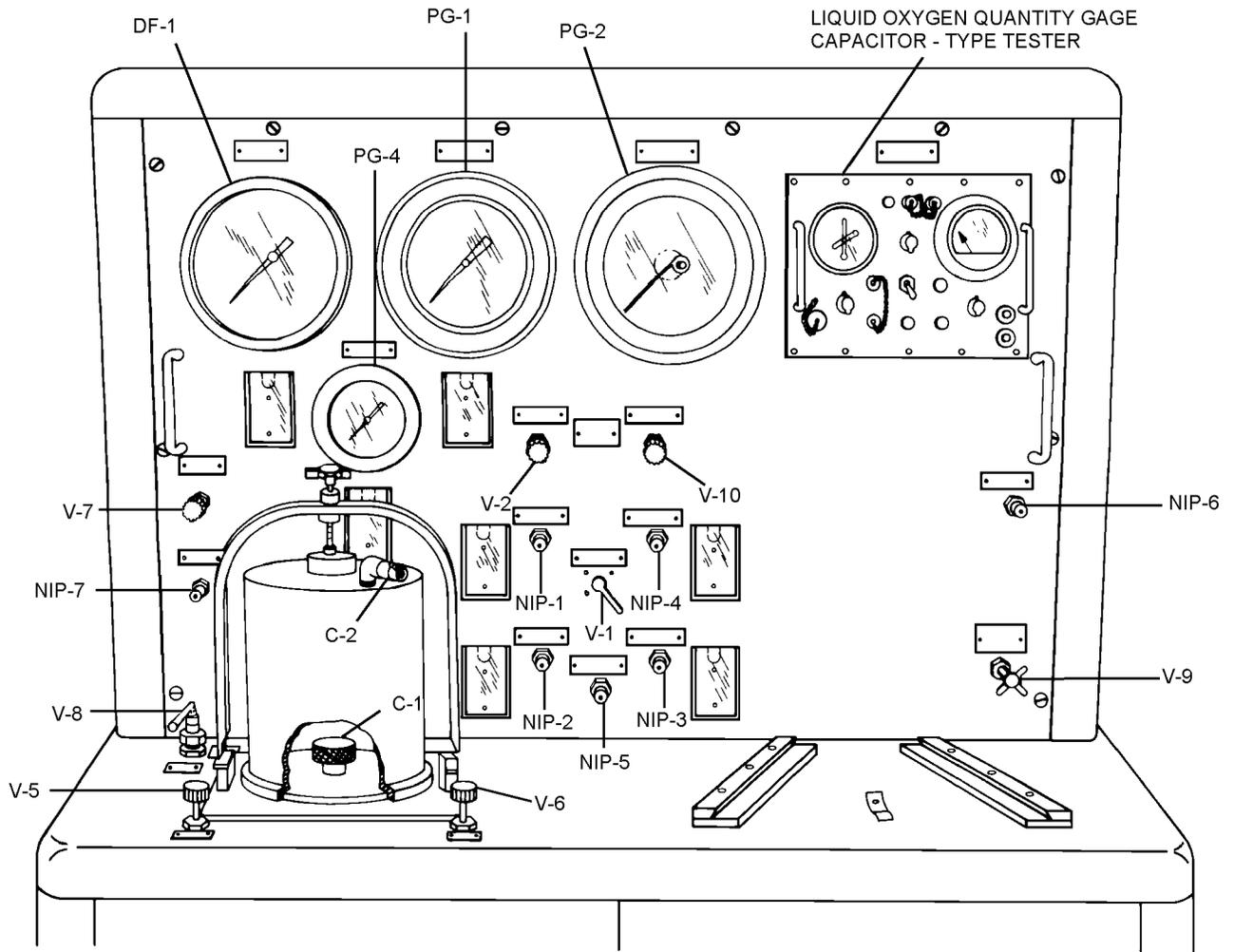
10. Using valve (V-6), increase pressure until relief valve unseats.

**NOTE**

Pressure may be reduced below opening (unseating) pressure of the relief valve by closing valve (V-6) and opening valve (V-5).

11. Repeat [step 10](#) several times to establish a correct pressure. Relief valve shall unseat at 120 to 140 psi when pressure is increased, and reseat at 110 psi minimum when pressure is decreased. Once re-seated, relief valve shall be leak tight (no indication on PG-1 of pressure drop).

12. Use leak detection compound to check relief valve for leakage. If leakage is detected, refer to [Section 6-6](#), Maintenance.



- |       |  |      |  |
|-------|--|------|--|
| C-1   | BELL JAR BOTTOM COUPLING                             | PG-2 | FLOWMETER INDICATOR GAGE                   |
| C-2   | BELL JAR TOP COUPLING                                | PG-4 | 0 - 15 PSIG LOW PRESSURE TEST GAGE         |
| DF-1  | 0 - 100" H <sub>2</sub> O DIFFERENTIAL PRESSURE GAGE | V-1  | FLOWMETER SELECTOR GAGE                    |
| NIP-1 | 0 - 0.25 LPM FLOWMETER CONNECTION                    | V-2  | TEST PRESSURE GAGE TO BELL JAR VALVE       |
| NIP-2 | 0 - 1 LPM FLOWMETER CONNECTION                       | V-5  | SYSTEM BLEED VALVE                         |
| NIP-3 | 0 - 50 LPM FLOWMETER CONNECTION                      | V-6  | OXYGEN SUPPLY VALVE                        |
| NIP-4 | 0 - 150 LPM FLOWMETER CONNECTION                     | V-7  | DIFFERENTIAL PRESSURE BLEED VALVE          |
| NIP-5 | CONVERTER SUPPLY OUTLET CONNECTION                   | V-8  | DIFFERENTIAL PRESSURE SHUT-OFF VALVE       |
| NIP-6 | SUPPLY TO CONVERTER CONNECTION                       | V-9  | CONVERTER SUPPLY FLOW CONTROL VALVE        |
| NIP-7 | DIFFERENTIAL PRESSURE GAGE CONNECTION                | V-10 | TEST PRESSURE GAGE BUILD-UP AND FLOW VALVE |
| PG-1  | 0 - 160 PSIG TEST PRESSURE GAGE                      |      |  |

63-578

Figure 6-6. Test Stand Model 59A120

## NAVAIR 13-1-6.3-2

13. Close valve (V-6) and bleed oxygen pressure from system by opening valve (V-5). All pressure is bled when gages (PG-1 and PG-4) indicate 0 psi.

14. Close valve (V-5).

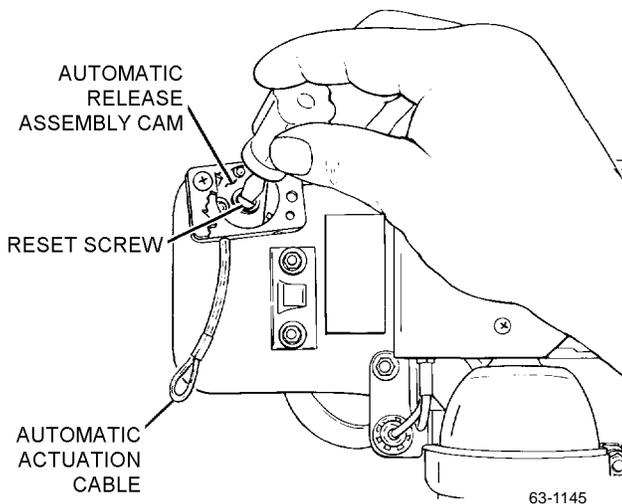
15. Be sure valve (V-2) is opened and all other test stand valves are closed.

16. Measure force required to disengage automatic oxygen release with a dial push/pull gage. Force required shall be 10 to 30 pounds and emergency oxygen system shall actuate and indicate 45 to 80 psi on gage (PG-1) on test stand.

17. Connect automatic oxygen release lanyard and reset reducer assembly as follows:

a. Remove coverplate on the automatic release assembly and remove washer (ACC 656).

b. Using a standard screwdriver, rotate reset screw on automatic release assembly cam counter-clockwise until it stops. Hold cam in that position and insert ball end of automatic actuation cable through hole in bottom of automatic release assembly housing and into notch in automatic release assembly cam.



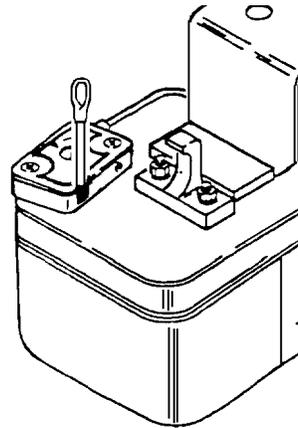
**Step 17b - Para 6-37**

c. Rotate reset screw clockwise until travel stops and reset reducer toggle.

d. When replacing the coverplate on the automatic emergency oxygen release assembly ensure that the swaged ball and cable move freely and they do not interfere with the movement of the cam. Apply VC3 thread locking compound to the first two threads of the coverplate screws. Re-install washer (ACC 656) and coverplate.

e. Slightly tug on loop end of automatic actuation lanyard to ensure positive cam engagement.

18. Measure force required to disengage automatic oxygen release with a dial push/pull gage. Pulling at a 90 degree angle away from the bottom of the kit, the force required shall be 10 to 30 pounds and emergency oxygen system shall actuate and indicate 45 to 80 psig on gage PG-1 on test stand.



**Step 18 - Para 6-37**

19. To reconnect the automatic oxygen release lanyard and reset the reducer assembly follow [step 17](#). After reconnection continue with [step 20](#).

20. Open valve (V-5), and ensure that all other test stand valves are closed.

21. Actuate toggle on reducer to ensure positive flow through valve (V-5). Reset reducer assembly.

22. Open valve (V-8).

23. Slowly close valve (V-5), while observing gage (DF-1).

**NOTE**

Observe gage (DF-1) for two minutes to ensure no leakage. Any pressure rise indicates leakage in the reducer valve seat and requires corrective maintenance.

24. Close valve (V-8), open valve (V-5), and disconnect oxygen outlet hose from fitting (C-1).

25. Ensure that all valves on test stand are secured.

26. Connect oxygen outlet hose to fitting (NIP-6). Ensure that valve (V-10) is open and all other test stand valves are closed.

27. Connect test stand hose to fitting (NIP-5) and fitting (NIP-4).

28. Turn valve (V-1) to the NIP-4 position.

29. Be sure that 1800 to 2000 psi is in the oxygen cylinder of the kit.

30. Pull manual oxygen release. Oxygen pressure on gage (PG-1) shall indicate 45 to 80 psi.

31. Slowly open valve (V-9) to indicate 90 LPM on gage (PG-2). Oxygen pressure shall indicate 45 to 80 psig on gage (PG-1).

**NOTE**

When needle of cylinder pressure gage is between the E and F of REFILL, pressure is approximately 250 psi.

32. Observe emergency oxygen cylinder pressure gage and allow the system to decrease to 250 psi when maintaining 90 LPM and 45 to 80 psi.

33. Close valve (V-9).

34. With zero flow indicated on gage (PG-2), pressure indicated on gage (PG- 1) shall be 45 to 80 psi.

35. Reset reducer assembly.

36. Bleed oxygen pressure from system by opening valves (V-5 and V-2). All pressure is bled when gages (PG-1 and PG-4) indicate 0 psi.

37. Disconnect kit from test stand.

38. Secure test stand.

39. All areas where leak detection compound was applied shall be wiped thoroughly clean. Dry with lint-free cloth, filtered low pressure compressed air, or low pressure nitrogen.

40. Recharge emergency oxygen cylinder to 1800 to 2000 psi. Refer to [paragraph 6-38](#) for charging procedures.

**6-38. PURGING AND CHARGING EMERGENCY OXYGEN SYSTEM.**

To purge and charge the emergency oxygen system, proceed as follows:

**Materials Required**

Quantity	Description	Reference Number
As Required	Leak Detection Compound, Type I	MIL-L-25567
As Required	Nitrogen, Type I, Class I, Grade B	BB-N-411
As Required	Aviators Breathing Oxygen, Type I	MIL-O-27210
As Required	Lint-free Cloth Type II	MIL-C-85043, NIIN 00-044-9281

**Support Equipment Required**

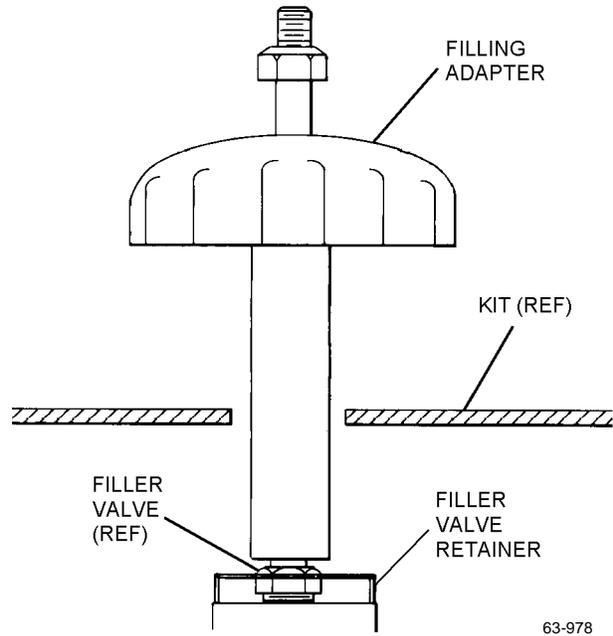
Quantity	Description	Reference Number
1	Oxygen Purging Electric Heater or equivalent	C5378 (CAGE 96787)
1	Shut-off Valve	—
1	Pressure Regulator	MIL-R-9198
1	Adapter, Filling (Optional)	21000T130-1 (CAGE 53655)

**WARNING**

Servicing of emergency oxygen system is accomplished only after removal of survival kit from aircraft.

Before use, inspect leak detection compound. Compound which is not clear and free from suspended material/sediment is considered contaminated and shall be disposed of. Compound exhibiting peculiar odors, such as acetone or alcohol, is considered contaminated and shall be disposed of.

1. Remove survival kit in accordance with applicable maintenance manual, if survival kit assembly has not been removed from aircraft.



63-978

**Figure 6-7. Filling Adapter**

**WARNING**

If necessary to release pressure in oxygen bottle before purging/filling, pull emergency oxygen lanyard. This releases pressure through reducer/manifold. DO NOT release pressure through filler valve or adapter. Releasing high-pressure oxygen through restriction of filler valve causes heat. Fire or explosion may result.

**NOTE**

Use of filling adapter on SKU-6/A survival kit is optional.

2. Remove cushion assembly from survival kit assembly.
3. Remove oxygen filler valve cap and connect filling adapter to filler valve (figure 6-7).

**NOTE**

If the emergency oxygen system is contaminated or the cylinder has remained empty for more than 2 hours, purging is required. If an emergency oxygen cylinder does not warrant the purging process, proceed to [step 11](#) for charging sequence.

4. Deplete emergency oxygen cylinder if necessary.
5. Connect nitrogen source to filling adapter/filler valve, and close pressure reducer.

**NOTE**

If relief valve on Oxygen Purging Electric Heater will not allow 100 psi, raise pressure only to allowable limit.

6. Slowly pressurize to 100 psi with nitrogen at temperature of 110° to 130°C (230° to 266°F) using electric heater.
7. Turn off nitrogen source and deplete oxygen cylinder.

8. Repeat steps 6 and 7 twice.
9. With pressure reducer open turn on nitrogen source and purge for 10 minutes at temperature of 110° to 130°C (230° to 266°F).
10. Turn off nitrogen source and disconnect.
11. Connect oxygen source to filling adapter with suitable pressure regulator and shutoff valve. Reset pressure reducer.
12. Slowly pressurize to 100 psi.
13. Deplete cylinder to 50 psi.

**WARNING**

Observe filling stages as rapid application of oxygen pressure creates heat which may result in fire or explosion.

Allow no less than 3 minutes for each filling stage and 2-minute intervals for cooling between stages.

**NOTE**

If kit is to be stored, the emergency oxygen bottle shall be depleted or filled to 200 PSI (when needle on gage bisects E of REFILL). For shipping, fill to 25 PSI using the gage on the oxygen refill cylinder.

14. Charge emergency oxygen system in stages in accordance with table 6-4 until pressure gage indicates correct pressure for existing ambient temperature (table 6-5).

15. Loosen filling adapter (if installed) until all pressure is bled from high pressure line. Remove filling adapter.

**WARNING**

Compound which is not clear and free from suspended material/sediment is considered contaminated and shall be disposed of. Also compound exhibiting peculiar odors such as acetone or alcohol is considered contaminated and shall be disposed of.

**NOTE**

Alternate Fill Valve P/N 9120097-27 is coreless and has a maximum leakage rate of 1 cc/hr. This will be evident by very

tiny bubbles passing through the top of the valve when leak detection compound is applied level to top rim. No leaks around threads are acceptable. If large bubbles are evident, contact survival kit FST for disposition.

16. Examine leak detection compound then apply around connection points of oxygen gage, reducer, and filler valve. Check for leaks. Then thoroughly wipe clean and dry with lint-free cloth, filtered low-pressure compressed air, or low pressure oxygen.

17. Reinstall oxygen filler valve cap on filler valve.

18. Replace cushion assembly on survival kit.

19. If seat survival kit was removed from aircraft in step 1, reinstall using the applicable maintenance manual.

**Table 6-4. Charging Stages**

Stage	PSI
1	500
2	1000
3	1500
4	1800
5	2000

**Table 6-5. Ambient Air Temperature Vs Charging Pressures**

Ambient Air Temperature		Charging Pressure
°F	°C	PSI
0	-18	1550-1750
10	-12	1600-1775
20	-7	1625-1800
30	-1	1675-1850
40	5	1700-1875
50	10	1725-1925
60	16	1775-1975
70	21	1800-2000
80	27	1825-2050
90	32	1875-2075
100	38	1900-2125
110	43	1925-2150
120	49	1975-2200
130	54	2000-2225

## Section 6-6. Maintenance

### 6-39. GENERAL.

#### WARNING

Keep working area clean and free of oil, grease, and dirt. Do not attempt to perform any component removal with the oxygen system pressurized.

#### CAUTION

Ensure that maintenance on the survival kit assembly is performed in a properly designated work area. Extreme care should be taken to prevent the survival kit from being damaged. Do not expose the survival kit to any oily substances. Do not slide kit on abrasive surfaces or into sharp objects which may damage, puncture or tear the rucksack/survival package or liferaft assembly.

6-40. This section contains procedures for troubleshooting, disassembly, cleaning, inspection of disassembled parts, repair or replacement of parts, assembly, and adjustment. Disassemble only to extent required to perform task. Work shall be performed in a clean, dust and grease-free area.

### 6-41. TROUBLESHOOTING.

6-42. When trouble or operating malfunctions are encountered, locate probable cause and remedy, using [table 6-6](#).

### 6-43. DISASSEMBLY.

6-44. Disassemble survival kit to the extent necessary to replace defective components.

#### WARNING

Keep working area clean and free of oil, grease, dirt, and dust which may cause fire or explosion when in contact with oxygen.

Do not disassemble any part of emergency oxygen system while system is pressurized.

1. Pull emergency oxygen release lanyard or green ring to release pressure in emergency oxygen system.

#### NOTE

Discard all packings, seals, cotter pins, and teflon sealing tape removed during disassembly of emergency oxygen system.

Discard all threaded inserts, rivets, rubber pads, seals, or hook and pile tape removed during disassembly of the survival kit.

2. Disassemble survival kit using index numbers assigned to [figures 6-14 through 6-20](#) as a disassembly sequence. Refer to [paragraph 6-45](#) for disassembly of the pressure reducer assembly.

**6-45. DISASSEMBLY OF PRESSURE REDUCER ASSEMBLY.** The three major areas of disassembly for the pressure reducer assembly ([figure 6-8](#)) are (1) removal and disassembly of adjustment assembly; (2) disassembly of high pressure assembly; and (3) disassembly of low pressure assembly. Determine area of malfunction using [table 6-6](#), Troubleshooting, and disassemble only to extent necessary for corrective maintenance.

**Table 6-6. Troubleshooting**

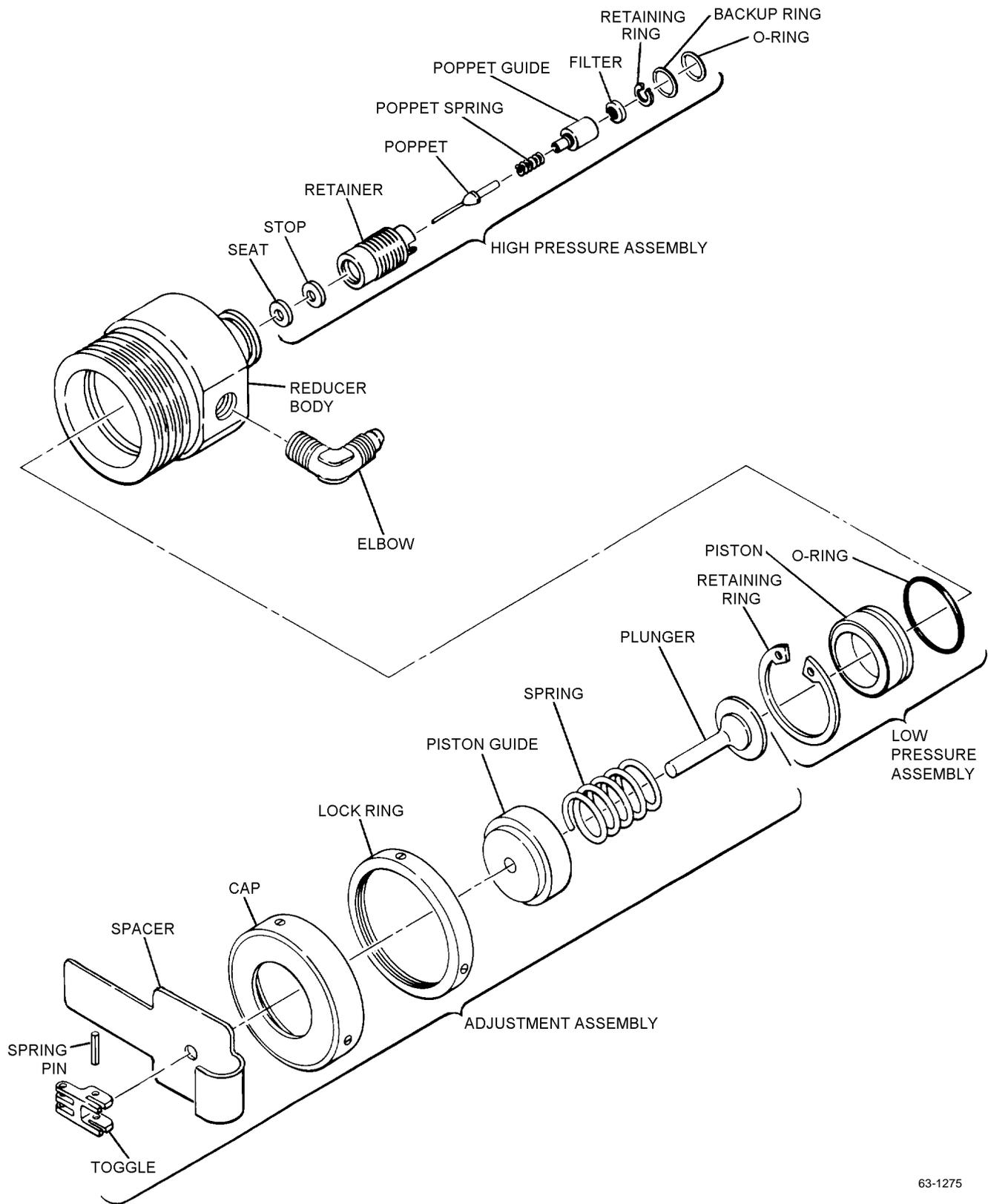
Trouble	Probable Cause	Remedy
Low or zero indication on pressure gage.	System empty.	Charge system in accordance with <a href="#">paragraph 6-38</a> .
	Defective gage.	Replace gage.
	Leaking components.	Tighten connections or replace.
Relief valve leakage.	Dirty or defective relief valve.	Clean or replace relief valve.
	Defective O-ring.	Remove relief valve and replace O-ring.
Relief valve does not operate within tolerance of 120 to 140 psi when simulated aircraft back pressure is applied during test.	Defective or out of adjustment relief valve.	Adjust in accordance with <a href="#">paragraph 6-61</a> to meet required specifications. If specifications cannot be met, replace relief valve.
Manual emergency oxygen does not actuate or does not actuate within a tolerance of 10 to 30 pounds.	Crushed cable/conduit assembly.	Replace cable/conduit assembly.
	Cable binding in housing.	
	Corroded or frozen release handle fitting.	Clean or replace manual oxygen release fitting.
Automatic emergency oxygen does not actuate or does not actuate within a tolerance of 10 to 30 pounds.	Crushed cable/conduit assembly.	Replace cable/conduit assembly.
	Cable binding in housing.	
	Automatic Emergency Oxygen Release Assembly out of adjustment.	Adjust in accordance with <a href="#">paragraph 6-62</a> .
No oxygen flow at kit-to-man hose when emergency oxygen system is actuated by automatic oxygen lanyard or manual oxygen release.	Automatic oxygen cable pulls free of release assembly before reducer toggle arm is operated.	Adjust Emergency Oxygen Release Assembly in accordance with <a href="#">paragraph 6-62</a>
Unable to obtain proper adjustment of lapbelt assembly.	Faulty lapbelt adjuster.	Inspect/replace lapbelt adjuster in accordance with <a href="#">paragraph 6-55</a> .
	Improper routing of webbing.	
	Dirt/grease on slides.	Disassemble lapbelt adjuster in accordance with <a href="#">paragraph 6-55</a> and clean slides using clean, dry cloth. Reassemble lapbelt adjuster in accordance with <a href="#">paragraph 6-55</a> .
Loss of aircraft communications.	Broken or misaligned pins and sockets in hose connectors. Open or short circuit in oxygen hose wiring.	Perform electrical check in accordance with NAVAIR 13-1-6.3-1.
Pull force to actuate kit release lanyard is not within tolerance of 25 ± 10 pounds.	Survival kit not properly packed.	Repack survival kit in accordance with <a href="#">paragraph 6-24</a> .
	Heavily burred locking cones.	Replace kit release lanyard.
Oxygen flow exists at ship-to-kit hose when emergency oxygen system is actuated during test.	Defective spindle in outlet manifold.	Replace spindle.

**Table 6-6. Troubleshooting (Cont)**

Trouble	Probable Cause	Remedy
No oxygen flow at kit-to-man hose from aircraft system (emergency oxygen system not actuated).	Defective spindle in outlet manifold.	Replace spindle.
No oxygen output pressure with pressure reducer actuated.	Weak or broken spring (7, <a href="#">figure 6-20</a> ) in pressure reducer.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace spring in adjustment assembly.
	Pressure reducer out of adjustment.	Adjust pressure reducer in accordance with <a href="#">paragraph 6-60</a> .
	Defective oxygen gage.	Bleed system; replace oxygen gage.
	Foreign matter in output flow path.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and clean.
	Poppet (19, <a href="#">figure 6-20</a> ) does not extend into position.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace poppet and seat.
Oxygen system output pressure not within 45 to 80 psig limits.	Pressure reducer out of adjustment	Adjust pressure reducer in accordance with <a href="#">paragraph 6-60</a> .
	Weak or broken spring (7, <a href="#">figure 6-20</a> ) in pressure reducer.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace spring in adjustment assembly.
	Defective pressure reducer.	Replace reducer.
Pulsating pressure at outlet port.	Bent plunger. (8, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace plunger.
Oxygen system leaking; low pressure side of reducer.	Defective O-ring (11, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace O-ring.
	Weak or broken spring (18, <a href="#">figure 6-20</a> ) in pressure reducer.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace poppet spring.
Pressure reducer will not shut off.	Bent poppet (19, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace poppet.
	Broken poppet spring (18, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace poppet spring.
	Dirt.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and clean.

**Table 6-6. Troubleshooting (Cont)**

Trouble	Probable Cause	Remedy
Pressure reducer will not shut off. (Cont)	Misaligned seat (22, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace seat.
	Defective retaining ring (9, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace retaining ring.
Pressure reducer does not meet required flows.	Pressure reducer out of adjustment.	Adjust pressure reducer in accordance with <a href="#">paragraph 6-60</a> .
	Weak or broken spring (7, <a href="#">figure 6-20</a> ) in pressure reducer.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace spring in adjustment assembly.
	Improper assembly of pressure reducer.	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and clean.
	Dirty filter assembly (16, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace filter assembly.
Oxygen system leaking; high pressure side of reducer.	Misaligned seat (22, <a href="#">figure 6-20</a> )	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace seat.
	Bent poppet (19, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace poppet.
	Broken poppet spring (18, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace poppet spring.
	Inverted backup ring (14, <a href="#">figure 6-20</a> ).	Bleed system; disassemble in accordance with <a href="#">paragraph 6-45</a> and replace backup ring.



63-1275

Figure 6-8. SKU-6/A Reducer Assembly

Support Equipment Required

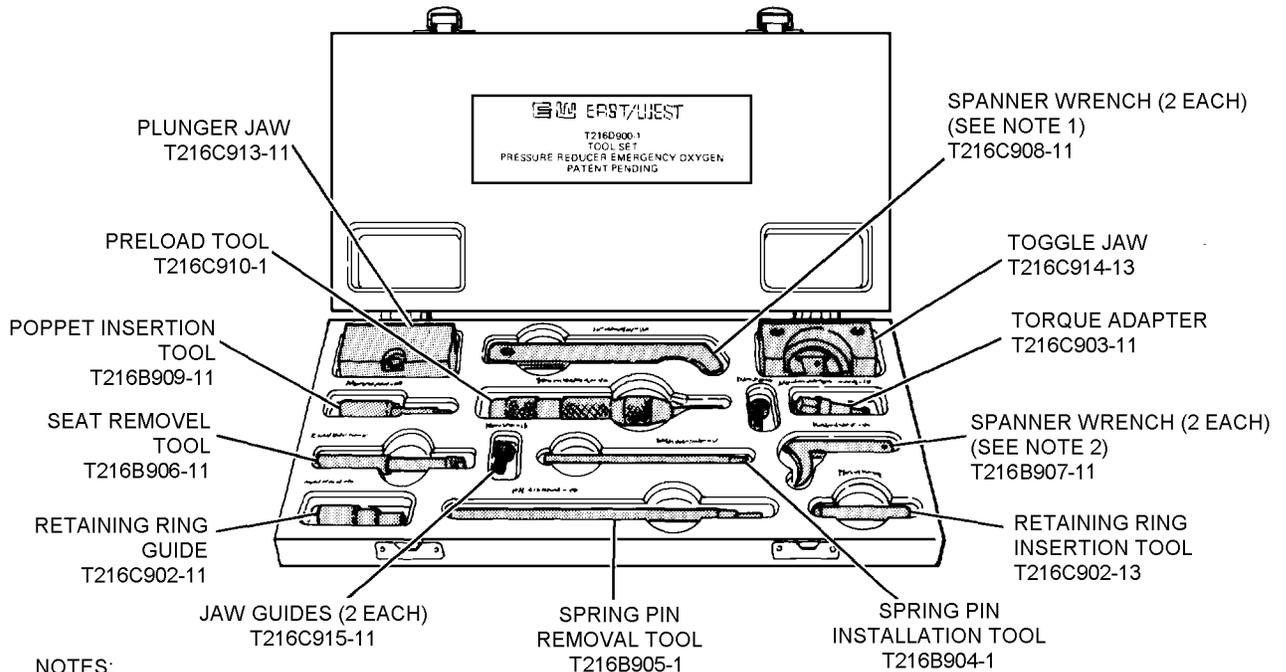
**WARNING**

Quantity	Description	Reference Number
1	Vise	—
1	Pressure Reducer Tool Set (figure 6-9)	T216D900-1 (CAGE 30941) NIIN 01-100-8928
1	Retaining Ring Pliers	S0100 (CAGE 79136)
1	Retaining Ring Pliers	SL0100 (CAGE 79136)
1	Hex Key, 5/32-inch	—

Do not use oil or any material containing oil in conjunction with oxygen equipment. Oil, even in a minute quantity, coming in contact with oxygen can cause explosion or fire. Dust, lint, and fine metal particles are also dangerous.

**NOTE**

Maintenance personnel are advised to read and thoroughly understand the procedures of each step prior to attempting any maintenance action.



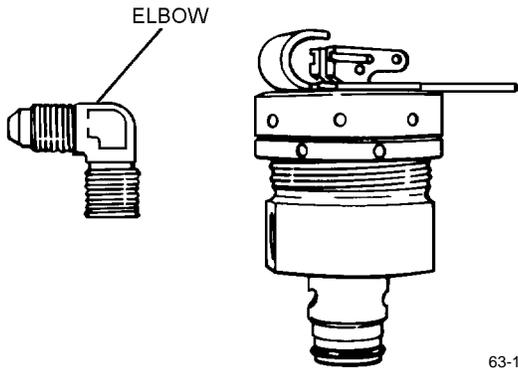
NOTES:  
 1 USED WHEN PRESSURE REDUCER IS REMOVED FROM SURVIVAL KIT.  
 2 USED WHEN PRESSURE REDUCER IS INSTALLED IN SURVIVAL KIT.

63-1302

Figure 6-9. Emergency Oxygen Pressure Reducer Tool Set

## NAVAIR 13-1-6.3-2

1. Remove elbow from pressure reducer assembly.

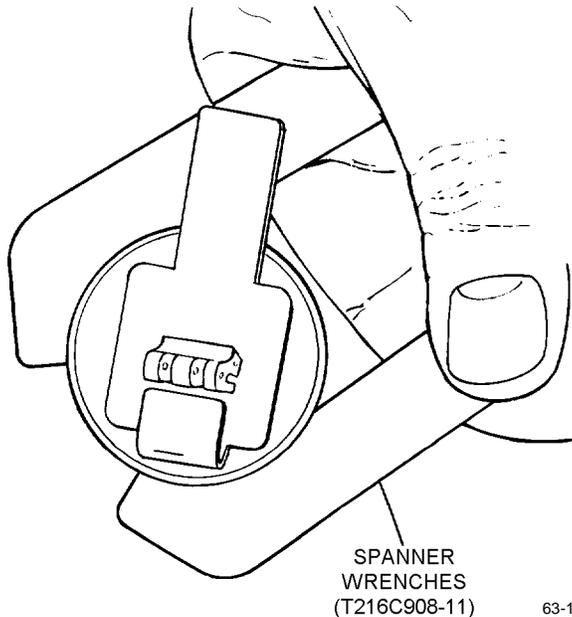


63-1303

### Step 1 - Para 6-45

2. Remove and disassemble adjustment assembly as follows:

- a. Position oxygen pressure reducer assembly with cap adjustment side up. Loosen lock ring, using spanner wrench (T216C908-11) in a clockwise rotation while holding the adjusting cap with the second spanner wrench.



SPANNER  
WRENCHES  
(T216C908-11)

63-1304

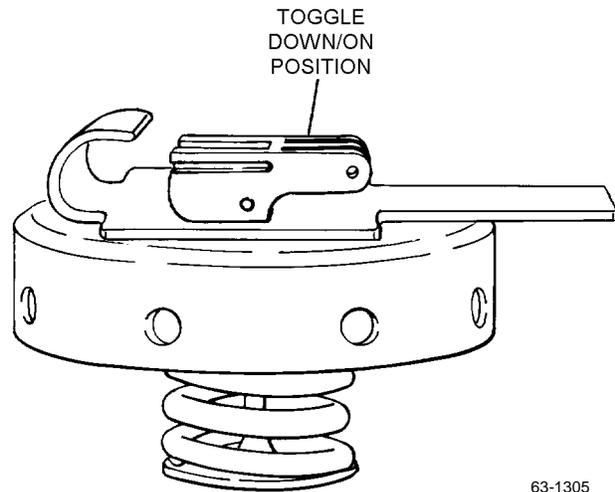
### Step 2a - Para 6-45

## NOTE

To permit hand removal of the adjustment assembly ensure that toggle is in upright (OFF) position. To obtain desired position, insert standard screwdriver in slot on either side of toggle and twist.

- b. Remove adjustment assembly from pressure reducer by rotating in a counterclockwise direction.

- c. Using standard screwdriver, trip/rotate toggle to down (ON) position to reduce tension on toggle and plunger spring assembly.

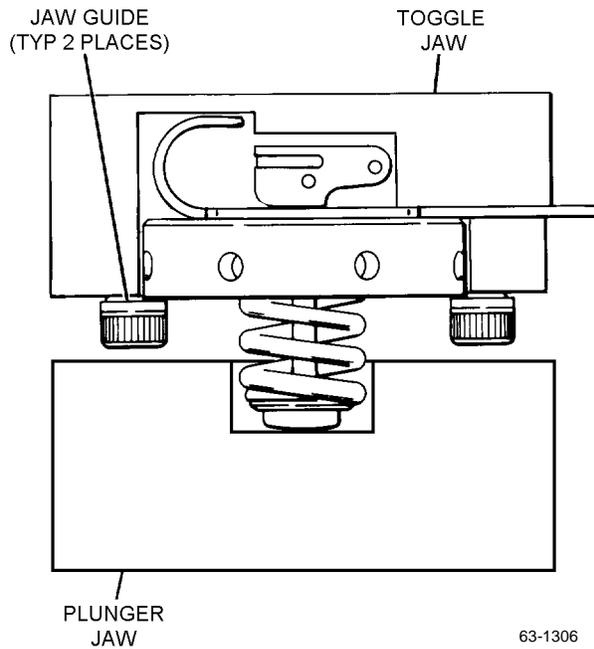


63-1305

### Step 2c - Para 6-45

- d. Using 5/32-inch hex key, screw jaw guides into the two threaded holes in the toggle jaw.

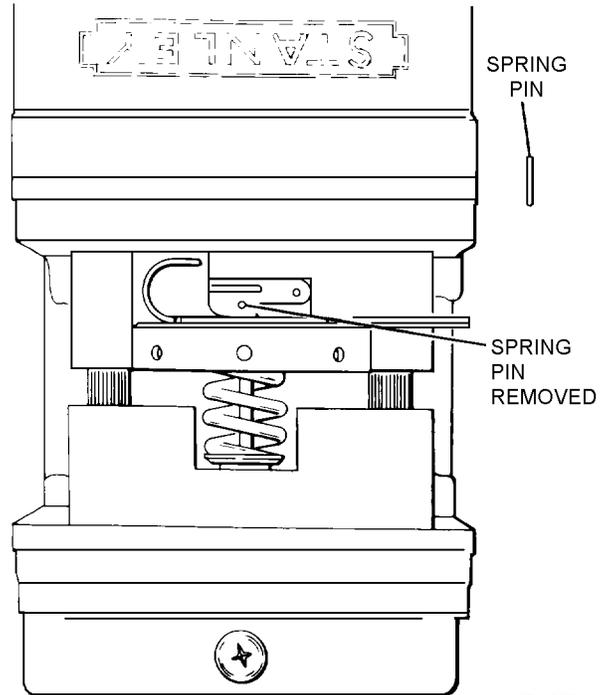
e. Position adjustment assembly in the toggle and plunger jaws.



63-1306

Step 2e - Para 6-45

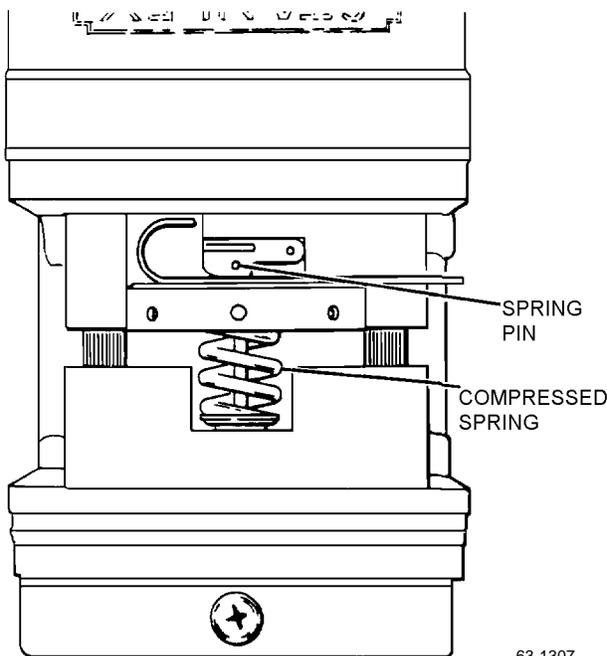
g. Using spring pin removal tool, punch out spring pin and discard.



63-1308

Step 2g - Para 6-45

f. Place toggle and plunger jaws in a vise. Align fixture and tighten to compress spring and relieve tension on the spring pin and toggle attachment.



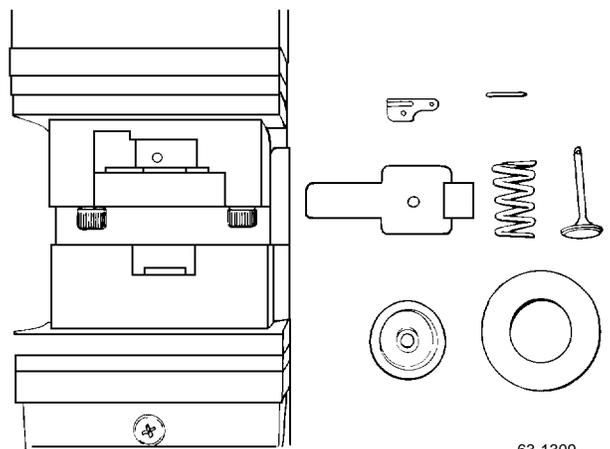
63-1307

Step 2f - Para 6-45

**NOTE**

Spring pin is the only attachment point of components.

h. Loosen vise jaws to relieve pressure. Remove adjustment assembly from toggle and plunger jaws and disassemble. Replace worn or defective parts as necessary.



63-1309

Step 2h - Para 6-45

## NAVAIR 13-1-6.3-2

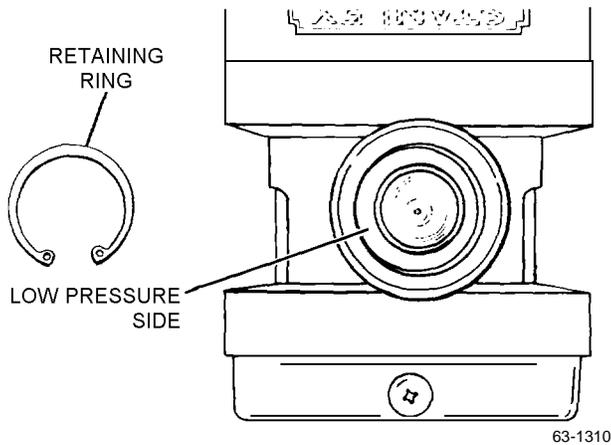
3. Disassemble low pressure assembly as follows:

a. Position oxygen pressure reducer assembly with adjustment side or low pressure side up and secure.

### NOTE

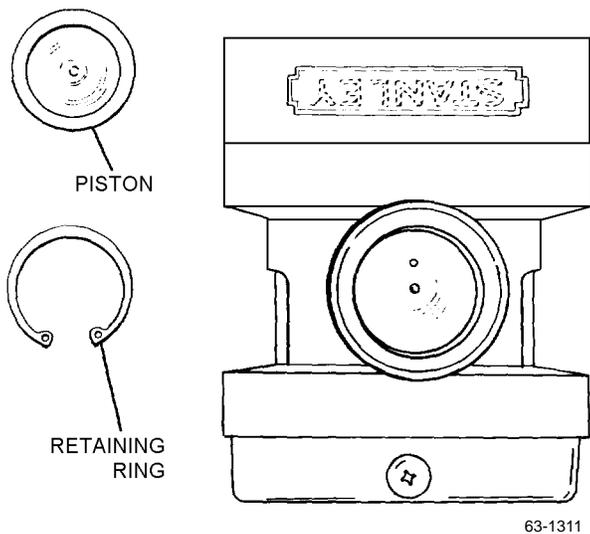
If adjustment assembly has not been removed, remove in accordance with [step 2](#).

b. Remove retaining ring using retaining ring pliers (SL0100) or equivalent.



**Step 3b - Para 6-45**

c. Remove piston from reducer body bore, using retaining ring pliers with points pressed against piston skirt.



**Step 3c - Para 6-45**

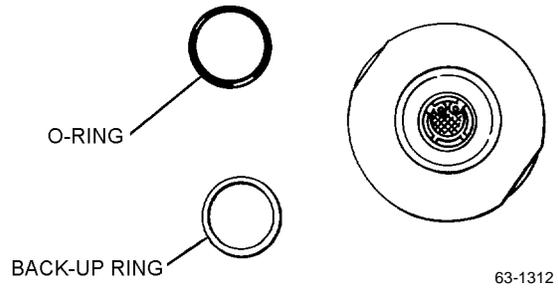
d. Remove and discard O-ring from piston.

4. Disassemble high pressure assembly as follows:

a. Position and secure oxygen pressure reducer assembly with high pressure assembly facing up.

b. Remove and discard O-ring from reducer assembly.

c. Remove back-up ring from reducer assembly.

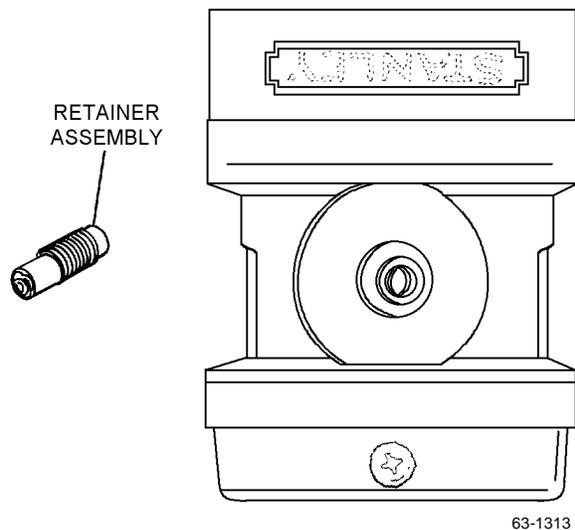


**Step 4c - Para 6-45**

### NOTE

The retaining ring, filter, poppet guide, and spring usually withdraw from the reducer assembly housing still connected to the retainer.

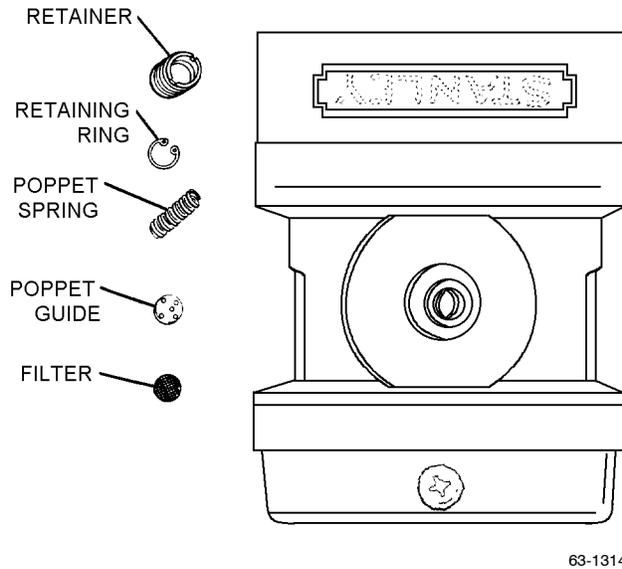
d. Using torque adapter, remove retainer from reducer body, by rotating counterclockwise.



**Step 4d - Para 6-45**

e. Remove retaining ring, using retaining ring pliers (S0100) or equivalent.

f. Remove filter, poppet guide, and poppet spring from retainer.



63-1314

**Step 4f - Para 6-45**

**NOTE**

In some instances the seat will not come out with the stop, but will remain pressed in reducer sealing groove. Should this occur, follow procedures in [steps h, i](#) and [j](#) to remove seat without damage to reducer body.

g. Invert reducer body and remove poppet, stop, and seat.

h. (Use only if seat must be dislodged.) Insert seat removal tool into reducer.

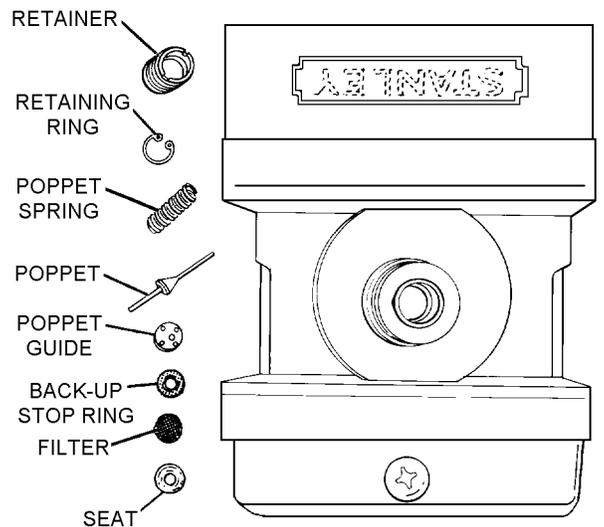


Do not cut into reducer body.

i. (Use only if seat must be dislodged.) Rotate seat removal tool until seat is loosened from reducer sealing groove.

j. (Use only if seat must be dislodged.) Visually inspect seating area inside reducer body to ensure seat has been dislodged and removed. Also ensure removal of any remaining foreign matter.

k. Replace worn or defective parts as necessary.



63-1315

**Step 4k - Para 6-45**

**6-46. CLEANING.**

6-47. To clean the disassembled oxygen and non-oxygen components of the kit (except for cushions and fabric components) refer to NAVAIR 13-1-6.4-1.

**6-48. CLEANING CUSHIONS AND FABRIC COMPONENTS.** To clean seat cushions and all fabric components, proceed as follows:

## NAVAIR 13-1-6.3-2

### Materials Required

Quantity	Description	Reference Number
As Required	Cleaning Compound	MIL-C-25769
As Required	Detergent, General Purpose	MIL-D-16791 NIIN 00-282-9699
As Required	Lint-free Cloth, Type II	MIL-C-85043 NIIN 00-044-9281

### NOTE

If using cleaning compound (MIL-C-25769), combine one part compound to three parts water. If using general purpose detergent, follow directions on container.

1. Prepare detergent or cleaning compound solution.
2. Apply solution to soiled area with spray or sponge.
3. Allow solution to remain on surface for a few minutes, then scrub with soft brush or cloth.
4. Rinse surface thoroughly with water; wipe with cloth or sponge.

### NOTE

Repeat [steps 1 through 4](#) until material is clean.

5. Repeat [step 4](#) until material is free from all solution.

6. Allow material to dry thoroughly.

## 6-49. INSPECTION.

6-50. Inspect the disassembled parts for distortion, corrosion, and other damage in accordance with [table](#)

6-7. Inspect survival items in accordance with NAV-AIR 13-1-6.5, Rescue and Survival Equipment, and NAVAIR 13-1-6.7-2, Aircrew Personal Protective Equipment (Clothing).

## 6-51. REPAIR AND REPLACEMENT.

**6-52. REPAIR.** Repair of individual components within any assembly is authorized only in accordance with procedures outlined in this manual. All authorized repairs performed shall be documented by making necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

**6-53. Repair of Cushion Assemblies.** To repair the cushion assembly, proceed as follows:

### Materials Required

Quantity	Description	Reference Number
1	Cushion Cover Assembly	P/N 14075-7 (CAGE 24632)

1. Sew loose or open seams, broken stitches, and small rips and tears.

### NOTE

Determine if repaired cushion assembly warrants new cushion cover. If new cover is needed, it may be procured through normal supply channels using reference number cited in Materials Required Table.

2. Install cushion cover assembly.

**6-54. REPLACEMENT.** All individual components that fail to pass inspection shall be replaced except where repair procedure is indicated. Refer to source code listing (SM&R CODE) in the [Numerical Index](#) of the Illustrated Parts Breakdown to aid in determining replaceable components. All adjustable components or assemblies that fail to pass respective tests shall be adjusted to meet required specifications.

## 6-44 Change 4

Table 6-7. Inspection

Component	Task
SKU-6/A Seat Survival Kit (Figure 6-14)	
Bottom Cushion Assembly (1 and 2, figure 6-14)	Check fabric for wear, tears, stains, frayed edges, and loose or broken stitches.
	Check for deteriorated padding.
	Check for presence and security of snaps on rear of cushion.
	Check that pile fastener tape is securely fastened to forward bottom section of cushion surface.
Rucksack Assembly (3 and 4, figure 6-14)	Check slide fastener for security of attachment and trouble-free operation.
	Inspect container material for damage and for loose, broken, or frayed stitching.
	Check that hook and pile fastener tape is firmly attached to rucksack assembly flaps.
	Check for presence and secure attachment of grommets.
	Check static line assembly cord for wear, tears, fraying, and loose or broken stitches.
	Inspect survival equipment in accordance with NAVAIR 13-1-6.5.
Buckle Strap Assembly (5 and 6, figure 6-14)	Check strap assembly for stains, wear, tears, fraying, and loose or broken stitches and corrosion.
	Check for presence and secure attachment of grommets.
	Check buckle for obvious damage and wear, corrosion, and scratches penetrating finish.
AN/URT-33A Beacon Assembly	Inspect in accordance with NAVAIR 16-30URT33-1.
AN/URT-33A Beacon Actuation Lanyard Assembly (10, figure 6-14)	Check cable for attachment and security of loop ends.
Orange Ring and Release Lanyard Assembly (7 and 8, figure 6-14)	Check orange pull ring for cuts or breaks and secure attachment to lanyard.
	Check locking pins for excessive burrs and secure attachment.
	Check lanyard for stains, wear, tears, fraying, and loose or broken stitches.
Seat Pan Assembly (Figure 6-15)	
Locking Hooks (1, figure 6-15)	Check for damage, scratches penetrating finish, corrosion and distortion.
Beacon Bracket Assembly (5, figure 6-15)	Check for damage, bent flanges, worn, torn, frayed, loose hook and pile fastener tapes, and scratches penetrating finish.
Lapbelt Assemblies (14, 15, 16, 17, and 18, figure 6-15)	Check webbing for stains, wear, tears, fraying, and loose or broken stitches.
	Check adjuster for obvious damage and wear, corrosion, scratches penetrating finish, loose attachment, and weak release spring; fabric release tab for stains, wear, tears, loose or broken stitches, and legible instruction marking.

**Table 6-7. Inspection (Cont)**

Component	Task
Seat Pan Assembly (Figure 6-15) (Cont)	
Lapbelt Assemblies (14, 15, 16, 17, and 18, figure 6-15) (Cont)	Check adjuster for proper operation; adjuster must release webbing with a maximum pull force of 8 lb. on yellow tab. Harness webbing shall move freely through adjuster in either direction.
	Check connectors for obvious damage and wear, corrosion, loose attachment, and weak spring. Check end fittings for deformation, bends, and corrosion.
Seat Panel (20, figure 6-15)	Check structure for damage, dents, nicks, gouges, and scratches penetrating finish. Check neoprene pads for deterioration, cracks, nicks, and splits. Check for loose inserts and damaged or stripped threads in insert.
Miscellaneous Hardware & Attaching Parts	Check threaded parts (screws, nuts, bolts) for damaged or stripped threads. Check nuts for rounded hexagon flats. Check washers and spacers for damage, bends, and elongated holes. Check self-locking bolts for damaged or worn locking devices (nylon pellets).
Emergency Oxygen Assembly (Figure 6-16)	
Cover Assembly (1, figure 6-16)	Check for excessive dents, gouges, and other obvious damage.
Tube Assembly (4, figure 6-16)	Check for flattened, dented, or out-of-round tubing diameters.
	Check nuts for rounded corners or damaged threads.
Manual Oxygen Release Assembly (11, figure 6-16)	Check for damaged green loop.
	Check for dents in cable conduit.
	Check for ease in operation.
	Check terminal assembly metal end fitting for damage.
Oxygen Cylinder Clamps (22 and 23, figure 6-16)	Check for secure attachments of clamps to seat panel.
	Check for damaged clamp inserts.
Cable Assemblies	Check for broken, bent, or crushed conduit.
	Check cables for damaged or broken strands.
	Check for security of terminal balls on cables and couplings on conduit.
	Check operation of cables within respective conduits and ensure that cables move freely without binding.
Manifold Assembly (Figure 6-17)	
Connectors (3, 5, and 7, figure 6-17)	Check connectors for damaged threads and rounded hexagon flats.
Relief Valve (1, figure 6-17)	Inspect for damaged threads and rounded hexagon flats.
Manifold Body (12, figure 6-17)	Inspect ports and threads for damage.

Table 6-7. Inspection (Cont)

Component	Task
Automatic Oxygen Release Assembly (Figure 6-18)	
Cable Assembly (1, figure 6-18)	Check cable for fraying, broken strands, and security of swaged balls.
	Check cable sleeve for wear, breaks, distortion and fraying.
Conduit Assembly (7, figure 6-18)	Check for dents in conduits.
	Check for damaged threads on adjuster side of conduit.
	Check cable for free travel within cable housing.
	Check cable for fraying, broken strands, and security of swaged balls.
Rotor and washer (4 and 3A, figure 6-18)	Check rotor and washer for wear.
Oxygen Release Assembly	Check for ease of operation.
Housing (9, figure 6-18)	Check for damage around contour end to threads.
Reducer, Manifold, Cylinder Assembly (Figure 6-19)	
Oxygen Cylinder (1, figure 6-19)	Check surface for cracks, nicks, gouges, deep scratches, bulges, or dents.
Filler Valve and Valve Core Assembly (10, 11 and 13, figure 6-19)	Check filler valve assembly for presence of valve cap, damaged threads, and leakage around valve core (as applicable).
Manifold Body (21, figure 6-19)	Check ports and threads for damage.
Oxygen Gage (14, figure 6-19)	Check gage for cracked or missing glass, bent or stuck needle, and dial for legibility.
	Check for rounded corners of hexagon flats, security of gage cover and damaged threads.
	Check for presence and security of integral filter in threaded shaft.
Pressure Reducer Assembly (Figure 6-20)	
Toggle (2, figure 6-20)	Check toggle for galling of reset slot and for proper seating of swaged balls at cable ends.
Reducer Body (24, figure 6-20)	Check body for gouges or other damage.
	Check for damaged threads on outlet fitting.
Adjusting Cap (4, figure 6-20)	Check adjusting cap and lock ring for damaged adjusting holes.
Toggle-Anti-rotation Spacer (3, figure 6-20)	Check for excessive bending or galling.

## NAVAIR 13-1-6.3-2

**6-55. Replacement of Lapbelt Adjuster.** To replace missing or damaged lapbelt adjuster on the restraint harness, proceed as follows:

### Materials Required

Quantity	Description	Reference Number
As Required	Adjuster, Lapbelt	184C100-1 (CAGE 30941)
As Required	Sealing Compound, Locking and Retaining, Grade A	MIL-S-22473 NIIN 00-067-6744 (Note 1)

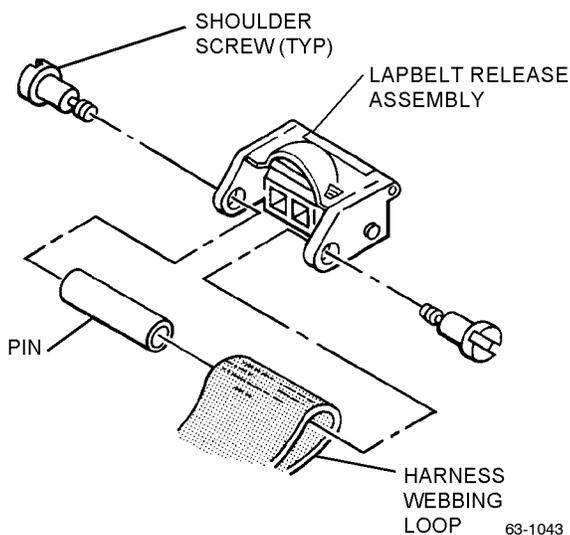
Notes: 1. Use any contrasting color.

### NOTE

Replacement procedures can be used on both right and left restraint assemblies.

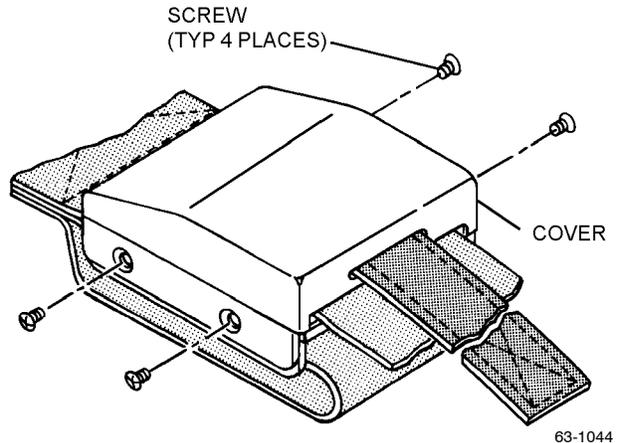
1. Remove existing lapbelt adjuster from restraint harness as follows:

a. Remove lapbelt release assembly by removing two shoulder screws. Pull release assembly away from webbing, and slide pin out of harness webbing loop. Retain all parts.



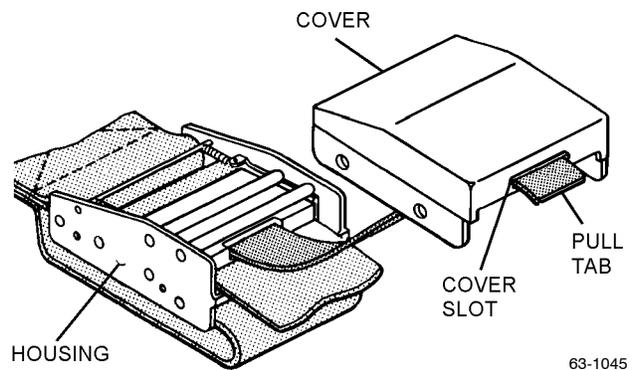
Step 1a - Para 6-55

b. Remove four screws (two on each side) from cover of lapbelt adjuster assembly.



Step 1b - Para 6-55

c. Remove cover from lapbelt adjuster housing, and slide pull tab through cover slot.

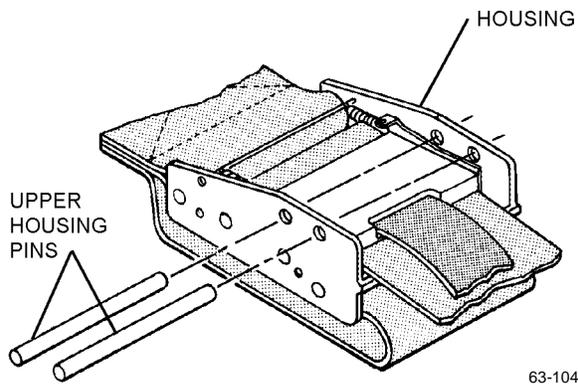


Step 1c - Para 6-55

d. Slide upper housing pins out of housing.

**NOTE**

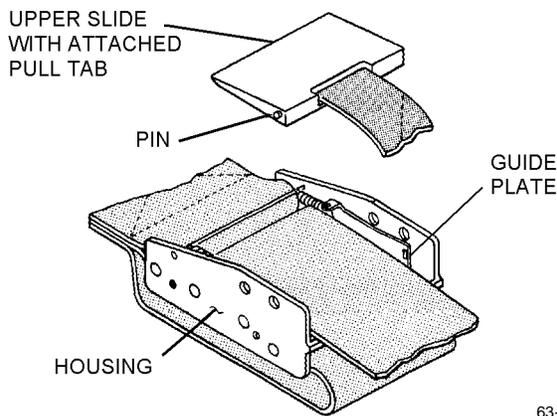
Slides are held to guide plates by pins. Pull slide up so guide plates are above edge of housing, and rotate slide out of guide plates.



63-1046

**Step 1d - Para 6-55**

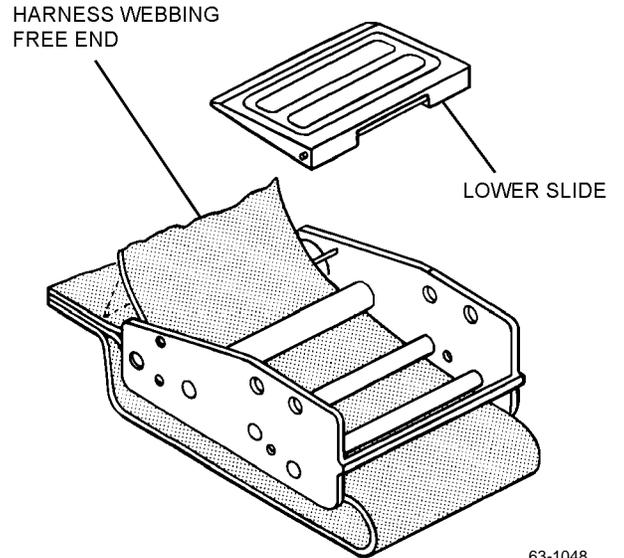
e. Remove upper slide with attached pull tab.



63-1047

**Step 1e - Para 6-55**

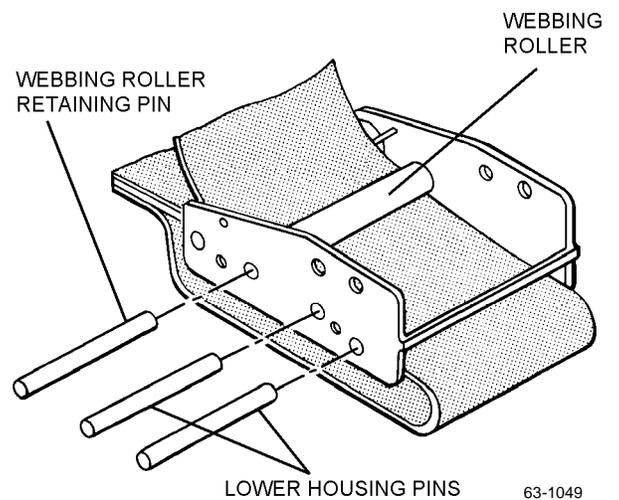
f. Lift free end of harness webbing, and remove lower slide.



63-1048

**Step 1f - Para 6-55**

g. Position guide plates up and out of way. Remove two lower housing pins and webbing roller retaining pin. Webbing roller will fall away.

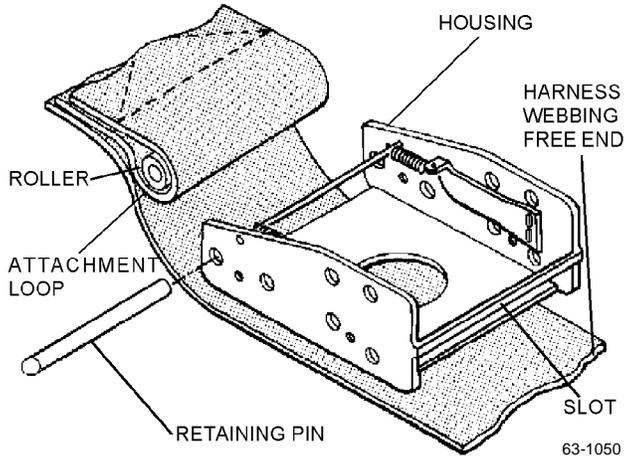


63-1049

**Step 1g - Para 6-55**

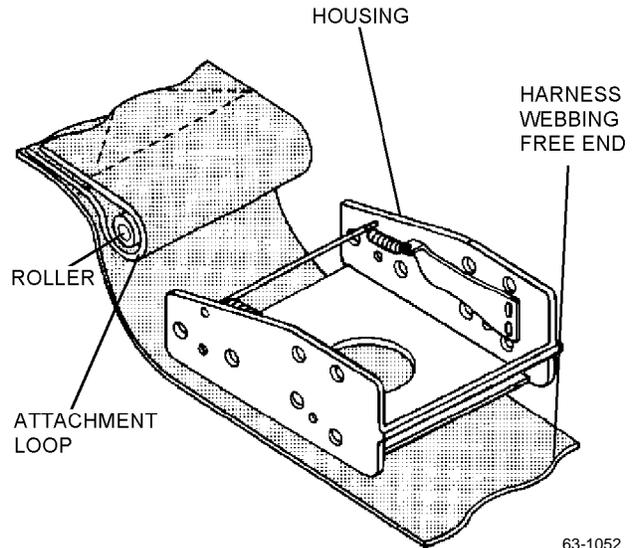
## NAVAIR 13-1-6.3-2

h. Pull free end of harness webbing through slot in housing. Remove pin retaining harness webbing attachment loop roller. Housing will fall away.



**Step 1h - Para 6-55**

b. Insert roller into attachment loop of harness webbing. Place adjuster housing on top of free end of harness webbing so that aft end of housing faces attachment loop.



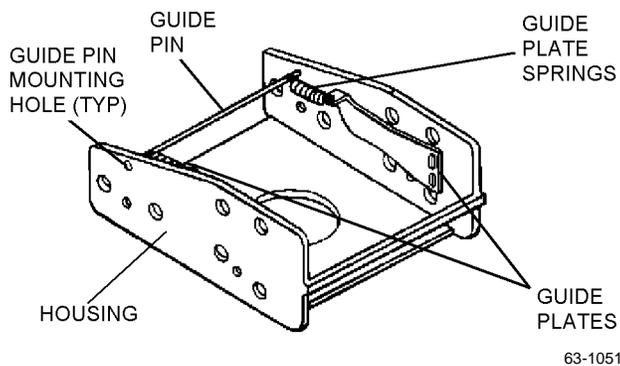
**Step 2b - Para 6-55**

2. Install new lapbelt adjuster as follows:

### NOTE

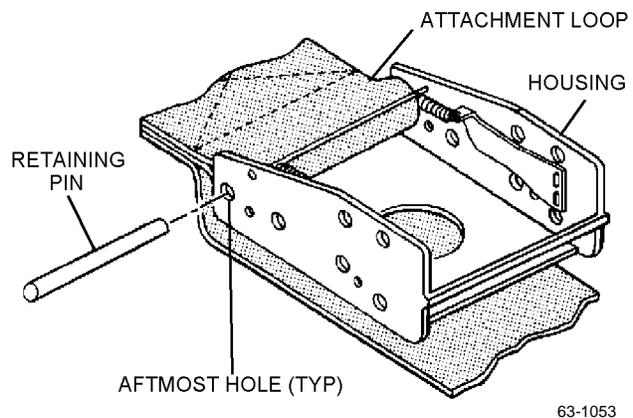
The six pins (two retaining and four housing) are interchangeable. The two rollers are interchangeable.

a. If required, slide guide plate springs onto guide pin; ensure that guide plates are positioned correctly. Install assembly into adjuster housing guide pin mounting holes.



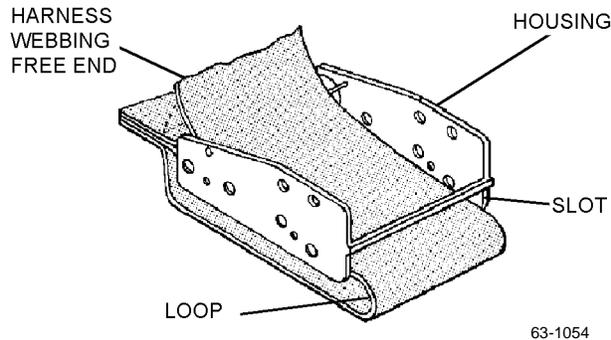
**Step 2a - Para 6-55**

c. Position housing onto attachment loop and roller. Align hole through roller with aftmost holes in housing, and install retaining pin.



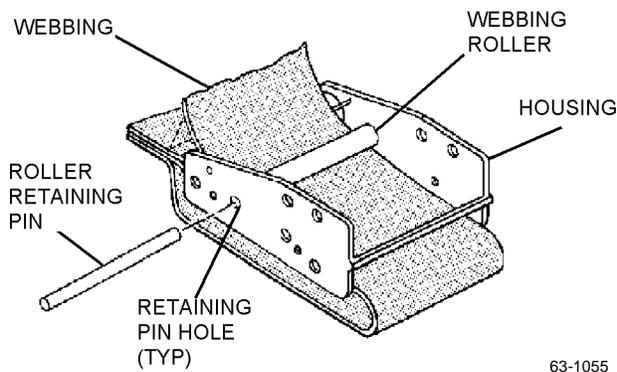
**Step 2c - Para 6-55**

d. Fold free end of webbing back toward housing. Insert end through slot in housing to form loop in webbing forward of adjuster. Guide plates may be positioned up and back to avoid any interference.



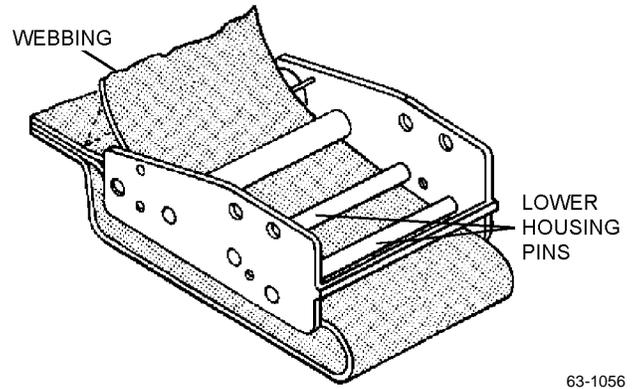
Step 2d - Para 6-55

e. Install webbing roller into housing on top of webbing. Position roller to align with proper holes in housing, and insert roller retaining pin.



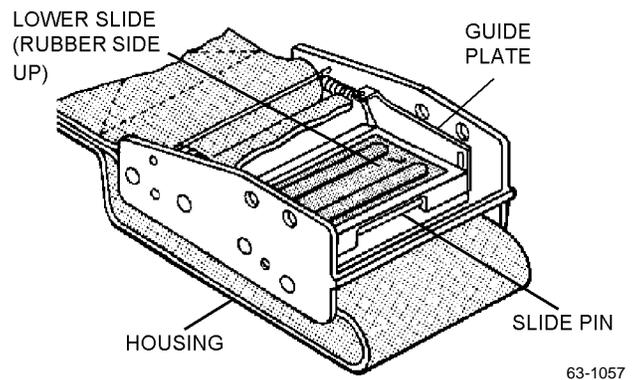
Step 2e - Para 6-55

f. Insert lower housing pins; ensure that pins are resting on top of webbing.



Step 2f - Para 6-55

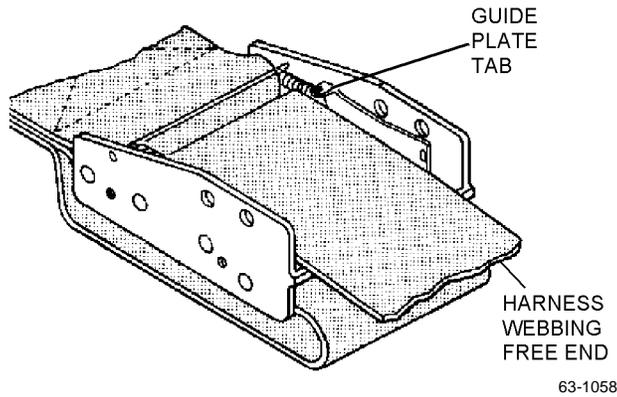
g. Position guide plates into housing on top of lower housing pins; install lower slide rubber side up. Ensure that slide pin is correctly positioned into lower slots of guide plates.



Step 2g - Para 6-55

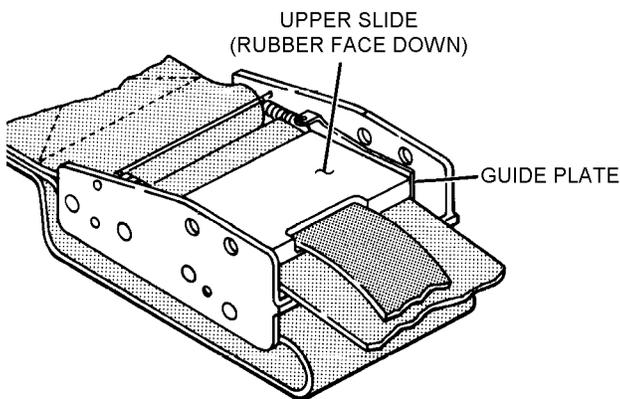
## NAVAIR 13-1-6.3-2

h. Position harness webbing free end under tabs of guide plates, and lay webbing down over lower slide.



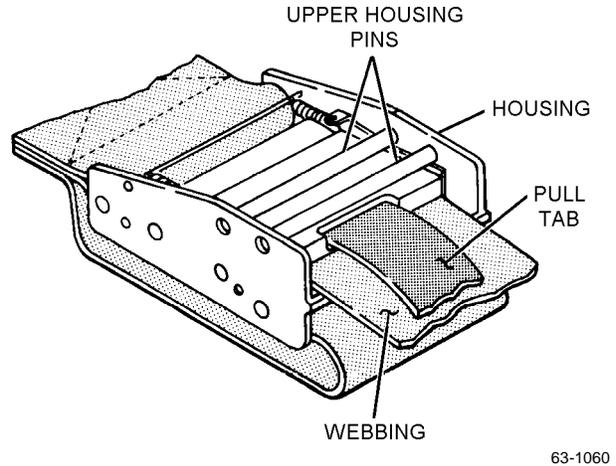
### Step 2h - Para 6-55

i. Install upper slide, rubber face down. Ensure that lower slide does not come out of place. Ensure that slide pins sit securely in slots of guide plates.



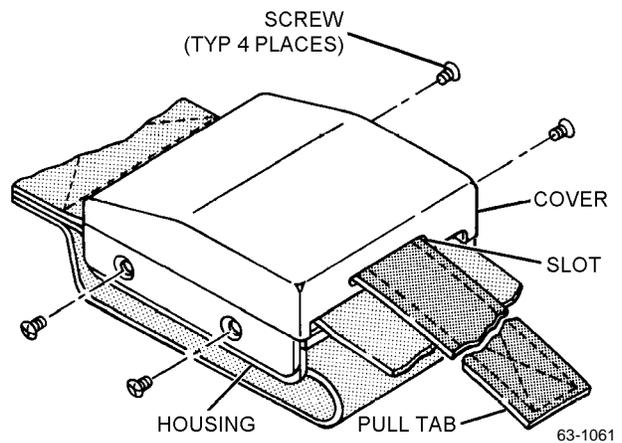
### Step 2i - Para 6-55

j. Install upper housing pins. Ensure that slides operate correctly; pull on pull tab to check simultaneous movement of slides. Webbing shall slide with ease through adjuster in either direction.



### Step 2j - Para 6-55

k. Insert pull tab from inside out through slot in cover. Place cover on housing and align four screw holes. Apply sealing compound to threads of four screws, and secure cover to housing. Check lapbelt adjuster for proper operation



### Step 2k - Para 6-55

3. Apply sealing compound to threads of two shoulder screws, and install lapbelt release assembly removed in [step 1a](#).

4. Make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series.

**6-56. ASSEMBLY.**



It is possible to install inlet tubing connector, P/N 295B335-11 (small fitting) and outlet tubing connector, P/N AN919-7D (large fitting) backwards. Ensure connectors are installed in accordance with [figure 6-17](#).

**NOTE**

The tamper dot on the Oxygen Hose Assembly shall be applied to the fitting in a manner which provides easy identification for inspection purposes when the seat kit is installed in the seat.

Use any contrasting color when applying tamper dots to oxygen fittings.

6-57. Assemble survival kit using the index numbers of [figures 6-14 through 6-20](#) as a reference. Assemble in reverse order of disassembly and refer to [paragraph 6-42](#). After nuts and fittings are properly torqued (refer to [Appendix B](#)), apply tamper dots to all oxygen fittings shown on [figures 6-16 through 6-20](#) using lacquer specification MIL-L-7178, Fed. Std. 595. Torque value for reducer retainer shall be 32 to 35 lb-in. after assembly. Torque value for inlet tubing connector on oxygen communication hose assembly shall be 80 ± 10 lb-in. Torque value for outlet tubing connector on oxygen communication hose assembly shall be 120 ± 10 lb-in. Apply sealing compound to 50% of threads on parts indicated in Illustrated Parts Breakdown. Prior to applying sealing compound, wipe off any contaminants with cloth moistened with water.

Materials Required

Quantity	Description	Reference Number
As Required	Krytox 240 AC, Type III	MIL-G-27617 NIIN 00-961-8995
As Required	Leak Detection Compound, Type I	MIL-L-25567
As Required	Heptane	—
As Required	Solid Film Lubricant	5306 (CAGE 85932)
As Required	Thread Locking Compound	VC-3 (CAGE 04866) NIIN 00-163-5792
As Required	Adhesive	EpoxyLite 8751 (CAGE 11147)
As Required	Adhesive	EC847 (CAGE 76381)
As Required	Adhesive, Type I, Class 2	MIL-A-46050
As Required	Adhesive	MIL-A-5540

1. Assemble pressure reducer assembly in accordance with [paragraph 6-58](#).
2. Assemble survival kit in reverse order of disassembly. Refer to [paragraph 6-42](#).
3. Purge and charge emergency oxygen system in accordance with [paragraph 6-38](#).
4. Perform functional check of emergency oxygen system in accordance with [paragraph 6-37](#).
5. Adjust in accordance with [paragraphs 6-60 through 6-62](#) as necessary.

**6-58. ASSEMBLY OF PRESSURE REDUCER ASSEMBLY.** The following procedures assemble the reducer assembly in three major operations: assembly of the high pressure assembly, assembly of the low pressure assembly, and assembly and preadjustment of the adjustment assembly. It is imperative that the following assembly sequence be followed if the entire reducer assembly has been disassembled. See [figure 6-10](#) and proceed as follows:

## NAVAIR 13-1-6.3-2

### Materials Required

Quantity	Description	Reference Number
As Required	Krytox 240 AZ	MIL-G-27617
As Required	Tape, Antiseize	MIL-T-27730
As Required	Thread Locking Compound	VC-3 (CAGE 04866)
As Required	Plastic Bag	MIL-B-117
1	Spring Pin	MS171435
1	O-Ring	NAS1611-014
1	O-Ring	MS28775-117

### Support Equipment Required

Quantity	Description	Reference Number
1	Vise	—
1	Pressure Reducer Tool Set (see <a href="#">figure 6-11</a> )	T216D900-1 (CAGE 30941) NIIN 00-100-8928
1	Retaining Ring Pliers	S0100 (CAGE 79136)
1	Retaining Ring Pliers	SL0100 (CAGE 79136)
1	Torque Wrench 0-150 in-lb	TE-6FUA (CAGE 55729) or Equivalent
1	Toggle Reset Tool	Fabricate IAW <a href="#">paragraph 6-70</a>
1	Hex Key 5/32-inch	—

### WARNING

Do not use oil or any material containing oil in conjunction with oxygen equipment. Oil, even in a minute quantity, coming in contact with oxygen can cause explosion or fire. Dust, lint, and fine metal particles are also dangerous.

### NOTE

Maintenance personnel are advised to read and thoroughly familiarize themselves with

each step prior to the accomplishment of the operations set forth in this procedure.

Discard and replace all packings, seals, cotter pins, and teflon sealing tape removed during disassembly of emergency oxygen system.

All complete assemblies not immediately being returned to service shall be sealed in plastic bags with all external fittings properly capped.

1. Assemble high pressure assembly as follows:

### NOTE

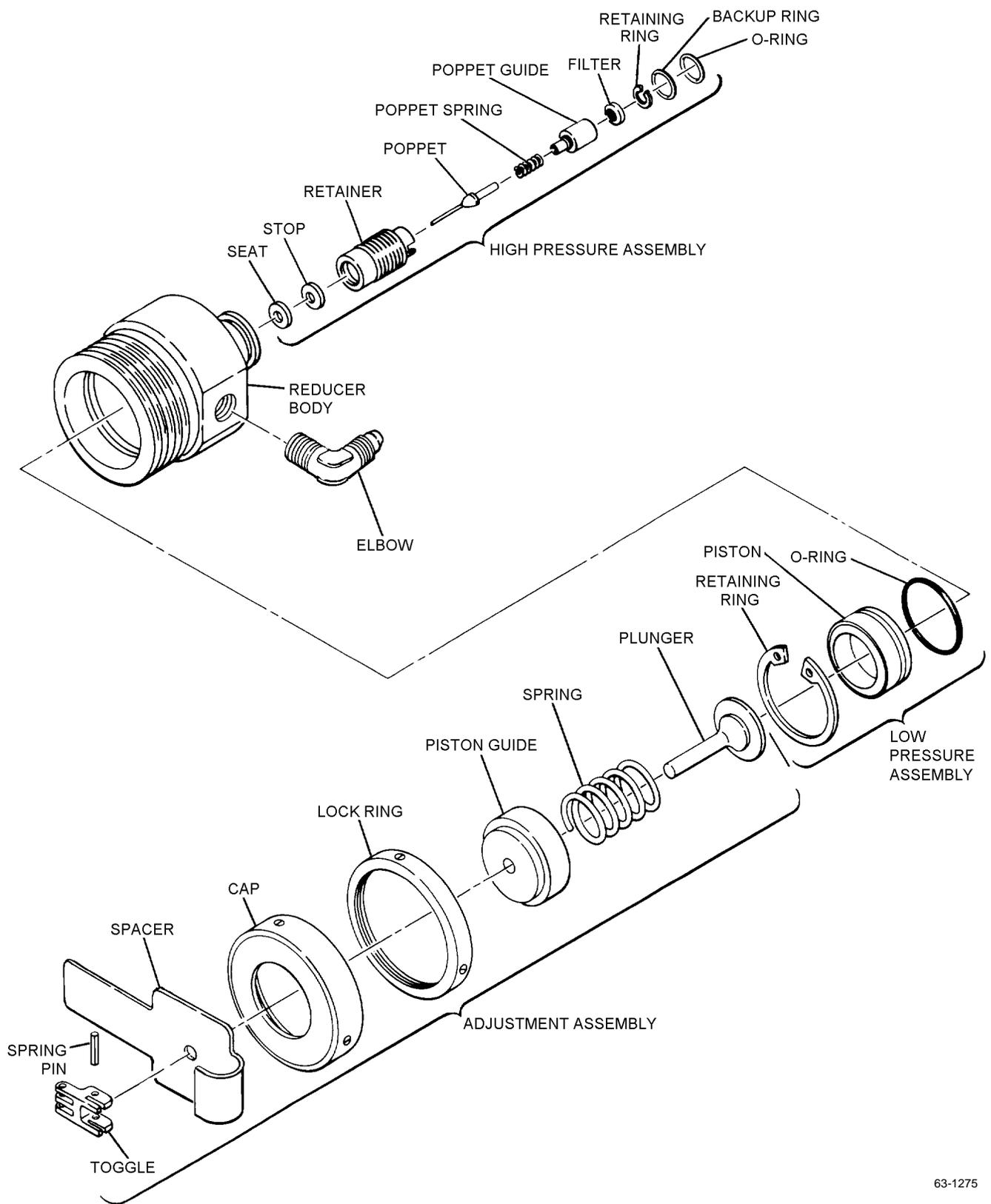
If the entire reducer assembly has not been disassembled it is necessary to remove the adjustment assembly and low pressure assembly to correctly perform the following assembly procedures.

a. Ensure that the adjustment assembly has been removed in accordance with [paragraph 6-45 step 2](#).

b. Ensure that the low pressure assembly has been removed in accordance with [paragraph 6-45 step 3](#).

c. Ensure that all oxygen components to be assembled have been properly cleaned in accordance with [NAVAIR 13-1-6.4-1](#).

d. Position retainer with threaded side down.



63-1275

Figure 6-10. SKU-6/A Reducer Assembly

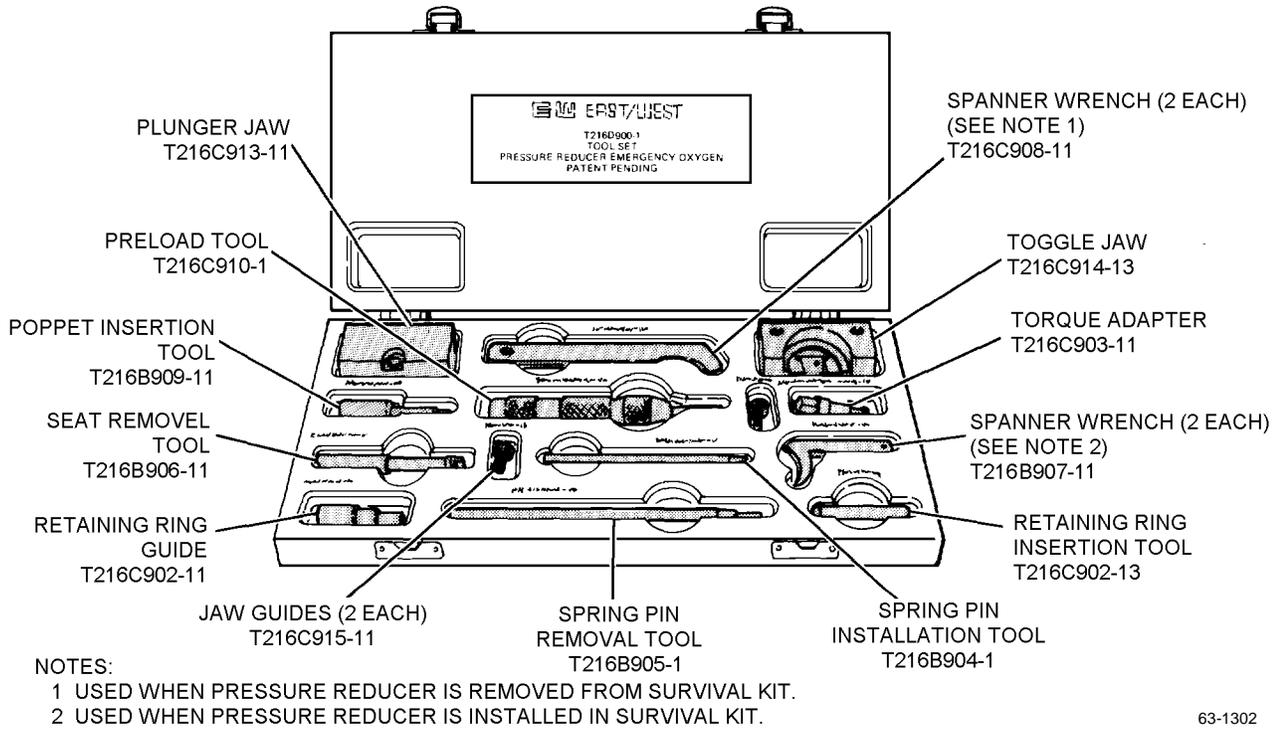
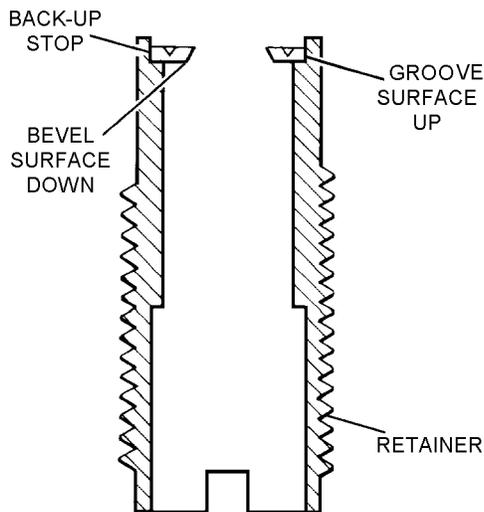


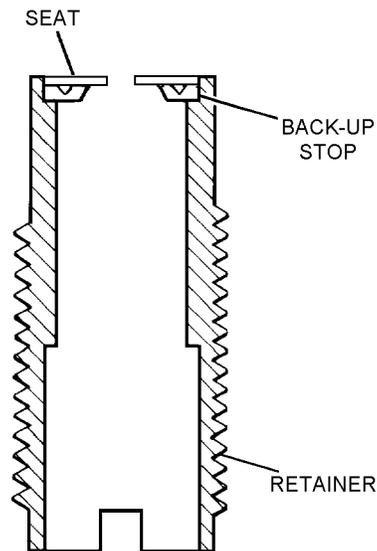
Figure 6-11. Emergency Oxygen Pressure Reducer Tool Set

e. Install stop in upper groove of retainer, positioning bevel surface down and groove surface up.



Step 1e - Para 6-58

f. Place seat on top of stop ensuring proper alignment within retainer groove. Push firmly on seat with finger so that seat is retained in place.

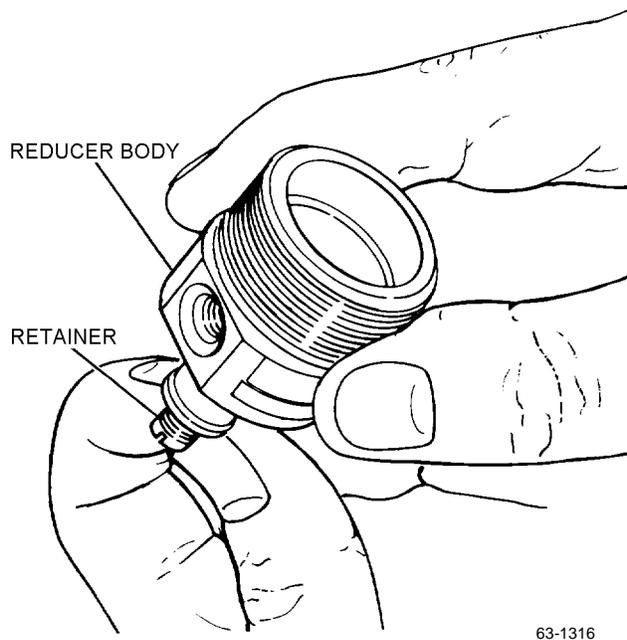


Step 1f - Para 6-58

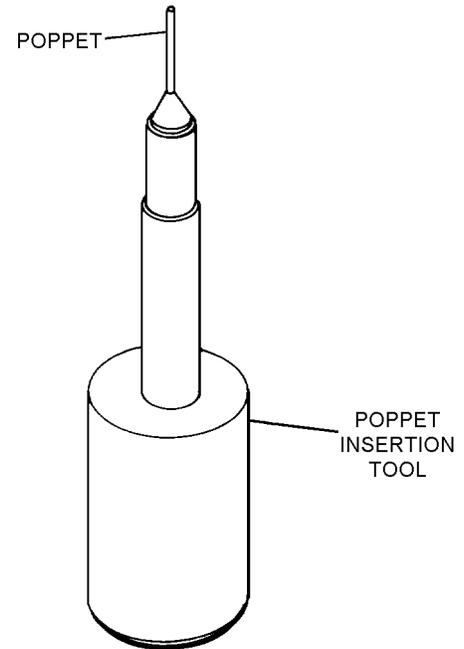
g. While holding retainer in an upright position with stop and seat positioned on top, lower reducer body onto retainer and slowly screw retainer into high pressure inlet port of reducer body.

i. Torque retainer into reducer body to 35 to 40 lb-in. using a torque adapter and torque wrench.

j. Using poppet insertion tool, place poppet into tool so that cone-shaped part of poppet faces away from heavy end of tool.



**Step 1g - Para 6-58**



**Step 1j - Para 6-58**

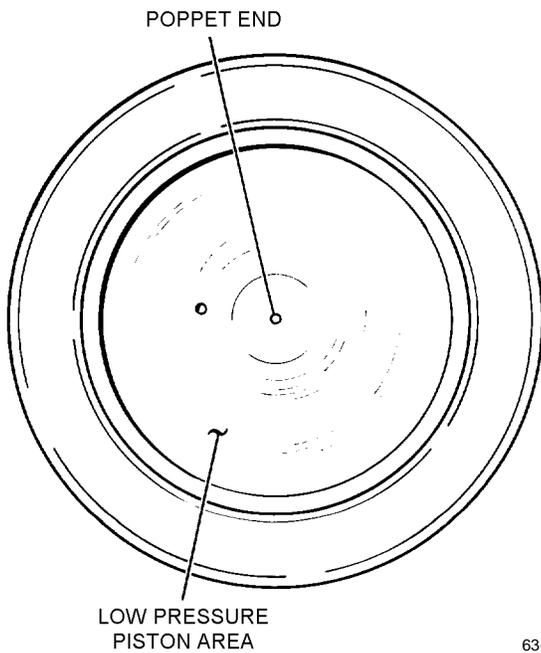
h. Using torque adapter mounted on a 3/8-inch nut driver, continue screwing retainer into high pressure port until snug. Visually inspect for proper alignment of stop and seat into reducer body.



Be careful when inserting poppet that no pressure is applied which could bend poppet shaft. Be certain end of poppet extends into low pressure piston area.

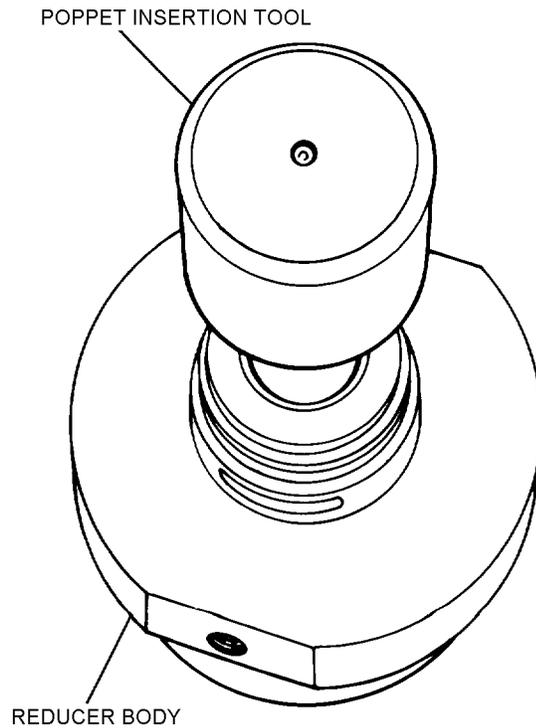
l. Leaving poppet insertion tool inserted, turn entire assembly over so that high pressure or retainer assembly and poppet insertion tool are now facing up.

k. Hold reducer body/housing with high pressure retainer side down. Slowly lower reducer housing onto poppet. Carefully rock and turn poppet insertion tool until poppet end is seen to extend into low pressure piston area.



63-1317

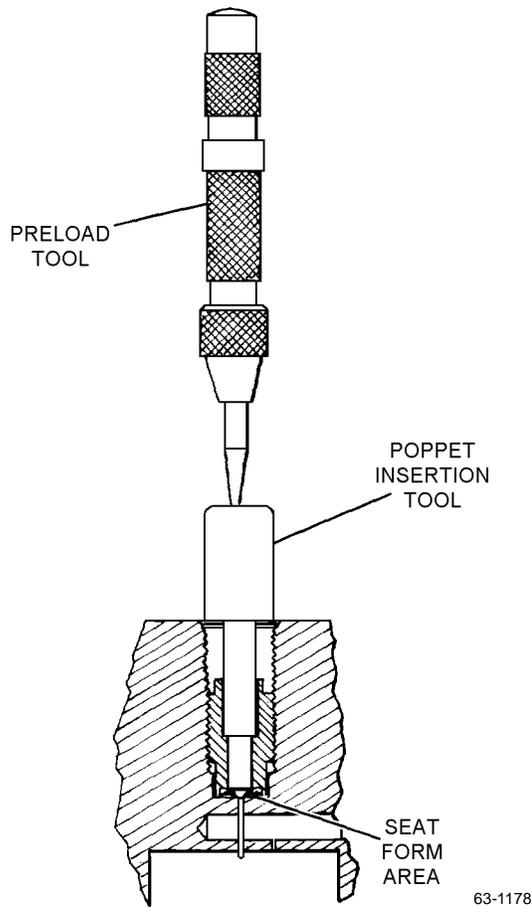
Step 1k - Para 6-58



63-1318

Step 1l - Para 6-58

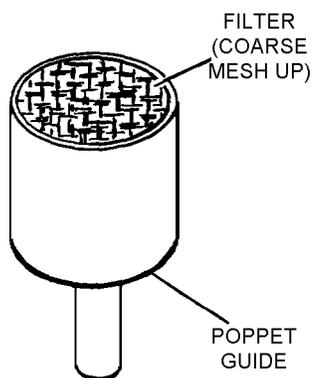
m. Place preload tool into dimple on top of poppet insertion tool. Press down once on preload tool until it unloads with a snap. This forms seat into its correct angle.



Step 1m - Para 6-58

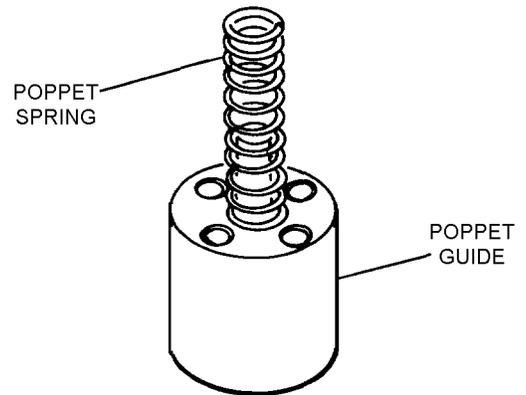
n. Remove poppet insertion tool so that poppet remains positioned inside reducer body against seat.

o. Press filter with coarse mesh up into wide end of poppet guide.



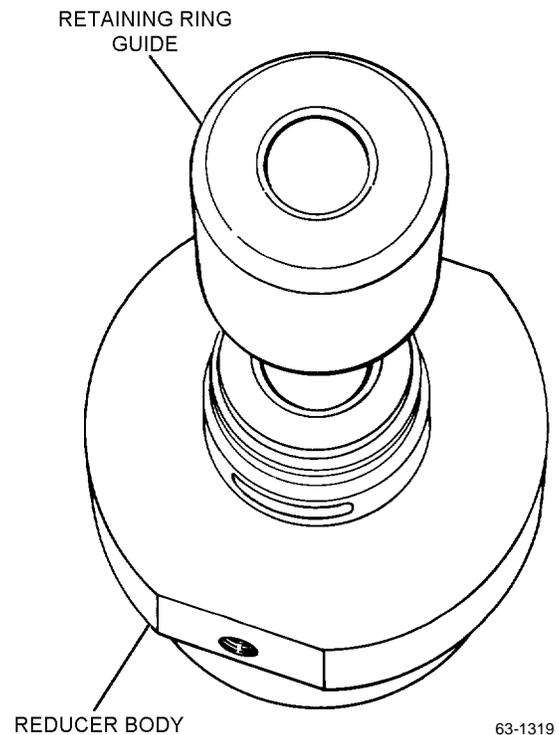
Step 1o - Para 6-58

p. Secure poppet spring to poppet guide by pressing spring onto shaft end of guide.



Step 1p - Para 6-58

q. Position retaining ring guide into retainer so that guide engages tangs of retainer.

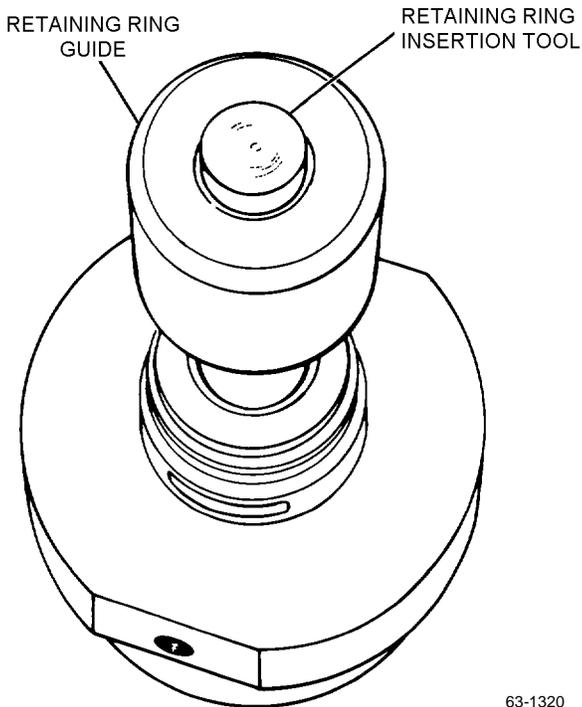


Step 1q - Para 6-58

r. Insert poppet guide and spring with spring end down into opening in retaining ring guide.

## NAVAIR 13-1-6.3-2

s. Using retaining ring insertion tool, ensure that poppet guide and spring units are properly positioned inside retainer.



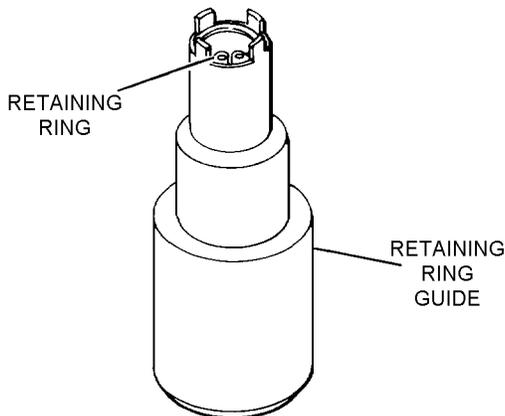
63-1320

### Step 1s - Para 6-58

t. Remove retaining ring insertion tool and retaining ring guide from reducer housing.

u. Visually check that filter end of poppet guide is slightly higher than ends of retainer.

v. Using retaining ring pliers (S0100), install retaining ring inside tangs of retaining ring guide.

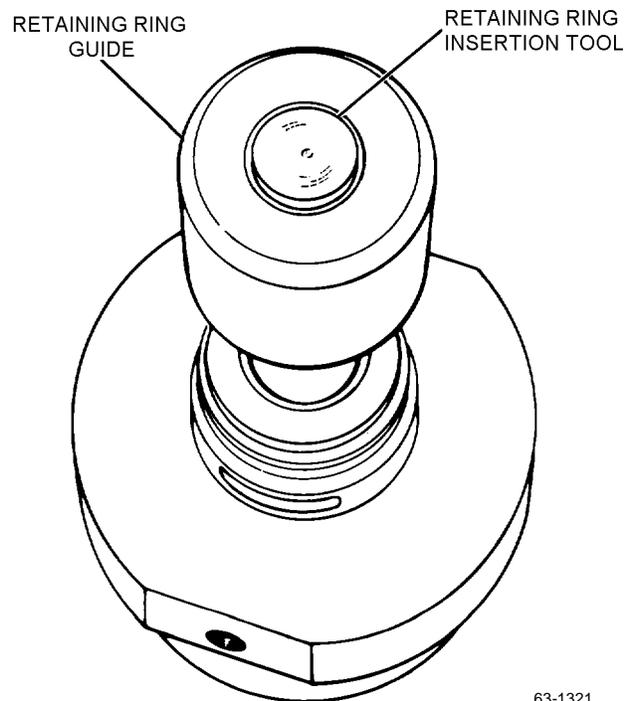


63-1183

### Step 1v - Para 6-58

w. Insert retaining ring guide into tangs of retainer. Insert retaining ring insertion tool into retaining ring guide.

x. Compress poppet spring and seat retaining ring by pressing down on retaining ring insertion tool until flush with top of retaining ring guide.

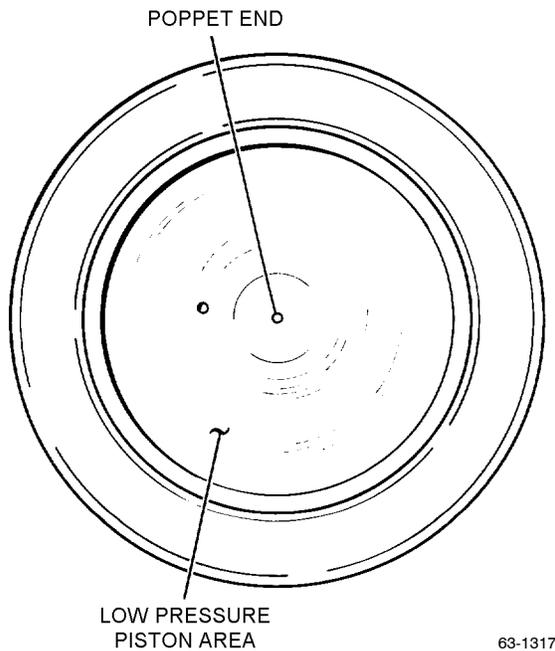


63-1321

### Step 1x - Para 6-58

y. Remove retaining ring guide and insertion tool. Ensure retaining ring is properly seated in groove.

z. Verify that tip of poppet extends into lower pressure piston area.



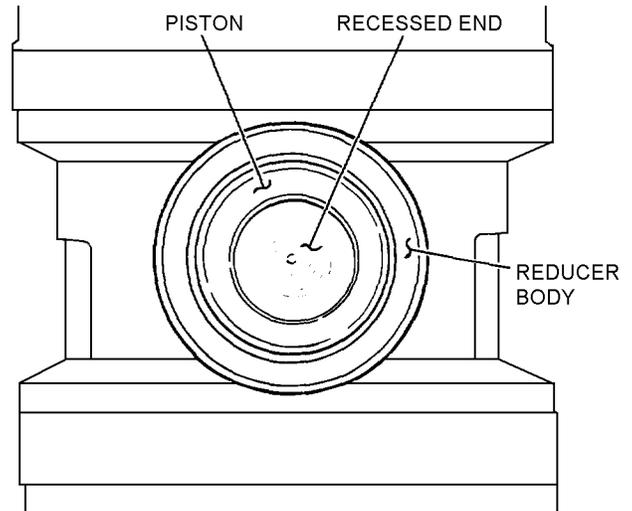
63-1317

**Step 1z - Para 6-58**

- aa. Install backup ring on reducer housing.
- ab. Lubricate new O-ring and mating surface with Krytox 240 AZ. Install O-ring on reducer housing.
- 2. Assemble low pressure assembly as follows:
  - a. Ensure that high pressure assembly is properly assembled in accordance with [step 1](#).
  - b. Ensure that all oxygen components to be assembled have been properly cleaned in accordance with NAVAIR 13-1-6.4-1.
  - c. Position oxygen pressure reducer assembly with adjustment side or low pressure side up and secure.
  - d. Lubricate new O-ring and mating surfaces with Krytox 240 AZ. Install O-ring on piston.

e. Lubricate bore of reducer body with Krytox 240 AZ.

f. Install piston, recessed end out, in bore of reducer body.



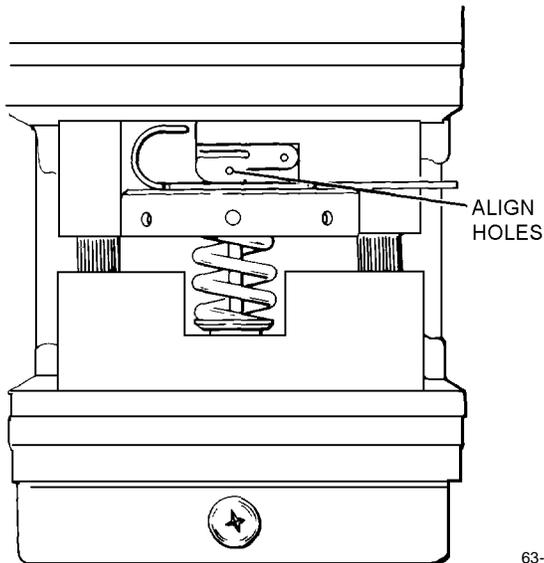
63-1322

**Step 2f - Para 6-58**

- g. Install retaining ring, using retaining ring pliers (SL0100).
- 3. Assemble and preadjust adjustment assembly as follows:
  - a. Ensure that high pressure and low pressure assemblies have been properly assembled in accordance with [steps 1 and 2](#).
  - b. Ensure that all oxygen components to be assembled have been properly cleaned in accordance with NAVAIR 13-1-6.4-1.
  - c. Using 5/32-inch hex key, screw jaw guides into two threaded holes in toggle jaw.
  - d. Place toggle and plunger jaws in vise.
  - e. Assemble adjustment assembly components in proper sequence ([figure 6-10](#)). Position components in toggle and plunger jaws.

## NAVAIR 13-1-6.3-2

f. Apply vise pressure to compress spring. Align hole in toggle with hole in plunger end.



63-1323

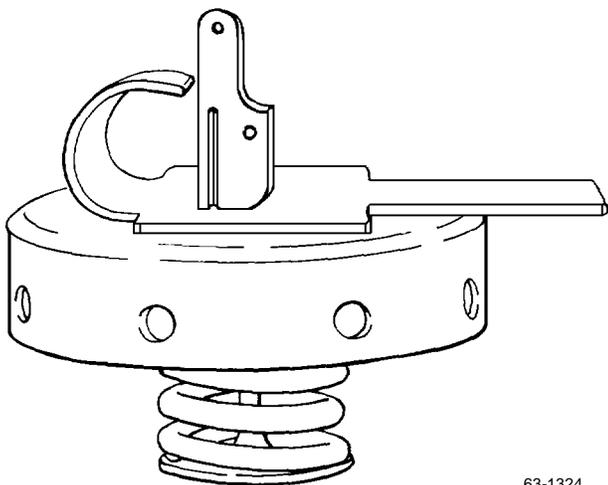
**Step 3f - Para 6-58**

g. With hole in toggle and hole in plunger aligned, insert new spring pin using spring pin installation tool. Insert spring pin into toggle hole as far as tool will permit. Remove tool and gently drive remainder of spring pin into toggle using drift pin.

h. Slowly open vise jaws and ensure that assembly is properly secured.

i. Remove adjustment assembly from toggle and plunger jaws.

j. Using toggle reset tool, rotate toggle to up-right (OFF) position.



63-1324

**Step 3j - Para 6-58**

k. Position reducer assembly with cap adjustment side up.

l. Install lock ring onto reducer body.

### NOTE

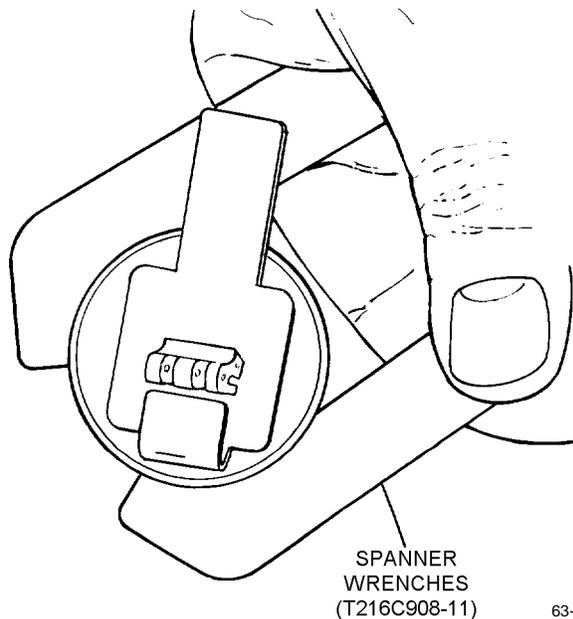
Ensure lock ring does not contact adjustment assembly during installation.

m. Install adjustment assembly onto reducer body by engaging screw threads and rotating clockwise to its lowest position.

n. Back off adjusting cap two complete turns for preadjustment.

o. Turn lock ring counterclockwise until snug with adjusting cap.

p. Place one spanner wrench (T216C908-11) in lock ring and second spanner wrench on adjusting cap and secure.



63-1304

**Step 3p - Para 6-58**

4. Apply antiseize tape to threads of elbow and install.

**6-59. ADJUSTMENT.**

**6-60. ADJUSTMENT OF PRESSURE REDUCER ASSEMBLY.** To adjust flow rates and outlet pressures on the reducer assembly, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
2	Spanner Wrenches (Note 1) -or-	T216B907-11 (Note 3)
2	Spanner Wrenches (Note 2)	T216C908-11 (Note 3)

- Notes: 1. Used when pressure reducer is installed in survival kit.  
 2. Used when pressure reducer is removed from survival kit.  
 3. The spanner wrenches are part of Pressure Reducer Tool Set P/N T216D900-1 (CAGE 30941).

**NOTE**

Although the following instructions indicate adjustment of the pressure reducer installed on the seat pan assembly, procedures for a disconnected reducer are the same with the exception of removing the cover assembly, and the spanner wrenches used in the adjustment procedures. See Support Equipment Required for correct spanner wrenches.

1. Remove cover assembly (1, figure 6-16) by removing two screws (2).
2. Using spanner wrenches, loosen lock ring (5, figure 6-20).
3. Turn adjusting cap (4) counterclockwise to decrease pressure and clockwise to increase pressure.
4. Tighten pressure reducer lock ring (5).

5. Perform functional check on kit in accordance with paragraph 6-37.

**NOTE**

If pressure reducer assembly meets required specifications proceed to step 6; if required specifications cannot be met refer to troubleshooting table for suggested remedy.

6. Install cover assembly (1, figure 6-16) by installing two screws (2).

**6-61. ADJUSTMENT OF RELIEF VALVE.** To adjust the oxygen relief valve, proceed as follows:

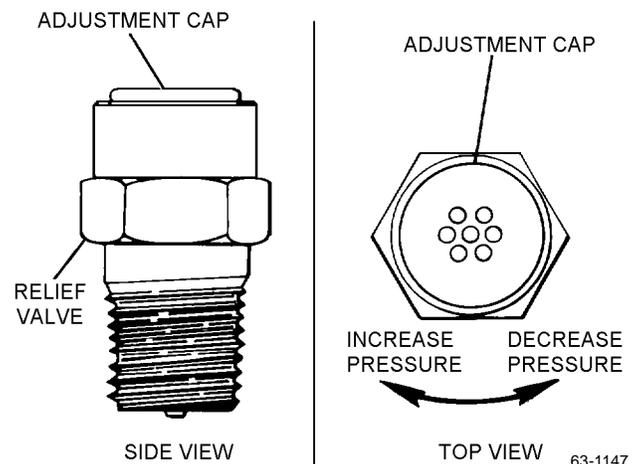
1. Bleed pressure to zero and remove relief valve.
2. Using relief valve adjustment tool, (paragraph 6-68), adjust valve unseating pressure by turning cap clockwise to increase relief valve pressure and counterclockwise to decrease (figure 6-12).

**NOTE**

For an increase in pressure, turn adjusting cap clockwise in incremental adjustments of +1/2 or -1/4 turn using relief valve adjustment tool.

For a decrease in pressure, turn adjusting cap counterclockwise in incremental adjustments of +1/2 or -1/4 turn using relief valve adjustment tool.

3. Install oxygen relief valve.



**Figure 6-12. Adjustable Relief Valve (Typical)**

## NAVAIR 13-1-6.3-2

4. Perform functional check in accordance with paragraph 6-37.

**6-62. ADJUSTMENT OF AUTOMATIC EMERGENCY OXYGEN RELEASE ASSEMBLY.** To adjust the automatic release assembly, proceed as follows (figure 6-18):

### NOTE

Ensure that the oxygen outlet port on manifold assembly is capped or hose assembly is installed.

1. Loosen adjustment locking nut (6).

2. Move cable conduit (7) towards or away from pressure reducer toggle by turning adjusting nut (6) on conduit. Ensure that there is sufficient slack in cable so that toggle in up position is not under tension.

3. Ensure that swaged ball on end of release lanyard cable is inserted in and is engaged with rotor (4) inside housing (9).

4. Tighten adjustment locking nut (6).

5. Operate release assembly by pulling lanyard cable (1). Ensure that cable pulls free of rotor (4) and actuator housing (9) and toggle arm is pulled into the actuated position.

## Section 6-7. Fabrication

### 6-63. GENERAL.

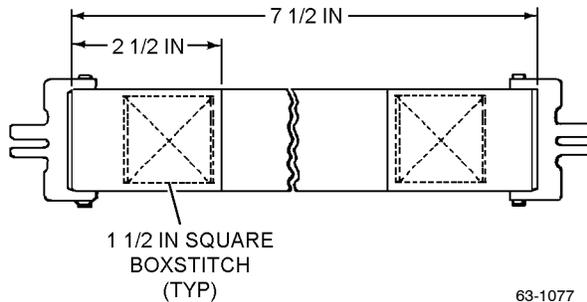
6-64. This section contains instructions for fabrication of tools and components that can be manufactured by local maintenance activities.

**6-65. BRAKE RIDER'S STRAP.** To fabricate a break rider's strap, proceed as follows:

#### Materials Required

Quantity	Description	Reference Number
2	Release Assembly, Lapbelt Fitting	014-11366-1 (CAGE 99449)
24 Inches	Webbing, Nylon, Type XXVII, 1-23/32 inch Width	MIL-W-4088 NIIN 00-530-1489
As Rquired	Thread, Nylon, Type II, Class A, Size 6	V-T-295 NIIN 00-559-5211

1. Cut a piece of nylon webbing 24 inches in length.



#### Step 3 - Para 6-65

2. Sear exposed ends of webbing.

3. Secure fittings with 1 1/2 inch square boxstitch. All stitching shall be ASTM-D-6193, Type 301, 4 to 6 stitches per inch, backstitch 1/2 inch minimum.

### 6-64 Change 5

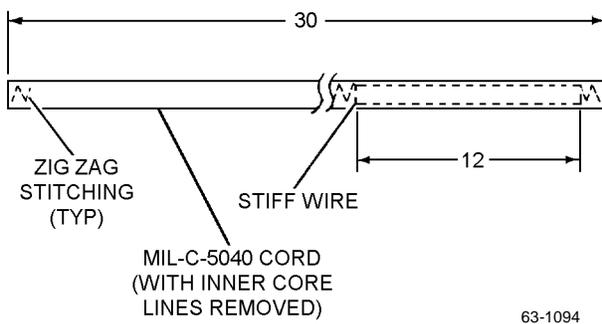
**6-66. DROPLINE STOWAGE AID.** To fabricate a dropline stowage aid, proceed as follows:

1. Cut a 45-inch length of MIL-C-5040, 550 pound, Type III cord.
2. Remove inner core lines.

**NOTE**

Beeswax may be used lightly as lubricant when inserting the stiff wire.

3. Insert a 12-inch length of stiff wire and stitch.



**Step 3 - Para 6-66**

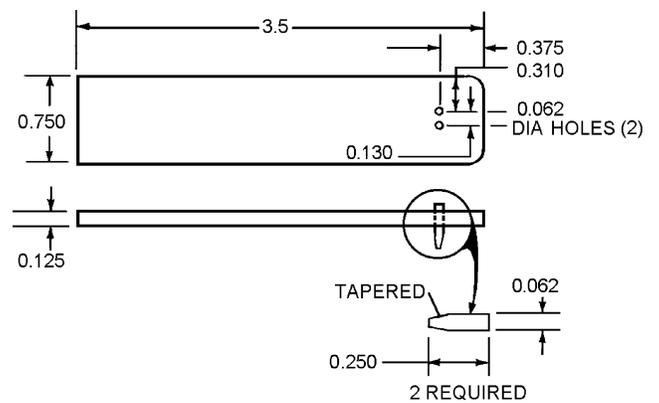
**6-67. LIFERAFT PACKING AID.** Fabricate a liferaft packing aid in accordance with figure 6-13.

**6-68. RELIEF VALVE ADJUSTMENT TOOL.** To fabricate a relief valve adjustment tool proceed as follows:

Materials Required

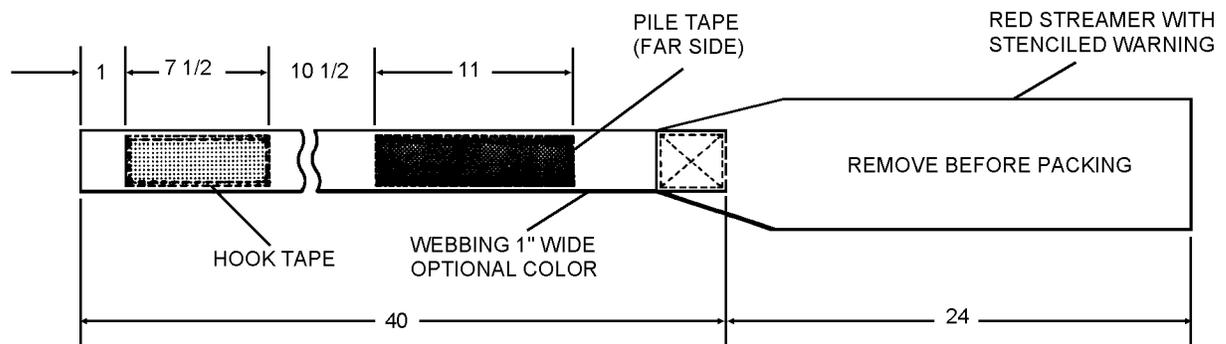
Quantity	Description	Reference Number
As Required	Mild Steel, 0.125 thick	—
As Required	Drill Rod, 0.062 dia.	—

1. Fabricate relief valve adjustment tool as shown:



**Step 1 - Para 6-68**

2. Press fit drill rod into holes in mild steel plate.



**NOTES:**

1. PILE TAPE AND HOOK TAPE ARE ON OPPOSITE SIDES OF WEBBING.
2. STREAMER WITH STENCILED WARNING MUST BE MADE WITH RED MATERIAL.

**Figure 6-13. Liferaft Packing Aid**

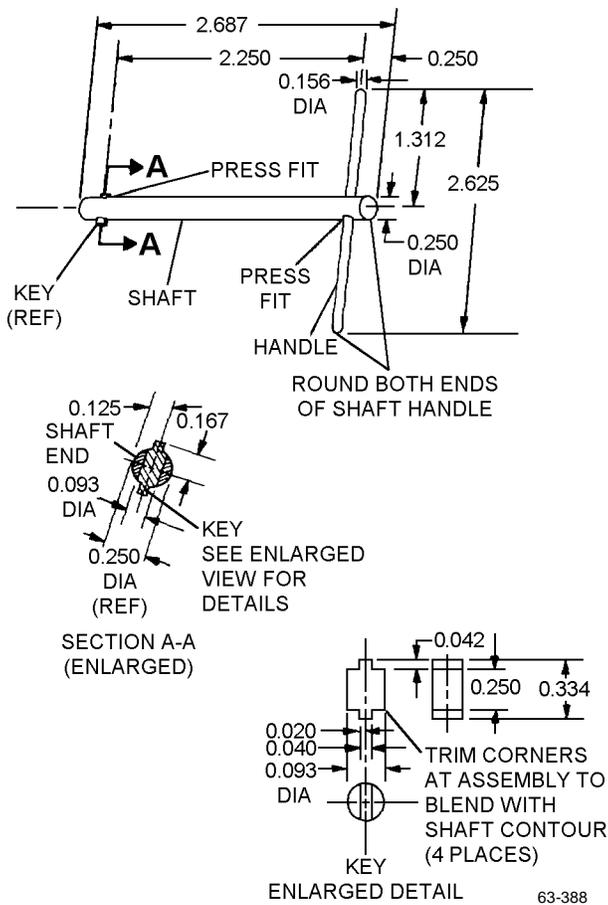
## NAVAIR 13-1-6.3-2

**6-69. T-WRENCH.** To fabricate T-wrench, proceed as follows:

### Materials Required

Quantity	Description	Reference Number
As Required	Steel Rod 0.250 dia.	—
As Required	Steel Rod 0.156 dia.	—
As Required	Steel Rod 0.093 dia.	—

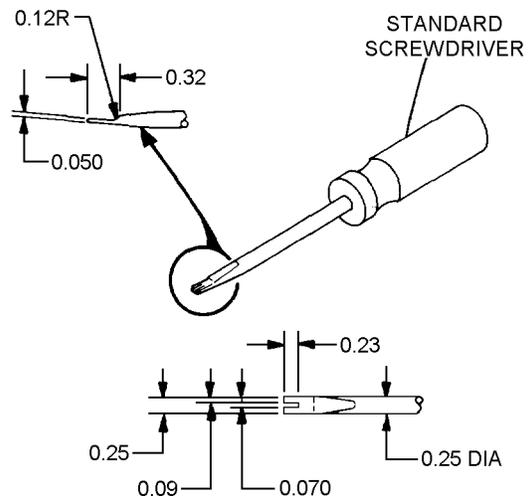
1. Fabricate T-wrench as shown:



Step 1 - Para 6-69

**6-70. TOGGLE RESET TOOL.** To fabricate a toggle reset tool, proceed as follows:

1. Modify a standard slot screwdriver as shown.



NOTE: ALL CORNER AND FILLET RADII 0.015

63-229

Step 1 - Para 6-70

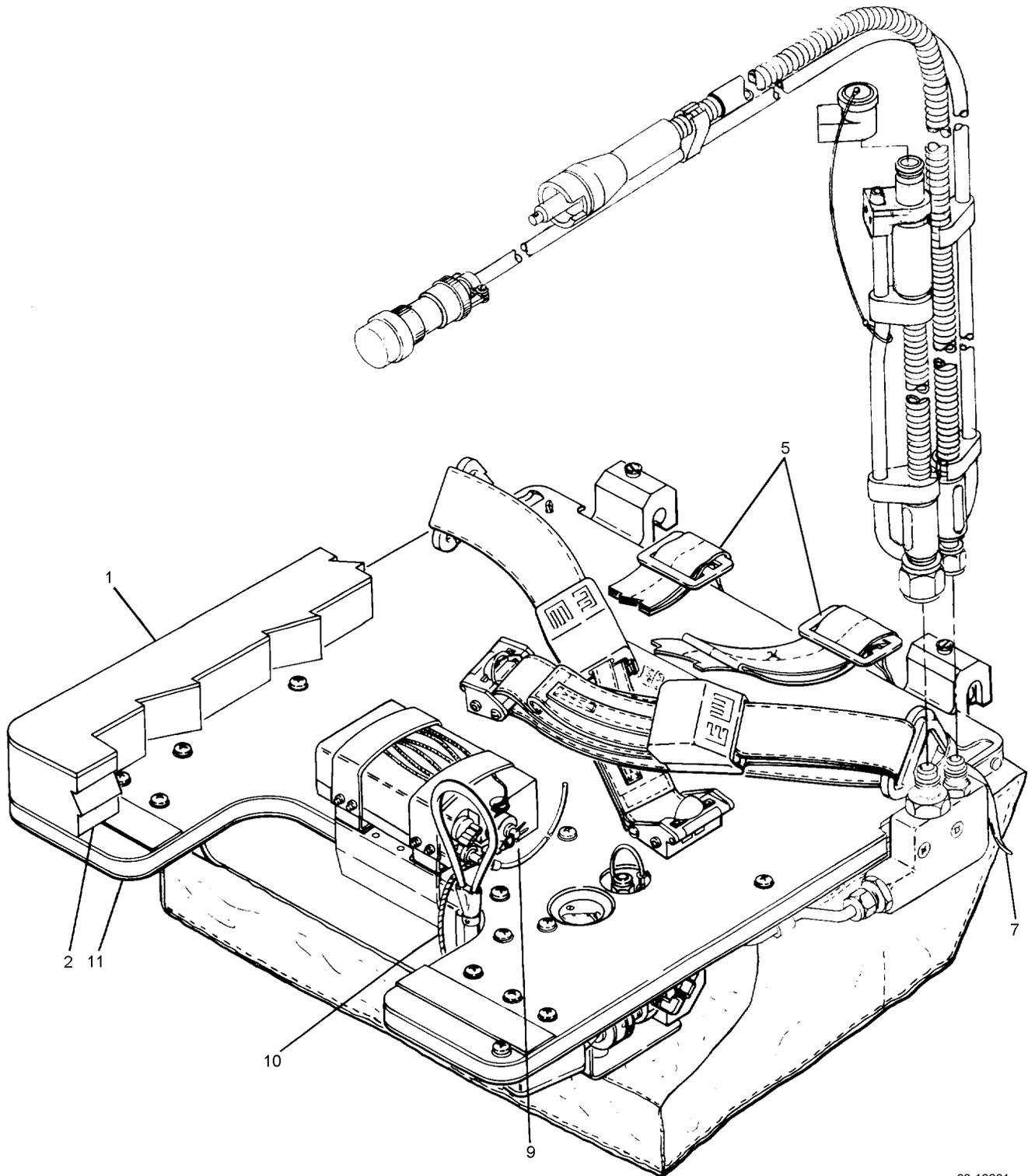
## Section 6-8. Illustrated Parts Breakdown

### 6-71. GENERAL.

6-72. This section lists and illustrates the assemblies and detail parts of the SKU-6/A Seat Survival Kit Assembly as manufactured by East/West Industries. The entire assembly is supplied by Stencil

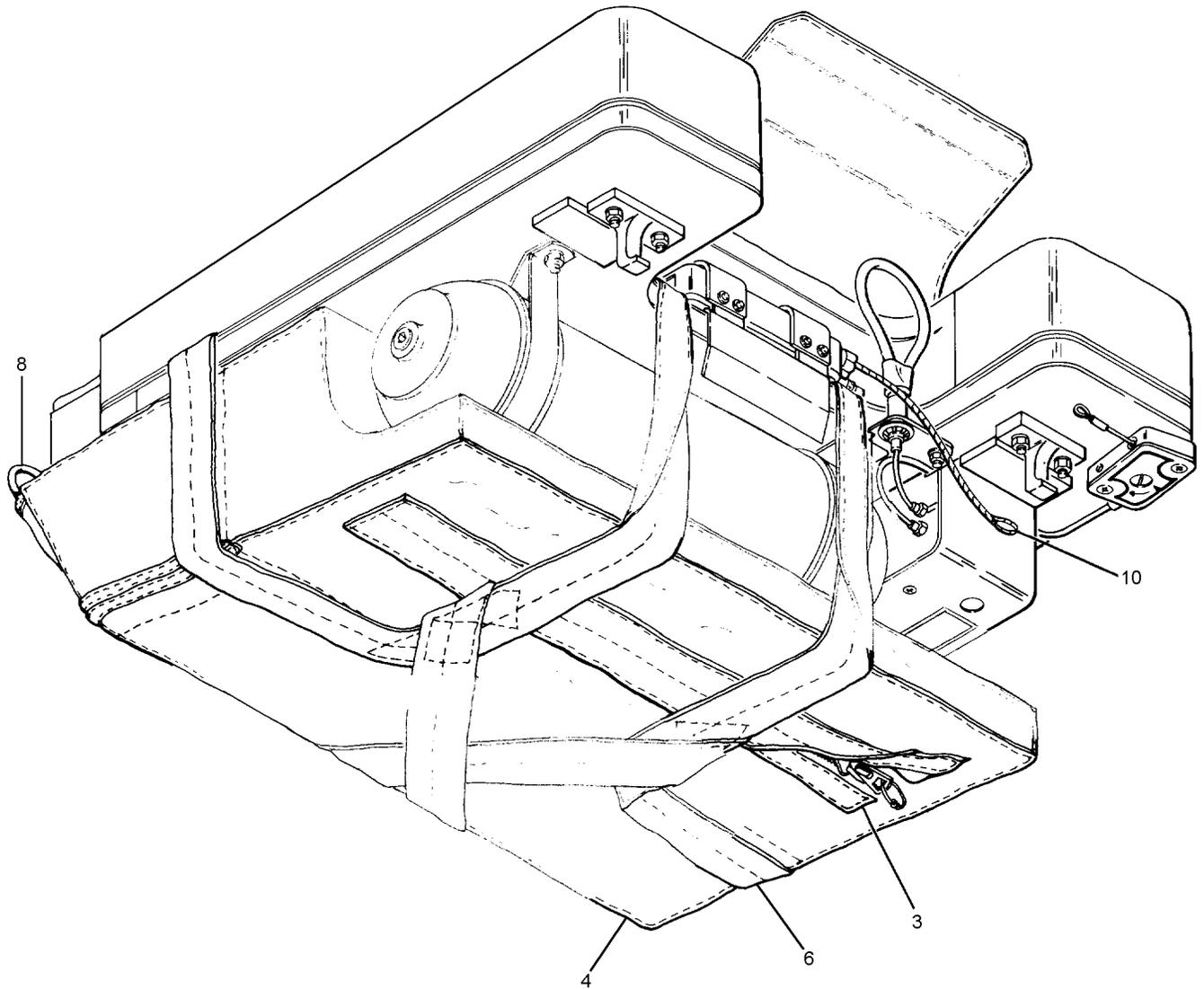
Aero Engineering Corporation (CAGE 24632) and carries P/N 14070-5.

6-73. The Illustrated Parts Breakdown should be used during maintenance when requisitioning and identifying parts.



63-13261

Figure 6-14. Survival Kit Assembly (SKU-6/A) (Sheet 1 of 2)



63-13262

Figure 6-14. Survival Kit Assembly (SKU-6/A)(Sheet 2 of 2)

**NAVAIR 13-1-6.3-2**

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
		1 2 3 4 5 6 7		
6-14	14070-7	SURVIVAL KIT ASSEMBLY SKU-6/A . . . . . COMPLETE (After ACC 501)	1	
	GFE	. . RADIO BEACON ASSEMBLY, AN/URT-33A . . . .	REF	
	GFE	. . SURVIVAL KIT CONTENTS . . . . .	REF	
	12089-1	. . SURVIVAL KIT CONTENTS (24632) . . . . .	REF	
	14070-21	. . SURVIVAL KIT SUBASSEMBLY SKU-6/A . . . . (After ACC 501)	1	
	14075-5	. . CUSHION ASSEMBLY, Bottom . . . . .	1	
-1	14075-7	. . . COVER ASSEMBLY . . . . .	1	
-2	14078-5	. . . PAD ASSEMBLY . . . . .	1	
	14071-3	. . RUCKSACK ASSEMBLY . . . . .	1	
-3	14071-11	. . . ZIPPER COVER ASSEMBLY . . . . .	1	
-4	14071-13	. . . STOWAGE BAG ASSEMBLY . . . . .	1	
-5	12086-1	. . BUCKLE STRAP ASSEMBLY . . . . .	2	
-6	12087-3	. . STRAP ASSEMBLY . . . . .	1	
-7	12277-1	. . LANYARD ASSEMBLY . . . . .	1	
-8	12317-3	. . HANDLE ASSEMBLY . . . . .	1	
-9	125B300-1	. . ACTUATOR, Radio beacon (30941) . . . . .	1	
-10	12227-1	. . LANYARD ASSEMBLY, Actuating . . . . . AN/URT-33A	1	
-11	14070-23	. . SEAT PAN ASSEMBLY . . . . . (See <a href="#">figure 6-15</a> for BKDN)	1	

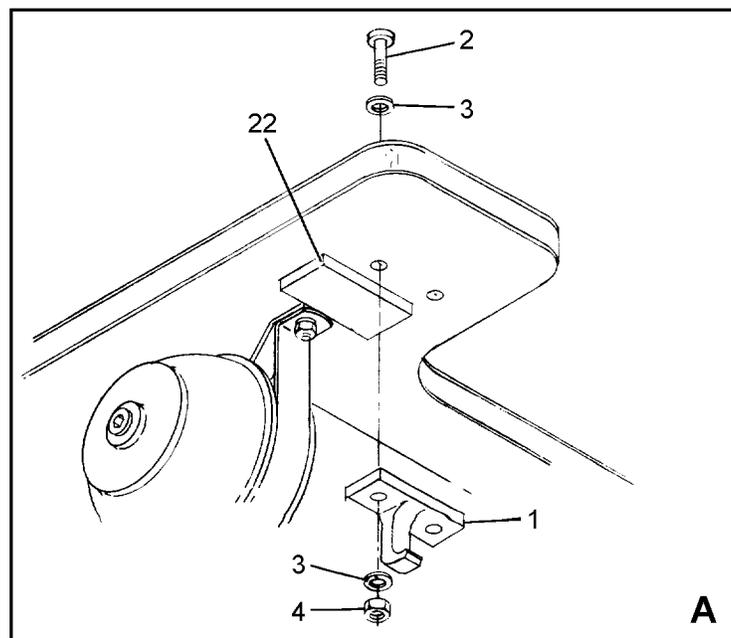
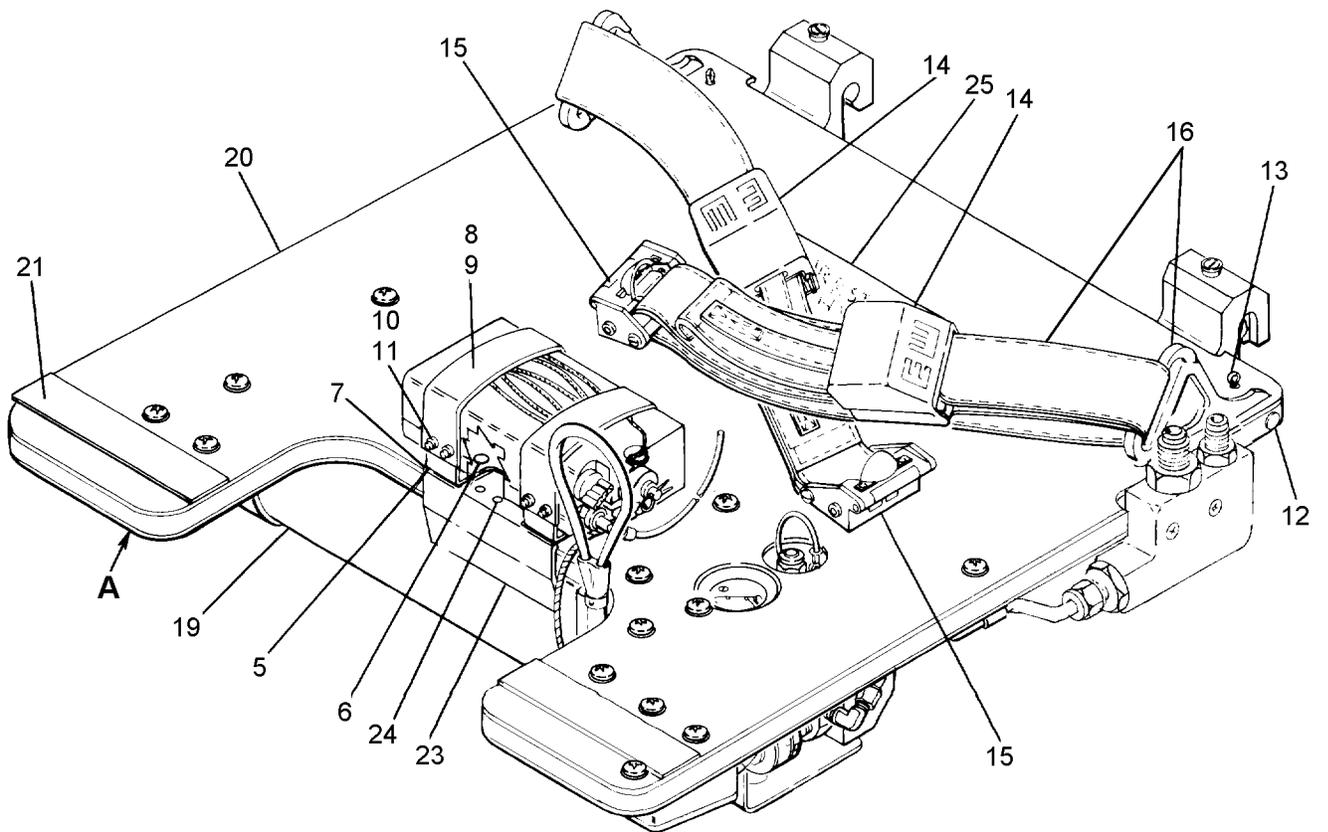


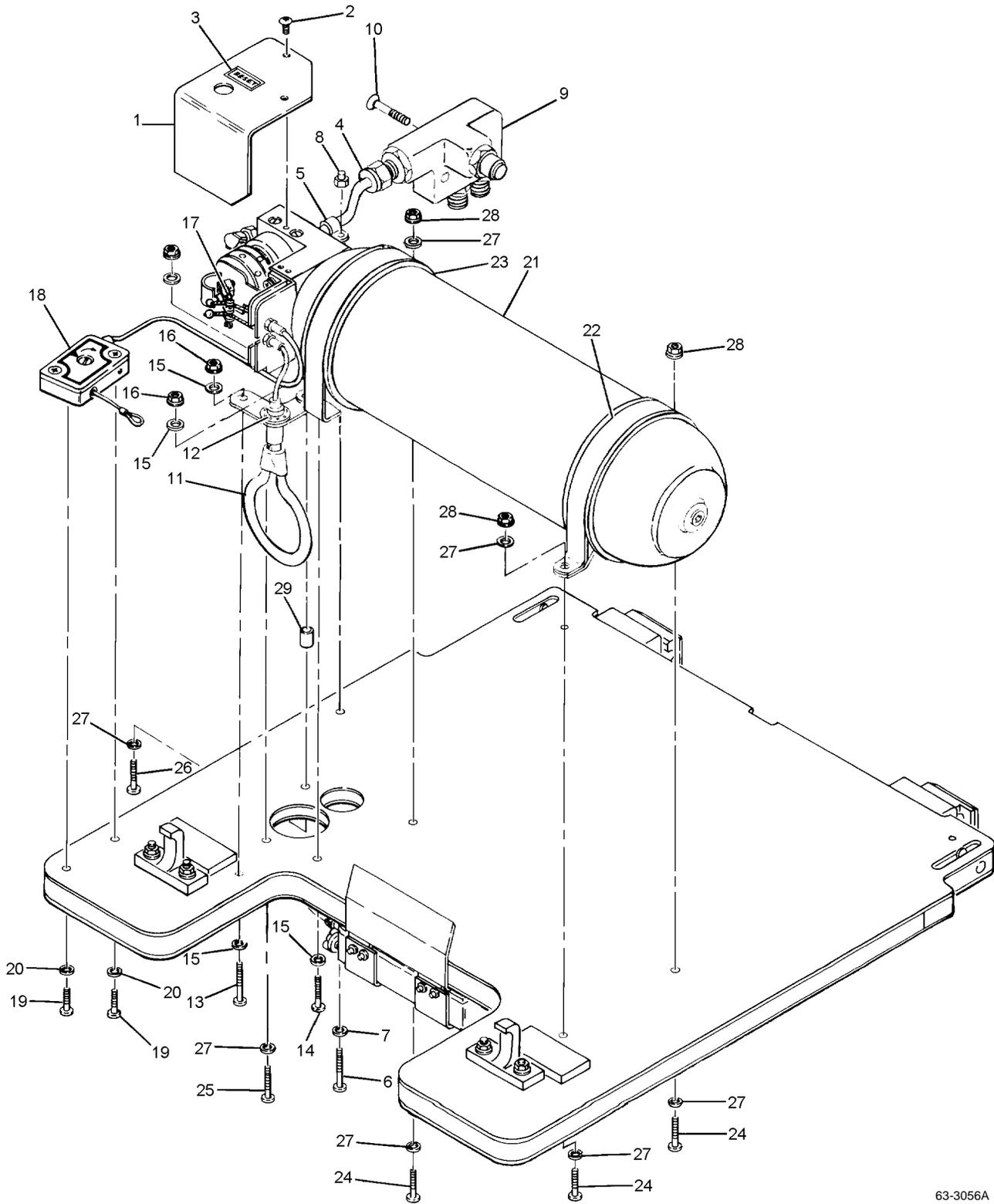
Figure 6-15. Seat Pan Assembly

63-1327

NAVAIR 13-1-6.3-2

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
6-15	14070-11	SEAT PAN ASSEMBLY ..... (See <a href="#">figure 6-14</a> for NHA)	REF	
-1	12079-11	. HOOK, Locking ..... (ATTACHING PARTS)	2	
-2	MS27039C1-20	. SCREW .....	4	
-3	AN960PD10L	. WASHER .....	8	
-4	MS21042L3	. NUT .....	4	
		---*---		
-5	12085-3	. BRACKET ASSEMBLY, Beacon ..... (ATTACHING PARTS)	1	
-6	NAS1739B4-2	. RIVET, Blind .....	4	
		---*---		
-7	12085-11	. . BRACKET .....	1	
-8	12085-15	. . FASTENER TAPE, Hook .....	2	
-9	12085-13	. . FASTENER TAPE, Pile .....	2	
		(ATTACHING PARTS)		
-10	MS20426AD3	. . RIVET .....	8	
-11	AN960PD3	. . WASHER .....	8	
		---*---		
	12072-1	. BELT ASSEMBLY, Lap .....	2	
	266D520-1	. BELT ASSEMBLY, Lap .....	2	
		(ATTACHING PARTS)		
-12	MS20392-4C25	. PIN, Straight .....	2	
-13	MS24665-285	. PIN, Cotter .....	2	
		---*---		
-14	184C100-1	. . ADJUSTER, Harness (30941) .....	2	
-15	015-11365-1	. . RELEASE ASSEMBLY, Lapbelt .....	2	
		(99449) ( <a href="#">Note 1</a> )		
-16	12072-3	. . BELT SUB-ASSEMBLY, Lap .....	1	
		(Webbing and Lug)		
	266D525-1	. . BELT SUB-ASSEMBLY, Lap .....	1	
		(Webbing and Lug)		
-17	Deleted			
-18	Deleted			
-19	295J100-1	. OXYGEN SYSTEM, Emergency (30941) ..... (See <a href="#">figure 6-16</a> for BKDN)	1	
	14080-1	. OXYGEN SYSTEM, Emergency (24632) .....	1	
-20	12084-25	. PANEL, Seat .....	1	
-21	266B622-13	. . FASTENER TAPE, Hook (1-inch x 4-inch) ..... MIL-F-21840, Type II, Class I, self-adhesive backing	2	
-22	266B617-13	. . PAD (2-inch x 1-inch x 0.312-inch) ..... Synthetic rubber, MIL-R-6855, Class II, Type A, Grade 40 (Color-black) ( <a href="#">Note 2</a> )	2	
-23	12384-11	. ANTICHAFING BRACKET .....	1	
		(ATTACHING PARTS)		
-24	NAS1739B4-2	. RIVET, Blind .....	2	
		---*---		

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
6-15-25	295C813-11	. NAMEPLATE, Identification .....	1	
	Notes: 1. When replacing lapbelt assembly, apply sealing, locking and retaining compound, MIL-S-22473, to shoulder screws. 2. Install using 3M adhesive 1357.			



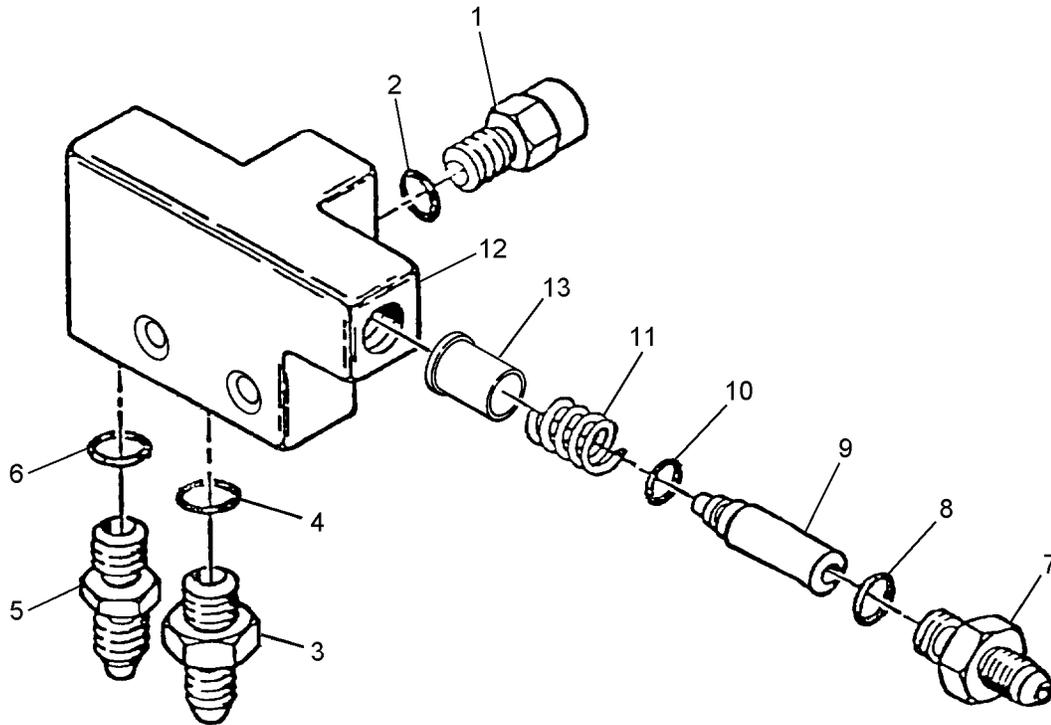
63-3056A

Figure 6-16. Oxygen System, Emergency

Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
6-16	295J100-1	OXYGEN SYSTEM, Emergency (30941) . . . . . (See <a href="#">figure 6-15</a> for NHA)	REF	
-1	266C850-1	. COVER ASSEMBLY . . . . . (ATTACHING PARTS)	1	
-2	MS51957-26	. SCREW . . . . . ---*---	2	
-3	EW91019	. DECAL . . . . .	1	
-4	295D355-1	. TUBE ASSEMBLY . . . . . (ATTACHING PARTS)	1	
-5	MS25281F4	. CLAMP . . . . .	1	
-6	MS27039C1-18	. SCREW . . . . .	1	
-7	AN960C10L	. WASHER . . . . .	1	
-8	EW42001	. NUT . . . . . ---*---	1	
-9	295D317-5	. MANIFOLD ASSEMBLY, Outlet . . . . . (See <a href="#">figure 6-17</a> for BKDN) (ATTACHING PARTS)	1	
-10	MS24693-C276	. SCREW ( <a href="#">Note 1</a> ) . . . . . ---*---	2	
-11	266D336-1	. MANUAL OXYGEN RELEASE ASSEMBLY . . . . .	1	
-12	5115-37H	. . LOCKWASHER, Push-on . . . . .	1	
	EW48003	. . LOCKWASHER, Push-on (30941) . . . . . (ATTACHING PARTS)	1	
-13	MS27039C1-17	. SCREW . . . . .	1	
-14	MS27039C1-18	. SCREW . . . . .	1	
-15	AN960C10L	. WASHER . . . . .	4	
-16	MS21042L3	. NUT . . . . .	2	
-17	MS24665-88	. PIN, Cotter . . . . . ---*---	1	
-18	266C392-1	. AUTOMATIC OXYGEN RELEASE . . . . . ASSEMBLY (See <a href="#">figure 6-18</a> for BKDN) (ATTACHING PARTS)	1	
-19	MS27039C1-17	. SCREW ( <a href="#">Note 1</a> ) . . . . .	2	
-20	AN960C10L	. WASHER . . . . . ---*---	2	
-21	295D410-1	. REDUCER/MANIFOLD/CYLINDER . . . . . ASSEMBLY (See <a href="#">figure 6-19</a> for BKDN) (ATTACHING PARTS)	1	
-22	295D840-1	. CLAMP ASSEMBLY . . . . .	1	
-23	295C841-1	. CLAMP ASSEMBLY . . . . .	1	
-24	MS27039C1-18	. SCREW ( <a href="#">Note 1</a> ) . . . . .	3	
-25	MS27039C1-17	. SCREW . . . . .	1	
-26	MS27039C1-24	. SCREW ( <a href="#">Note 1</a> ) . . . . .	1	
-27	AN960C10L	. WASHER . . . . .	8	
-28	MS21042L3	. NUT . . . . . ---*---	4	

**NAVAIR 13-1-6.3-2**

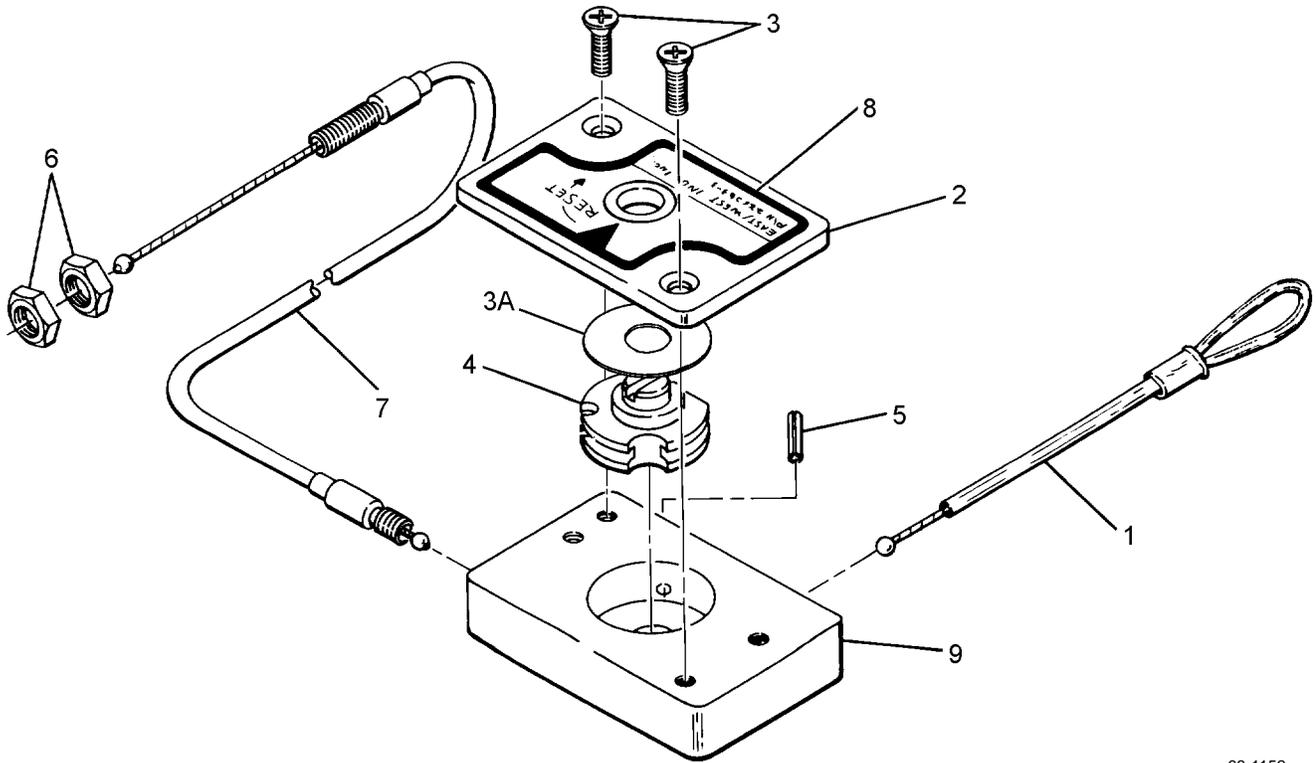
Figure and Index Number	Part Number	Description 1 2 3 4 5 6 7	Units Per Assembly	Usable On Code
6-16-29	266C450-11	. SPACER .....	1	
Notes: 1. Apply sealing, locking and retaining compound, VC-3, to threads.				



63-1329

Figure 6-17. Manifold Assembly, Outlet

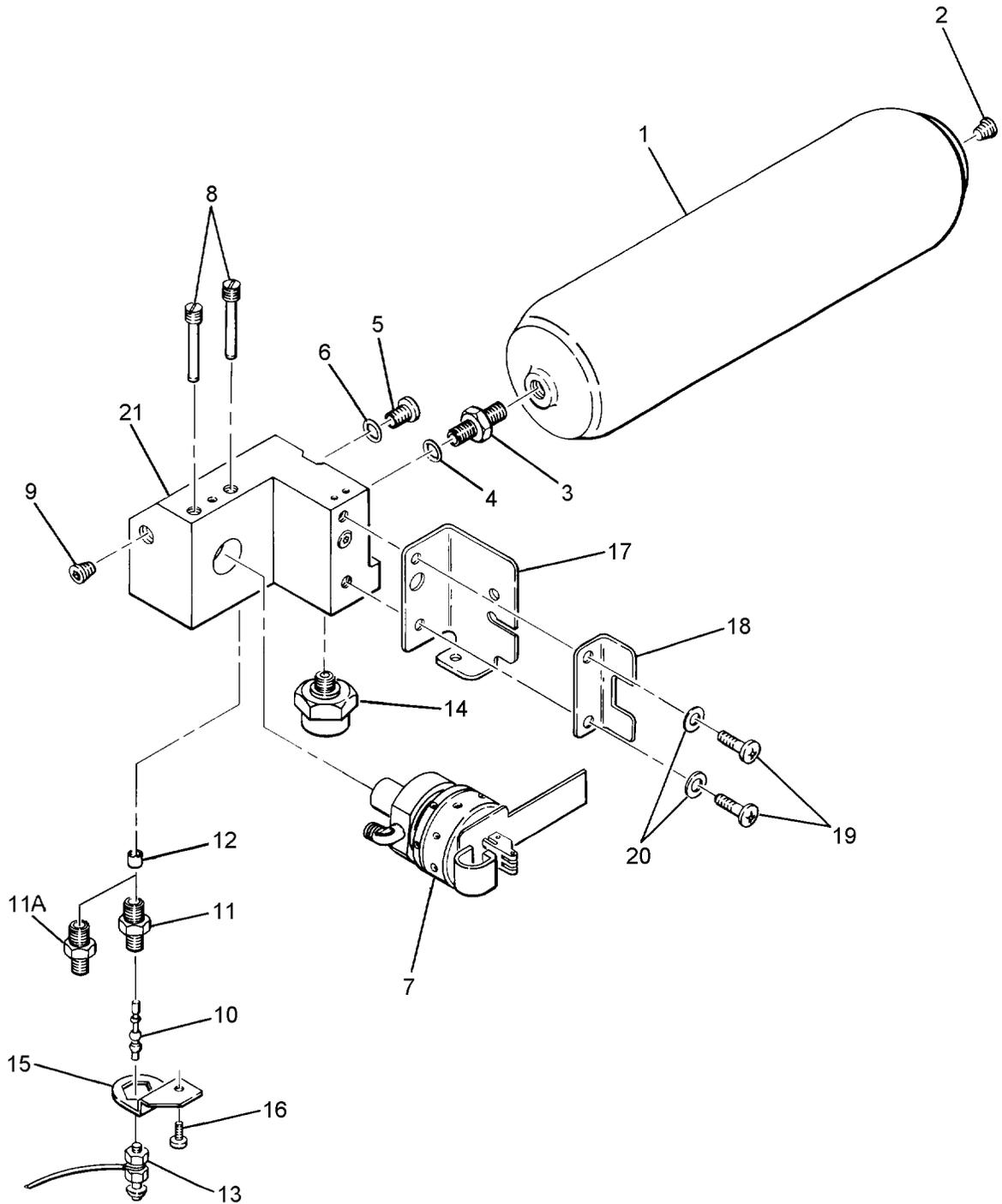
Figure and Index Number	Part Number	Description	1 2 3 4 5 6 7							Units Per Assembly	Usable On Code
6-17	295D317-5	MANIFOLD ASSEMBLY, Outlet . . . . . (See figure 6-16 for NHA)								REF	
-1	EW63004	. RELIEF VALVE (30941) . . . . .								1	
	P103-673	. RELIEF VALVE (91816) . . . . .								1	
	Z02RV04-4	. RELIEF VALVE (91816) (Note 2) . . . . .								1	
-2	MS9068-012	. O-RING (Note 1) . . . . .								1	
-3	AN919-7D	. CONNECTOR . . . . .								1	
-4	MS9068-013	. O-RING (Note 1) . . . . .								1	
-5	295B335-11	. CONNECTOR . . . . .								1	
-6	MS9068-013	. O-RING (Note 1) . . . . .								1	
-7	295B334-11	. CONNECTOR . . . . .								1	
-8	MS9068-012	. O-RING (Note 1) . . . . .								1	
-9	295B331-11	. SPINDLE . . . . .								1	
-10	MS9068-010	. O-RING (Note 1) . . . . .								1	
-11	295B333-11	. SPRING . . . . .								1	
-12	295C219-11	. MANIFOLD BODY . . . . .								1	
-13	295B320-11	. SPRING RETAINER . . . . .								1	
Notes:		1. Apply light film of Krytox 240 AZ lubricant, MIL-G-27617, prior to assembly. 2. Torque to a value of 70 ± 5 in-lb.									



63-1152

Figure 6-18. Automatic Oxygen Release Assembly

Figure and Index Number	Part Number	Description	Units Per Assembly							Usable On Code	
			1	2	3	4	5	6	7		
6-18	266C392-1	AUTOMATIC OXYGEN RELEASE ASSEMBLY (See figure 6-16 for NHA)								REF	
-1	266C398-1	. CABLE ASSEMBLY								1	
-2	266C396-11	. COVER (ATTACHING PARTS)								1	
-3	MS24693-C48	. SCREW (Note 1) ---*---								2	
-3A	10W063-52C100	. WASHER, Flat								1	
-4	266C394-11	. ROTOR								1	
-5	MS171495	. SPRING PIN								1	
-6	221B363-11	. NUT								2	
-7	266D397-1	. CONDUIT ASSEMBLY								1	
-8	EW91021	. DECAL								1	
-9	266C393-11	. HOUSING								1	
Notes: 1. Apply thread locking compound, VC3, to threads.											



63-1330

Figure 6-19. Reducer, Manifold, Cylinder Assembly

NAVAIR 13-1-6.3-2

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
		1 2 3 4 5 6 7		
6-19	295D410-1	REDUCER/MANIFOLD/ CYLINDER . . . . . ASSEMBLY (See figure 6-16 for NHA)	REF	
-1	235D500-1	. OXYGEN CYLINDER ASSEMBLY . . . . .	1	
-2	AN932S2	. PLUG (Note 1) . . . . .	1	
-3	266B830-11	. NIPPLE UNION (Note 1) . . . . .	1	
-4	MS9068-011	. O-RING (Note 2) . . . . .	1	
-5	EW61001	. PLUG . . . . .	1	
-6	MS28778-03	. O-RING (Note 2) . . . . .	1	
-7	266D810-1	. PRESSURE REDUCER ASSEMBLY . . . . . (See figure 6-20 for BKDN) (ATTACHING PARTS)	1	
-8	266C702-11	. PIN (Note 3) . . . . . ---*---	2	
	266D440-1	. REDUCER MANIFOLD ASSEMBLY . . . . .	1	
-9	AN932D1	. . PLUG (Note 1) . . . . .	2	
	221B380-1	. . FILLER VALVE ASSEMBLY . . . . .	1	
-10	EW63001	. . . VALVE CORE (Note 4) . . . . .	1	
-11	102C383-11	. . . VALVE BODY (Note 1) . . . . .	1	
-11A	9120097-27	. . FILL VALVE (Note 5) . . . . .	1	
-12	266B419-11	. . FILTER . . . . .	1	
-13	266B283-1	. . FILLER CAP ASSEMBLY . . . . .	1	
-14	EW68001	. . GAGE, Oxygen (Note 1) . . . . .	1	
-15	266C870-11	. . BRACKET, Retaining . . . . . (ATTACHING PARTS)	1	
-16	MS51957-26	. . SCREW (Note 3) . . . . . ---*---	1	
-17	266C457-11	. . BRACKET . . . . .	1	
-18	266B824-11	. . BRACKET . . . . . (ATTACHING PARTS FOR INDEX NOS. 17 AND 18)	1	
-19	MS51958-63	. . SCREW (Note 3) . . . . .	2	
-20	AN960C10L	. . WASHER . . . . . ---*---	2	
-21	266D441-11	. . MANIFOLD . . . . .	1	
<p>Notes: 1. To assemble pipe threaded parts, use Teflon tape 1/2 in. wide conforming to MIL-T-27730; coating to be applied according to instructions specified in MIL-T-27730.</p> <p>2. Apply light film of Krytox 240 AZ lubricant, MIL-G-27617, prior to assembly.</p> <p>3. Apply thread locking compound VC-3 or equivalent to threads.</p> <p>4. Torque valve core to 5-6 lb-in after assembly.</p> <p>5. Fill Valve can be used as an alternate to replace Filler Valve Assembly P/N 221B380-1 or Valve Core P/N EW63001 and Valve Body P/N 102C383-11.</p>				

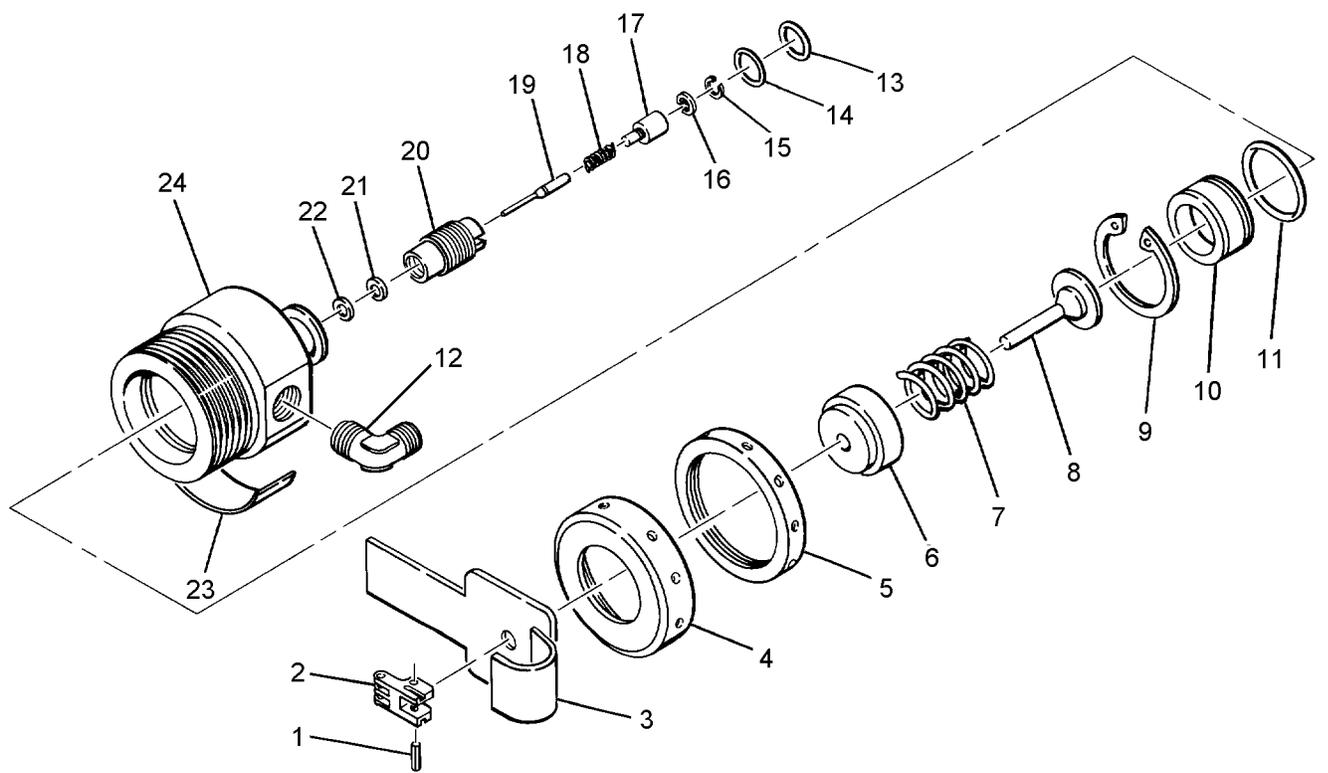


Figure 6-20. Pressure Reducer Assembly

63-1154

NAVAIR 13-1-6.3-2

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
		1 2 3 4 5 6 7		
6-20	266D810-1	PRESSURE REDUCER ASSEMBLY ..... (See figure 6-19 for NHA)	REF	
-1	MS171435	. PIN, Spring .....	1	
-2	102C303-21	. TOGGLE .....	1	
-3	266C823-11	. SPACER .....	1	
-4	233C829-11	. CAP, Adjust .....	1	
-5	233C830-11	. RING, Lock .....	1	
-6	266C820-11	. GUIDE, Piston .....	1	
-7	233B831-11	. SPRING, Reference .....	1	
-8	102C824-11	. PLUNGER .....	1	
-9	N5000-102H	. RING, Retaining .....	1	
	MS16625-4102P	. RING, Retaining (Alternate for N5000-102H) .....	1	
-10	102C821-11	. PISTON .....	1	
-11	MS28775-117	. O-RING (Note 1) .....	1	
-12	MS20822-4D	. ELBOW (Note 2) .....	1	
-13	NAS1611-014	. O-RING (Note 1) .....	1	
-14	MS28774-014	. BACK UP RING .....	1	
-15	MS16625-4025	. RING, Retaining .....	1	
-16	102B819-11	. FILTER (Note 3) .....	1	
-17	102B818-11	. GUIDE POPPET .....	1	
-18	102B814-11	. SPRING POPPET .....	1	
-19	102B817-11	. POPPET .....	1	
-20	102C815-11	. RETAINER (Note 4) .....	1	
-21	102B828-11	. STOP .....	1	
-22	102B816-11	. SEAT .....	1	
-23	233B826-15	. NAMEPLATE .....	1	
-24	233D811-13	. BODY .....	1	
		Notes: 1. Apply light film of Krytox 240 AZ lubricant, MIL-G-27617, prior to assembly. 2. To assemble pipe threaded parts, use Teflon tape 1/2 in. wide conforming to MIL-T-27730; coating to be applied according to instructions specified in MIL-T-27730. 3. Install coarse mesh near side. 4. Torque retainer to 32 to 35 in-lb after assembly.		

# NUMERICAL INDEX

Part Number	Figure and Index Number	SM&R Code	Part Number	Figure and Index Number	SM&R Code
AN919-7D	6-17-3		MS51958-63	6-19-19	
AN932D1	6-19-9		MS9068-010	6-17-10	
AN932S2	6-19-2		MS9068-011	6-19-4	
AN960C10L	6-16-7		MS9068-012	6-17-2	
	6-16-15			6-17-8	
	6-16-20		MS9068-013	6-17-4	
	6-16-27			6-17-6	
	6-19-20		NAS1611-014	6-20-13	
AN960PD10L	6-15-3		NAS1739B4-2	6-15-6	
AN960PD3	6-15-11			6-15-24	
EW42001	6-16-8		N5000-102H	6-20-9	
EW48003	6-16-12		P103-673	6-17-1	
EW61001	6-19-5		Z02RV04-4	6-17-1	
EW63001	6-19-10		015-11365-1	6-15-15	
EW63004	6-17-01		10W063-52C100	6-18-3A	
EW68001	6-19-14		102B814-11	6-20-18	
EW91019	6-16-3		102B816-11	6-20-22	
EW91021	6-18-8		102B817-11	6-20-19	
MS16625-4025	6-20-15		102B818-11	6-20-17	
MS16625-4102P	6-20-9		102B819-11	6-20-16	
MS171435	6-20-1		102B828-11	6-20-21	
MS171495	6-18-5		102C303-21	6-20-2	
MS20392-4C25	6-15-12		102C383-11	6-19-11	
MS20426AD3	6-15-10		102C815-11	6-20-20	
MS20822-4D	6-20-12		102C821-11	6-20-10	
MS21042L3	6-15-4		102C824-11	6-20-8	
	6-16-16		12072-1	6-15	
	6-16-28		12072-3	6-15-16	
MS24665-285	6-15-13		12079-11	6-15-1	
MS24665-88	6-16-17		12084-25	6-15-20	PBGGG
MS24693-C276	6-16-10		12085-11	6-15-7	AGOOG
MS24693-C48	6-18-3		12085-13	6-15-9	
MS25281F4	6-16-5		12085-15	6-15-8	
MS27039C1-17	6-16-13		12085-3	6-15-5	AGGGG
	6-16-19		12086-1	6-14-5	
	6-16-25		12087-3	6-14-6	
MS27039C1-18	6-16-6		12089-1	6-14	
	6-16-14		12227-1	6-14-10	
	6-16-24		12277-1	6-14-7	
MS27039C1-20	6-15-2		12317-3	6-14-8	
MS27039C1-24	6-16-26		12384-11	6-15-23	
MS28774-014	6-20-14		125B300-1	6-14-9	PAGZZ
MS28775-117	6-20-11		14070-11	6-15	
MS28778-03	6-19-6		14070-21	6-14	PAGGG
MS51957-26	6-16-2		14070-23	6-14-11	
	6-19-16		14070-7	6-14	AGOGG

## NUMERICAL INDEX (CONT)

Part Number	Figure and Index Number	SM&R Code	Part Number	Figure and Index Number	SM&R Code
14071-11	6-14-3		266C820-11	6-20-6	
14071-13	6-14-4		266C823-11	6-20-3	
14071-3	6-14		266C850-1	6-16-1	
14075-5	6-14	PAOOO	266C870-11	6-19-15	
14075-7	6-14-1		266D336-1	6-16-11	
14078-5	6-14-2		266D397-1	6-18-7	
14080-1	6-15-19		266D440-1	6-19	
184C100-1	6-15-14		266D441-11	6-19-21	
221B363-11	6-18-6		266D520-1	6-15	
221B380-1	6-19		266D525-1	6-15-16	
233B826-15	6-20-23		266D810-1	6-19-7	PAGGG
233B831-11	6-20-7			6-20	
233C829-11	6-20-4		295B320-11	6-17-13	
233C830-11	6-20-5		295B331-11	6-17-9	
233D811-13	6-20-24		295B333-11	6-17-11	
235D500-1	6-19-1		295B334-11	6-17-7	
266B283-1	6-19-13		295B335-11	6-17-5	
266B419-11	6-19-12		295C219-11	6-17-12	
266B617-13	6-15-22		295C813-11	6-15-25	
266B622-13	6-15-21		295C841-1	6-16-23	
266B824-11	6-19-18		295D317-5	6-16-9	
266B830-11	6-19-3			6-17	AGOOG
266C392-1	6-16-18	PAGGG	295D355-1	6-16-4	
	6-18		295D410-1	6-16-21	AGGGG
266C393-11	6-18-9			6-19	
266C394-11	6-18-4		295D840-1	6-16-22	
266C396-11	6-18-2		295J100-1	6-15-19	AGGGG
266C398-1	6-18-1			6-16	
266C450-11	6-16-29		5115-37H	6-16-12	
266C457-11	6-19-17		9120097-27	6-19-11A	PAGZZ
266C702-11	6-19-8	AGGGG			