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**INSTRUCTIONS**  
for  
**CONTINUED AIRWORTHINESS**  
for  
**LIGHTWEIGHT EMERGENCY  
FLOATATION SYSTEM KITS**  
**STC No. SR00813AT**

206-365-105  
FOR  
BELL HELICOPTER TEXTRON CANADA LIMITED MODEL 206L, 206L-1, 206L-3  
HELICOPTERS  
and  
206-395-001  
FOR  
BELL HELICOPTER TEXTRON CANADA LIMITED MODEL 206L-4 HELICOPTERS

Report Number AA-00018

Revision J

December 7, 2012



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**AERONAUTICAL ACCESSORIES**

**LOG OF REVISIONS**

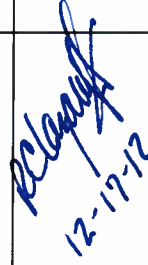
| <b>Date</b> | <b>Revision</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Affected Pages</b>                                 | <b>Approved / Date</b> | <b>Accepted / Date</b>      |
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| 3/6/00      | NR              | Original Release                                                                                                                                                                                                                                                                                                                                                                                                                      | All                                                   | —                      | —                           |
| 11/20/00    | A               | Added: Overhaul Requirement for Electric Inflation Valve                                                                                                                                                                                                                                                                                                                                                                              | 21                                                    | —                      | —                           |
| 04/18/01    | B               | Revised: Overhaul Requirement for Electric Inflation Valve<br>Deleted: DOT specification in 5.2 step 4<br>Deleted: DOT specification in Inspection Record step 4                                                                                                                                                                                                                                                                      | 21<br>7<br>46                                         | —                      | —                           |
| 11/09/01    | C               | Revised the Report Number for the Maintenance Instruction<br>Revised Bolt P/N from NAS6205-8 and quantity from 12                                                                                                                                                                                                                                                                                                                     | 5<br>25                                               | —                      | —                           |
| 12/06/04    | D               | Reformatted document<br>Revised Title Section 5.2 to 180 Day/500 Flight Hour Inspection<br>Added Topping Valve Adapter note<br>Added new Section 5.3, 3-Year Inspection<br>Renumbered sections 5.3, 5.4, 5.5, to 5.4, 5.5, 5.6<br>Reformatted Table 2, Weight and Balance<br>Added Weight and balance information for carbide shoes<br>Reformatted Tables 3 and 4, Parts Breakdown<br>Revised Appendix A to include 3-Year Inspection | All<br>8<br>9<br>10<br>10 – 15<br>24<br>26 – 28<br>49 | —                      | —                           |
| 4/20/05     | E               | Revised 5.2 180 Day/500 Hour Inspection Step 2.c and 2.d                                                                                                                                                                                                                                                                                                                                                                              | 8, 46                                                 | —                      | —                           |
| 08/06/08    | F               | Reformatted and reorganized document.<br>Multiple technical revisions. Complete revision                                                                                                                                                                                                                                                                                                                                              | All                                                   | —                      | —                           |
| 09/03/10    | G               | Reformatted "Log of Revisions"<br><br>Revised Airworthiness section per AEG (D. Snider) comments<br>Increased quantity from 20 to 21 for 206-369-201 Cover Assembly, Table 7<br>Decreased quantity from 21 to 20 for 206-369-203 Cover Assembly, Table 7<br>Revised Figure 1 to reflect above changes                                                                                                                                 | 3<br><br>29<br>33<br>33<br>38                         | N/A                    | FAA<br>Accepted<br>12/21/10 |

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| 06/08/12    | H               | Reformatted Log of Revisions, Table of Contents, List of Tables, List of Figures; reformatted document                                                                                                                                                                                                                    | All                   | C.Rowe<br>06/15/12     | R.Lazaroff<br>06/18/12 |
|             |                 | Revised references to "Aeronautical Accessories, Inc." to "Aeronautical Accessories" or "Aeronautical Accessories Bell Helicopter Piney Flats" as applicable                                                                                                                                                              | All                   |                        |                        |
|             |                 | Section 3.2: Revised "Preflight Inspection" to "Preflight Check" and updated "corrosion" note                                                                                                                                                                                                                             | 9                     |                        |                        |
|             |                 | Section 3.3: Corrected sub-list numbering for Step 3                                                                                                                                                                                                                                                                      | 10                    |                        |                        |
|             |                 | Section 3.5.1.1: Corrected section reference for Step 9                                                                                                                                                                                                                                                                   | 16                    |                        |                        |
|             |                 | Section 5.1.3: Revised wording of Step 5                                                                                                                                                                                                                                                                                  | 21                    |                        |                        |
|             |                 | Section 5.2.2: Revised wording of Step 11<br>Updated "corrosion" note                                                                                                                                                                                                                                                     | 24                    |                        |                        |
|             |                 | Section 10.0: Added "hoist" info from Section 10.1                                                                                                                                                                                                                                                                        | 30                    |                        |                        |
|             |                 | Section 10.1: Deleted "hoist" info                                                                                                                                                                                                                                                                                        | 30                    |                        |                        |
|             |                 | Section 10.2: Revised FAA Approval info to current standard                                                                                                                                                                                                                                                               | 31                    |                        |                        |
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|             |                 | Table 3: Corrected quantities of 099-050-121 and 099-050-222                                                                                                                                                                                                                                                              | 31                    |                        |                        |
|             |                 | Added "Float Kit Component Card," AA-99010, AA-99013, AA-00018, AA-94035, AA94034 to part list                                                                                                                                                                                                                            |                       |                        |                        |
|             |                 | Table 5: Correct P/N for Float Assemblies<br>Corrected ALT P/N for both Skid Tube Assemblies<br>Added NAS1149D0332J to part list                                                                                                                                                                                          | 32 - 33               |                        |                        |
|             |                 | Table 7: Corrected P/N for Float Assemblies                                                                                                                                                                                                                                                                               | 34                    |                        |                        |
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|             |                 | Table 11: Corrected incorrect listing of P/Ns for kits (removed 206-378-101 and 099-088-001 from -103 kit and added them to -105 kit; removed 099-088-011, 099-088-013, 206-001-814-101, 058-390-101, 206-378-041, MS35206-217, and 100-050B500 from -105 kit and added them to -103 kit)<br>Corrected P/N for MS24524-26 | 37                    |                        |                        |
|             |                 | Table 14: Added MS18029-1S5, MS27212-1-5, and RC42GF680J to part list<br>Corrected P/N for NAS1149D0332J                                                                                                                                                                                                                  | 38                    |                        |                        |
|             |                 | Appendix A: Deleted repeated sub-step from Step 8<br>Corrected "500 Flight Hour Inspection" reference<br>Updated "corrosion" note<br>Revised Steps 7 – 10 to match Section 3.3<br>Corrected "3-year Inspection" reference                                                                                                 | 57 - 60               |                        |                        |

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| 08/03/12 | I        | Table 3: Added Alt P/N to Floatstep Kit<br>Added oz. amount to Magnobond<br>Added 890B2-PRC to part list<br><br>Table 5: Updated P/N and ALT P/N for 110-083-4C<br><br>Table 7: Corrected P/N for Float Assemblies<br>Added ALT P/N for 206-369-201, 206-369-203, 206-398-005, 206-398-006, 206-369-001, 206-369-002, 206-369-003, and MS21919WDG8 to part list<br><br>Table 9: Added 206-367-110 and 206-397-110 to part list | 33<br><br><br>35<br>36<br><br>37 | C.Rowe<br>09/18/12                                                                                    | R.Lazaroff<br>09/24/12                                                                          |
| 12/07/12 | J        | Section 3.3, Step 5: Added "outside air temperature (OAT)" to opening note for clarity<br><br>Added Sub-steps d, e, and f<br><br>Added Caution note for "max bag leakage value"<br><br>Appendix A: Updated Step 9 – Float Bag Leak Test to reflect changes made in Section 3.3, Step 5                                                                                                                                         | 12<br><br><br>59 – 60            | <br>10 DEC 07 2012 | <br>12-17-12 |

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## **1.0 INTRODUCTION**

These instructions contain the information necessary to inspect and maintain the **AERONAUTICAL ACCESSORIES 206-365-105 LIGHTWEIGHT EMERGENCY FLOATATION SYSTEM KIT** on Bell Helicopter Textron Canada Limited model 206L, 206L-1, and 206L-3 helicopters and **206-395-001 LIGHTWEIGHT EMERGENCY FLOATATION SYSTEM KIT** on Bell Helicopter Textron Canada Limited model 206L-4 helicopters installed in accordance with STC SR00813AT.

## **1.1 DISTRIBUTION**

These instructions are provided with each Lightweight Emergency Floatation System Kit. Any airworthiness or flight safety revisions will be immediately made available to all affected owners.

## **1.2 REVISION**

A Log of Revision section is included in these instructions and will be utilized to document all changes. Change recommendations should be submitted to:  
Aeronautical Accessories, Bell Helicopter Piney Flats  
P.O. Box 3689  
Bristol, TN 37625-3689  
Email: [techsupport@aero-access.com](mailto:techsupport@aero-access.com)

## **2.0 DESCRIPTION**

The Aeronautical Accessories Lightweight Emergency Floatation System Kit provides an extra measure of safety during flights over water. The Lightweight Emergency Floatation System Kit provides emergency water landing capabilities and adequate time for personnel evacuation. The kit is not designed for amphibious operations.

## **3.0 MAINTENANCE INSTRUCTIONS**

For Skid Tube maintenance, refer to report AA-01145, Instructions for Continued Airworthiness for Aeronautical Accessories Skid Tubes on Bell Helicopter Textron Canada Limited Model 206L, 206L-1, 206L-3, and 206L-4 Helicopters. For Floatstep™ Kit, refer to report AA-01161, Instructions for Continued Airworthiness for Aeronautical Accessories Floatstep™ Kit 206-303-302/-301/-300 on Bell Helicopter Textron Canada Limited Model 206L, 206L-1, 206L-3, and 206L-4 Helicopters with Skid Mounted Lightweight Emergency Floatation System.

### **3.1 RESERVOIR SERVICING INFORMATION**

When pressurizing system reservoir, compare reservoir pressure gauge with master gauge on servicing equipment. Reservoir gauge readings must be within plus or minus 200 psig of master gauge. See Section 7, Special Tools Needed for recommended equipment to service the reservoir. Refer to decal on reservoir for recommended operating pressure.

### **3.2 DAILY / PREFLIGHT CHECK**

The Lightweight Emergency Floatation System Kit shall receive a Daily/Preflight visual check of the following items.

1. Inspect the Lightweight Emergency Floatation System Kit for hardware corrosion, nicks, scratches, or cracks.

#### **NOTE**

The indications of corrosion are 1) corrosion deposits (a white or gray powder on aluminum or rust colored deposits on steel), 2) pits in the aluminum or steel surface, 3) blisters, bulging, or flaking of protective coatings.

2. Inspect for proper installation of hardware or any unusual wear patterns.
3. Inspect the float bottle for proper inflation pressure.
4. Inspect the hoses and float covers for condition and security. Also inspect hose connections with fittings.
5. Inspect the float bottle inflation tubes for condition and security. Also inspect tube connections with fittings.

### **3.3 180 DAY / 500 FLIGHT HOUR INSPECTION**

The Lightweight Emergency Floatation System Kit shall receive an inspection every 180 days or every 500 flight hours consisting of the following items.

1. Every 180 days or every 500 flight hours, whichever comes first, an inspection must be performed, including pressure system and electrical system.
2. Electrical Test Procedures (Each 180 days or every 500 flight hours):
  - a. Position MANUAL ARM switch in OFF position. Engage FLOAT POWER circuit breaker.
  - b. Position instrument panel switch to FLOAT TEST position.

- c. Momentarily actuate float inflation trigger on pilot collective stick. FLOAT TEST segment shall illuminate indicating functional circuitry. FLOAT TEST segment shall extinguish upon release of trigger.
  - d. Position instrument panel switch to NORMAL position.
  - e. Lift guard on MANUAL ARM switch and position switch to ON position. FLOAT ARM segment shall illuminate indicating functional circuitry.
  - f. Disconnect connector from Electrical Valve.
  - g. Depress float inflation trigger on pilot collective stick and check for 28 VDC across Pins A and B on Electrical Valve connector.
  - h. Release float inflation trigger on pilot collective stick and verify 0 voltage across Pins A and B on Solenoid Valve connector. (Operating range is 12 – 30 VDC.)
  - i. Verify continuity across Pins A and B on Electrical Valve connector.
  - j. Close MANUAL ARM switch guard disarming system. FLOAT ARM segment shall extinguish.
  - k. Reconnect connector to Electrical Valve.
3. Float inflation procedure (each reservoir removal and test):
- a. Lift guard on MANUAL ARM switch and position switch to ON position. FLOAT ARM segment shall illuminate.
  - b. Actuate float inflation trigger on pilot collective stick. Float shall inflate.
  - c. Release trigger and close MANUAL ARM switch guard.

**WARNING**

**DO NOT REMOVE RESERVOIR FROM HELICOPTER  
PRIOR TO DISCHARGING.**

4. Float Bags and Inflation Piping (Each 180 days or every 500 flight hours):
- a. Disconnect float inflation lines at fitting above skid. Connect external source of dry shop air to inflation line, unsnap cover over each bag, and inflate bags to normal pressure of 2.25 psig. Inspect bags, hoses and tubing as follows.

**NOTE**

Dry shop air may be used in lieu of nitrogen when checking floats. Use of provided Topping Valve Adapter is required with Apical Industries float bags.

- b. Clean and dry bags and covers. Visually inspect for wear, chafing or abrasion.
- c. Check all clamps, fittings, and hoses for corrosion, abrasion, and security.

**NOTE**

Do not tighten or loosen hex fitting (shear head) at inlet to solenoid valve on reservoir.

5. Float Bag Leak Test

**NOTE**

This test must not be performed if the outside air temperature (OAT) exceeds 100°F (38°C). Do not perform test in the sun.

- a. Inflate bags to 2.25 psig. Readjust pressure after two (2) hours if required.
- b. Record OAT and bag pressure.
- c. After 6 hours, record OAT and bag pressure. See the graph of Figure 16 to determine changes in bag pressure caused by OAT changes.
- d. If OAT increased during test period, use Figure 16 data obtained in Step C to subtract pressure change value from final float bag pressure.

EXAMPLE: Initial Temperature: 70°F (21°C)  
Initial Float Pressure: 2.25 psig  
Final Temperature: 80°F (27°C)  
Final Float Pressure: 2.42 psig

- e. If OAT decreased during test period, use Figure 16 data obtained in Step C to add pressure change value to final float bag pressure.
- f. Subtract corrected final float bag pressure from 2.25 psig to determine leakage rate.

EXAMPLE: Outside temperature change 80° to 70° = 10°F (27° to 21° = 6°C).  
Read from Figure 16.  
Change in bag pressure for 10°F (12°C) = 0.32 psig  
Corrected final bag pressure is 2.42 psig – 0.32 psig = 2.10 psig.  
Leakage rate: 2.25 psig – 2.10 psig = 0.15 psig.

**CAUTION**

**Float bag pressure change due to bag leakage is not to exceed 0.25 psig.**

**CAUTION**

**This floatation system is designed to provide emergency water landing capabilities and adequate time for personnel evacuation. It is not designed for any amphibious operations. For ship salvage, pressurization equipment should be provided to maintain bag pressure between 1.5 and 2.25 psig.**

6. Repack bags and service system.

**NOTE**

Refer to Section 5.3, Float Bag Packing, for float bag packing procedures.

**NOTE**

While pressurizing system reservoir, compare reservoir pressure gauge with master gauge on servicing equipment. Reservoir gauge readings must be within plus or minus 200 psig of master gauge. System reservoir gauges that are faulty must be replaced.

### **3.4 3-YEAR INSPECTION**

Remove and test reservoir assembly cylinder at 3 year intervals in accordance with the specification supplied with the reservoir. Service life is limited to 15 years.

### **3.5 REPAIR**

Allowable repairs will be confined to patching of punctures, tears, and holes not greater than 3 inches in diameter or 2 inches by 10 inches in length. Replacement of complete sections or bulkheads shall not be allowed in the field. For all major repairs contact Aeronautical Accessories.

It is not advisable to perform repairs to floats with the following conditions:

1. Adhesive seam deterioration.
2. Oil, grease, or any other foreign substance-caused deterioration.
3. Mildew deteriorated fabric.
4. Sections of porous fabric.

Repair restrictions:

1. No repair of punctures or tears located less than one inch from bulkhead installation, girt attachment, seam, valve installation reinforcement, strut tunnel or other structural attachment.

2. No replacement of cemented valve installations.
3. No repair or replacement of girts or other float bag to helicopter structural attachments.
4. Patches must not overlap.

**NOTE**

Repair Materials Required: Repair kits are available from Air Cruisers. Float bag part numbers should be provided when ordering repair kits.

**NOTE**

Following repair, refer to Section 5.3, Float Bag Packing, for float bag packing procedures.

### **3.5.1 CEMENT BONDING REPAIRS**

**CAUTION**

**The working area for repairs should be covered with a clean tarpaulin, carpeting or equivalent protection, free of hardware, tools and other sharp objects.**

**NOTE**

Adhesives have a limited pot life and will “go bad” after a specified length of time. Adhesives may not be used after their pot life has expired, as indicated on the container label. Dispose of expired adhesive appropriately.

All mixing containers, cans, stirrers and mixing equipment shall be clean and free of any dirt, contamination and dried adhesive.

Supplies needed:

- Cloth, lint-free cotton, undyed or white, approx. 8 in<sup>2</sup>
- MEK solvent for washing surfaces and activating adhesive
- Adhesive LA 4123
- Soft bristle brush, nylon, ½ or 1-in., size to suit bond area
- Storage containers:
  - o Safety storage can for solvent
  - o Pump (plunger) can
  - o Containers, covered, for brush(es), rag(s), waste solvent, and spent rag(s)
- Hand Tools:
  - o Putty knife (pusher), smooth edged, plastic or metal
  - o Roller

To ensure a proper bond, use the following table to determine the minimum size patch to be used, if applicable.

**REPAIR PATCH SIZING**

| <b>Size of tear</b>   | <b>Minimum overlap on all sides of damaged area</b> |
|-----------------------|-----------------------------------------------------|
| 1/8 inch or less      | 1 inch                                              |
| 1/8 inch to 2 inches  | 2 inches                                            |
| 2 inches to 10 inches | inside patch - 1 inch<br>outside patch - 2 inches   |

**3.5.1.1 HOLES, CUTS, TEARS AND PUNCTURES 3-INCH DIAMETER OR SMALLER**

1. Using a clean cloth, dry the surface to which the patch is to be applied.
2. If surface cannot be cleaned due to build up of chemicals, use 100 grit sandpaper to abrade area to be bonded until achieving a dull appearance.

**NOTE**

Do not touch or handle the cemented areas because oils in the fingers can contaminate the adhesive. Check for dryness by touching with the back of the hand or knuckles only.

**NOTE**

Adhesives have a limited pot life, which means that the adhesive will “go bad” after a specified length of time. Adhesives may not be used after their pot life has expired, as indicated on the container label. Dispose of expired adhesive appropriately.

**NOTE**

The adhesive bonding process is affected by environmental conditions of temperature and humidity. Low temperatures will increase drying and cure times. Adhesive bonding cannot be performed at temperatures lower than 55°F. High humidity may cause moisture to condense on the bond area, as indicated by a foggy white appearance on the cement or component. Before applying additional cement, or before activation, flash (evaporate) the moisture by wiping lightly with additional solvent.

3. Clean the bond area as follows.
  - a. Fold a clean cloth in half, then in half again to form a square. Dampen the cloth with solvent. Squeeze the excess solvent from the cloth, back into the pump can screen.

- b. Wash the bond area by wiping in one direction only to remove all visible contamination and release agents. Do not wipe back and forth; this only smears contaminants.
  - c. Refold the cloth as necessary to keep a clean wiping surface. Each cloth should give eight wiping surfaces. When the cloth is soiled, dispose of it and all chemicals properly.
- 4. Allow the cleaning solvent to evaporate completely before applying adhesive.

**NOTE**

When washing coated fabric, do not allow excess solvent to collect at the edges of seams. Avoid applying solvent to decals or stencil markings (whenever possible) as solvent can remove them.

- 5. Apply the first coat of adhesive to the bond area as follows:
  - a. Brush a uniform coat of adhesive onto the bond area, rubbing the adhesive firmly into the fabric or component.
  - b. Allow the first coat to air dry completely before proceeding. Close the adhesive container when not in active use. Check dryness with the back of your knuckle.
- 6. Apply the second coat of adhesive to the bond area as follows:
  - a. Brush a second uniform coat of adhesive onto the bond area, painting the adhesive lightly over the first coat.
  - b. Allow the second coat to air dry completely before proceeding. Close the adhesive container when not in active use. Check dryness with the back of your knuckle.
- 7. Activate the adhesive by one of the following methods:
  - a. To solvent activate; wipe both cemented surfaces lightly but thoroughly with a clean cloth dampened with solvent. Join the components per step 8 within 15 seconds of activating.
  - b. To heat activate; direct the flow from a hot air gun over both cemented surfaces. Avoid applying too much heat, which may melt the coating or component. When the adhesive feels tacky, immediately proceed to join the components per step 8.

8. Join the components as follows:
  - a. Once activated, immediately align the two mating surfaces and press together in a wallpapering fashion. Use a pusher or roller to expel any entrapped air.
  - b. Press with a pusher or roller over the entire activated area to ensure complete contact.
  - c. When a component is bonded over a seam, tape or other uneven base, press firmly at the edge of the step-off first to avoid bridging. Then bond the remainder of the component.
  - d. Apply the patch gradually from the center to the edges to minimize the possibility of air bubbles being trapped beneath the patch.
  - e. Using a smooth edged putty knife and starting at the center of the patch, apply pressure and move toward the edge of the patch, pushing out any air bubbles or wrinkles. Take special care when pushing the edge of the patch to prevent the edges from lifting.
  - f. When all wrinkles and air bubbles have been eliminated, uniformly roll the joined area using a hand roller.
9. After the patch has dried for approximately 2 hours, the repaired area maybe inflated to a maximum of 1.0 psi. After the repair has dried for 24 hours, the product may be inflated to working pressure and tested in accordance with Section 3.3, Step 5.
10. Clean and inspect the bonded area as follows:
  - a. Clean any adhesive drops and excess adhesive outside the required bond area by wiping with a clean cloth dampened with solvent.
  - b. Inspect for location, overlap, lifts, wrinkles and air bubbles. Reactivate and join to repair these defects.
11. Allow the bonded components to cure undisturbed.
12. Inflate float bags and check for leaks per Section 3.3 step 5.

#### **3.5.1.2 HOLES, CUTS, TEARS AND PUNCTURES NO GREATER THAN 2-INCH X 10-INCH**

##### **NOTE**

These instructions are for repairs to fabric tears that are limited to a 2 x 10 inch maximum tear (curved or straight).

**CAUTION**

**Repair tears by patching both the inside and the outside surfaces of the fabric prior to inflating the float.**

1. Trim off loose threads using scissors.
2. Sprinkle a handful of powdered soapstone or talc inside the float opposite the tear area to prevent joining the inside surfaces of the fabric together.
3. Using a clean cloth, dry all surfaces to which the patches will be applied.
4. Thoroughly clean the inside surface of the fabric around the tear and the underside of one of the patches using a cloth dampened with solvent.
5. Apply adhesive and activate surfaces as instructed in 3.5.1.1, steps 5 thru 7.
6. Fold the patch in half lengthwise and pass the patch through the tear and install it cement-side-up on the inside surface of the float fabric directly under the tear.
7. Immediately apply pressure with a hand roller to bond the patch to the inside of the fabric. Pressure is important for a good bond.
8. If surface cannot be cleaned due to build up of chemicals, use 100 grit sandpaper to abrade outside surface of area to be bonded until achieving a dull appearance.
9. Thoroughly clean the outside surface of the fabric around the tear and the underside of the other patch using a cloth dampened with solvent.
10. Apply adhesive and activate surfaces as instructed in 3.5.1.1, steps 5 thru 7.
11. Apply the patch gradually from the center as instructed in 3.5.1.1, steps 8 thru 11.
12. Inflate float bags and check for leaks per Section 3.3 step 5.

**3.6 CLEANING REQUIREMENTS**

**NOTE**

Use good shop safety precautions and practices at all times when using solvents.

**WARNING**

**USE FLAMMABLE SOLVENTS ONLY IN WELL VENTILATED AREAS. DO NOT INHALE FUMES.**

**NOTE**

Do not apply cleaning solvent to float decals or stencil markings.

Supplies needed:

- Detergent, commercially available, for washing surfaces
- MEK solvent for washing surfaces
- Cloth, lint-free cotton, undyed or white
- Soft bristle brush, nylon, ½ or 1-in.
- Storage container for solvent

1. Float Assembly cleaning

- a. (Preferred Method) Clean float assembly fabric surfaces using detergent soap and water solution or cleaning solvent.
- b. (Alternate Method) Apply cleaning solvent with a clean, soft cloth or a soft bristle nylon brush for areas of oil, dust or dirt. Immediately remove excess solvent with clean soft cloth and dry using compressed air (shop air). The compressed air source should be oil and moisture free and should be equipped with a 20 micron filter for best results.
- c. Allow bag to dry.

**3.7 FLOAT BAG REPACKING  
(SEE SECTION 5.3)**

#### 4.0 TROUBLESHOOTING INFORMATION

**TABLE 1 – TROUBLESHOOTING**

| <b>Problem</b>                                                 | <b>Probable Cause</b>                              | <b>Remedy</b>                                                                                                                                                                              |
|----------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Float Bag(s) do not inflate                                    | A float line is disconnected                       | Ensure that all lines are properly attached to fittings                                                                                                                                    |
|                                                                | Float Bottle is not properly charged               | Ensure that the reservoir is charged to the appropriate pressure. Check to make sure that the bottle is not leaking around mouth of cylinder. If so, contact Aeronautical Accessories (AA) |
|                                                                | Float Inflation Switch bad                         | Replace Switch, contact AA                                                                                                                                                                 |
|                                                                | Wiring incorrect                                   | Ensure wiring is configured per Installation and Operation Instructions                                                                                                                    |
|                                                                | Electrical Inflation Valve is not working properly | Contact AA                                                                                                                                                                                 |
| Float bag(s) inflate but do not stay inflated                  | Hole/Tear in bag(s)                                | Check bag(s) for holes/tears. Refer to Repair Section of this manual                                                                                                                       |
|                                                                | Manual valve in bag(s) open or leaking             | Ensure they are closed. If so, and still leaking refer to Repair Section of this manual                                                                                                    |
| Gauge(s) not reading properly                                  | Packing/Seals are bad                              | Replace with appropriate P/N. See Parts Breakdown                                                                                                                                          |
|                                                                | Gauge(s) is bad                                    | Contact AA for replacement(s)                                                                                                                                                              |
| Float Test light does not illuminate when performing test      | Bulb is out                                        | Replace Bulb                                                                                                                                                                               |
|                                                                | Wiring incorrect                                   | Ensure wiring is configured per Installation and Operation Instructions                                                                                                                    |
| Float Armed light does not illuminate during operation or test | Bulb is out                                        | Replace Bulb                                                                                                                                                                               |
|                                                                | Wiring incorrect                                   | Ensure wiring is configured per Installation and Operation Instructions                                                                                                                    |
| Hoses vibrate in Flight                                        | Clamps loose                                       | Re-tighten and reposition clamps where there is little slack in the hoses                                                                                                                  |
| Reservoir losing pressure                                      | Electrical Inflation Valve leaking                 | Return Electrical Inflation Valve to AA for overhaul                                                                                                                                       |
| Reservoir Depleted                                             | Pressure Relief Valve malfunctioning               | Contact AA and replace with the appropriate P/N                                                                                                                                            |

## **5.0 REMOVAL AND REPLACEMENT INFORMATION**

Refer to Tables 3 thru 14 and Figures 1 thru 5 for part identification.

### **5.1 REMOVAL – FLOATATION KIT**

Refer to Tables 3 thru 14 and Figures 1 thru 5.

#### **5.1.1 REMOVAL – LANDING GEAR**

1. Remove hardware from the fuselage fittings from the aft crosstube. Retain hardware and fittings for reinstallation.
2. Remove hardware from the fuselage fittings from the forward crosstube. Retain hardware and fittings for reinstallation.
3. Raise the helicopter (using hoist or jacks) and remove the floatation landing gear. Temporarily install the original landing gear while working on floatation landing gear. Install using the same fittings and hardware removed in steps 1 and 2. (Ref. BHT Maintenance Manual Instructions.)

#### **5.1.2 REMOVAL – FLOAT BAGS**

1. If bag is inflated, deflate by opening manual valves.
2. If bag is in stowed condition, open bag cover.
3. Disconnect hose at tee fitting near base of crosstube.
4. Remove screws securing bag, cover, and retainers. Retain hardware for re-use.
5. Disconnect hoses from inlet check valves on bottom of bag. Retain for re-use.

#### **5.1.3 REMOVAL – RESERVOIR AND PIPING**

1. Remove Hose Assemblies (099-370-465) from the aft crosstube by removing Clamps (MS21919WDG34, MS21919WDG38, MS21919WDG36) and attaching hardware. Mark location of clamps on the crosstube; remove and retain hardware.
2. Remove Hose Assemblies (099-370-465) from fuselage belly by removing Clamps (MS21919WDG10), Spacers (NAS43DD3-28N), two Washers (NAS1149D0332J), and two Screws (MS27039-1-12). Retain hardware.
3. Disconnect Hose Assemblies (099-370-465) from Tee (206-380-001) and Tee (099-370-170) at the left hand and right hand crosstube fittings.

4. Remove Hose Assembly (099-370-462) and Tube Assembly (206-380-101), by removing Screw (MS27039-1-21), Clamps (MS21919WDG10, MS21919WDG12), Washer (NAS1149D0332J) and Spacer (NAS43DD3-48N) from fuselage belly as shown in figure 4, View C-C.
5. Remove Hose Assembly (099-370-462) from forward crosstube by removing Clamps (MS21919WDG32, MS21919WDG34, MS21919WDG10) and attaching hardware. Mark location of clamps on the crosstube; remove and retain hardware.
6. Disconnect Hose Assembly (099-370-584) from the right hand side of Tee (099-370-171) and Tee (099-370-170) at the right hand forward crosstube fitting.
7. Remove Hose Assembly (099-370-462) from forward crosstube by removing clamps (MS21919WDG32, MS21919WDG34, MS21919WDG10) and attaching hardware. Mark location of the clamps on the crosstube; remove and retain hardware.
8. Disconnect Hose Assembly (099-370-462) from Tee (099-370-171) and Tee (099-370-170) at the left forward crosstube fitting. Retain removed hardware.
9. Disconnect Tube Assembly (206-380-101) from the valve on Reservoir Assembly and Tee (206-380-001) at aft end of Tube Assembly. Retain removed hardware.
10. Holding Tube Assembly (206-380-101) against fuselage belly, remove four Clamps (MS21919WDG12), four Clamps (MS21919WDG10), and attaching hardware from installed inserts. Remove and retain hardware.
11. Disconnect Tee (206-380-001) from Tube Assembly (206-380-103), and disconnect Tube Assembly and Tee from insert in fuselage belly by removing Clamp (MS21919WDG12), Spacer (NAS43DD3-48N), and Screw (MS27039-1-12). Retain hardware.
12. Disconnect Tube Assembly (206-380-101) from the valve on the Reservoir Assembly (206-377-052 or 206-377-053).
13. Remove Clamp Assembly (206-374-081) from through Bracket Assemblies (206-377-030, 206-377-060) to remove Reservoir Assembly (206-377-052 or 206-377-053) from bottom of helicopter.
14. Removal complete.

## **5.2     INSTALLATION – FLOATATION KIT**

Refer to Tables 3 thru 14 and Figures 1 thru 5.

### **5.2.1     INSTALLATION – LANDING GEAR**

1. Remove temporarily installed landing gear.
2. Raise the helicopter (using hoist or jacks) and remove the original crosstube retention straps and the original landing gear assembly (crosstubes and skid tubes). (Ref. BHT Maintenance Manual Instructions.)
3. Place the floatation landing gear in position with crosstube attach points lined up with fuselage fittings.
4. Attach forward crosstube to helicopter with the hardware shown in Figure 3. (Ref. BHT Maintenance Manual Instructions.)
5. Attach aft crosstube to the helicopter with the components and hardware removed from the original. (Ref. BHT Maintenance Manual Instructions.)
6. Torque bolts per Table 2.

**TABLE 2 – STANDARD TORQUE VALUES**

| <b>Fastener Size</b> | <b>Standard Torque Value</b> |
|----------------------|------------------------------|
| #10                  | 20 – 25 in-lbs               |
| ¼"                   | 50 – 70 in-lbs               |
| 5/16"                | 100 – 140 in-lbs             |

## **5.2.2 INSTALLATION – RESERVOIR AND PIPING**

See Figures 3 and 4.

### **CAUTION**

**When received, the inflation nitrogen reservoir is not pressurized. Refer to the Maintenance and Repair Manual for filling instructions, and see "EMERGENCY FLOATATION CYLINDER PRESSURE LIMITS" decal, on side of reservoir. The reservoir must not be pressurized unless it is installed on the helicopter. DO NOT REMOVE RESERVOIR WHILE PRESSURIZED.**

1. To ease removal of lines in future maintenance procedures, grease (Ease-off 990 or equivalent) should be used during installation of threaded system connections.
2. Install Reservoir Assembly (206-377-052 or 206-377-053) on bottom of helicopter (refer to Figures 1 thru 5).
  - a. Put the Clamp Assembly threaded shank through Bracket Assemblies (206-377-030, 206-377-060).
  - b. Hold the Reservoir Assembly (206-377-052 or 206-377-053) up to the Brackets and secure in place with the Clamp Assembly (206-374-081).
  - c. Torque the Clamp Assembly nuts to 10 to 15 in-lbs.
3. Attach Tube Assembly (206-380-101) to the valve on the Reservoir Assembly (206-377-052 or 206-377-053).
4. Connect Tee (206-380-001) to Tube Assembly (206-380-103), and attach Tube Assembly and Tee to insert in fuselage belly using Clamp (MS21919WDG12), Spacer (NAS43DD3-48N), and Screw (MS27039-1-12).
5. Hold Tube Assembly (206-380-101) up to fuselage belly and attach to previously installed inserts using four Clamps (MS21919WDG12), four Clamps (MS21919WDG10), and attaching hardware. Do not tighten clamps at this time.
6. Connect Tube Assembly (206-380-101) to the valve on Reservoir Assembly.
7. Connect Tee (206-380-001) to aft end of Tube Assembly (206-380-101).
8. Connect Hose Assembly (099-370-462) to Tee (099-370-171) and also to Tee (099-370-170) at the left forward crosstube fitting.

9. Attach Hose Assembly (099-370-462) to forward crosstube using clamps (MS21919WDG32, MS21919WDG34, MS21919WDG10) and attaching hardware. Locate the clamps on the crosstube as shown on Figure 3.
10. Connect Hose Assembly (099-370-584) to the right hand side of Tee (099-370-171) and to Tee (099-370-170) at the right hand forward crosstube fitting.
11. Attach Hose Assembly (099-370-462) and Tube Assembly (206-380-101), using Screw (MS27039-1-21), Clamps (MS21919WDG10, MS21919WDG12), Washer (NAS1149D0332J), and Spacer (NAS43DD3-48N), to fuselage belly as shown in figure 4, View C-C. Attach hose assembly (099-370-462) to forward crosstube using Clamps (MS21919WDG32, MS21919WDG34, MS21919WDG10) and attaching hardware. Locate the clamps on the crosstube as shown on Figure 3.
12. Connect two Hose Assemblies (099-370-465) to Tee (206-380-001) and to Tee (099-370-170) at the left hand and right hand crosstube fittings.
13. Attach two Hose Assemblies (099-370-465) to the aft crosstube using Clamps (MS21919WDG34, MS21919WDG10, MS21919WDG38, MS21919WDG36) and attaching hardware. Locate the clamps on the crosstube as shown on Figure 3.
14. Attach two Hose Assemblies (099-370-465) to the fuselage belly using Clamps (MS21919WDG10), Spacers (NAS43DD3-28N), two Washers (NAS1149D0332J), and two Screws (MS27039-1-12).
15. Now tighten the clamps left loose in step 5 which hold tube assembly (206-380-101) to the fuselage belly.
16. If cargo hook kit wiring is installed, revise clamping arrangement using existing clamp with new screw (MS27039-1-06).
17. Prior to installation of Float Bags, carefully inspect area of skid tube for damage and corrosion.

**NOTE**

The indications of corrosion are 1) corrosion deposits (a white or gray powder on aluminum or rust colored deposits on steel), 2) pits in the aluminum or steel surface, 3) blisters, bulging, or flaking of protective coatings..

Refer to Section 5.0 for repair and procedures.

### **5.2.3 INSTALLATION – FLOAT BAGS**

1. Attach the Float Cover between the Retaining Strip (206-379-001) and the flap of the Float Bag. Install into the inside of the skid gear with six screws (AN525-10R10) provided.

For BHTCL models 206L, 206L-1, and 206L-3 continue to step 2, omit step 3; for BHTCL model 206L-4 omit step 2, skip to step 3.

2. Attach the Float Cover between the Retaining Strip (206-379-001) and the flap of the Float Bag. Install into the inside of the skid gear with eleven provided Screws (AN525-10R10).
3. Attach the Float Cover between the Retaining Strip (206-379-005 (L/H) / 206-379-006 (R/H)) and the flap of the Float Bag. Install into the inside of the skid gear with eleven provided Screws (AN525-10R10).
4. Attach the Float Cover between the Retaining Strip (206-379-003) and the flap of the Float Bag. Install into the inside of the skid gear with provided hardware (AN525-10R10).

#### **NOTE**

Apply grease (Ease-Off 990) to all stainless fittings.

5. Attach the appropriate lines to the Float Bags (see Figures 3 and 4).
6. Making sure the lines are under the Float Bag, match the holes for the Float Bag to the outside of the skid gear. Install Cover and Retaining Strip into the outside holes of the skid gear using Screws (AN525-10R10).
7. Put Tee (099-370-170) into the lines connecting the Forward and Center float bags. Attach the lines to the Bracket Assembly using the Clamp (MS21919WDG8), Screw (MS27039-1-07), and Washer (NAS1149D0332J).
8. Put lines into the Aft Float Bag.
9. Assemble Tee Assembly using Elbow (AS1038J0806/110-083-4C), Nut (AN924-8J), Union (AN832-8J), Tee (AN938J8), and Packing (MS28778-8).
10. Place Tee Assembly into Bracket (206-375-003).
11. Install Aft float lines into elbow of Tee Assembly.
12. Repeat steps 1 through 11, as applicable, for R/H installation.
13. Float Bag installation complete.

### **5.3 FLOAT BAG PACKING**

#### **5.3.1 PREPARATION FOR PACKING FLOAT BAGS.**

1. Provide clean dry area to spread bags.
2. Open manual inflation valve on bag by turning in direction indicated. Attach vacuum with adapter to manual inflation valve. Exhaust all air while smoothing out as many creases and wrinkles as possible. Close manual inflation valve. Remove vacuum and adapter.

**NOTE**

Always ensure manual valves are closed before repacking floats.

3. Apply powdered soapstone or talc liberally to outside surface of bags.

**NOTE**

Packing procedures are identical for left and right side float bags.

#### **5.3.2 FORWARD FLOAT BAG PACKING.**

1. Spread collapsed float bag flat on outboard side of skid tube. See Figures 6 and 7.
2. Fold rounded aft bulkhead of bag forward and flat on top of bag. Check that folded rear edge of bag is inside the dimensions of cover underneath bag.
3. Fold cone shaped part of bag aft and flat on top of bag. Check that folded forward edge of bag is inside the dimensions of cover underneath bag.
4. Roll float bag tightly toward skid tube. Hold bag on top of skid tube. Install cover around bag.
5. Secure inside hook fasteners and snap fasteners to corresponding pile and snap fasteners on girt. Hose must extend out rear of bag toward tee at crosstube.
6. Install lacing cord in cover. Use crossover method. Pull taut and tie to close gap in cover.
7. Tuck in loose ends of lacing cord. Close outside hook and pile fasteners along length of cover. Close end flaps with hook and pile fasteners.

### **5.3.3 MID FLOAT BAG PACKING.**

1. Spread collapsed float bag flat on outboard side of skid tube.  
See Figures 8 thru 10 for BHTCL model 206L, 206L-1, and 206L-3.  
See Figures 11 thru 13 for BHTCL model 206L-4.
2. Fold rounded forward bulkhead of bag aft, with half of fold flat against top of bag and half of fold flat against bottom of bag.
3. Fold cone shaped part of bag forward until folded aft edge of bag is inside dimensions of cover underneath bag. At this point, cone will extend beyond cover underneath bag at front.
4. Fold cone end of bag back on itself so that forward folded edge is inside the dimensions of cover underneath.
5. Roll folded bag from outer edge toward skid tube as tightly as possible, until roll is on top of skid tube.
6. Hold bag on top of skid tube and install cover.
7. Secure inside hook fasteners and snap fasteners on cover to corresponding pile and snap fasteners on girt. Hose must extend out front of bag toward tee at crosstube.
8. Install lacing cord in cover. Use crossover method. Pull taut and tie to close gap in cover.
9. Tuck in loose ends of lacing cord. Close outside hook and pile fasteners along length of cover. Close end flaps with hook and pile fasteners.

### **5.3.4 AFT FLOAT BAG PACKING.**

1. Spread collapsed float bag flat on outboard side of skid tube. See Figures 14 and 15.
2. Fold rounded forward bulkhead of bag aft, with half of fold flat against top of bag and half of fold flat against bottom of bag.
3. Fold aft end of bag forward, so that folded edge is inside the dimensions of cover underneath.
4. Roll bag toward skid tube as compactly as possible. Keep two hoses toward center of roll.
5. Hold bag on top of skid tube. Install cover around bag.

6. Secure inside hook fasteners and snap fasteners on cover to corresponding pile and snap fasteners on girt.
7. Install lacing cord in cover. Use crossover method. Pull taut and tie to close gap in cover.
8. Tuck in loose ends of lacing cord. Close outside hook and pile fasteners along length of cover. Close end flaps with hook and pile fasteners.

## **6.0 STRUCTURAL FASTENER DATA**

For hardware identification refer to Tables 1 and 2 and Figures 1 thru 5.

## **7.0 SPECIAL TOOLS NEEDED**

Two separate gas boosters, which would enable the operator to charge the system from standard (2260 psi) nitrogen cylinders, are procurable. The description of and supplier for each unit is as follows:

Haskel Gas Booster Model No. 17934 and 17934-1  
Weight: 40 pounds  
Compression Ratio: 30:1

Driving Power Requirement: 100 psi minimum, 140 psi maximum, source of unit power is the same for cylinder as for system supply.

Haskel Engineer and Supply Company  
100 East Graham Place  
Burbank, California 91502

### **NOTE**

Use instructions provided with the booster by the manufacturer.

Futurecraft Pneumatic Pressure Intensifier, Model No. 90987  
Weight: Approximately 20 pounds  
Compression Ratio: 10:1

Driving Power Requirement: 300 psi minimum, source of unit power is the same for cylinder as for system supply.

Futurecraft Corporation  
15430 Proctor Avenue  
City of Industry, California 91747

## 8.0 OVERHAUL PERIODS

Overhaul of the Electric Valve Assembly (099-370-150) is required after every **6-years** of service, concurrent with the second reservoir hydrostatic test. Service life starts at the first installation date on the aircraft and runs uninterrupted thereafter.

### NOTE

The Electrical Valve Assembly cannot be disassembled in the field. Repair and overhaul is not approved in the field. The Electrical Valve Assembly must be returned to Aeronautical Accessories for overhaul or exchange. Aeronautical Accessories will maintain an exchange pool of valves to allow continued operation.

A Historical Service Record Card (component card) is included with the Electrical Valve Assembly for use in recording the service and transfer procedures performed on it. It is to accompany the Electrical Valve Assembly when it is returned for overhaul. Upon initially receiving the Historical Service Record Card, fill in the appropriate part number and serial number of the Electrical Valve Assembly at the top. Additionally, record the initial installation date and the aircraft serial number in the corresponding blocks. The service record portion of the card is provided to document all installation and removal actions and to track component time toward overhaul. Upon transfer, the appropriate Electrical Valve Assembly shipping and receiving information shall be recorded in the corresponding blocks of the transfer record.

## 9.0 WEIGHT AND BALANCE

| Helicopter                                                                                                             | Kit          | Weight                     | Longitudinal              |                                 | Lateral                    |                            |
|------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------|---------------------------|---------------------------------|----------------------------|----------------------------|
|                                                                                                                        |              |                            | Arm                       | Moment Change                   | Arm                        | Moment                     |
| 206L / L-1 / L-3                                                                                                       | 206-365-105  | +145.8 lbs.<br>(+66.27 kg) | 110.5 inches<br>(2807 mm) | + 16,111 in-lbs.<br>(+1820 N-M) | + 0.2 inches<br>(+5.08 mm) | + 29 in-lbs.<br>(+3.3 N-M) |
| 206L-4                                                                                                                 | 206-395-001  | +149.3 lbs.<br>(+67.86 kg) | 104.8 inches<br>(2662 mm) | + 15,647 in-lbs.<br>(+1768 N-M) | + 0.1 inches<br>(+2.54 mm) | + 15 in-lbs.<br>(+1.7 N-M) |
| 206L-4                                                                                                                 | 206-395-001* | +153.2 lbs.<br>(+69.64 kg) | 104.8 inches<br>(2662 mm) | + 15,647 in-lbs.<br>(+1768 N-M) | + 0.1 inches<br>(+2.54 mm) | + 15 in-lbs.<br>(+1.7 N-M) |
| In lateral calculations, (-) is left, (+) is right.<br>* Weight for float kit containing skid tube with carbide shoes. |              |                            |                           |                                 |                            |                            |

## **10.0 AIRWORTHINESS LIMITATIONS**

This schedule lists the maximum airworthiness life of the reservoir and electric valve assembly. Service life starts at the first installation date on the aircraft and runs uninterrupted thereafter.

If a rescue hoist is installed, you must have the Aeronautical Accessories Skid Cable Guard P/N 206-990-200 installed to prevent possible interference between cable and float.

## **10.1 RESERVOIR ASSEMBLY**

The reservoir shall be removed from service and replaced before life limit is exceeded. Inspection and Testing intervals include a hydrostatic test required every three years in accordance with specifications supplied with reservoir.

## 10.2 ELECTRIC VALVE ASSEMBLY

The electric valve assembly shall be removed from service and replaced with a new/overhauled valve assembly before life limit is exceeded, concurrent with the second reservoir hydrostatic test.

| <u>PART NUMBER (1)</u>                                                                                                                                                                                                               | <u>COMPONENT</u>        | <u>LIFE LIMIT</u> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------|
| <b>NOTE</b>                                                                                                                                                                                                                          |                         |                   |
| Service life of reservoir starts at date of manufacture and continues uninterrupted thereafter. Service life of electric valve assembly starts at date of first installation on the aircraft and continues uninterrupted thereafter. |                         |                   |
| 206-376-103                                                                                                                                                                                                                          | Reservoir Assembly      | (2)               |
| 099-370-150                                                                                                                                                                                                                          | Electric Valve Assembly | (3)               |
| <b>NOTES:</b>                                                                                                                                                                                                                        |                         |                   |
| (1) The airworthiness limitation for the part number listed applies to all successive dash numbers for that component unless otherwise specified.                                                                                    |                         |                   |
| (2) Maximum service life limit is 15 years from date of manufacture.                                                                                                                                                                 |                         |                   |
| (3) Maximum service life limit between overhauls is 6 years from date of installation.                                                                                                                                               |                         |                   |

The Airworthiness Limitations Section is FAA approved and specifies maintenance required under §§ 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

| <b>AIRWORTHINESS LIMITATIONS REVISION HISTORY</b> | <b>FAA APPROVAL</b> | <b>DATE</b> |
|---------------------------------------------------|---------------------|-------------|
| Report Revision NR                                | N/A                 | —           |
| Report Revision A                                 | N/A                 | —           |
| Report Revision B                                 | N/A                 | —           |
| Report Revision C                                 | N/A                 | —           |
| Report Revision D                                 | N/A                 | —           |
| Report Revision E                                 | N/A                 | —           |
| Report Revision F                                 | Lance Gant          | 08/06/08    |
| Report Revision G                                 | John Hardie         | 12/21/10    |
| Report Revision H                                 | N/A                 | —           |
| Report Revision I                                 | N/A                 | —           |

## 11.0 PARTS BREAKDOWN

Table 3 contains Parts Breakdown data for Lightweight Emergency Floatation System Kit 206-365-105 for BHTCL model 206L, 206L-1, and 206L-3 helicopters and Lightweight Emergency Floatation System Kit 206-395-001 for BHTCL model 206L-4 helicopters. Tables 4 thru 14 contain Parts Breakdown data for kits and supplementary kits and assemblies listed in Table 3.

The column Availability Code (AV Code) specifies the procurement status for each part. The codes to identify if a part is procurable, procedure details to get an assembly or local manufacture code are as follows:

| AV Code | Details                                                                                                            |
|---------|--------------------------------------------------------------------------------------------------------------------|
| 0       | Nonprocurable part                                                                                                 |
| 1       | Procurable part                                                                                                    |
| 2       | Procure as detail parts only                                                                                       |
| 3       | Procurable as Next Higher Assembly                                                                                 |
| 4       | Local manufacture. Contact Aeronautical Accessories, Bell Helicopter Piney Flats Product Support Engineering (PSE) |
| 5       | Part replacement requires a fixture or special equipment. Contact PSE                                              |
| 6       | Non-stock procurable part                                                                                          |

**TABLE 3 – PARTS BREAKDOWN**  
**206-365-105 LIGHTWEIGHT EMERGENCY FLOATATION SYSTEM KIT**  
**206-395-001 LIGHTWEIGHT EMERGENCY FLOATATION SYSTEM KIT**

| Qty<br>-365-105 | Qty<br>-395-001 | Part Number  | Description                              | AV<br>Code |
|-----------------|-----------------|--------------|------------------------------------------|------------|
| 1               |                 | 206-369-105  | Landing Gear Kit                         | 1          |
|                 | 1               | 206-398-100  | Landing Gear Kit                         | 1          |
| 1               |                 | 206-367-105  | Reservoir and Piping Kit                 | 1          |
|                 | 1               | 206-397-001  | Reservoir and Piping Kit                 | 1          |
|                 | 1               | 206-366-103  | Electrical Installation Kit              | 1          |
| 1               |                 | 206-366-105  | Electrical Installation Kit              | 1          |
| 1               | 1               | 206-303-302  | Floatstep® Kit (ALT: 206-300-301)        | 1          |
| 2               | 2               | 099-050-121  | Magnobond 6398 (A&B), 8 oz.              | 1          |
| 2               | 2               | 099-050-222  | Sealant                                  | 1          |
|                 | 2               | 890B2-PRC    | Proseal, 6 oz.                           | 1          |
| 1               | 1               | 59231        | Pipe Sealant                             | 1          |
| 1               | 1               | EASE-OFF 990 | Grease                                   | 1          |
| 1               | 1               |              | Float Kit Component Card                 | 1          |
|                 | 1               | AA-99010     | Installation and Operation Manual        | 1          |
|                 | 1               | AA-99013     | Flight Manual Supplement                 | 1          |
| 1               | 1               | AA-00018     | Instructions for Continued Airworthiness | 1          |
| 1               |                 | AA-94035     | Installation and Operation Instructions  | 1          |
| 1               |                 | AA-94034     | Flight Manual Supplement                 | 1          |

## AERONAUTICAL ACCESSORIES

**TABLE 4 – PARTS BREAKDOWN  
206-369-105 LANDING GEAR KIT L3  
206-398-100 LANDING GEAR KIT L4**

| Index No.* | Qty -369-105 | Qty -398-100 | Part Number   | Description                | AV Code |
|------------|--------------|--------------|---------------|----------------------------|---------|
| 37         | 2            | 2            | 206-343-113   | Strap Assembly             | 1       |
| --         | 1            |              | 206-369-111   | Skid Tube Assembly (L/H)   | 1       |
| --         | 1            |              | 206-369-112   | Skid Tube Assembly (R/H)   | 1       |
| --         | 1            |              | 206-369-121   | Forward Crosstube Assembly | 1       |
| --         | 1            |              | 206-369-122   | Aft Crosstube Assembly     | 1       |
| --         |              | 1            | 206-398-111   | Skid Tube Assembly (L/H)   | 1       |
| --         |              | 1            | 206-398-112   | Skid Tube Assembly (R/H)   | 1       |
| --         |              | 1            | 206-398-121   | Forward Crosstube Assembly | 1       |
| --         |              | 1            | 206-398-122   | Aft Crosstube Assembly     | 1       |
| --         | 2            | 2            | 601-029-103   | Support Install Assembly   | 1       |
| --         | 12           | 12           | NAS1149D0463J | Washer (Alt: AN960JD416)   | 1       |
| 78         | 4            | 4            | NAS6604-13    | Bolt (Alt: NAS1304-13)     | 1       |

\* Index No. reference Figures 1 thru 5.

**L3  
TABLE 5 – PARTS BREAKDOWN  
206-369-111 SKID TUBE ASSEMBLY (L/H)  
206-369-112 SKID TUBE ASSEMBLY (R/H)**

| Index No.* | Qty -111 | Qty -112 | Part Number | Description                                     | AV Code |
|------------|----------|----------|-------------|-------------------------------------------------|---------|
| --         | 1        |          | 206-324-459 | Skid Tube Assembly (L/H) (Alt: 206-323-259)     | 1       |
| --         |          | 1        | 206-324-460 | Skid Tube Assembly (R/H) (Alt: 206-323-260)     | 1       |
| 20         | 2        | 2        | 206-369-201 | Cover Assembly w/Strings (ALT: 206-050-247-101) | 1       |
| 21         | 1        | 1        | 206-369-203 | Cover Assembly w/Strings (ALT: 206-050-247-103) | 1       |
| 27         | 1        | 1        | 206-375-003 | Bracket                                         | 1       |
| 26         | 1        | 1        | 206-375-004 | Bracket Assembly                                | 1       |
| 16         | 2        | 2        | 206-379-001 | Retainer                                        | 1       |
| 17         | 4        | 4        | 206-379-003 | Retainer                                        | 1       |
| 23         | 1        | 1        | 206-369-001 | Float Assembly                                  | 1       |
| 24         | 1        | 1        | 206-369-002 | Float Assembly                                  | 1       |
| 25         | 1        | 1        | 206-369-003 | Float Assembly                                  | 1       |
| 34         | 1        | 1        | 099-370-170 | Tee                                             | 1       |
| 33         | 1        | 1        | 099-370-180 | Hose Assembly                                   | 1       |
| 31         | 1        | 1        | 099-370-181 | Hose Assembly                                   | 1       |
| 32         | 1        | 1        | 099-370-182 | Hose Assembly                                   | 1       |
| 38         | 1        |          | 099-370-183 | Hose Assembly (R/H Aft)                         | 1       |

**TABLE 5 – PARTS BREAKDOWN  
206-369-111 SKID TUBE ASSEMBLY (L/H)  
206-369-112 SKID TUBE ASSEMBLY (R/H)**

| Index No.*                              | Qty -111 | Qty -112 | Part Number   | Description              | AV Code |
|-----------------------------------------|----------|----------|---------------|--------------------------|---------|
| 39                                      |          | 1        | 099-370-184   | Hose Assembly (L/H Aft)  | 1       |
| 40                                      |          | 1        | 099-370-185   | Hose Assembly (L/H Aft)  | 1       |
| 41                                      | 1        |          | 099-370-186   | Hose Assembly (R/H Aft)  | 1       |
| --                                      | 2        | 2        | 600.0209      | Adapter, Topping Valve   | 1       |
| 42                                      | 2        | 2        | 110-083-4C    | Elbow (Alt: AS1038J0806) | 1       |
| 15                                      | 56       | 56       | AN525-10R10   | Screw                    | 1       |
| 44                                      | 1        | 1        | AN832-8J      | Union                    | 1       |
| 43                                      | 3        | 3        | AN924-8J      | Nut                      | 1       |
| 45                                      | 1        | 1        | AN938J8       | Tee                      | 1       |
| 30                                      | 1        | 1        | MS21919WDG8   | Clamp                    | 1       |
| 28                                      | 1        | 1        | MS27039-1-07  | Screw                    | 1       |
| 46                                      | 3        | 3        | MS28778-8     | Packing                  | 1       |
| 29                                      | 1        | 1        | NAS1149D0332J | Washer (ALT: AN960JD10L) | 1       |
| * Index No. reference Figures 1 thru 5. |          |          |               |                          |         |

**TABLE 6 – PARTS BREAKDOWN  
206-369-121 FORWARD CROSSTUBE ASSEMBLY  
206-369-122 AFT CROSSTUBE ASSEMBLY**

| Index No.*                              | Qty -121 | Qty -122 | Part Number   | Description              | AV Code |
|-----------------------------------------|----------|----------|---------------|--------------------------|---------|
| --                                      | 1        |          | 206-323-021   | Forward Crosstube        | 1       |
| --                                      |          | 1        | 206-323-022   | Aft Crosstube            | 1       |
| 59                                      |          | 1        | 206-380-001   | Tee                      | 1       |
| 53                                      | 1        |          | 099-370-171   | Tee                      | 1       |
| 51                                      | 1        |          | 099-370-462   | Hose Assembly            | 1       |
| 58                                      |          | 2        | 099-370-465   | Hose Assembly            | 1       |
| 52                                      | 1        |          | 099-370-584   | Hose Assembly            | 1       |
| 56                                      | 6        | 6        | MS21042L3     | Nut                      | 1       |
| 54                                      | 6        | 6        | MS21919WDG10  | Clamp                    | 1       |
| 49                                      | 2        |          | MS21919WDG32  | Clamp                    | 1       |
| 50                                      | 4        | 2        | MS21919WDG34  | Clamp                    | 1       |
| 60                                      |          | 2        | MS21919WDG36  | Clamp                    | 1       |
| 57                                      |          | 2        | MS21919WDG38  | Clamp                    | 1       |
| 55                                      | 6        | 6        | MS27039-1-08  | Screw                    | 1       |
| 29                                      | 6        | 6        | NAS1149D0332J | Washer (Alt: AN960JD10L) | 1       |
| * Index No. reference Figures 1 thru 5. |          |          |               |                          |         |

**L4****TABLE 7 – PARTS BREAKDOWN  
206-398-111 SKID TUBE ASSEMBLY (L/H)  
206-398-112 SKID TUBE ASSEMBLY (R/H)**

| <b>Index No.*</b> | <b>Qty -111</b> | <b>Qty -112</b> | <b>Part Number</b> | <b>Description</b>                              | <b>AV Code</b> |
|-------------------|-----------------|-----------------|--------------------|-------------------------------------------------|----------------|
| --                | 1               |                 | 206-324-457        | Skid Tube Assembly (L/H) (Alt: 206-324-257)     | 1              |
| --                |                 | 1               | 206-324-458        | Skid Tube Assembly (R/H) (Alt: 206-324-258)     | 1              |
| 21                | 1               | 1               | 206-369-201        | Cover Assembly (Alt: 206-050-247-101)           | 1              |
| 20                | 1               | 1               | 206-369-203        | Cover Assembly (Alt: 206-050-247-103)           | 1              |
| 27                | 1               | 1               | 206-375-003        | Bracket                                         | 1              |
| 26                | 1               | 1               | 206-375-004        | Bracket Assembly                                | 1              |
| 16                | 2               | 2               | 206-379-001        | Retainer                                        | 1              |
| 17                | 2               | 2               | 206-379-003        | Retainer                                        | 1              |
| 18                | 1               | 1               | 206-379-005        | Retainer (L/H)                                  | 1              |
| 19                | 1               | 1               | 206-379-006        | Retainer (R/H)                                  | 1              |
| 23                | 1               | 1               | 206-398-001        | Float Assembly (Alt: 206-050-248-119)           | 1              |
| 24                | 1               | 1               | 206-398-002        | Float Assembly (Alt: 206-050-248-123)           | 1              |
| 25                | 1               | 1               | 206-398-003        | Float Assembly (Alt: 206-050-248-121)           | 1              |
| 22                | 1               |                 | 206-398-005        | Cover Assembly w/Strings (Alt: 206-050-247-125) | 1              |
| 11                |                 | 1               | 206-398-006        | Cover Assembly w/Strings (Alt: 206-050-247-126) | 1              |
| 34                | 1               | 1               | 099-370-170        | Tee (Alt: AS1035J080608: 110-080-9C)            | 1              |
| 33                | 1               | 1               | 099-370-180        | Hose Assembly                                   | 1              |
| 31                | 1               | 1               | 099-370-181        | Hose Assembly                                   | 1              |
| 32                | 1               | 1               | 099-370-182        | Hose Assembly                                   | 1              |
| 38                | 1               |                 | 099-370-183        | Hose Assembly (R/H Aft)                         | 1              |
| 39                |                 | 1               | 099-370-184        | Hose Assembly (L/H Aft)                         | 1              |
| 40                |                 | 1               | 099-370-185        | Hose Assembly (L/H Aft) (Alt: 099-370-186)      | 1              |
| 41                | 1               |                 | 099-370-186        | Hose Assembly                                   | 1              |
| --                | 2               | 2               | 600.0209           | Adapter, Topping Valve                          | 1              |
| 15                | 52              | 52              | AN525-10R10        | Screw                                           | 1              |
| 44                | 1               | 1               | AN832-8J           | Union                                           | 1              |
| 43                | 3               | 3               | AN924-8J           | Nut                                             | 1              |
| 45                | 1               | 1               | AN938J8            | Tee                                             | 1              |
| 42                | 2               | 2               | AS1038J0806        | Elbow (Alt: 110-083-4C)                         | 1              |
| 30                | 1               | 1               | MS21919WDG8        | Clamp (Alt: MS21919WDG12)                       | 1              |
| 28                | 1               | 1               | MS27039-1-07       | Screw                                           | 1              |
| 46                | 3               | 3               | MS28778-8          | Packing                                         | 1              |
| 29                | 1               | 1               | NAS1149D0332J      | Washer (Alt: AN960JD10L)                        | 1              |
| 61                | 12              | 12              | NAS1149F0563P      | Washer                                          | 1              |
| 62                | 4               | 4               | NAS43HT-5-8        | Spacer                                          | 1              |
| 63                | 4               | 4               | NAS6605-11         | Bolt                                            | 1              |

\* Index No. reference Figures 1 thru 5.

**AERONAUTICAL ACCESSORIES**

**TABLE 8 – PARTS BREAKDOWN  
206-398-121 FORWARD CROSSTUBE ASSEMBLY  
206-398-122 AFT CROSSTUBE ASSEMBLY**

| Index No.* | Qty -121 | Qty -122 | Part Number   | Description              | AV Code |
|------------|----------|----------|---------------|--------------------------|---------|
| --         | 1        |          | 206-323-021   | Forward Crosstube        | 1       |
| --         |          | 1        | 206-323-022   | Aft Crosstube            | 1       |
| 59         |          | 1        | 206-380-001   | Tee                      | 1       |
| 53         | 1        |          | 099-370-171   | Tee                      | 1       |
| 51         | 1        |          | 099-370-462   | Hose Assembly            | 1       |
| 58         |          | 2        | 099-370-465   | Hose Assembly            | 1       |
| 52         | 1        |          | 099-370-584   | Hose Assembly            | 1       |
| 56         | 6        | 6        | MS21042L3     | Nut                      | 1       |
| 54         | 6        | 6        | MS21919WDG10  | Clamp                    | 1       |
| 49         | 2        |          | MS21919WDG32  | Clamp                    | 1       |
| 50         | 4        | 2        | MS21919WDG34  | Clamp                    | 1       |
| 60         |          | 2        | MS21919WDG36  | Clamp                    | 1       |
| 57         |          | 2        | MS21919WDG38  | Clamp                    | 1       |
| 55         | 6        | 6        | MS27039-1-08  | Screw                    | 1       |
| 29         | 6        | 6        | NAS1149D0332J | Washer (Alt: AN960JD10L) | 1       |

\* Index No. reference Figures 1 thru 5.

**TABLE 9 – PARTS BREAKDOWN  
206-367-105 RESERVOIR AND PIPING KIT  
206-397-001 RESERVOIR AND PIPING KIT**

| Index No.* | Qty -367-105 | Qty -397-001 | Part Number   | Description              | AV Code |
|------------|--------------|--------------|---------------|--------------------------|---------|
| --         | 1            |              | 206-367-110   | Reservoir Assembly       | 1       |
|            |              | 1            | 206-397-110   | Reservoir Assembly       | 1       |
| 29         | 12           | 12           | NAS1149D0332J | Washer (Alt: AN960JD10L) | 1       |
| 10         | 1            | 1            | MS21919WDG3   | Clamp                    | 1       |
| 54         | 3            | 3            | MS21919WDG10  | Clamp                    | 1       |
| 4          | 5            | 5            | MS21919WDG12  | Clamp                    | 1       |
| 6          | 4            | 4            | MS27039-1-06  | Screw                    | 1       |
| 7          | 3            | 3            | MS27039-1-12  | Screw                    | 1       |
| 12         | 1            | 1            | MS27039-1-20  | Screw                    | 1       |
| 2          | 1            | 1            | MS27039-1-21  | Screw                    | 1       |
| 8          | 3            | 3            | NAS43DD3-28N  | Spacer                   | 1       |
| 3          | 2            | 2            | NAS43DD3-48N  | Spacer                   | 1       |
| 9          | 1            | 1            | 206-380-101   | Tube Assembly            | 1       |
| 5          | 1            | 1            | 206-380-103   | Tube Assembly            | 1       |
| --         | 7            | 7            | 80-005-2-16   | Insert                   | 1       |
| --         | 8            | 8            | 80-007-16-3   | Insert                   | 1       |

\* Index No. reference Figures 1 thru 5.

**AERONAUTICAL ACCESSORIES**

**TABLE 10 – PARTS BREAKDOWN  
206-367-110 RESERVOIR ASSEMBLY  
206-397-110 RESERVOIR ASSEMBLY**

| Index No.**                      | Qty -367-110 | Qty -397-110 | Part Number | Description                              | AV Code |
|----------------------------------|--------------|--------------|-------------|------------------------------------------|---------|
| --                               | 1            |              | 206-376-102 | Reservoir Assembly Instructions          | 1       |
| --                               |              | 1            | 206-376-103 | Reservoir Assembly Instructions          | 1       |
| 1                                | 1            | 1            | AN834-12J   | Tee                                      | 1       |
| 2                                | 2            | 2            | AN6289J12   | Nut                                      | 1       |
| 3                                | 2            | 2            | MS28773-12  | Retainer                                 | 1       |
| 4                                | 2            | 2            | MS28778-12  | Packing                                  | 1       |
| 5                                | 1            | 1            | 099-370-150 | Valve Assembly – Electric                | 1       |
| 6                                | 1            | 1            | 099-370-130 | Pressure Gauge                           | 1       |
| 7                                | 1            | 1            | AN6289J4    | Nut                                      | 1       |
| 8                                | 1            | 1            | MS28773-4   | Retainer                                 | 1       |
| 9                                | 1            | 1            | MS28778-4   | Packing                                  | 1       |
| 10                               | 1            | 1            | MS28889-2   | Charging Valve                           | 1       |
| 11                               | 1            | 1            | 099-370-140 | Fusible Plug                             | 1       |
| 12                               | 1            | 1            | MS28778-6   | Packing                                  | 1       |
| 13                               | 1            |              | 099-370-103 | Valve-Pressure Relief (Alt: 099-370-100) | 1       |
| 14                               |              | 1            | 099-370-105 | Valve-Pressure Relief                    | 1       |
| 15                               | 1            | 1            | 099-370-120 | Adapter                                  | 1       |
| ** Index No. reference Figure 5. |              |              |             |                                          |         |

**TABLE 11 – PARTS BREAKDOWN  
206-366-103 ELECTRICAL INSTALLATION KIT /  
206-366-105 ELECTRICAL INSTALLATION KIT**

| <b>Qty<br/>-103</b> | <b>Qty<br/>-105</b> | <b>Part Number</b> | <b>Description</b>              | <b>AV Code</b> |
|---------------------|---------------------|--------------------|---------------------------------|----------------|
| 1                   | 1                   | 206-366-300        | Wiring Kit                      | 1              |
| 1                   | 1                   | 099-121-101        | Annunciator Lens Panel Assembly | 1              |
| 1                   | 1                   | 099-121-102        | Annunciator Lens Panel Assembly | 1              |
|                     | 1                   | 206-378-101        | Float Switch Assembly           | 1              |
|                     | 1                   | 099-088-001        | Decal                           | 1              |
| 1                   | 1                   | 099-088-005        | Decal                           | 1              |
| 1                   | 1                   | 099-088-007        | Decal                           | 1              |
| 1                   | 1                   | 099-088-009        | Decal                           | 1              |
| 1                   |                     | 099-088-011        | Decal                           | 1              |
| 1                   |                     | 099-088-013        | Decal                           | 1              |
| 1                   | 1                   | MS26574-5          | Circuit Breaker                 | 1              |
| 1                   | 1                   | MS24523-22         | Switch                          | 1              |
| 1                   | 1                   | MS25224-1          | Guard                           | 1              |
| 1                   | 1                   | MS24524-26         | Switch                          | 1              |
| 3                   | 3                   | M39029/35-274      | Contact                         | 1              |
| 2                   | 2                   | M39029/56-351      | Contact                         | 1              |
| 11                  | 11                  | MS25036-102        | Ring Terminal                   | 1              |
| 1                   | 1                   | MS25036-103        | Ring Terminal                   | 1              |
| 1                   | 1                   | MS25036-111        | Ring Terminal                   | 1              |
| 1                   | 1                   | MS25036-156        | Ring Terminal                   | 1              |
| 2                   | 2                   | MS35206-218        | Screw                           | 1              |
| 2                   | 2                   | NAS1149DN432J      | Washer (Alt: AN960JD4)          | 1              |
| 2                   | 2                   | MS21044N04         | Nut                             | 1              |
|                     | 1                   | MS35489-33         | Grommet                         | 1              |
| 1                   | 1                   | MS27467T9B98S      | Connector                       | 1              |
| 1                   | 1                   | M85049/76-08W01    | Backshell (Alt: M85049/17-8W01) | 1              |
| 1                   |                     | 206-001-814-101    | Switch Box                      | 1              |
| 1                   |                     | 058-390-101        | Cover Assembly                  | 1              |
| 1                   |                     | 206-378-041        | Switch Assembly                 | 1              |
| 6                   |                     | MS35206-217        | Screw                           | 1              |
| 1                   |                     | 100-050B500        | Plug Button                     | 1              |

**TABLE 12 – PARTS BREAKDOWN  
206-366-300 WIRING KIT**

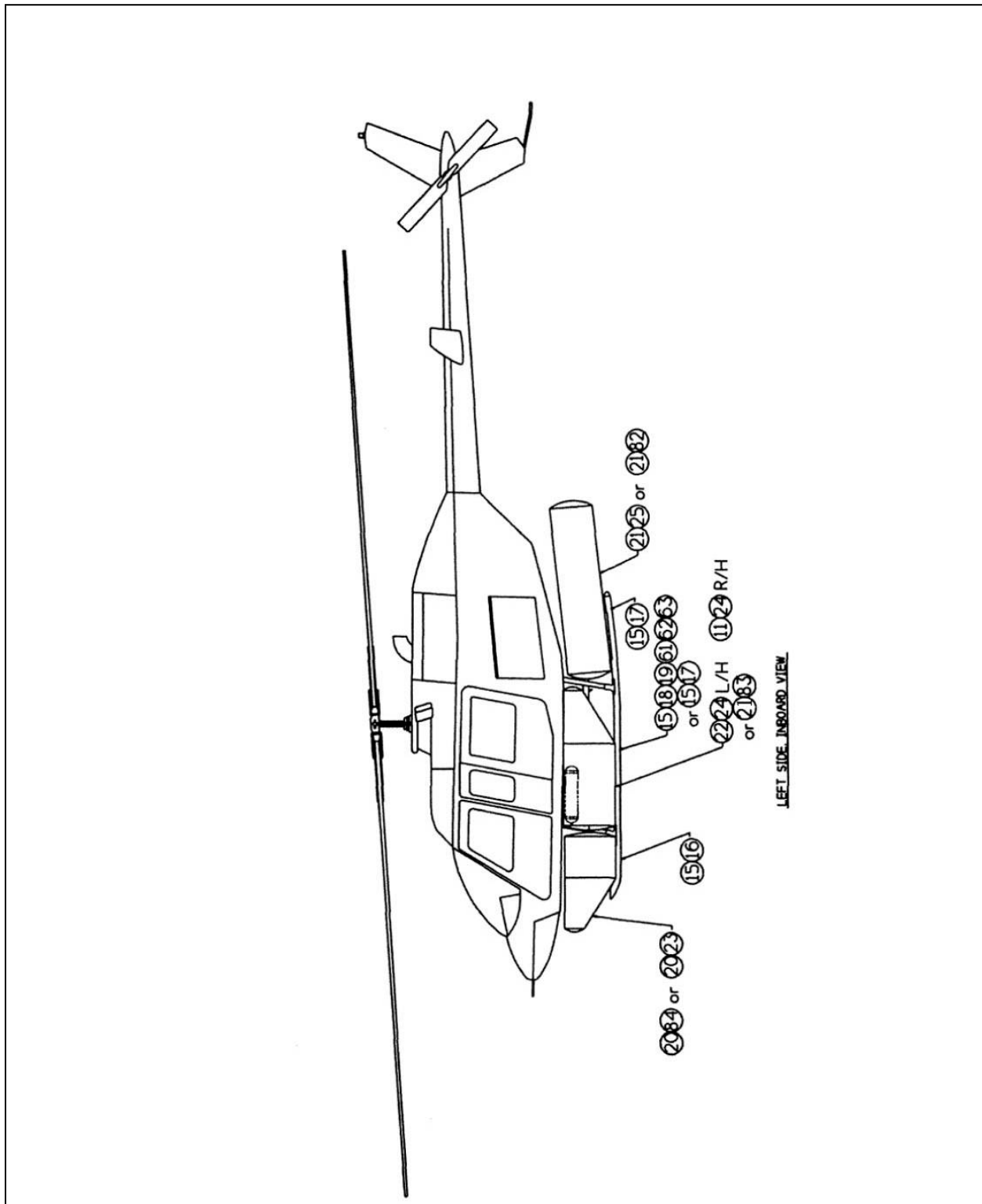
| Qty | Part Number | Description             | AV Code |
|-----|-------------|-------------------------|---------|
| 1   | 206-366-050 | Wiring Kit              | 1       |
| 1   | 206-366-110 | Terminal Strip Assembly | 1       |

**TABLE 13 – PARTS BREAKDOWN  
206-366-050 WIRING KIT**

| Qty | Part Number | Description        | AV Code |
|-----|-------------|--------------------|---------|
| 1   | P23A12      | Wire, 12 AWG, 2ft  | 1       |
| 1   | W27A22      | Wire, 22 AWG, 12ft | 1       |
| 1   | W30C22      | Wire, 22 AWG, 12ft | 1       |
| 1   | W34A22      | Wire, 22 AWG, 4ft  | 1       |
| 1   | W71A22      | Wire, 22 AWG, 4ft  | 1       |

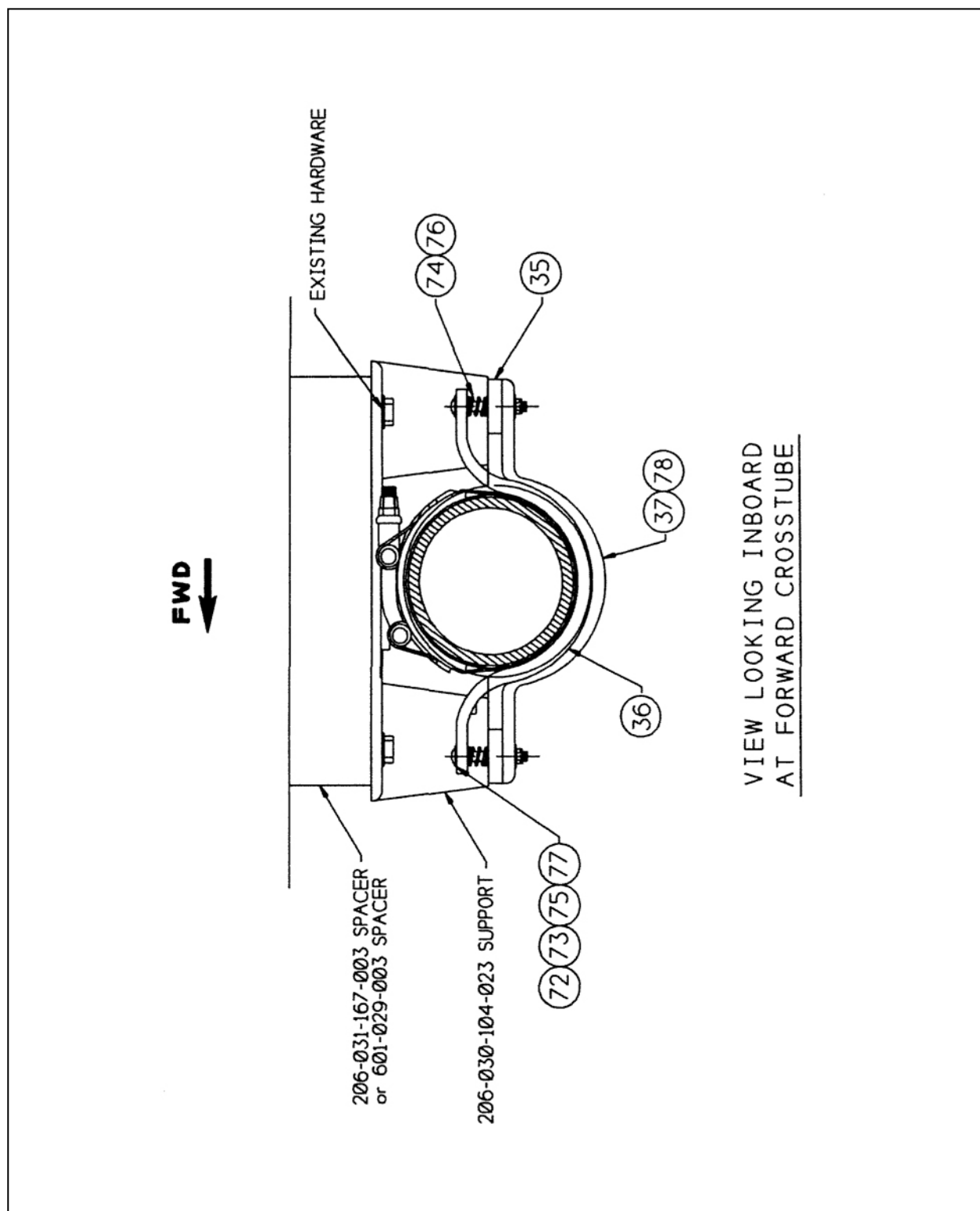
**TABLE 14 – PARTS BREAKDOWN  
206-366-110 TERMINAL STRIP ASSEMBLY**

| Qty | Part Number   | Description                               | AV Code |
|-----|---------------|-------------------------------------------|---------|
| 11  | MS25036-102   | Ring Terminal                             | 1       |
| 10  | NAS1149DN632J | Washer (ALT: AN960JD6)                    | 1       |
| 5   | MS21044N06    | Nut                                       | 1       |
| 1   | W26A22        | Wire, 22 AWG, 16 ft                       | 1       |
| 1   | W26C22        | Wire, 22 AWG, 12 ft                       | 1       |
| 1   | W28C20        | Wire, Shielded, 2 Conductor, 20 AWG, 8 ft | 1       |
| 1   | W32A20N       | Wire, 20 AWG, 4 ft                        | 1       |
| 1   | W70A22        | Wire, 22 AWG, 12 ft                       | 1       |
| 1   | MS18029-1S5   | Cover                                     | 1       |
| 1   | MS27212-1-5   | Terminal Strip                            | 1       |
| 1   | RC42GF680J    | Resistor                                  | 1       |

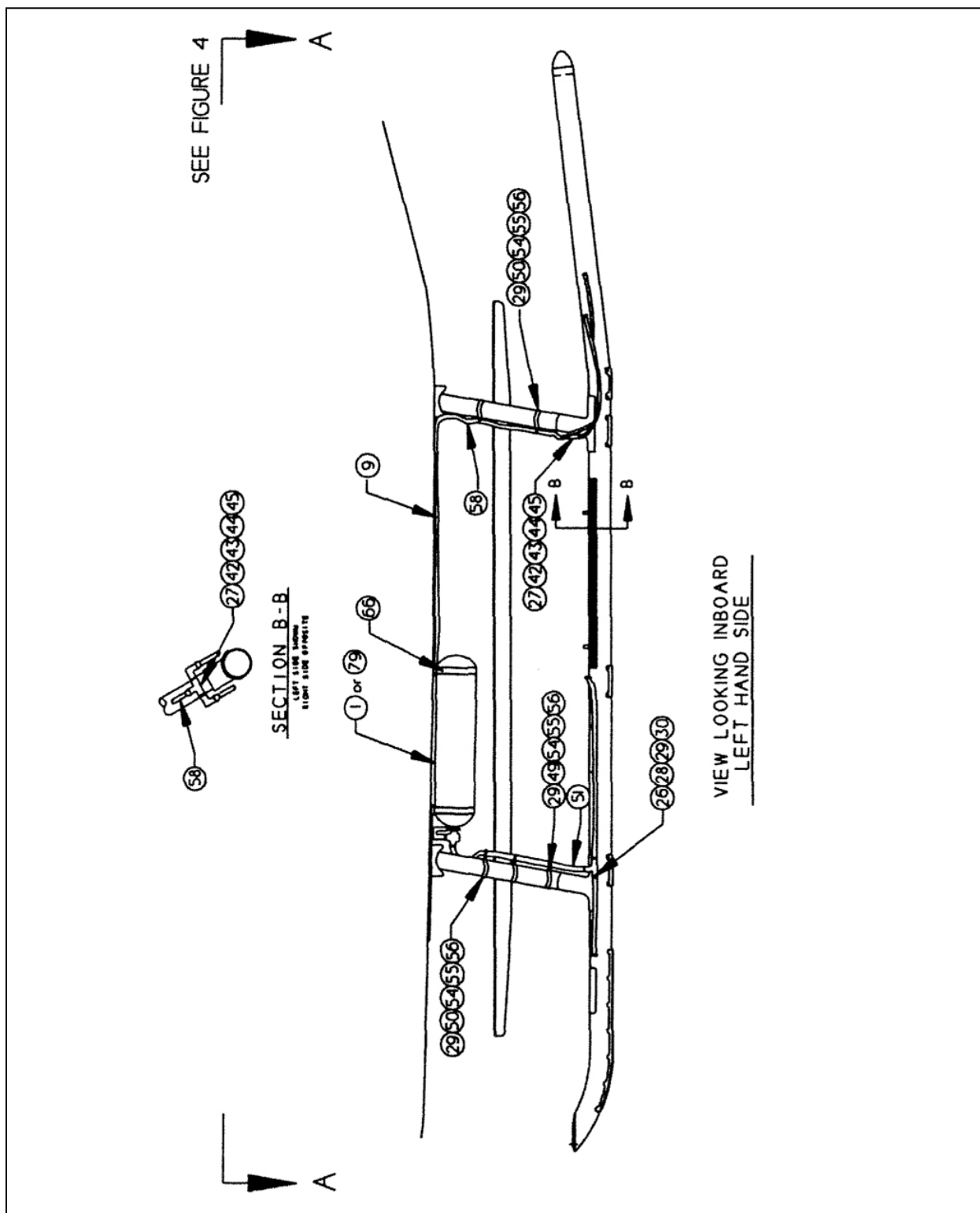


### FIGURE 1 – FLOATATION SYSTEM

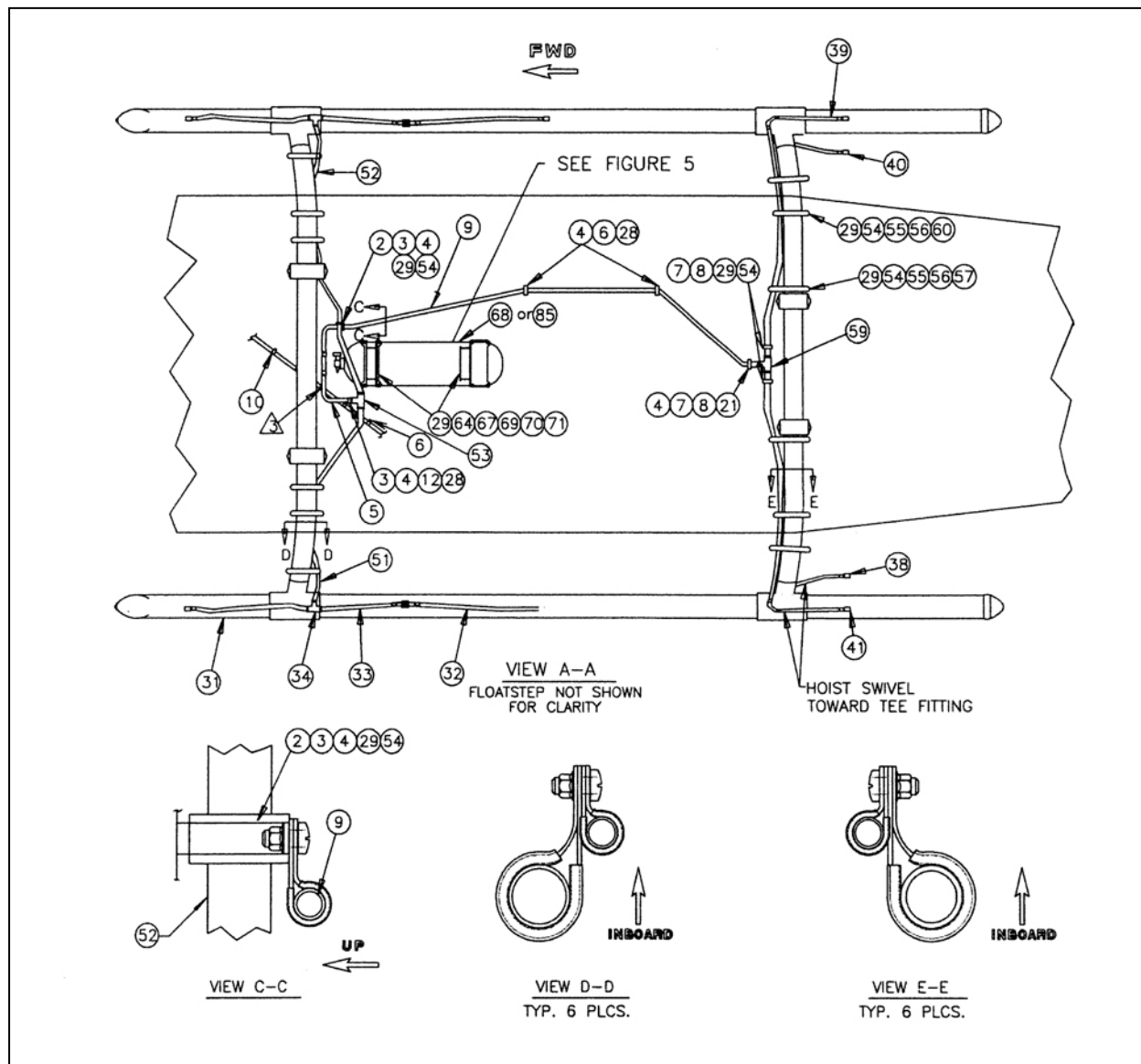
## AERONAUTICAL ACCESSORIES



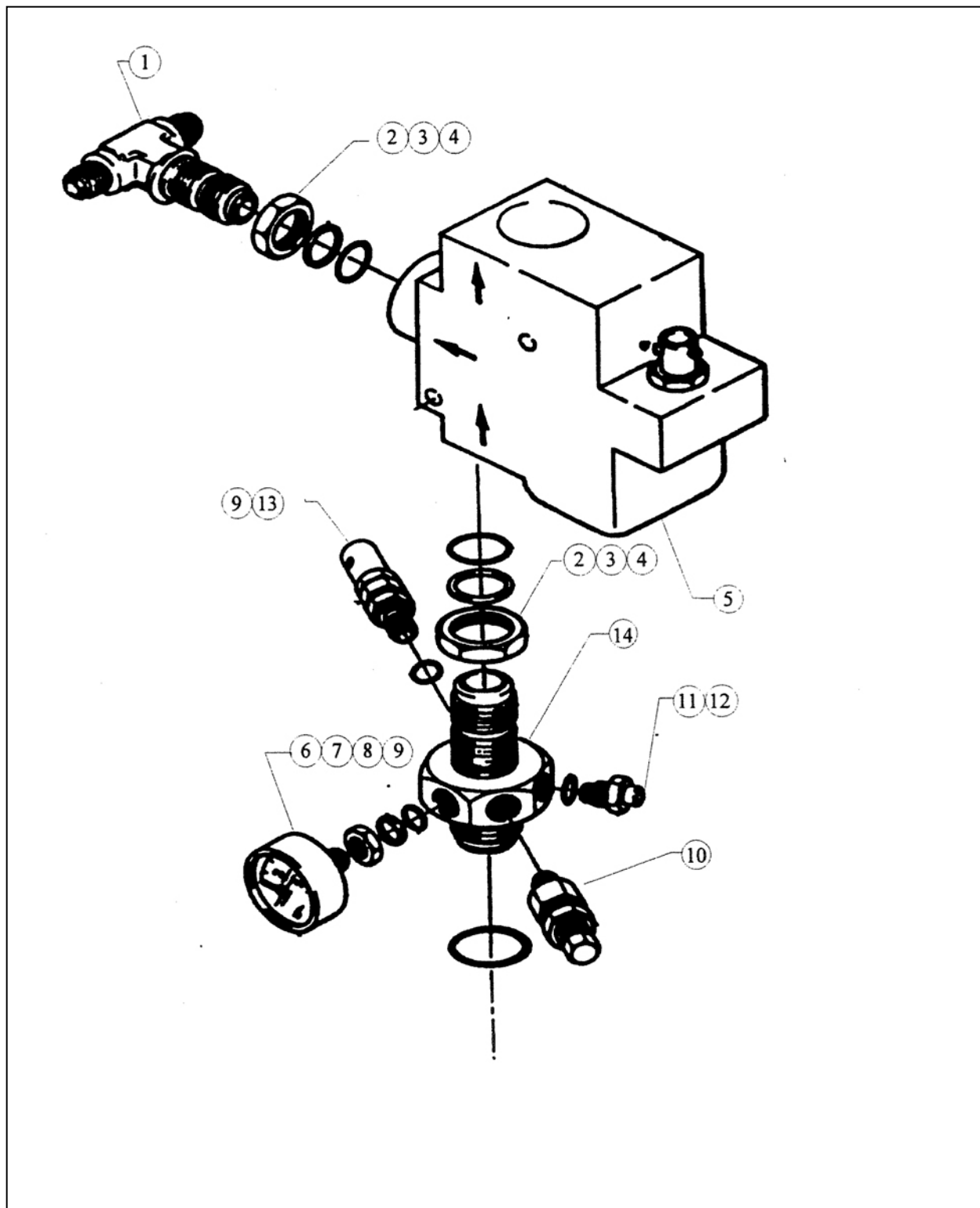
**FIGURE 2 – SUPPORT ASSEMBLY**



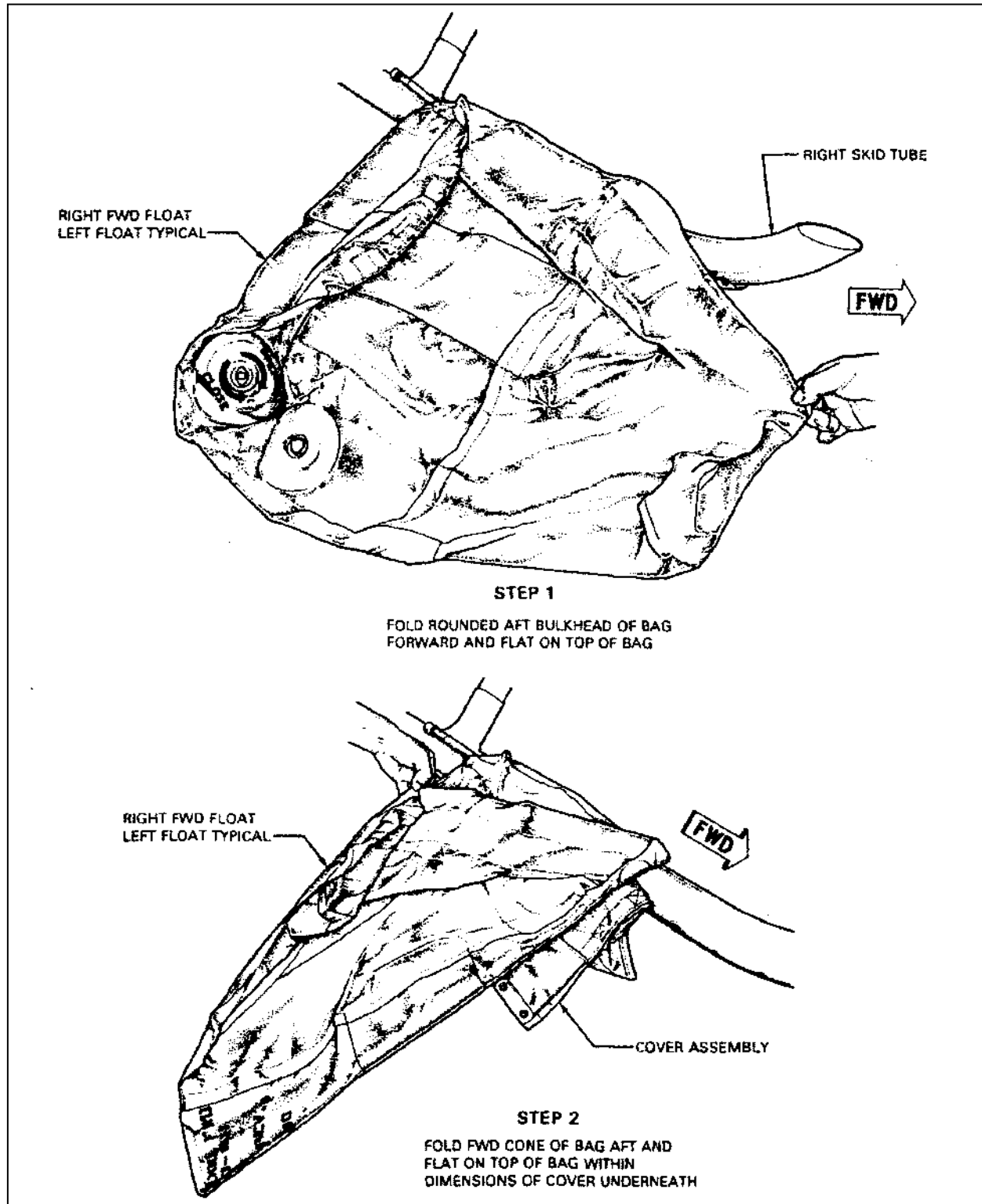
**FIGURE 3 – FLOATATION SYSTEM (L/H VIEW)**



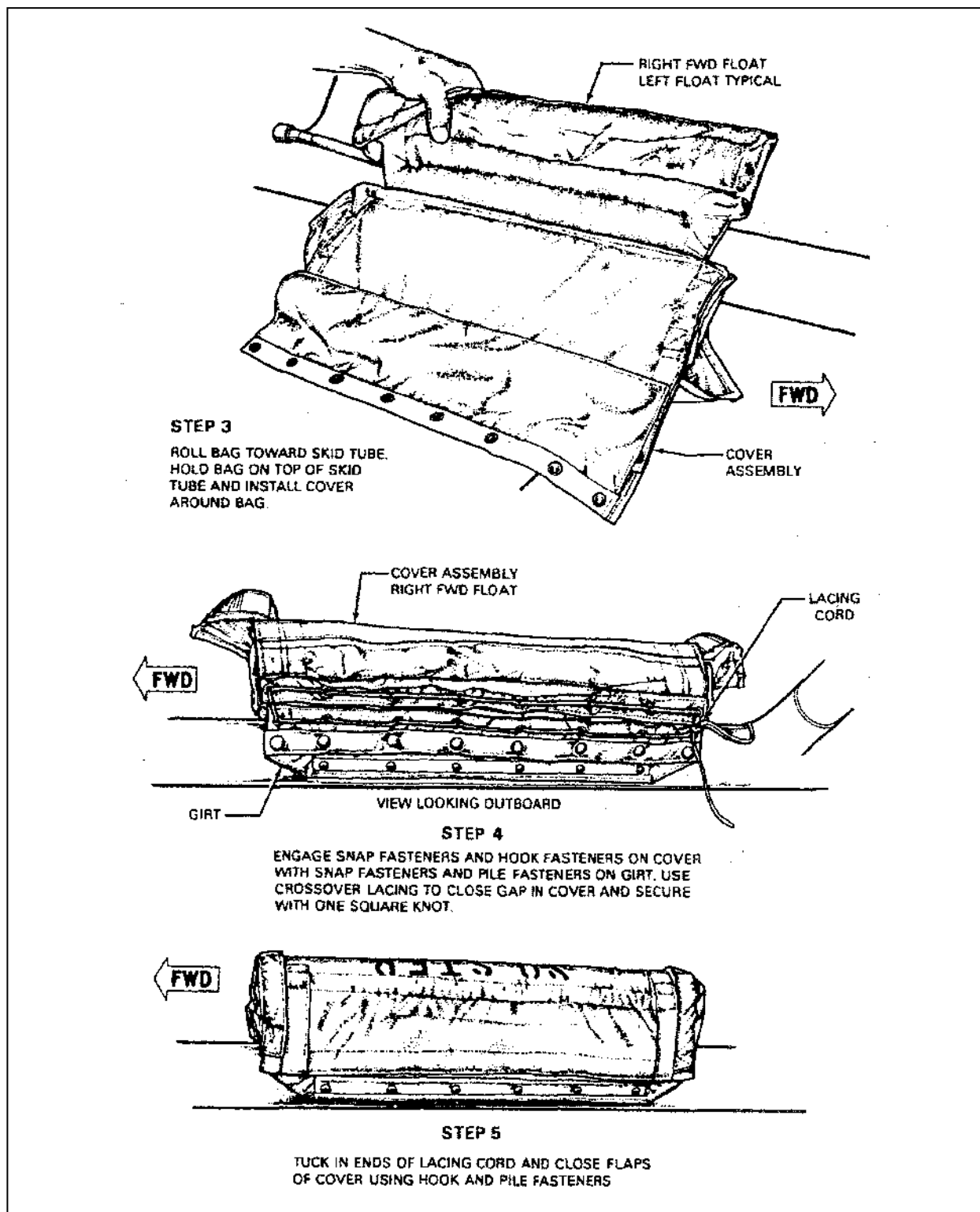
**FIGURE 4 – FLOATATION SYSTEM (TOP VIEW)**



**FIGURE 5 – RESERVOIR ASSEMBLY (RESERVOIR NOT SHOWN)**



**FIGURE 6 – FORWARD FLOATS**  
**BELL 206L / 206L-1 / 206L-3 / 206L-4**



**FIGURE 7 – FORWARD FLOATS  
BELL 206L / 206L-1 / 206L-3 / 206L-4**

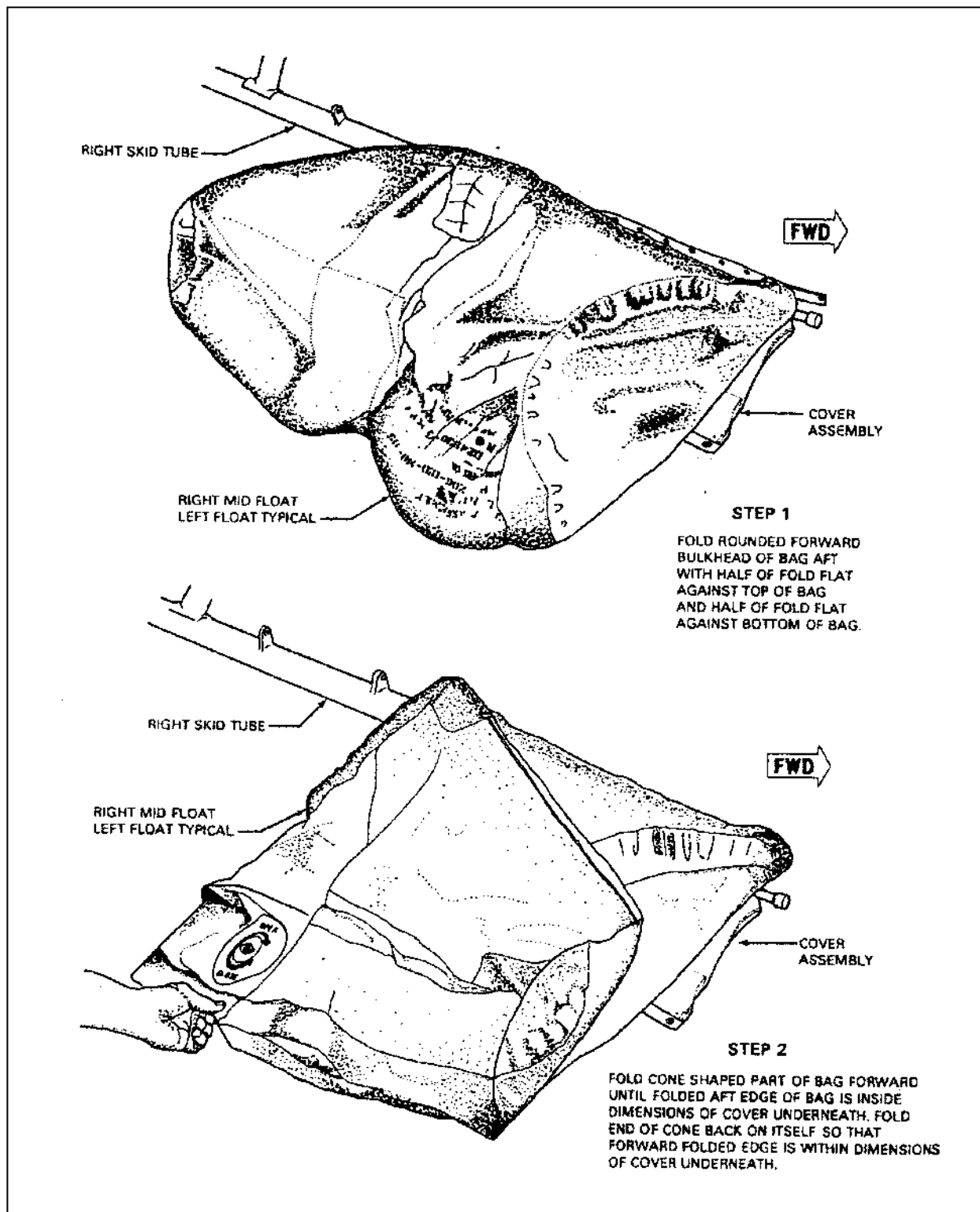


FIGURE 8 – MID FLOATS  
BELL 206L / 206L-1 / 206L-3

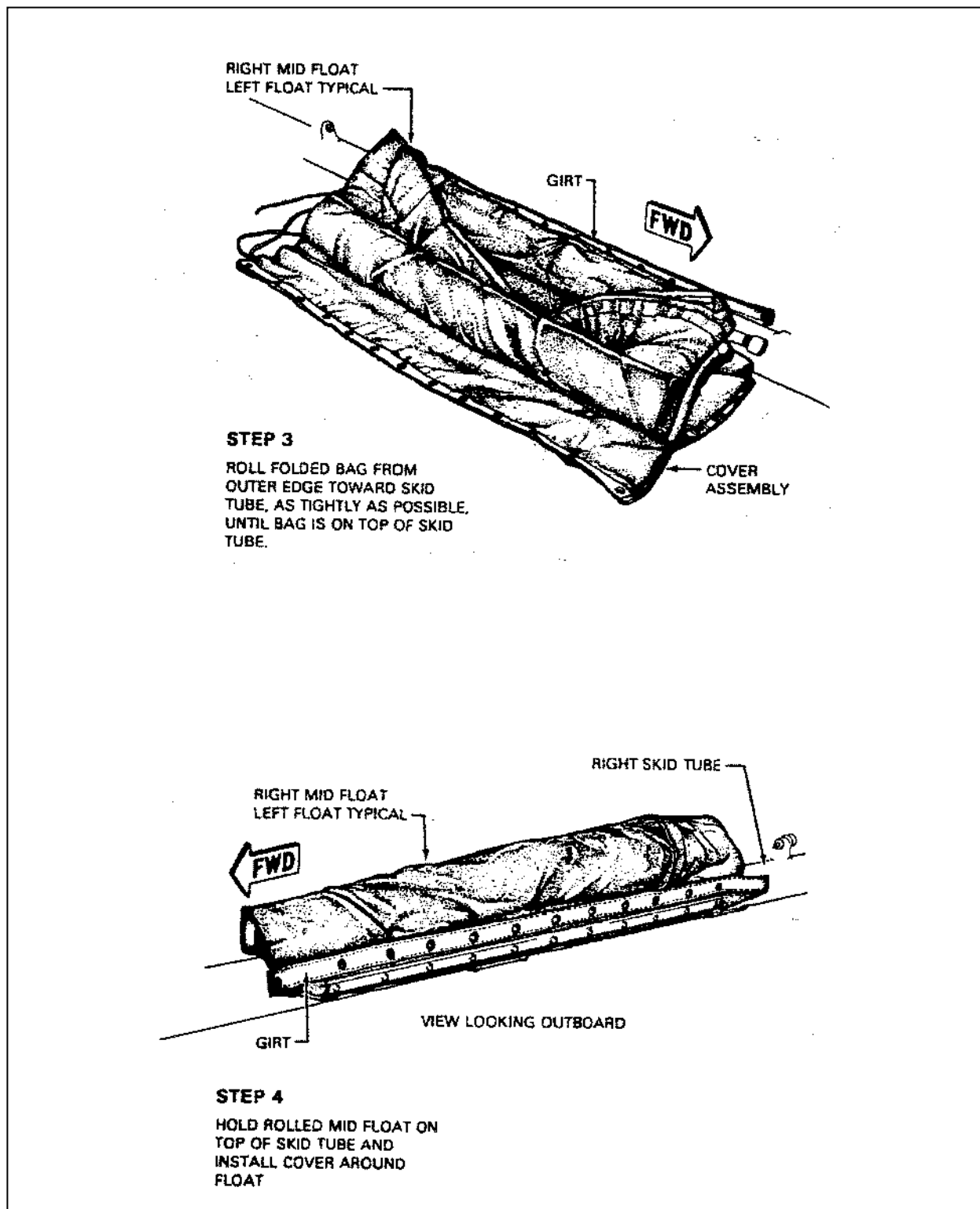
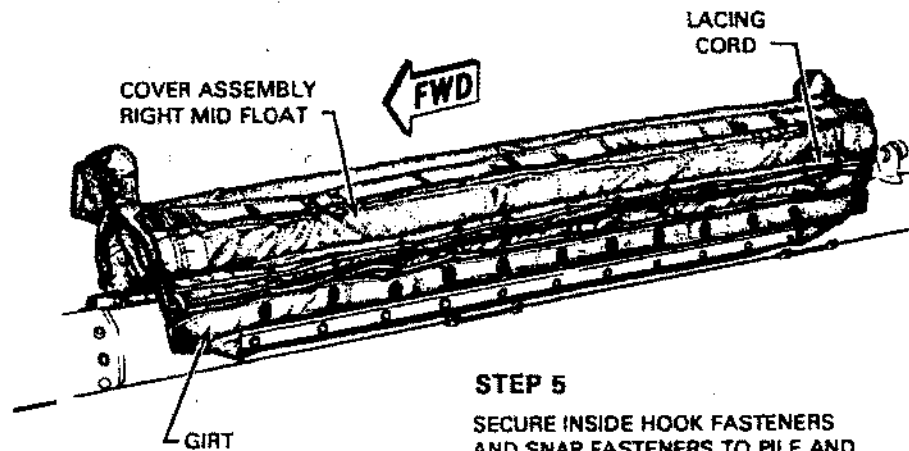
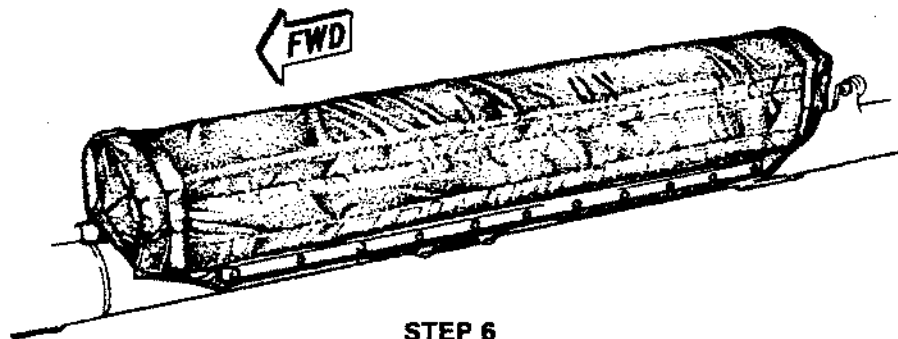


FIGURE 9 – MID FLOATS  
BELL 206L / 206L-1 / 206L-3



**STEP 5**

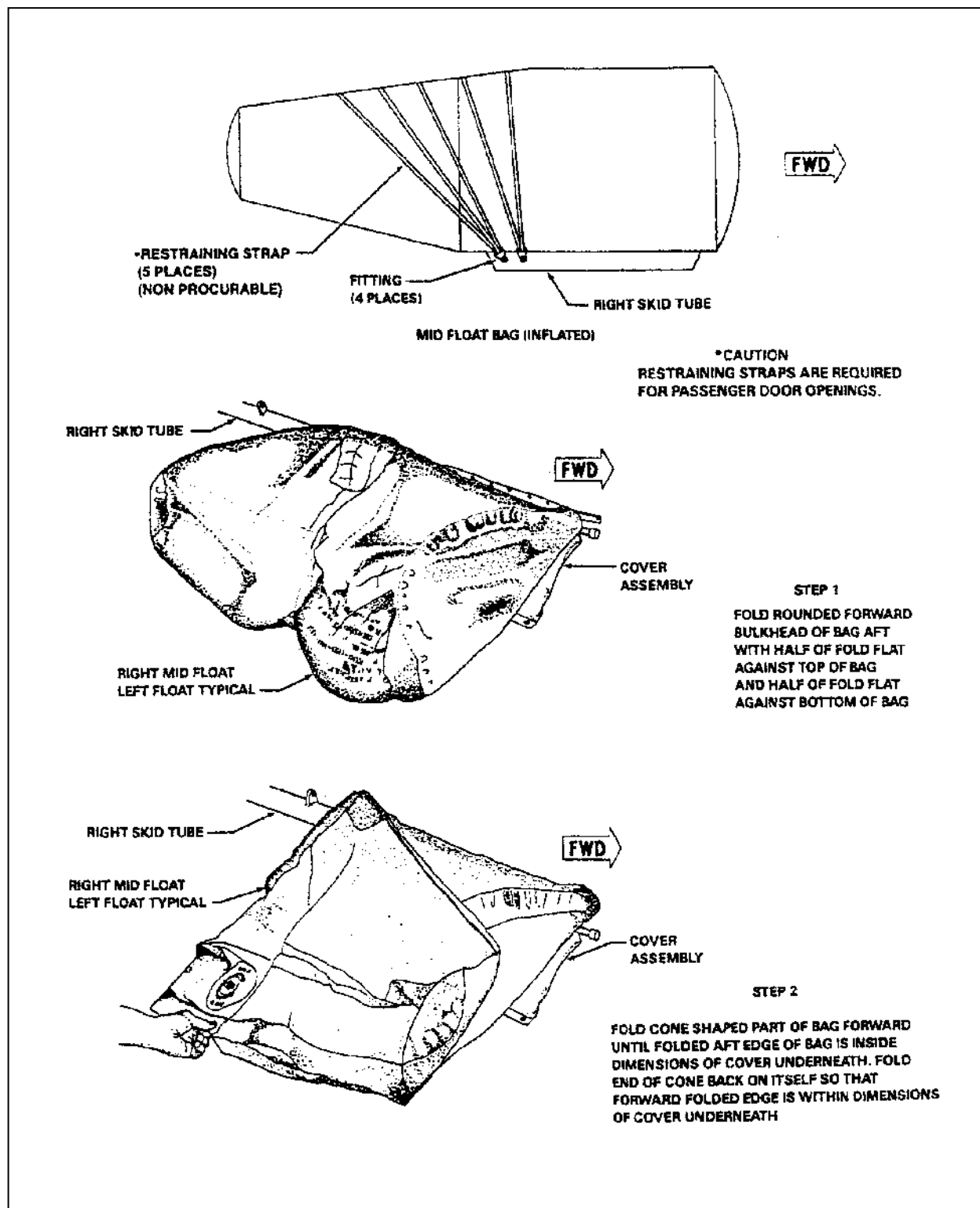
SECURE INSIDE HOOK FASTENERS AND SNAP FASTENERS TO PILE AND SNAP FASTENERS ON GIRT. INSTALL LACING CORD IN COVER, USING CROSSOVER METHOD, AND PULL TAUT TO CLOSE GAP IN COVER.



**STEP 6**

TUCK IN LOOSE ENDS OF LACING CORD, CLOSE OUTSIDE HOOK AND PILE FASTENERS ALONG LENGTH OF COVER, AND CLOSE END FLAPS WITH HOOK AND PILE FASTENERS

**FIGURE 10 – MID FLOATS  
BELL 206L / 206L-1 / 206L-3**



**FIGURE 11 – MID FLOATS  
BELL 206L-4**

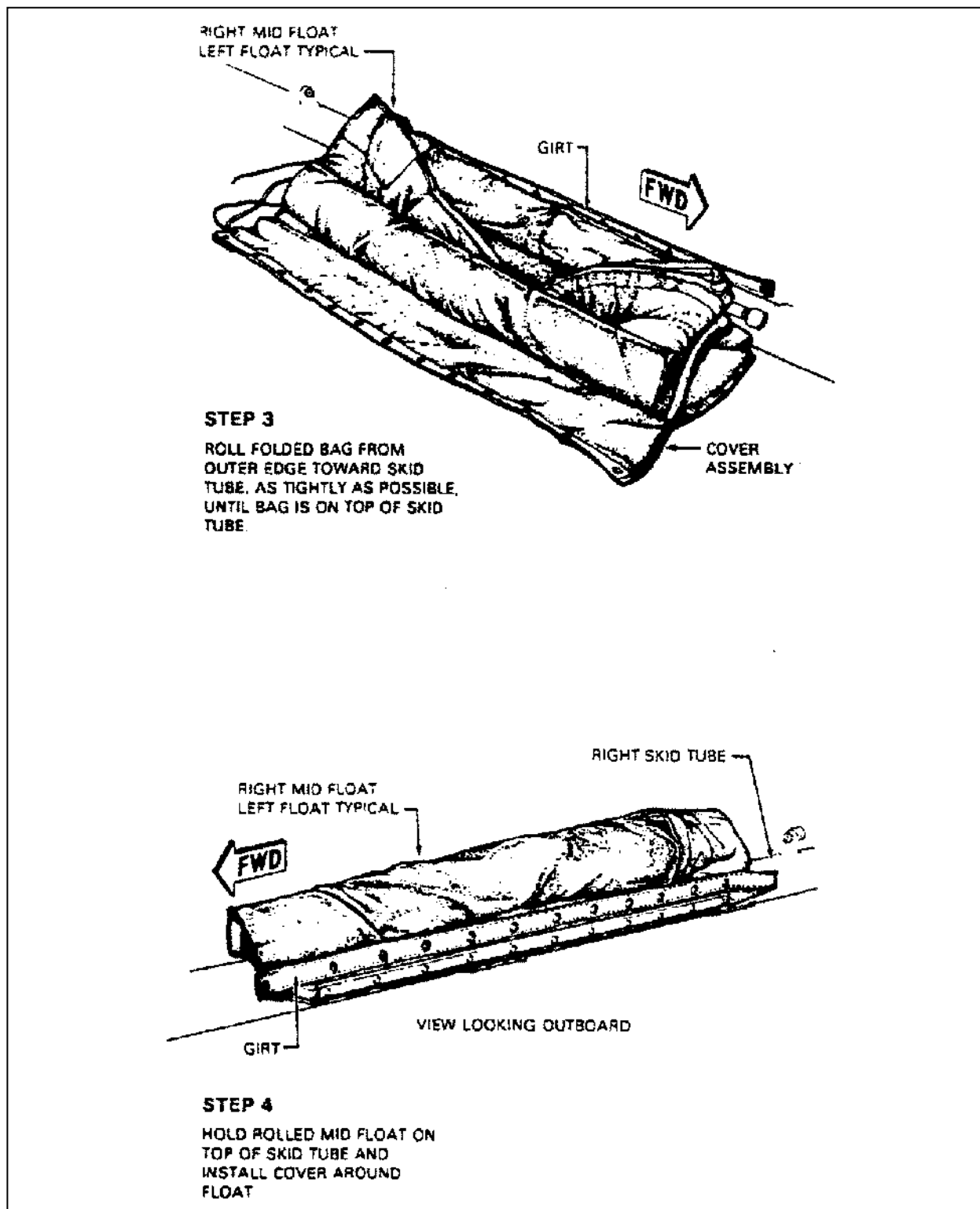


FIGURE 12 – MID FLOATS  
BELL 206L-4

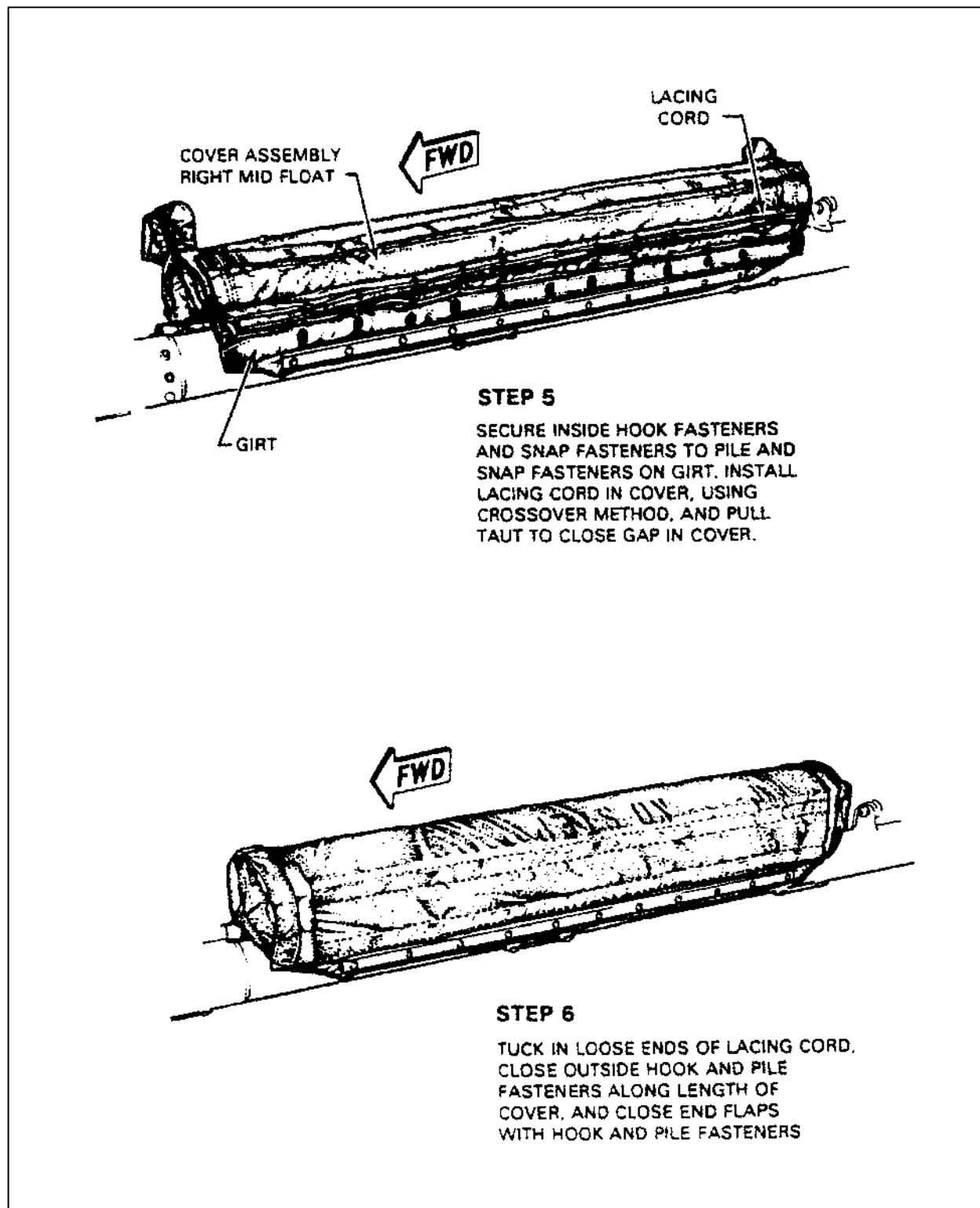
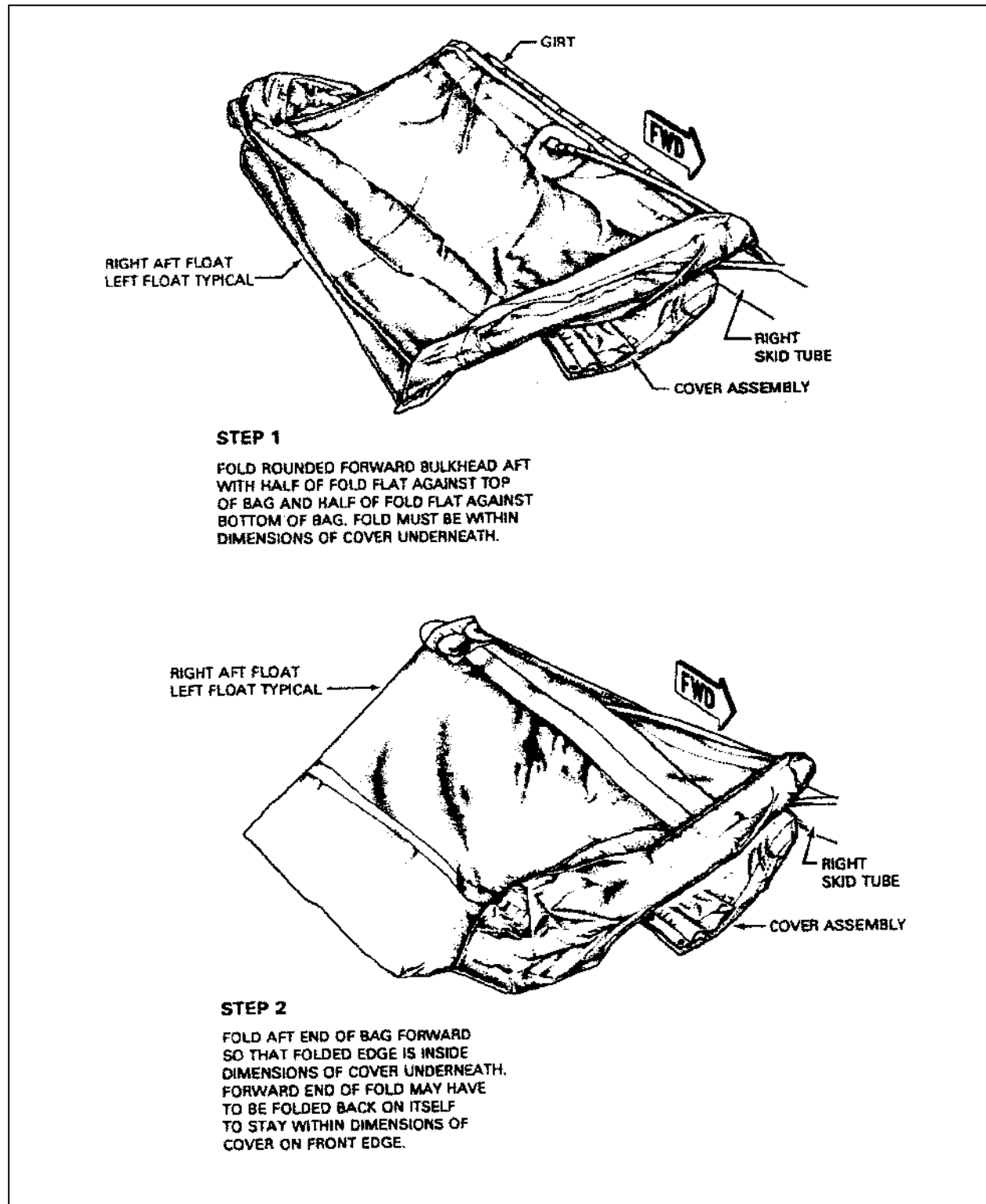
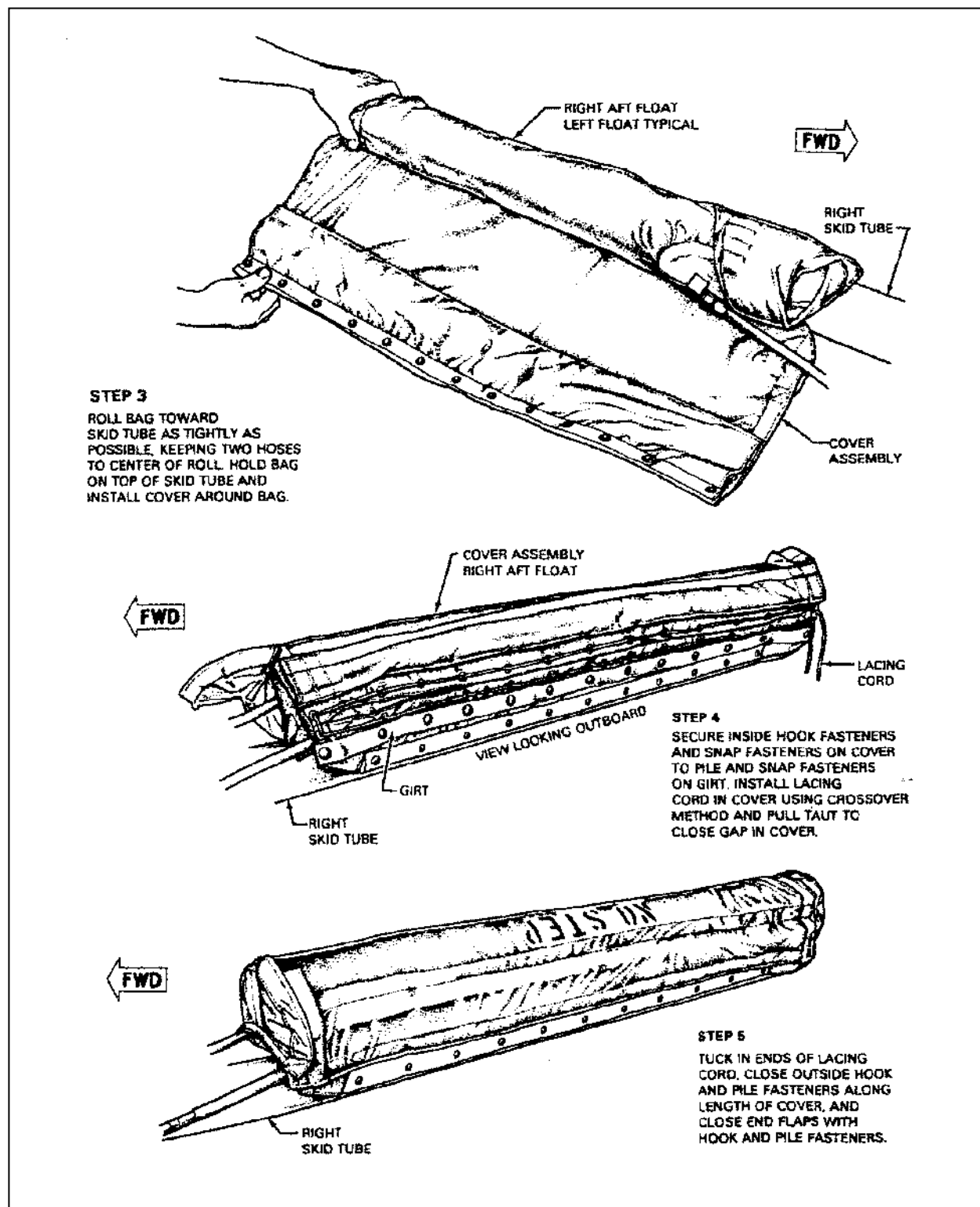


FIGURE 13 – MID FLOATS  
BELL 206L-4



**FIGURE 14 – AFT FLOATS  
BELL 206L / 206L-1 / 206L-3 / 206L-4**



**FIGURE 15 – AFT FLOATS**  
**BELL 206L / 206L-1 / 206L-3 / 206L-4**

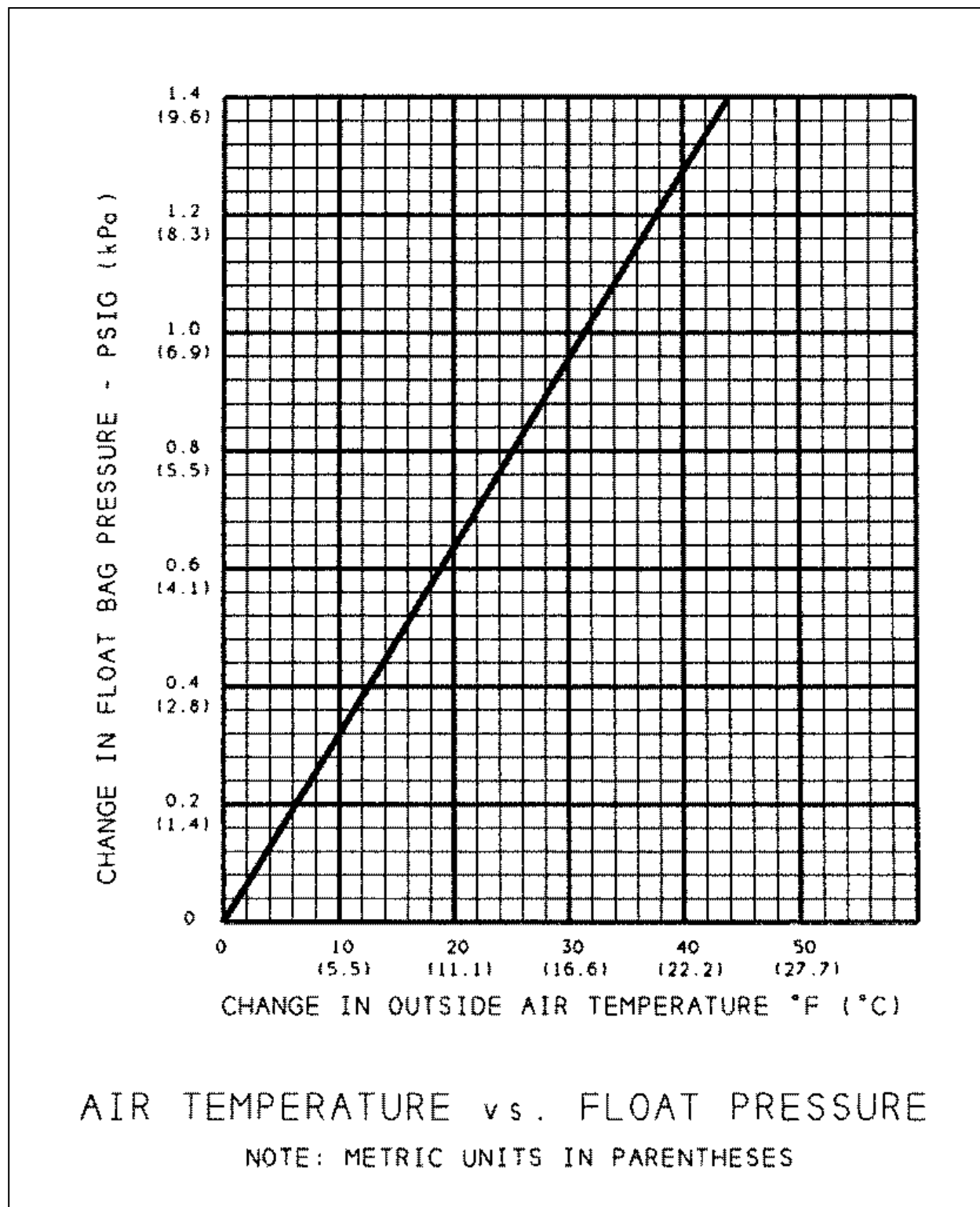


FIGURE 16 – AIR TEMPERATURE VS FLOAT PRESSURE

## **APPENDIX A**

## 180 DAY / 500 FLIGHT HOUR INSPECTION RECORD

**Work Order Number:** \_\_\_\_\_

**Registration Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Total Time:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Inspect in accordance with Section 3.3, 180 Day / 500 Flight Hour Inspection.

1. Inspect the Lightweight Emergency Floatation System Kit for hardware corrosion, nicks, scratches, or cracks. \_\_\_\_\_

**NOTE**

The indications of corrosion are 1) corrosion deposits (a white or gray powder on aluminum or rust colored deposits on steel), 2) pits in the aluminum or steel surface, 3) blisters, bulging, or flaking of protective coatings.

2. Inspect for proper installation of hardware or any unusual wear pattern. \_\_\_\_\_
3. Inspect the float bottle for proper inflation pressure. \_\_\_\_\_
4. Inspect the hoses and float covers for condition and security. Also inspect hose connections with fittings. \_\_\_\_\_
5. Inspect the float bottle inflation tubes for condition and security. Also inspect tube connections with fittings. \_\_\_\_\_
6. Electrical Test Inspection Procedures  
  - a. Position MANUAL ARM switch in OFF position. Engage FLOAT POWER circuit breaker. \_\_\_\_\_
  - b. Position instrument panel switch to FLOAT TEST position. \_\_\_\_\_
  - c. Momentarily actuate float inflation trigger on pilot collective stick. FLOAT TEST segment shall illuminate indicating functional circuitry. FLOAT TEST segment shall extinguish upon release of trigger. \_\_\_\_\_
  - d. Position instrument panel switch to NORMAL position. \_\_\_\_\_
  - e. Lift guard on MANUAL ARM switch and position switch to ON position. FLOAT ARM segment shall illuminate indicating functional circuitry. \_\_\_\_\_
  - f. Disconnect connector from Electrical Valve. \_\_\_\_\_
  - g. Depress float inflation trigger on pilot collective stick and check for 28 VDC across Pins A & B on Electrical Valve connector. \_\_\_\_\_
  - h. Release float inflation trigger on pilot collective stick and verify 0 voltage across Pins A & B on Solenoid Valve connector. (Operating range is 12 - 30 VDC.) \_\_\_\_\_
  - i. Verify continuity across Pins A & B on Electrical Valve connector. \_\_\_\_\_
  - j. Close MANUAL ARM switch guard disarming system. FLOAT ARM segment shall extinguish. \_\_\_\_\_
  - k. Reconnect connector to Electrical Valve. \_\_\_\_\_

## 180 DAY / 500 FLIGHT HOUR INSPECTION RECORD

### 7. Float Inflation Inspection Procedure

- a. Lift guard on MANUAL ARM switch and position switch to ON position. FLOAT ARM segment shall illuminate.
- b. Actuate float inflation trigger on pilot collective stick. Float shall inflate.
- c. Release trigger and close MANUAL ARM switch guard.

#### **WARNING**

**DO NOT REMOVE RESERVOIR FROM HELICOPTER PRIOR TO DISCHARGING.**

### 8. Float Bag and Inflation Piping Inspection

- a. Disconnect float inflation lines at fitting above skid. Connect external source of dry shop air to inflation line, unsnap cover over each bag, and inflate bags to normal pressure of 2.25 psig. Inspect bags, hoses, and tubing as follows.

#### **NOTE**

Dry shop air may be used in lieu of nitrogen when checking floats. Use of the provided Topping Valve Adapter is required with Apical Industries float bags.

- b. Clean and dry bags and covers. Visually inspect for wear, chafing, or abrasion.
- c. Check all clamps, fittings, and hoses for corrosion, abrasion, and security.

#### **NOTE**

Do not tighten or loosen hex fitting (shear head) at inlet to solenoid valve on reservoir.

### 9. Float Bag Leak Test

#### **NOTE**

This test must not be performed when the outside air temperature (OAT) exceeds 100°F (38°C). Do not perform test in the sun.

- a. Inflate bags to 2.25 psig. Readjust pressure after two (2) hours if required.
- b. Record OAT and bag pressure.
- c. After 6 hours, record OAT and bag pressure. See the graph of Figure 16 to determine changes in bag pressure caused by OAT changes.
- d. If OAT increased during test period, use Figure 16 data obtained in Step C to subtract pressure change value from final float bag pressure.  
EXAMPLE:      Initial Temperature: 70°F (21°C)  
                      Initial Float Pressure: 2.25 psig  
                      Final Temperature: 80°F (27°C)  
                      Final Float Pressure: 2.42 psig
- e. If OAT decreased during test period, use Figure 16 data obtained in Step C to add pressure change value to final float bag pressure.

**180 DAY / 500 FLIGHT HOUR INSPECTION RECORD**

- f. Subtract corrected final float bag pressure from 2.25 psig to determine leakage rate.

Outside temperature change 80 to 70° = 10°F (27 to 21° = 6°C).

Read from Figure 16.

Change in float bag pressure for 10°F (6°C) = 0.32 psig

Corrected final bag pressure is 2.42 psig - 0.32 psig = 2.10 psig.

Leakage rate: 2.25 psig - 2.10 psig = 0.15 psig

**CAUTION**

**Float bag pressure change due to bag leakage is not to exceed 0.25 psig.**

**CAUTION**

**This floatation system is designed to provide emergency water landing capabilities and adequate time for personnel evacuation. It is not designed for any amphibious operations. For ship salvage, pressurization equipment should be provided to maintain bag pressure between 1.5 and 2.25 psig.**

10. Repack bags and service system.

**NOTE**

See Section 5.3, Float Bag Packing, for float bag packing procedures.

**NOTE**

While pressurizing system reservoir, compare reservoir pressure gauge with master gauge on servicing equipment. Reservoir gauge readings must be within plus or minus 200 psig of master gauge. System reservoir gauges that are faulty must be replaced.

**Signature** \_\_\_\_\_ **A & P No.** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Inspector** \_\_\_\_\_

### **3-YEAR INSPECTION RECORD**

**Work Order Number:** \_\_\_\_\_

**Registration Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Total Time:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Inspect in accordance with Section 3.4, 3-Year Inspection.

1. Remove and test reservoir assembly cylinder in accordance with specifications supplied with the reservoir.

**NOTE**

Service life is limited to 15 years.

**Signature** \_\_\_\_\_ **A & P No.** \_\_\_\_\_

**Signature** \_\_\_\_\_ **Inspector** \_\_\_\_\_