WIPAIRE, INC.

WIPLINE FLOATS • SKIS • MODIFICATIONS • AIRCRAFT SALES
AVIONICS • INTERIOR • MAINTENANCE • PAINT REFINISHING

SERVICE LETTER 194

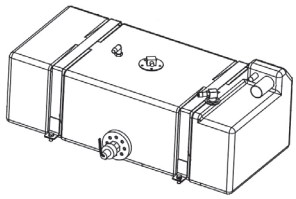
10000A RETROFIT 13-GALLON FOAM TANK INSTALLATION

Aircraft Makes/Model(s):	Float Model(s):		
AT-802 AT-802A	10000A	**Compliance:** Optional	**By:** MAB
		Part Number: 1011005	**Approved:** SDW
		Date: 3/20/2020	**Revision:** A

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	3/20/2020

FAA approval has been obtained for technical data in this publication that affects STC or TSO design compliance.



EFFECTIVITY:

This service letter applies to Air Tractor models AT-802 and AT-802A with Wipline 10000A Fire Boss Amphibious Floats installed per STC SA01795CH.

COMPLIANCE:

Optional compliance

BACKGROUND:

Wipline 10000 Fire Boss Amphibious Floats are outfitted with one or two 30-Gallon Foam Tanks. Operators have conveyed the need for less foam capacity. Wipaire has created a smaller 13-Gallon Foam Tank, which should be adequate for most operations. This tank is able to fit through the available opening in the top of the float. This service letter provides installation instructions to retrofit existing floats with the new tank.

COMPLIANCE METHOD:

Install provided parts as shown in the Work Instruction section of this service letter.

APPROXIMATE SHOP HOURS:

Installing the 13-Gallon Foam Tank will take approximately 40 labor hours to install per float set.

WARRANTY INFORMATION:

This service letter does not include warranty for labor and parts.

TECHNICAL DATA:

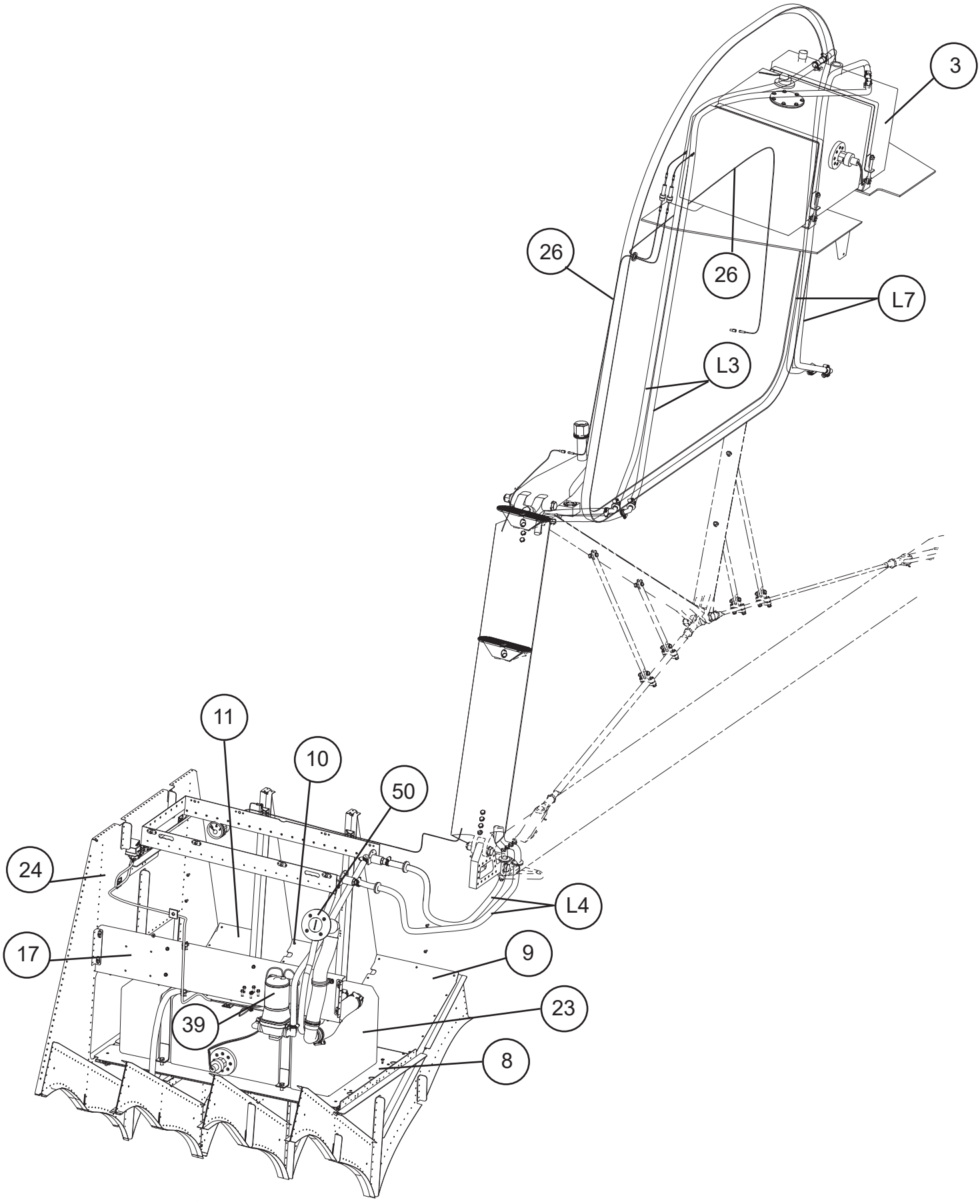
Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available at www.wipaire.com.

1700 Henry Ave - Fleming Field (KSGS), South St. Paul, MN 55075
Phone: 651.451.1205 | Fax: 651.457.7858
www.wipaire.com

SERVICE KIT 1011005-01 (RIGHT FLOAT)
SERVICE KIT 1011005-02 (RIGHT & LEFT FLOAT)

ITEM	KIT-01	KIT-02	PART NUMBER	DESCRIPTION
1	1	2	02-06-2103	CONTACT STAND, .062 SERIES PIN, CRIMP, 18 AWG
2	1	2	03-06-2011	CONNECTOR, PLUG, 1 POSITION
3	N/A	N/A	1001906	ASSY, FOAM TANK, FUSELAGE
4	2	4	1009806	ASSY., MOUNTING PLATE, BH COVERS, 10000
5	1	2	1009807	ASSY., DOUBLER, BULKHEAD 10,10000
6	1	2	1009808	ASSY., DOUBLER, BULKHEAD 12, 10000
7	3	6	1009809	ASSY., HAT CHANNEL, FLOOR SUPPORT, BAGGAGE 10000
8	1	2	1009810	FLOOR, MAIN BAGGAGE, 10000
9	1	2	1009811	FLOOR, SIDE, FWD, BAGGAGE, 10000
10	1	2	1009812	FLOOR, SIDE, MID, BAGGAGE, 10000
11	1	2	1009813	FLOOR, SIDE, AFT, BAGGAGE, 10000
12	0	1	1009814	ASSEMBLY, TANK COVER, FWD, LEFT, 10000
13	1	1	1009815	ASSEMBLY, TANK COVER, FWD, RIGHT, 10000
14	0	1	1009816	ASSEMBLY, TANK COVER, AFT, LEFT, 10000
15	1	1	1009817	ASSEMBLY, TANK COVER, AFT, RIGHT, 10000
16	0	1	1009818	ASSEMBLY, BACK STOP, TANK COVER, LEFT, 10000
17	1	1	1009819	ASSEMBLY, BACK STOP, TANK COVER, RIGHT, 10000
18	2	4	1009820	ASSEMBLY, ANGLE, SUPPORT, BACK STOP, 10000
19	2	4	1009821	ASSEMBLY, STRAP, TANK, 10000
20	1	2	1009898	BRACKET, FILL GAUGE, BAGGAGE, 10000
21	1	2	1009919	ASSY., HAT CHANNEL , TANK COVER SUPPORT 10000
22	1	2	1009922	DOUBLER, SKIN, FOAM FILL CAP, 10000
23	1	2	1009932	ASSY, FOAM TANK, FLOAT, 13 GAL
24	1	2	1009987	WIRE HARNESS, 13 GALLON FOAM TANK, 10000
25	1	2	1011003	PLACARD
26	1	2	1011028	WIRE HARNESS, WATER GAUGE, FUSE, 10000
27	1	2	1011037	WIRE HARNESS, WATER GAUGE TO SENSOR, 10000
28	9	18	S1021A6-6	SCREW, (6X3/8 TR PHIL A STL SMS)
29	1	2	10A12277-003	COUPLER, FOAM TANK
30	1	2	110615	GAUGE, WATER LEVEL, BLACK
31	1	2	12010973	CONNECTOR, 2 PIN MALE, BLK 20A WEATHERPACK
32	1	2	12010974	ASSEMBLY, CONNECTOR, 4P, 20 AMP, MALE
33	2	4	12124582	CONNECTOR, MALE, TIN PLATE, CBL RING 2.0-1.0
34	2	4	15324980	CABLE, SEALS, WEATHER PACK, GREY
35	4	8	15324985	CABLE SEALS, WEATHERPACK, PURPLE
36	1	2	20381-009	FITTING, QUAD PORT, X 1/2 IN TUBE BARB, 90 DEG. ELBOW
37	10	20	22759-16-8-9	WIRE, 18 AWG
38	1	2	36152	TERMINAL, RING, #6, RED
39	1	2	4405-343	PUMP AUTO, 24V FOAM TANK W/ FILT AT-802
40	0	1	48726202	FITTING, TEE, BARBED, 1/2"
41	3 FT	6 FT	5233K76	TUBING, PVC, CLEAR, 1.5", 1.875" OD
42	1	2	5372K124	PIPE, MALE ADAPTER, WHT NYL 1/2" X 3/8" A3812

ITEM	KIT-01	KIT-02	PART NUMBER	DESCRIPTION
43	2	4	5372K324	ADAPTER, 90 DEG. ELBOW 1/2 TUBE,3/8 MALE
44	2	4	5372K373	FITTING, ELBOW, BARBED, NYLON 1/2"
45	2	4	5372K379	TUBE, BARBED, ELBOW, 90 DEG. 1.5 ID
46	15	30	54195K16	HOSE CLAMP, 7/16 TO 25/32, SSTL
47	6	12	5428	CLAMP, HOSE, SAE SIZE 28, 9/16, 1-1/4 TO 2-1/4
48	41 FT	83 FT	60703	TUBING, PVC REINFORCED, CLEAR 1/2 ID X 3/4 OD
49	6	12	7566K62	BASE, CABLE TIE
50	1	2	907003	DECK FILL
51	4	8	AN5-11A	BOLT, 5/16-24, 0.6875 GRIP, UNDRILLED, STEEL
52	4	8	AN525-10R12	SCREW, WASHER HEAD
53	1	2	AN525-10R8	SCREW, WASHER HEAD, 10-32 THREAD, 1/8" GRIP, 1/2" LENGTH
54	1	2	AN525-10R9	SCREW, WASHER HEAD
55	35	70	AN525-832R6	SCREW, WASHER HEAD
56	36	72	AN525-832R8	SCREW, WASHER HEAD
57	1	2	D-436-37	BUTT SPLICE, BLUE ENVIRONMENTAL
58	4	8	MS15795-849	WASHER, STAINLESS, .203 ID .625 OD .04THK
59	A/R	A/R	MS20426AD4	RIVET, COUNTERSUNK, 1/8"
60	A/R	A/R	MS20470AD4	RIVET, SOLID, UNIVERSAL, 1/8"
61	5	10	MS21044N08	NUT, LOCKING, REGULAR HEIGHT, 8-32 UNC
62	5	10	MS21044N3	NUT, LOCKING, REGULAR HEIGHT, 10-32 UNF
63	1	2	MS21919WDG28	CLAMP, 1.50 OD, ALU.
64	4	8	MS24693-C274	SCREW, MACHINE, COUNTERSUNK , 10-32 UNF, 0.750 LG
65	12	24	MS24693S28	SCREW, MACHINE, FLAT HD (100 DEG.) 6-32 THREAD, 1/2" LENGTH
66	2	4	MS35489-14	GROMMET, 1/2" ID, 0.312" SIDE GROOVE, 1.062" OD
67	2	4	MS35489-20	GROMMET, RUBBER, 3/4 HOLE, 1-1/16 IN GROOVE DIA, .062 PANEL
68	A/R	A/R	N/A	SIKAFLEX 252 SEALANT
69	5	10	NAS1149F0363P	WASHER, 0.203 ID, 0.063 THK, STEEL
70	4	8	NAS1149F0532P	WASHER, 0.328 ID, 0.032 THK, STEEL
71	5	10	NAS1149FN832P	WASHER, 0.174 ID, 0.032 THK, STEEL
72	3	6	S1021A8-8	SCREW, (8 X 1/2 TR PHIL A STL SMS)
73	3	6	S2034-1	MOUNT
74	1	2	SB4011NOH	PUSHBUTTON SWITCH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L7
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WORK INSTRUCTION

Prepping Floats for 13-Gallon Tank Installs

1. Empty contents of existing 30-Gallon Tanks and disconnect all hoses and wiring.
2. Remove existing 30-Gallon Tanks, plastic floor, and longitudinal floor support stringers if present.
3. Disconnect CPC Plug from its present location. Cut off CPC Plug from harness end and remove Plug Mounting Bracket. Seal holes by replacing with appropriately sized rivets.
4. Install Connector Assembly, 4P Male (12010974) with Weatherpack Male Connectors (12124582) and Cable Seals, Purple (15324985) in accordance with electrical schematic.

Note: Installation of APTIV (Delphi) Weatherpack Sealed Connectors requires the use of Seal and Crimper Tool (12014254) or similar.

Installation of Bulkhead Doublers

1. Locate triangular gussets in upper corners on each side of horizontal flange of false bulkheads which supported the old floor, and drill out rivets. Remove and discard the gussets.
2. Position Doubler Assembly, Bulkhead 10 (1009807) under top flange of Bulkhead 10 (forward), and using a #30 drill bit, match drill rivet holes in doubler through bulkhead.

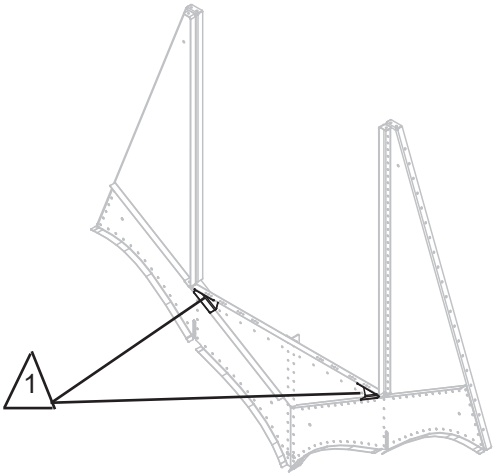
Note: Doublers may have to be trimmed slightly to fit, depending on age of float.

3. Match drill through top flange of bulkhead to match nut plates in doublers. Install doubler with appropriate length rivets (AN470AD-4).

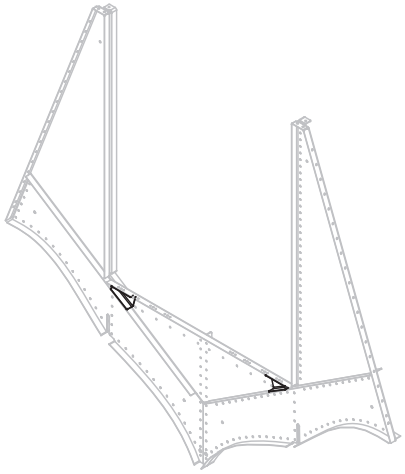
Note: Unless otherwise specified, use AN470AD-4-X rivet in all riveted locations.

4. Position Doubler Assembly, Bulkhead 12 (1009808) under top flange of Bulkhead 12 (aft) and using #30 drill bit, match drill rivet holes in doubler through bulkhead.

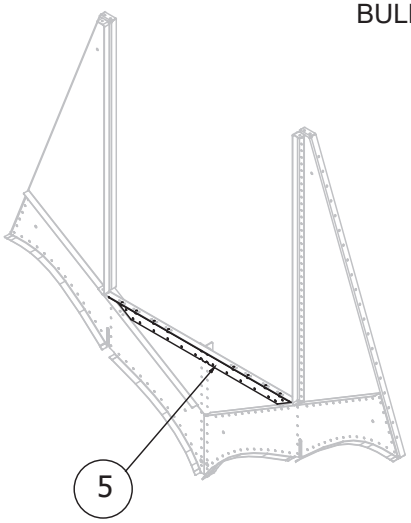
5. Alodine and prime bare areas.

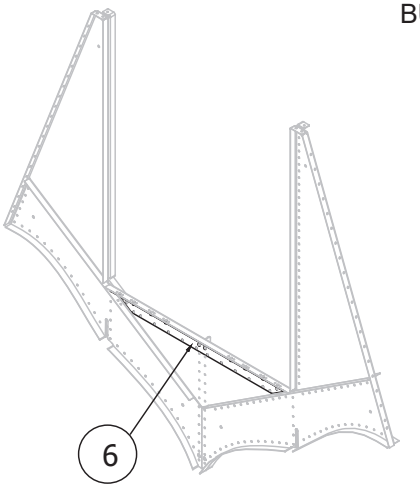


BULKHEAD 10



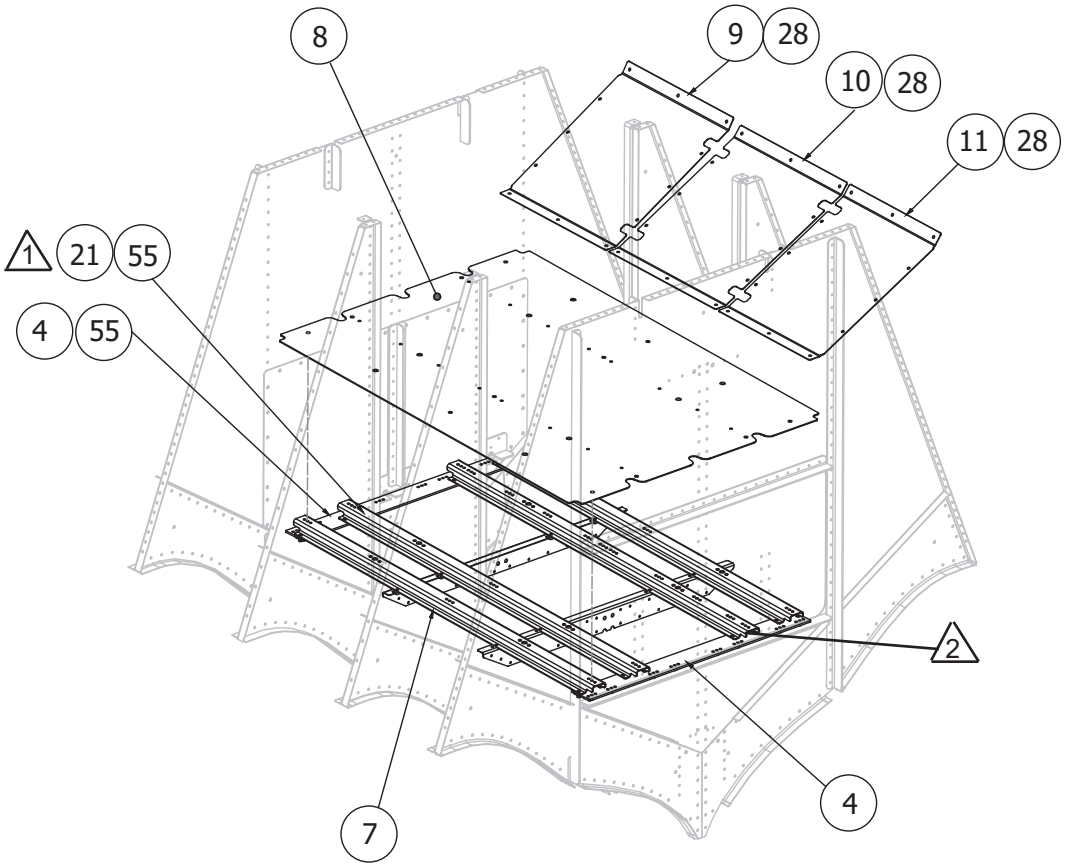
BULKHEAD 12





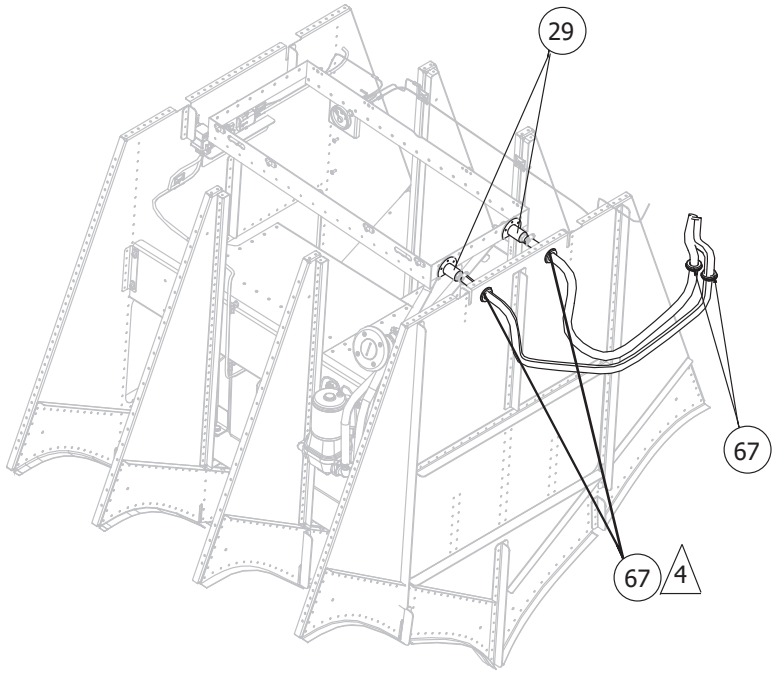
Floor Assembly

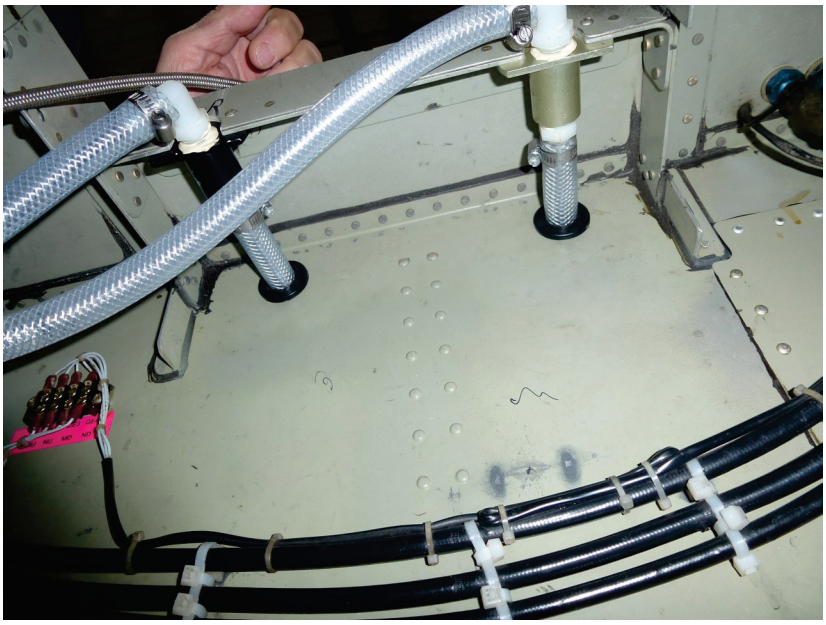
1. Install Assembly Mounting Plates, Bulkhead Covers (1009806) to the castellated flanges at the base of the float bulkhead covers at each end of baggage locker with 8 each screws, 8-32 x ½". (AN525-832R8).
2. Install Hat Channel, Tank Cover Support (1009919) in the 2nd position from the inboard side of the respective float. This Hat Channel has extra nut plates installed to facilitate attachment of the Tank Covers. Secure Hat Channels with 4 each Screws, 8-32 x ½". (AN525-832R8) to the Bulkhead Cover Mounting Plates, and 4 each Screws, 8-32 x 3/8" (AN525-832R6) through the Hat Channel Base Flanges into the bulkhead doublers below.
3. Install the 3 Floor Support Hat Channels (1009809) in the remaining locations using same hardware as called out above.
4. Lay Main Baggage Floor (1009810) on Hat Channels and secure using 12 each Flat Head Screws (MS24693S28).
5. Install the three Baggage Side Floor Sections (1 each 1009811, 1 each 1009812, 1 each 1009813) into their respective bays (fwd, mid, aft). Rotate them until the relief cut-outs on the side match with the vertical flanges on the 10 and 12 Bulkheads. Position Side Floor Sections so Vertical Bulkhead Flange is roughly passing through center of cut-out. Match drill #30 through holes in side floors to Main Baggage Floor and secure each Side Floor with 3 each Screws, 6 x 3/8" (S1021A6-6). For further security, Floor Sections may be secured to Bulkhead Flanges that they rest upon, using the same type screws.



Float Tubing Couplers

1. The 13-Gallon Foam Tank installation requires the installation of a Fluid Return Hose as well as a Supply Hose for each Float Mounted Tank. Right float may require the addition of a Foam Tank Coupler (10A12277-003) for the Return Hose if not previously installed. Some aircraft may already have these features.
2. Left float installations will require the addition of a Return Coupler if float has not previously been fitted with the 30-Gallon Tank.
3. Use existing mounting location for modification dimensions. Mirror new location on door frame centerline. Match drill #30 holes on Couplers and rivet in place to forward end of baggage locker frame.
4. Cut 1” holes in the bulkhead directly forward of the new Coupler placements. Install ¾” Grommets (MS35489-20).





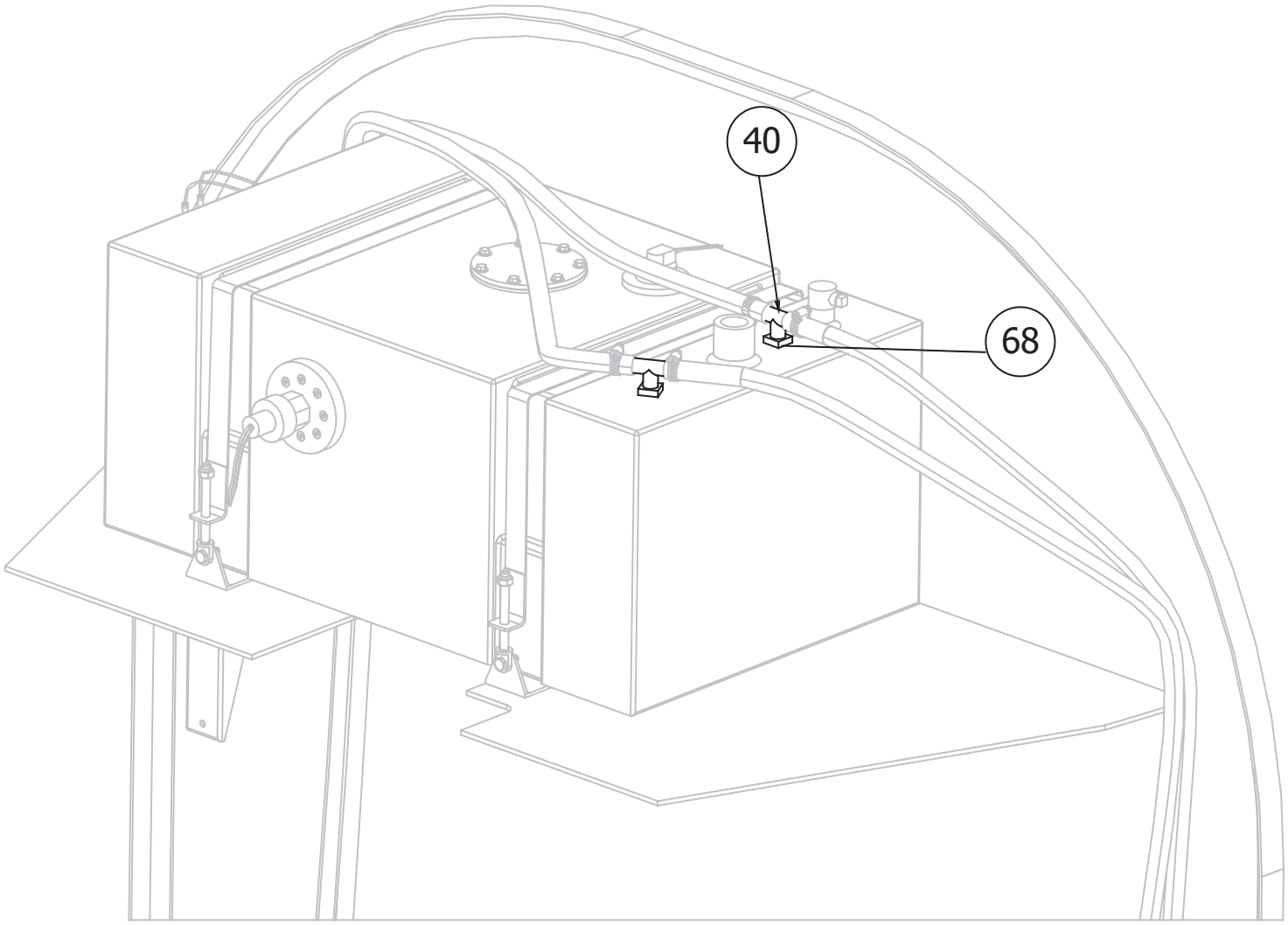
Fuselage Foam Tank

KIT-01:

1. No modifications to fuselage foam tank required. Use existing elbows for tubing connection.

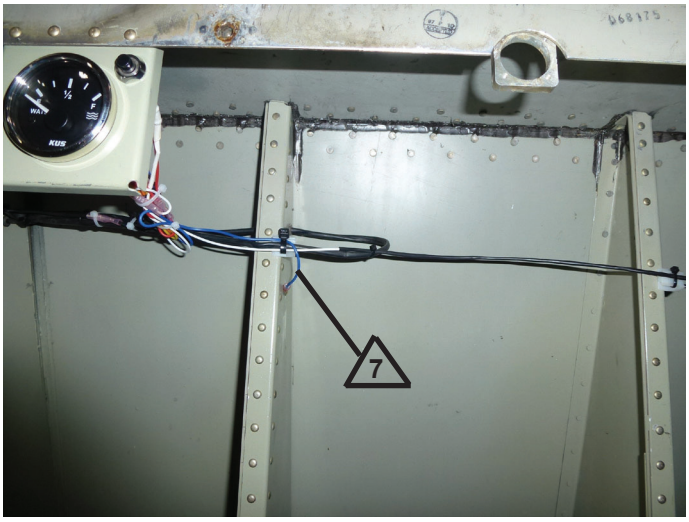
KIT-02:

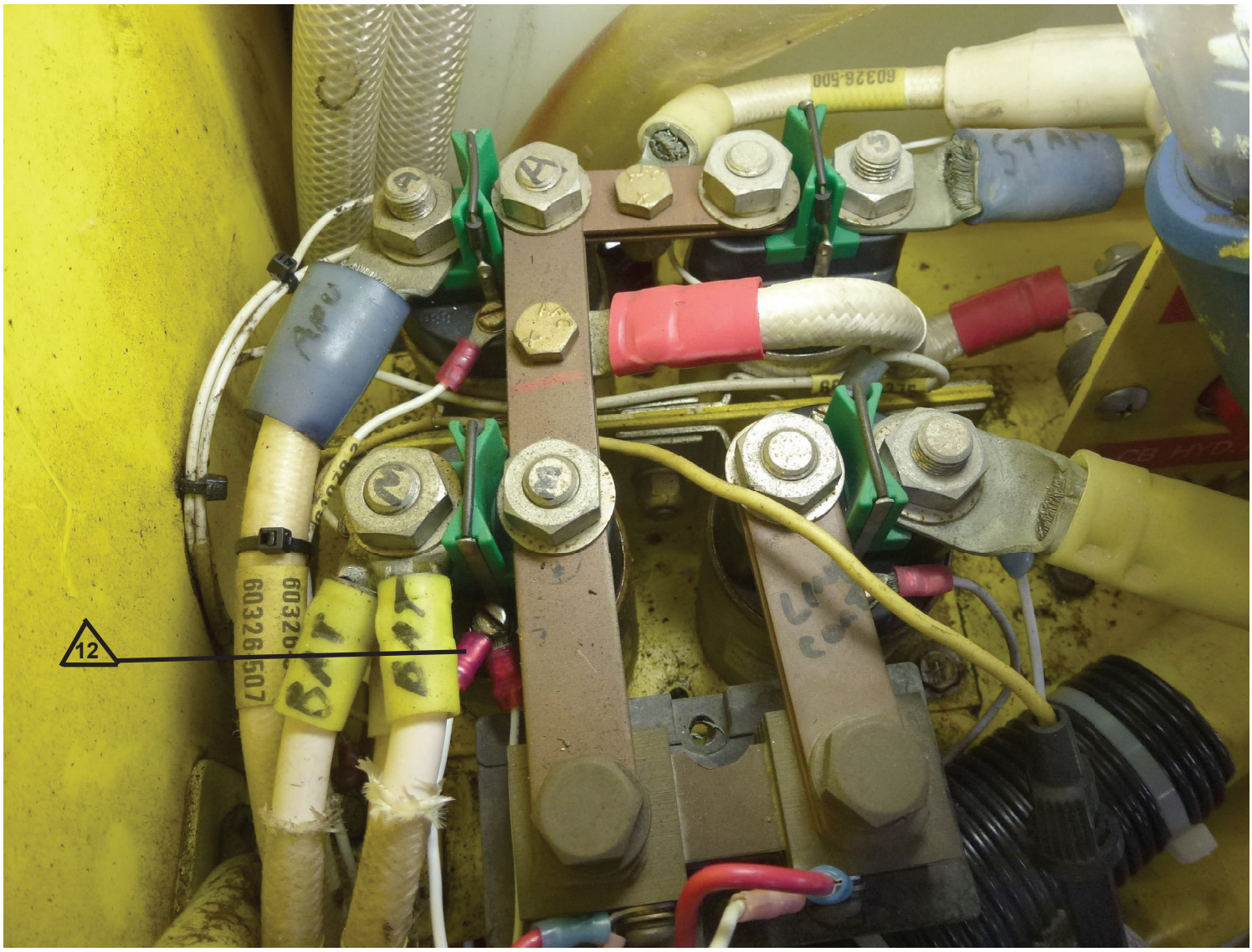
1. Drain and remove existing fuselage foam tank from its shelf forward of aircraft hopper.
2. Remove 90 degree elbow and replace with 1 each Fitting, Barbed 1/2" (48726202). Seal with PRC or equivalent.
3. Clean out tank and re-install to aircraft using existing hardware.



Water Level Gauges and Water Gauge Push Button Switch

1. Install Bracket, Fill Gauge (1009898) 4.5 inches from aft end of Float Locker Door Frame as shown.
2. Install Push Button Switch (SB4011N0H) to installed Fill Gauge Bracket.
3. Install Water Level Gauge (110615) to bracket and plug in supplied Connector to back of gauge.
4. Connect black signal wire from Water Level Gauge to Wire Harness, Water Gauge To Sensor, 10000 (1011037) with Butt Splice (D-436-37). Route Water Gauge To Sensor Harness over to open hole in APTIV (Delphi) Plug on 6 pin Float Harness Assembly. This harness is part of float assembly and penetrates the aft bulkhead of float locker.
5. Use a multi-meter to determine the “normal open” spades on the Push Button Switch SPST-NO, Off (SB4011NOH). 150-Ohm resistor (included with gauge) may be directly soldered to spade on switch or installed in line. Cover resistor with heat shrink.
6. Connect red wire from Water Gauge to a “normal open” spade on back of Water Gauge Push Button Switch.
7. Blue wire is a ground. Add Terminal, Ring (36152) and connect to false bulkhead with Screw 8-32 x 3/8 (AN525832R6), Washer (NAS1149FN832P), Hex Lock Nut 8-32 (MS21044N08) in #19 hole. Cap and stow remaining unused orange and yellow wires from gauge.
8. The operation of the Water Level Gauge when the aircraft electrical power is off, requires the gauge connection to a live power source. The suggested location is to the battery solenoid.
9. Install Wire Harness, Water Gauge, Fuselage (1011028) by utilizing firewall grommet beneath battery solenoids and passing free end of Wire Harness through firewall from engine side leaving enough length to allow connection to one of the solenoids. Ring Connector and fuse end of harness will be located nearest to solenoid.
10. Route the Water Gauge Wire Harness down the inside of the fuselage to the area near the Front Strut Attach Point. This will connect to wire coming from Water Gauge. Install Crimp Socket, (02-06-1103) with Connector, 1 Position (03-06-1011).
11. Solder 10 ft. (min.) of 18 AWG wire to end of 150-Ohm resistor and route through Push Button Switch access hole in Fill Gauge Bracket (1009898), up front strut to fuselage area where it meets with end of Water Gauge Wire Harness. Install Crimp Pin Male (02-06-2103) with Connector (03-06-2011) to end of wire and join to Water Gauge Wire Harness.
12. Connect Ring Terminal on Water Gauge Wire Harness to live lead on solenoid.

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Back Stop and Pump Assembly

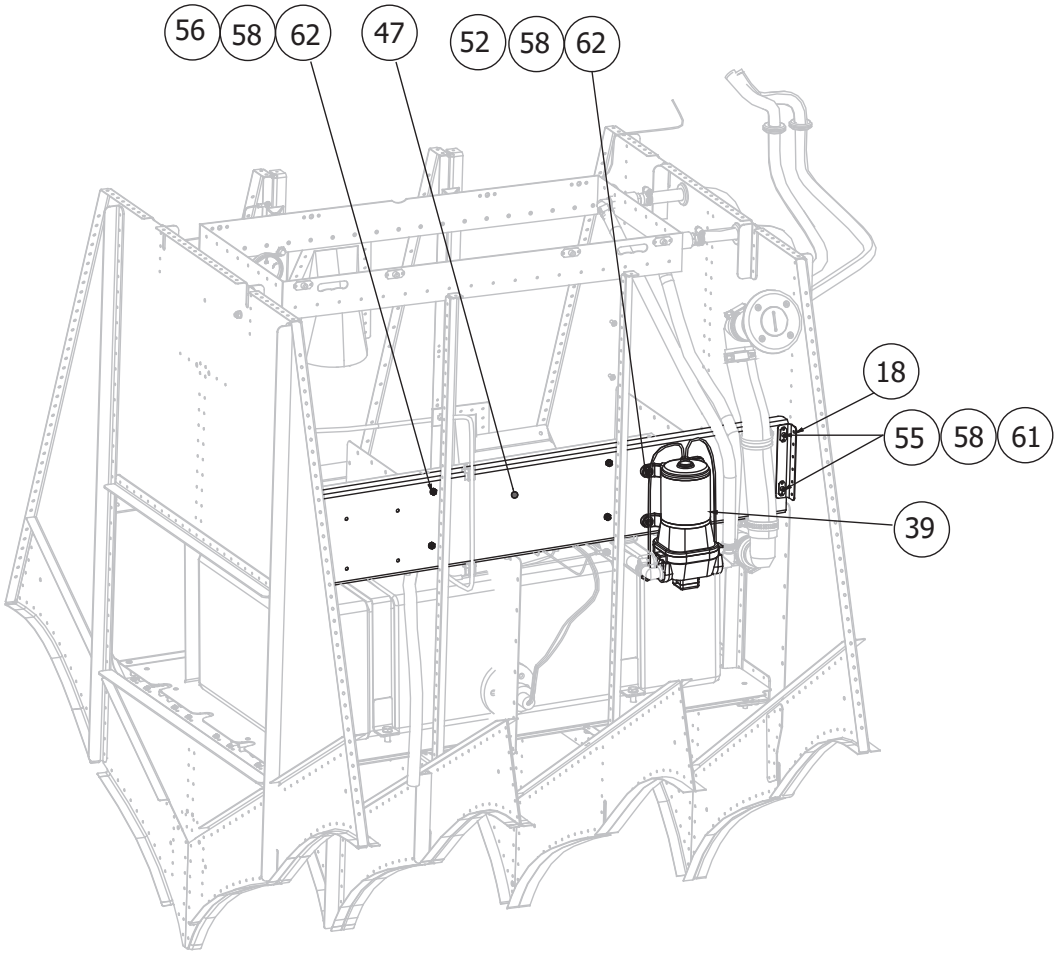
1. Attach Back Stop Support Angles (1009820) to ends of the Tank Cover Backstop (1009818-left and/or 1009819-right) with 2 each Screws 8-32 (AN525832R6). Position Back Stop Support along outboard vertical flanges of #10 and #12 Bulkheads 11.75” up from and parallel with floor. Mark areas on bulkhead flanges where Back Stop will cross. Drill out existing rivets and replace with countersunk rivets (MS20436AD4) so Back Stop will sit flush with bulkhead flanges.
2. Replace Back Stop Support in position and drill out 4 holes in bulkhead flanges and secure Back Stop with 8 each Screws 8-32 (AN525832R8) and 4 each Washers (NAS11149FN832P), Nut 8-32 (MS21044N08) in #10 and #12 Bulkheads.
3. Mark and drill #30 holes through Back Stop Support angle holes through forward and aft bulkheads.

Note: Ensure hole drilling does not conflict with structure or equipment on opposite sides of bulkheads. Gain access to the opposite side of each bulkhead and secure each Backstop Support with 6 each rivets (MS20470AD-4).

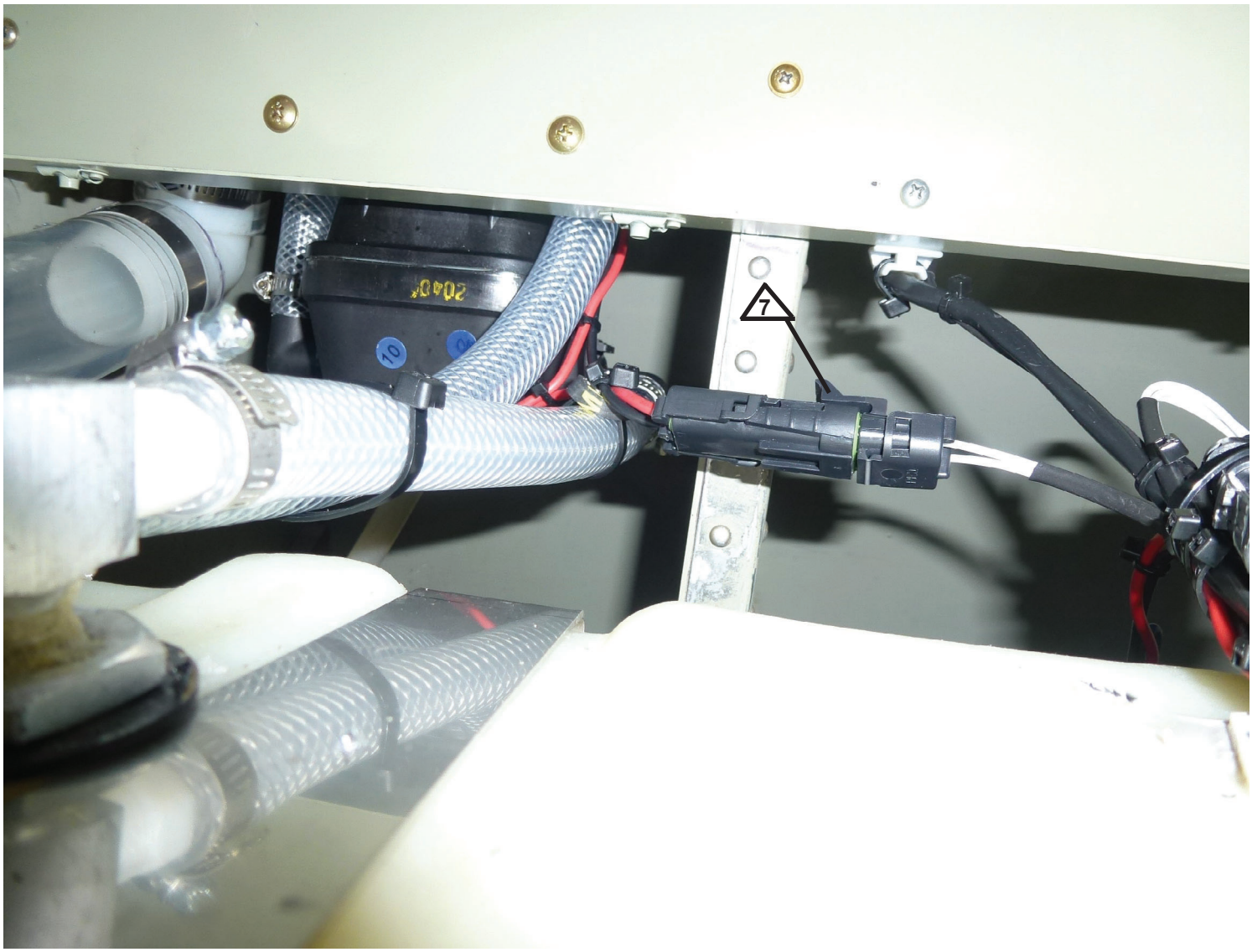
4. Foam Tank Pumps (4405-343) are to be located in the bays adjacent the supply and return ports on the Foam Tanks, mounted to the backside of the Tank Cover Backstop with the holes provided.
5. Install Delphi Pins and Cable Seals with Weatherpack Terminal and Seal Crimper (12014254) or equivalent tool.

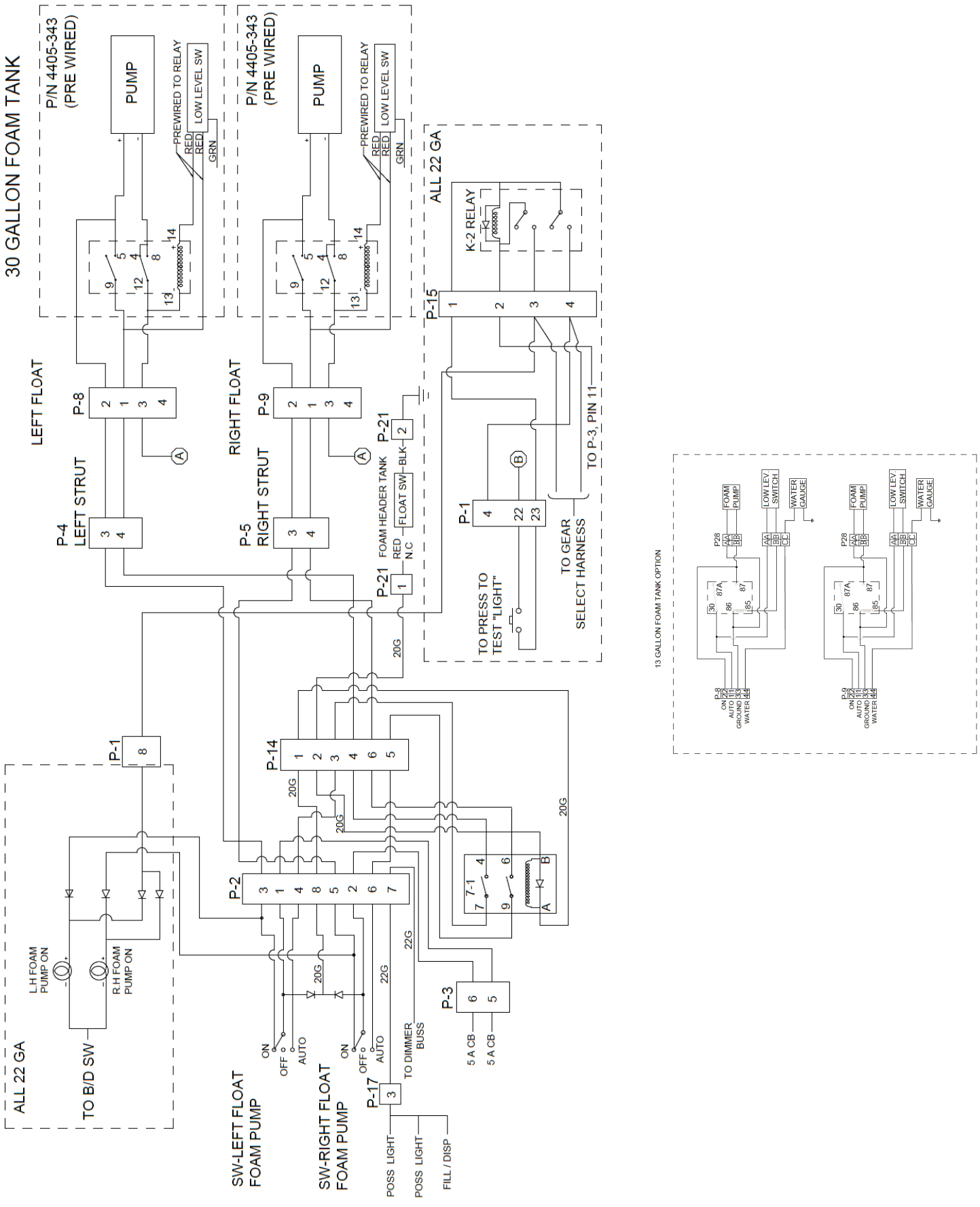
Note: Arrow molded into the plastic pump casing denotes flow direction.

6. Secure Pump with 4 each Screws 10-32 (AN52510R12), 4 each Washers (MS15795-849) 4 each Nuts (MS21044N3). Large washer is used on pump side. Head of screws must be towards the inside to reduce damage potential to stowed items.



7. Install 2-Pin Male Connector (12010973) with 2 each Male Tin-Plated Connectors (12124582) and 2 each Grey Cable Seals (15324980) to black and red wires on pump as per electrical schematic.




30 GALLON FOAM TANK
P/N 4405-343
(PRE WIRED)
PUMP
PREWIRED TO RELAY
LOW LEVEL SW
RED
RED
GRN
LEFT FLOAT
RIGHT FLOAT
P-8
P-9
P-4
LEFT STRUT
P-5
RIGHT STRUT
P-21
FOAM HEADER TANK
FLOAT SW
BLK
RED
N.C
ALL 22 GA
P-15
K-2 RELAY
P-1
TO PRESS TO
TEST "LIGHT"
TO GEAR
SELECT HARNESS
TO P-3, PIN 11
P-14
P-2
7-1
P-3
5 A CB
P-17
TO DIMMER
BUSS
POSS LIGHT
FILL / DISP
SW-LEFT FLOAT
FOAM PUMP
SW-RIGHT FLOAT
FOAM PUMP
ON
OFF
AUTO
20G
22G
L.H FOAM
PUMP ON
R.H FOAM
PUMP ON
TO B/D SW
13 GALLON FOAM TANK OPTION
FOAM
PUMP
LOW LEV.
SWITCH
WATER
GAUGE
P28
P-8
P-9
ON
AUTO
GROUND
WATER

Deck Fill - (Fill Port)

1. Right float only. Deck Fill will be installed in the most forward bay of float locker. Mark Deck Fill (907003) hole center location 2 ¼" down from the lower edge of the gunwall extrusion and located longitudinally in a position which allows 1.5" tube to clear hydraulic hoses. Cut a 2.25" hole, deburr and treat edge for corrosion protection.

Note: As you look at it, the Deck Fills will always be positioned to the right of the float steps. Ensure deck fills are positioned so as not to interfere with manifolds or hydraulic line routings in float interior.

2. Left float only. Deck Fill will be installed in most aft bay of baggage locker. Mark Deck Fill hole center location 2 ¼" down from the lower edge of the gunwale extrusion located longitudinally in a position which allows 1.5" tube to clear hydraulic hoses. Cut a 2.25" hole, deburr and treat edge for corrosion protection.

3. Use Doubler, Skin Foam Fill Cap, 10000 (1009922) as template for drilling rivet pattern. Drill and counter-sink for 12 each CS rivets (MS20426AD4).

4. Place Deck Fill in hole and use as drill template for mounting holes. Use #10 drill.

5. Apply Sikaflex 252 (or equivalent) sealant to back face of Deck Fill and secure Deck Fill to float with 4 each Screws 10-32 (MS24693C274), 4 each Washers (NAS1149F0363P), 4 each Nuts (MS21043N3). Clean off squeezed out sealant.

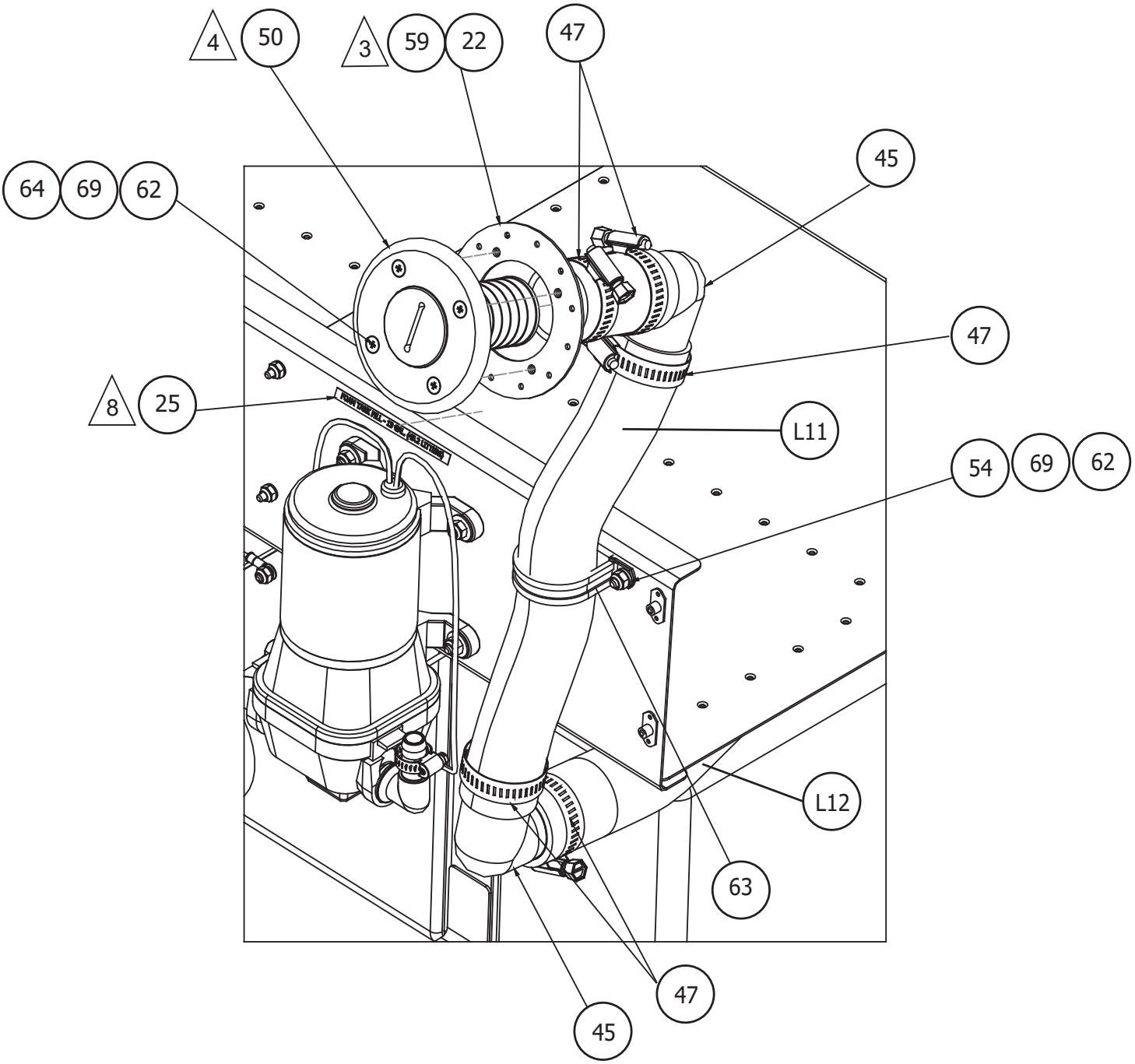
6. 1.5" fill tube routing (5233K76). Cut the 1.5" clear PVC tubing as per the tubing length schedule. Connect 1.5" Tubing and 1.5" ID 90 Degree Barbed Elbows (5372K379). Secure 1.5" Tubing to Elbows with Tube Clamps SAE28 1 ¼-2 ¼" (5428).

7. Secure middle Tube (L11) to Back Stop with 1 each Clamp, 1 ¾" (MS21919WDG28), Screw 10-32 (AN525-10R6) Washer (NAS1149F0363P) and Nut 10-32 (MS21043N3).

8. Install Placard, Foam Tank 13 US Gallons (1011003) to float below Deck Fill.

TABLE 1 - TUBING CUT LENGTHS

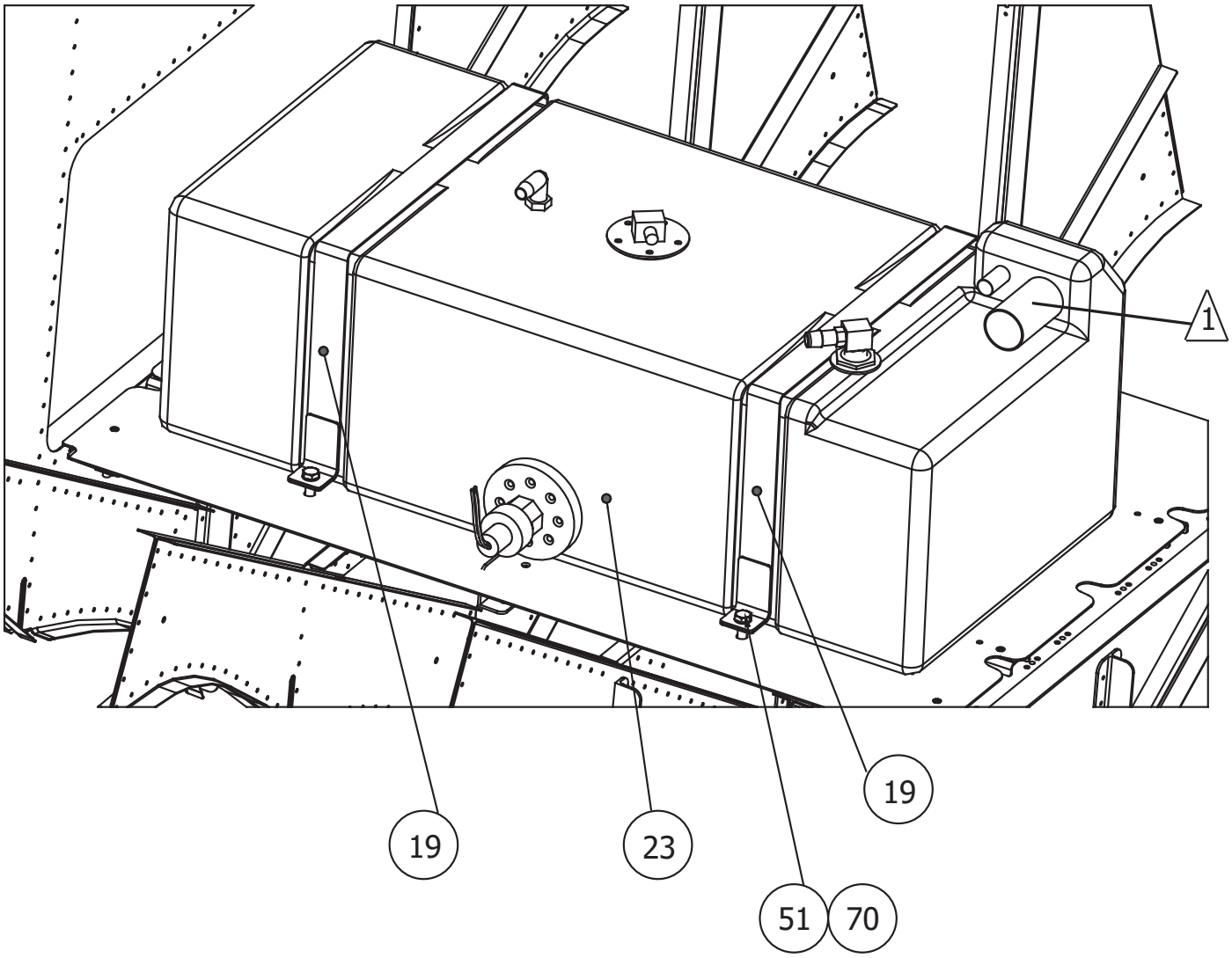
ITEM	PART NUMBER	KIT -01	KIT -02	LENGTH EA.	TUBE ROUTING
L1	60703	1	1	3 FT	(RIGHT) FOAM TANK RETURN TO FLOAT DECK
L2	60703	1	1	2 FT	(RIGHT) PUMP SUPPLY TO FLOAT DECK
L3	60703	2	2	8.5 FT	(RIGHT) FUSELAGE SUPPLY / RETURNS TO FUSELAGE TANK
L4	60703	2	4	8 FT	FLOAT DECK SUPPLY / RETURNS TO FUSELAGE
L5	60703	0	1	5.5 FT	(LEFT) FOAM TANK RETURN TO FLOAT DECK
L6	60703	0	1	4.5 FT	(LEFT) PUMP SUPPLY TO FLOAT DECK
L7	60703	0	2	6.5 FT	(LEFT) FUSELAGE SUPPLY / RETURNS TO FUSELAGE TANK
L8	60703	1	2	2 FT	FOAM TANK OVERFLOW
L9	60703	1	2	1 FT	FOAM TANK SUPPLY TO PUMP
L10	5233K76	1	2	4 FT	UPPER TUBE
L11	5233K76	1	2	12 FT	MIDDLE TUBE
L12	5233K76	1	2	15 FT	LOWER TUBE


4
50
3
59
22
47
45
64
69
62
47
8
25
L11
54
69
62
L12
63
47
45

13-Gallon Tank Assemblies

1. Install 13-Gallon Foam Tank Assembly (1009932) positioned towards the outside of the float with the supply and return ports on the tank always facing towards the Deck Fill (fill port).
2. Place Tank Strap Assemblies (1009821) over recesses in tank and secure each Tank Strap to floor with 2 each Bolts (AN5-5A) and Washers (NAS1149F0363P).

Note: Tank must be held firmly, but do not over-tighten bolts!

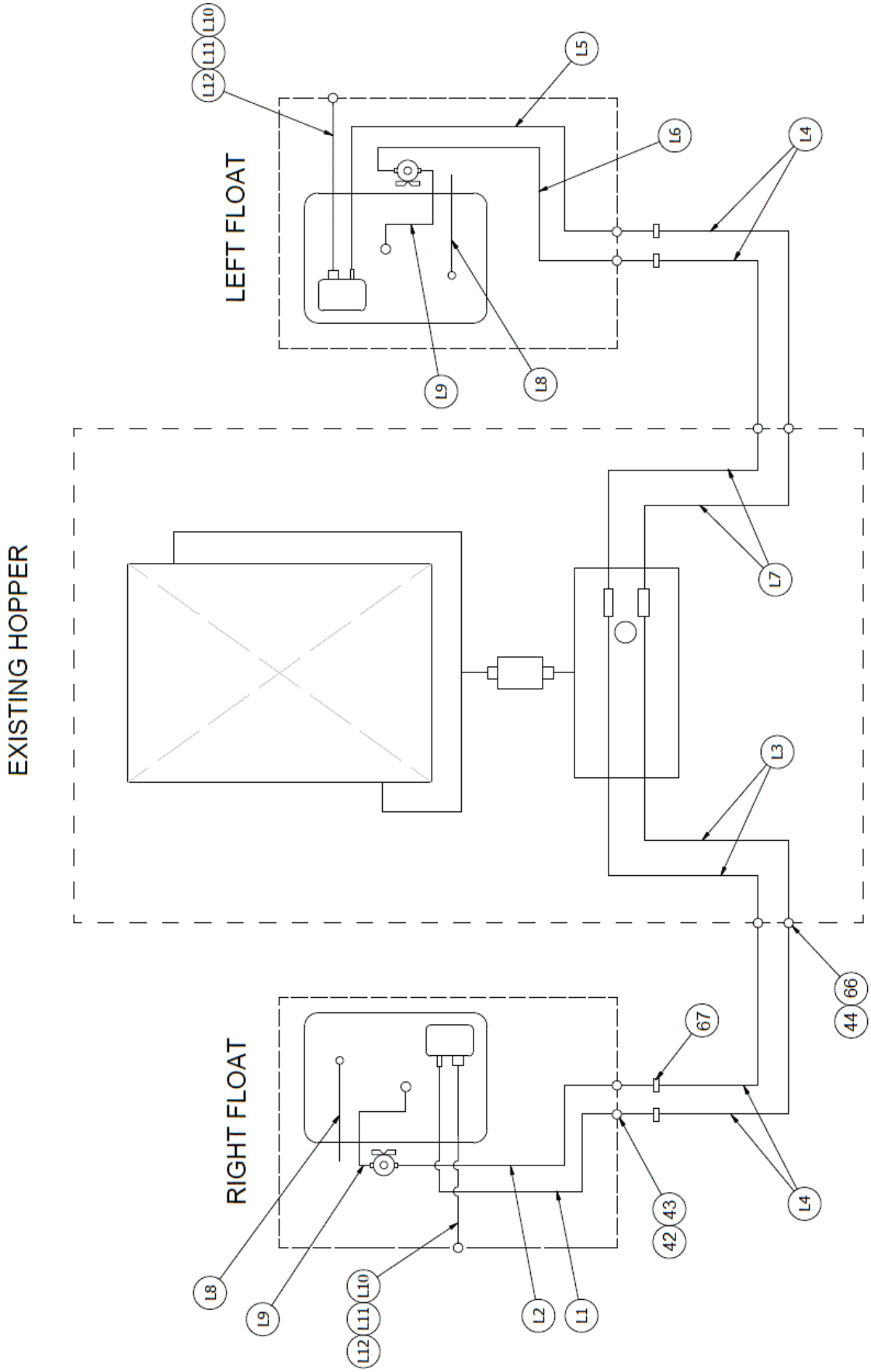


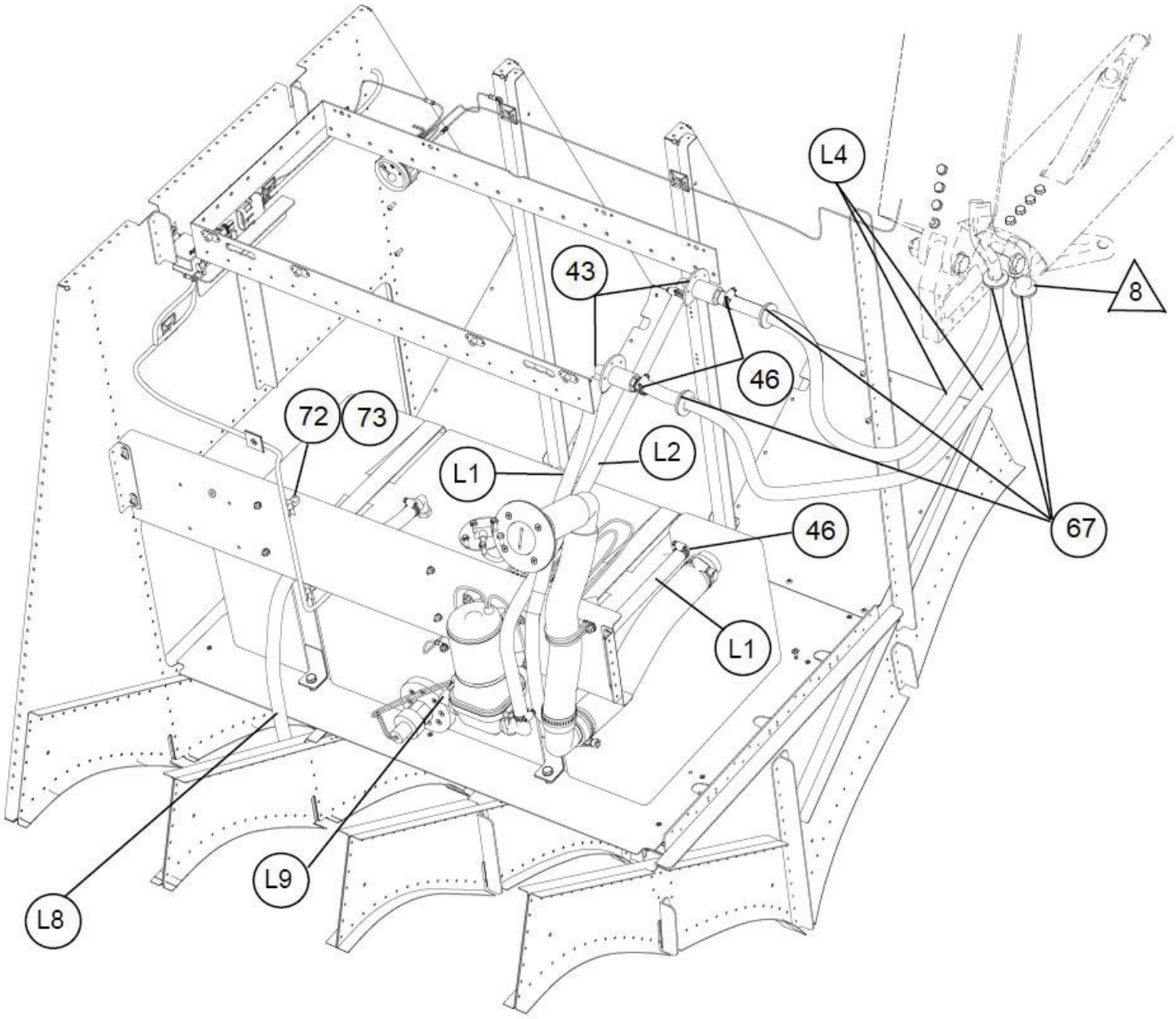
¾” OD Tube Supply and Returns Routing

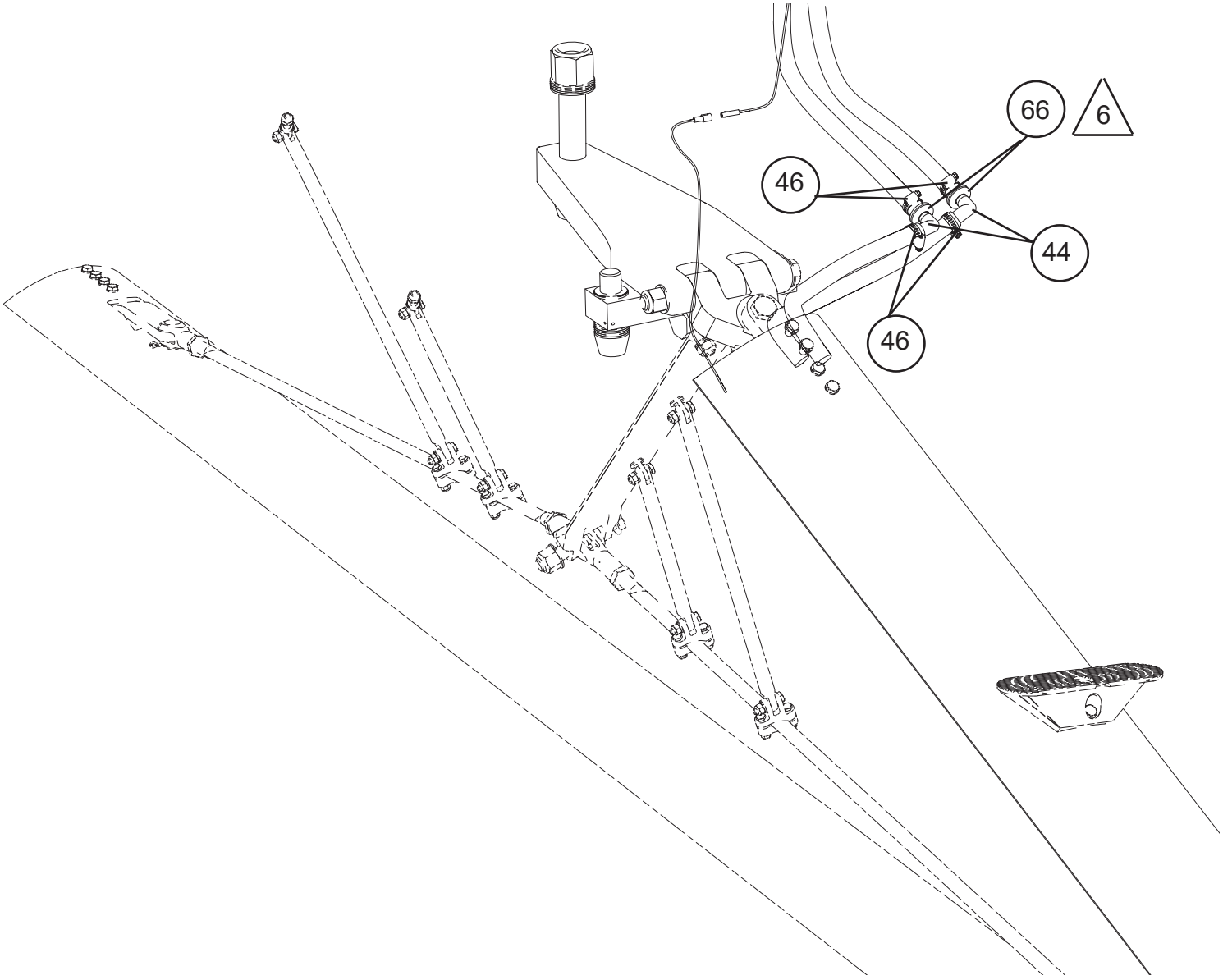
1. Cut the 3/4” OD clear, reinforced PVC tubing (60703) as needed.

Note: See tubing length schedule table as a reference. All ¾” tube must be secured at each end with ¾” Hose Clamps (54195K16). The tubing may be heated lightly to facilitate connection.

2. Install 1 each Adapter, 90 Degree Elbow (5372K324) to tank side of each of the Tube Couplers on the forward end of the float locker door frame. Position so they face towards the pump mounting location. Use Teflon tape or other approved thread sealers on Tube Connectors.
3. Install 1 each Pipe, Male Adapter ½ x 3/8” (5372K124) to forward side of each Tube Coupler.
4. Install L1, L2 Tubing in right float. The inboard Tube goes to the Pump (supply) and the outboard tube leads to the Foam Tank (return).
5. Install L5, L6 Tubing in left float if both tanks are required. Secure Tube Routing by installing 1 each Mount (S2034-1) Screw 8 x 5/8 (S1021A-8) to each false bulkhead flange and secure with cable-ties.
6. Installing return tube to left float requires additional 13/16” hole 1.5” in lower cowling cheek panel, 4 inches down and forward of supply hole. Install Grommets, ½” ID (MS35489-14) and Elbow Fittings ½” (5372K373) into holes and rotate them to face towards struts.
7. Connect one end of L3 8.5’ fuselage supply/return tubes to each Tee Fitting on fuselage tank. Route tubes down to Elbow Fittings on cowling pan and make connection. Secure tubes with 4 each Clamps, Hose Fits 3/4-7/8 (54195K16). Cap off Tee Fittings if only right Foam Tank will be installed.
8. Route L4 8’ float deck supply/returns to fuselage tubing through front strut along existing supply tube. Cut additional 1 1/16” diameter hole in float deck to allow penetration of L4 Tube. Install Grommet (MS35489-20) in hole.
9. Connect L4 float deck supply/return tubes to ½” Male Adapters on Couplers and secure with Clamps, Tube ¾-7/8”. Connect other end to ½” Elbow Fittings passing through lower cowling cheek panel. Secure with clamps.


LEFT FLOAT
EXISTING HOPPER
RIGHT FLOAT
L1
L2
L3
L4
L5
L6
L7
L8
L9
L10
L11
L12
42
43
44
66
67


L4
43
8
46
72
73
L2
L1
46
67
L1
L9
L8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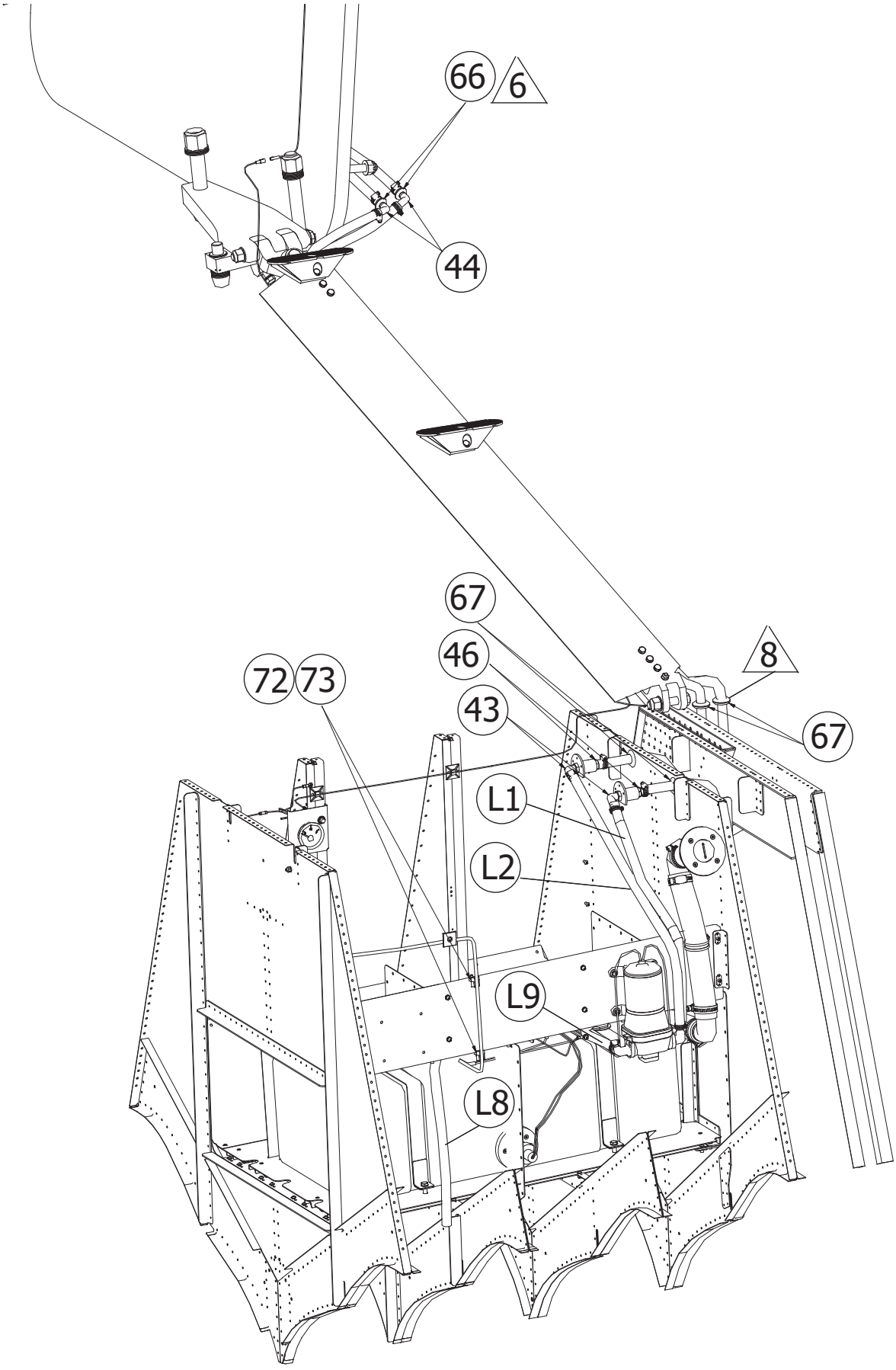
66
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73
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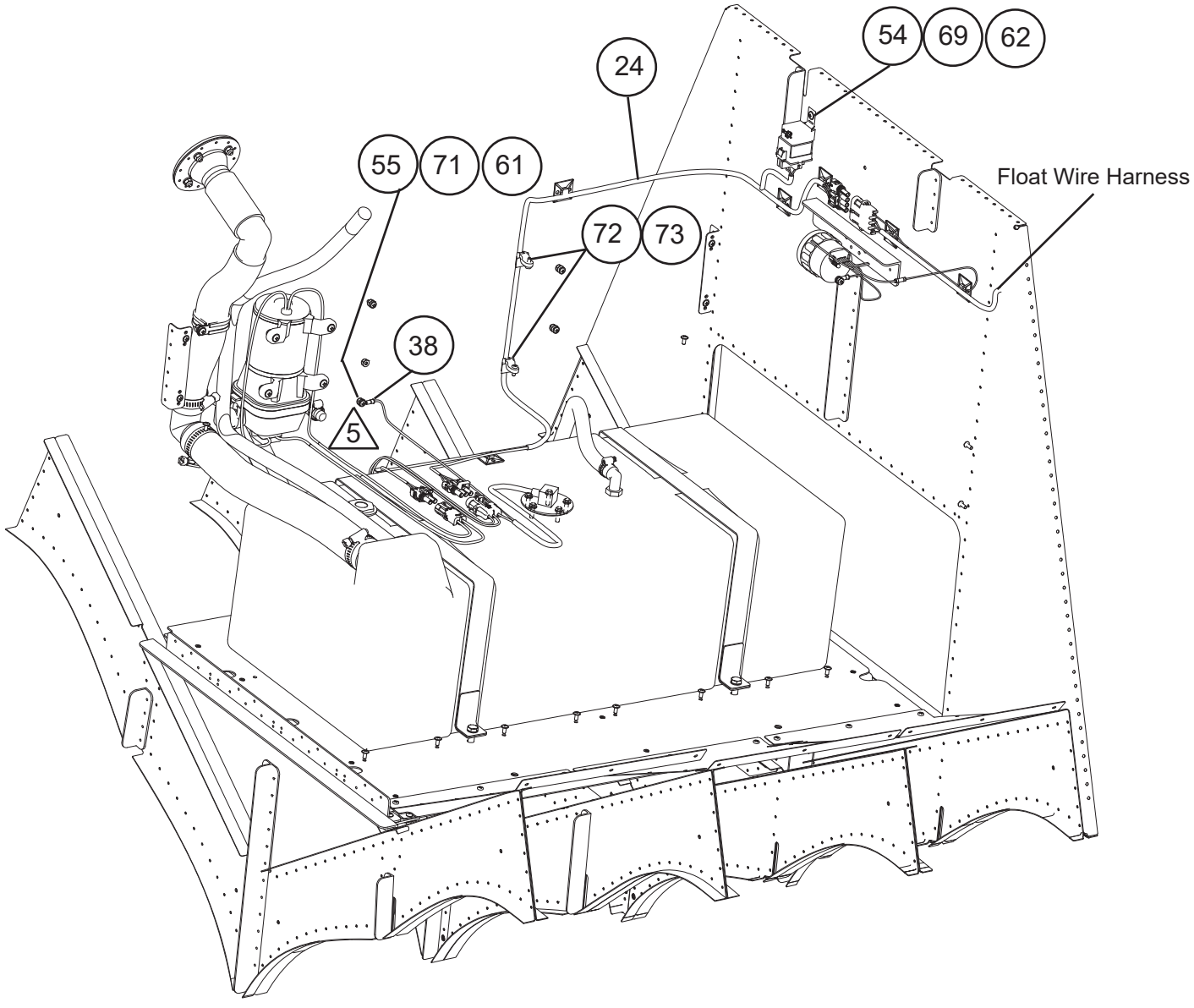
L1
L2
L9
L8

Wire Harness, 13-Gallon Foam Tank

1. Mount Connector, Mini Relay from Wire Harness 13-Gallon Foam Tank (1009987) to aft bulkhead near float wire harness plug, by drilling a #10 hole through bulkhead as shown below. Secure with screw, 10-32 (AN525-10R8), Washer (NAS1149F0363P), Nut (MS21043N3). Install Relay, Mini 24V to Mini Relay Connector.
2. Connect Wire Harness, 13-Gallon Foam Tank (1009987) to float wire harness.
3. Install mount (S2034-1) and Screw, 8 x 5/8 TR PHIL A STL (S1021A8-8) on false bulkheads if necessary to use as points to cable-tie harness. Route harness down aft bulkhead and to outside of Tank Cover Back Stop to pump and Foam Tank and mate the connectors.
4. Connect 2 Pin Plug of wire harness to 2 Pin Receptacle coming from pump and 3 Pin Plug from wire harness to 3 Pin Receptacle on Foam Tank. Install Cable Tie Bases (7566K62) where needed to secure foam tank harness. Use PRC adhesive (or equivalent) to mount bases to tank.

5. Drill #19 hole in false bulkhead flange and mount Ring Terminal (R-3) Screw 8-32 (AN525832R6), Washer (NAS11149FN832P), Nut 8-32 (MS21044N08) for ground. Remove paint for good grou



System Operational Checks

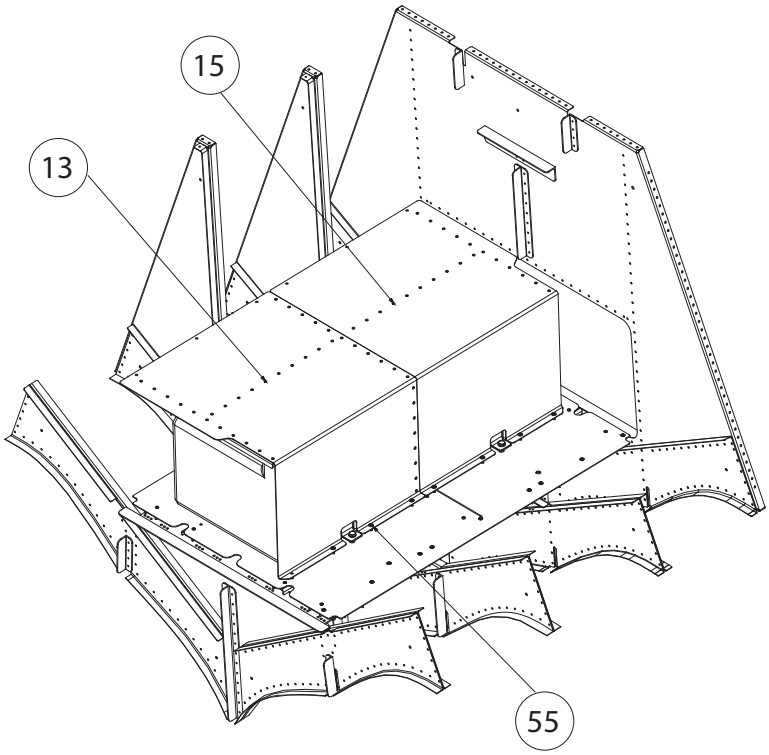
1. Fill tanks with water (or foam if available) through Deck Fills. Check to ensure operation and accuracy of Water Level Gauges when full. Gauges should read full when the tank is actually full. Inspect for leaks.
2. Pump water to upper fuselage tank until auto shut-off on upper fuse tank activates.
3. Unplug fuselage tank shut-off switch and continue pumping from float tanks into fuse tank.

Warning: Ensure fuse tank fill cap is secure! Excess must flow through return tubes back to float tanks. Observe fluid flow and check for leaks. Check to ensure any excess water in float tanks flows from tank over-flows into bottom of float.

4. Re-install fuselage shutoff connection.
5. In “auto” mode, continue pumping from float tanks until low level switches activate and shuts foam pumps down.
6. Switch to “manual” mode. Continue pumping from float tanks until no longer drawing fluid.
7. Remove water from system and allow to dry thoroughly before filling with foaming agent. Pump water from float if applicable.

Tank Covers

1. Install aluminum tank covers.
   a. Right float: Forward Tank Cover Right Assembly (1009815), Aft Tank Cover Right Assembly (1009817).
   b. Left float: Forward Tank Cover Left Assembly (1009814) and Aft Tank Cover Left Assembly (1009816).
2. Secure Tank Covers to floor and Back Stop with Screw 8-32 (AN525832R6).



Aircraft Closing & Return to Service

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 194.