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SERVICE LETTER 251

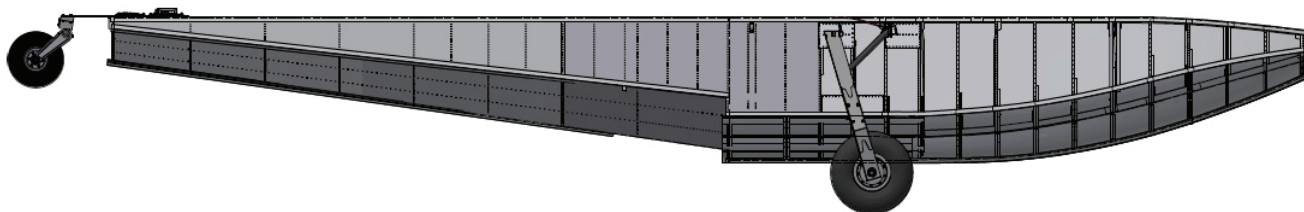
Attach Points for 13000S Floats Beaching Gear Installation

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Optional	By: MAS
DeHavilland DHC-6	13000S	Part Number: 1012338	Approved: DRH
		Date: 5/8/2023	Revision: A

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	5/8/2023

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



EFFECTIVITY:

This service letter applies to DeHavilland model DHC-6 Twin Otter with Wipline 13000 Seaplane Floats serial numbers 13301S & 13302S and later.

COMPLIANCE:

Optional Compliance

BACKGROUND:

Beaching gear parts were removed from float production. This service letter provides the option to create attach points to fit 13000 straight floats with beaching gear for float serial numbers 13301S & 13302S and later.

COMPLIANCE METHOD:

Install parts per work instructions in this service letter. View Appendix A for detailed drawings.

APPROXIMATE SHOP HOURS:

Performing the work instructions will take approximately 40 labor hours to complete 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 by contacting Wipaire customer service.

1700 Henry Ave - Fleming Field (KSGS), South St. Paul, MN 55075

Phone: 651.451.1205 | Fax: 651.457.7858

www.wipaire.com

TOOLING PARTS REFERENCE ONLY*

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1012251	DRILL JIG, 13000S, BEACHING GEAR, TAIL WHEEL MOUNT
2	1	1012277	DRILL JIG, MOUNT, LOWER, BEACHING GEAR

*Tooling parts may be available. Contact Wipaire Customer Service for details. View Appendix A for detailed drawings with tooling parts.

Note: This kit applies to 13000S float serial numbers 13301S & 13302S and later.

**ITEMS PROVIDED IN SERVICE KIT 1012338-01
(BEACHING GEAR ATTACH POINT PARTS ONLY LEFT AND RIGHT FLOATS*)**

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	13S01204-003	FITTING, BEACHING GEAR, FLOAT
2	2	13S01227-002	ATTACH, BEACHING GEAR
3	2	13S01229-003	GUSSET, FWD CHINE, BEACHING GEAR
4	2	13S01229-004	GUSSET, FWD CHINE, BEACHING GEAR
5	4	13S01357-067	REINFORCEMENT, AFT TOP SKIN, BEACHING GEAR
6	12	13S01736-001	EYE BOLT, MODIFIED
7 LT	1	1012260	DOUBLER, LOWER, AFT, LEFT FLOAT, BEACHING GEAR
7 RT	1	1012261	DOUBLER, LOWER, AFT, RIGHT FLOAT, BEACHING GEAR
8 LT	1	1012262	DOUBLER, UPPER, FWD, LEFT FLOAT, BEACHING GEAR
8 RT	1	1012263	DOUBLER, UPPER, FWD, RIGHT FLOAT, BEACHING GEAR
9 LT	1	1012264	DOUBLER, LOWER, FWD, LEFT FLOAT, BEACHING GEAR
9 RT	1	1012265	DOUBLER, LOWER, FWD, RIGHT FLOAT, BEACHING GEAR
10 LT	1	1012266	DOUBLER, UPPER, AFT, LEFT FLOAT, BEACHING GEAR
10 RT	1	1012267	DOUBLER, UPPER, AFT, RIGHT FLOAT, BEACHING GEAR
11	2	1012268	CHANNEL, BEACHING GEAR
12	2	1012270	CHANNEL, BEACHING GEAR
13 LT	1	1012272	DOUBLER, OUTSIDE, FWD, LEFT FLOAT, BEACHING GEAR
13 RT	1	1012273	DOUBLER, OUTSIDE, FWD, RIGHT FLOAT, BEACHING GEAR
14 LT	1	1012275	DOUBLER, OUTSIDE, AFT, LEFT FLOAT, BEACHING GEAR
14 RT	1	1012274	DOUBLER, OUTSIDE, AFT, RIGHT FLOAT, BEACHING GEAR
15	4	AN6-11A	BOLT, 3/8-24, 0.5625 GRIP, UNDRILLED, STEEL
16	4	AN6-13A	BOLT, 3/8-24, 0.8125 GRIP, UNDRILLED, STEEL
17	12	MS21044N8	NUT, LOCKING, REGULAR HEIGHT, 1/2-20 UNF
18	8	MS21083N6	NUT, LOCKING, LOW HEIGHT, 3/8-24 UNF
19	16	NAS1149D0663J	WASHER, 0.39 ID, 0.063 THK, ALUMINUM
20	8	NAS1149D0816J	WASHER, 0.515 ID, 0.016 THK, ALUMINUM
21	4	NAS1149D0863J	WASHER, 0.515 ID, 0.063 THK, ALUMINUM
22	1	1012276	TEMPLATE, INBD, SIDE SKIN, HALF INCH HOLE

*View Appendix A for detailed drawings with beaching gear attach point parts.

Work Instructions

1. Open compartment cover between #11 and # 14 bulkheads.

Compartment
cover

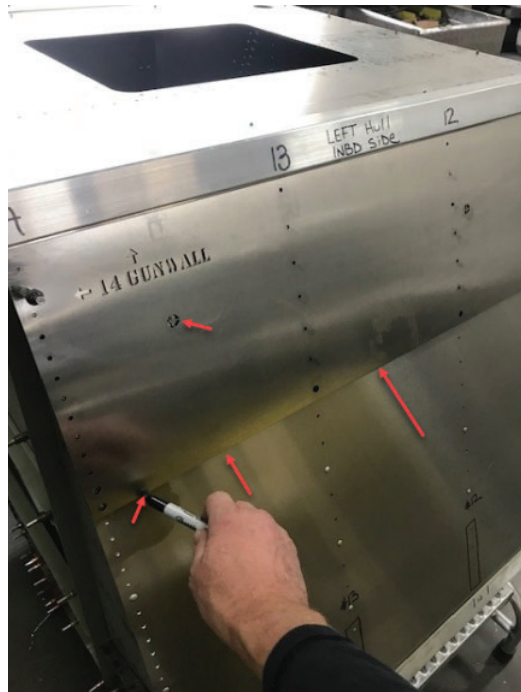


2. On the inboard side, remove the first 4 rivets from the chine up on side skin of #12 and #13 bulkheads.

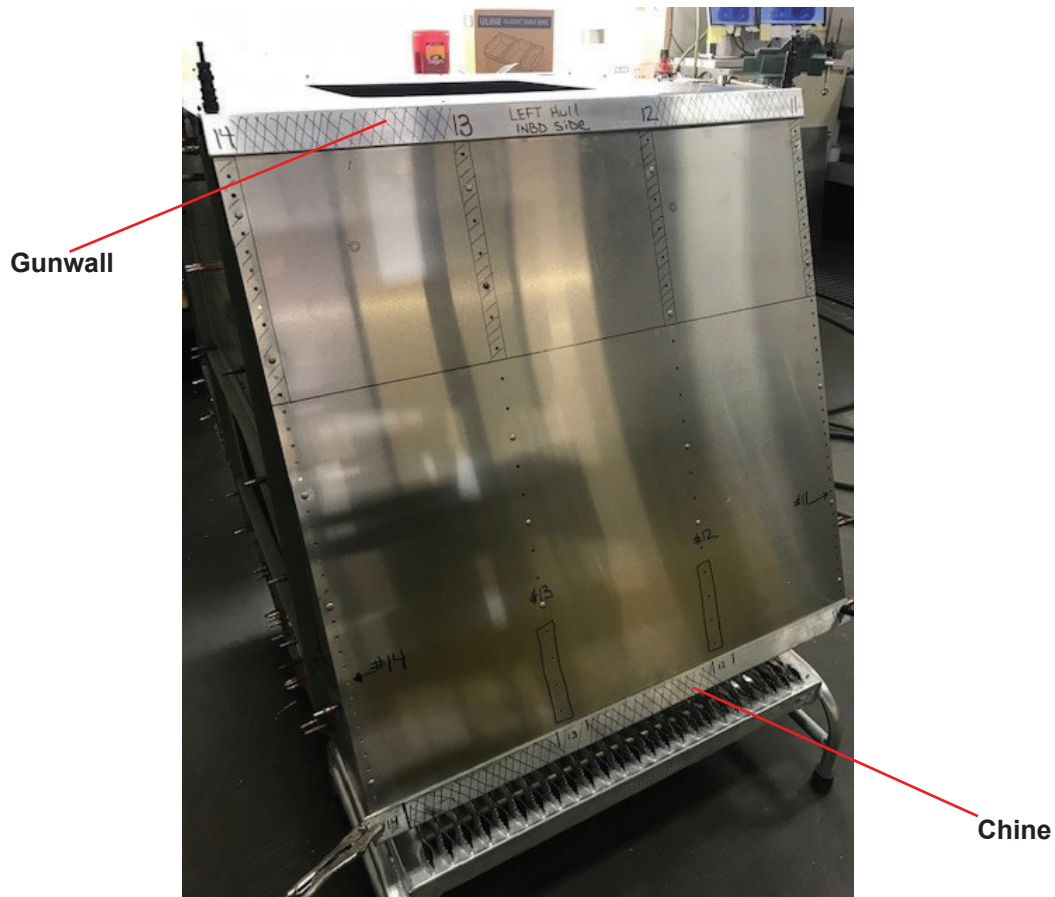


Remove rivets

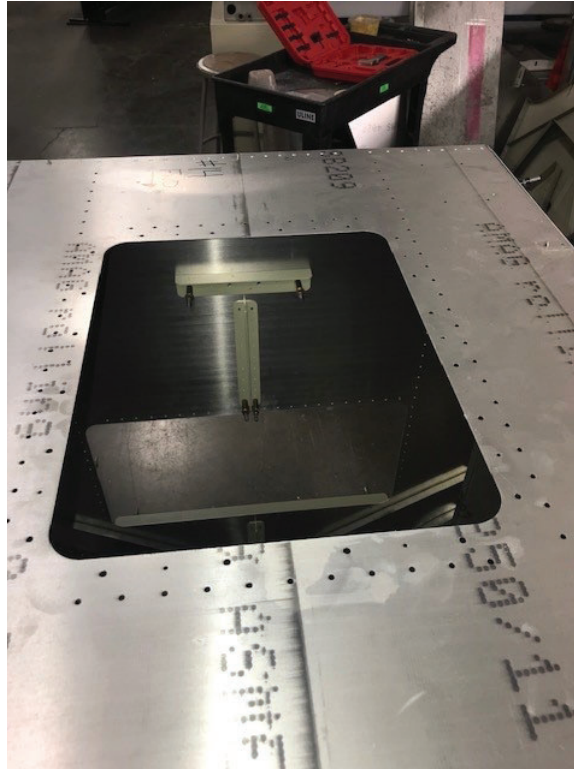
3. On inboard side of float, place template 1012276 on gunwall edge. Mark the template profile and the 1/2" hole profiles. Remove all rivets on side skin in this area.



4. Remove all flush rivets on chine between #12 and #14 bulkheads. Remove all flush rivets on gunwall between #11, #12, #13, and #14 bulkheads.



5. Inside the float, remove the #14 bulkhead access cover.

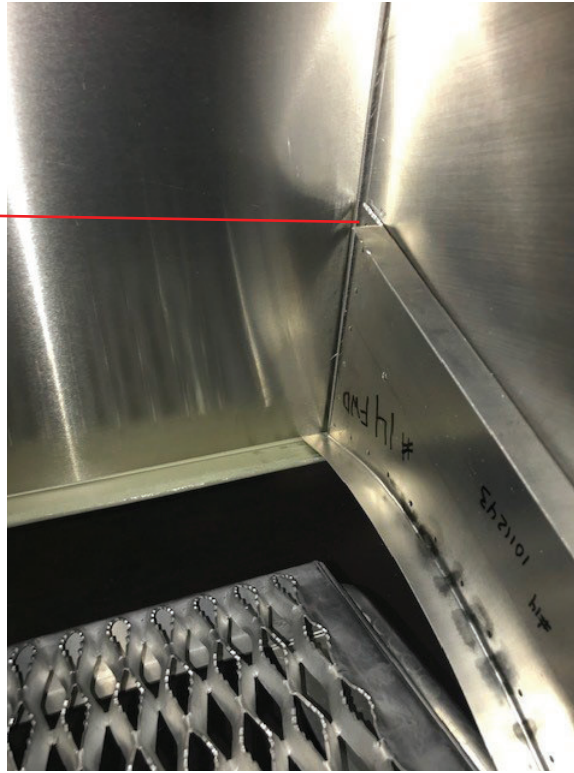


6. Scrape all sealer off in areas where the inside doublers will go.



7. Trim 1" off bulkhead flute stiffeners on FWD side of #13 and #14 bulkheads only.

Trim 1"



8. In the chine area of #13 and #14 bulkheads, remove the rivets that hold together the bulkhead flutes. Position doublers 1012260 (#14 Left), 1012261 (#14 Right), 1012264 (#13 Left), and 1012265 (#13 Right) into place, and cleco through bulkhead flutes and side skins. Match drill remaining holes into side skin and open all bulkhead holes to #21 drill.



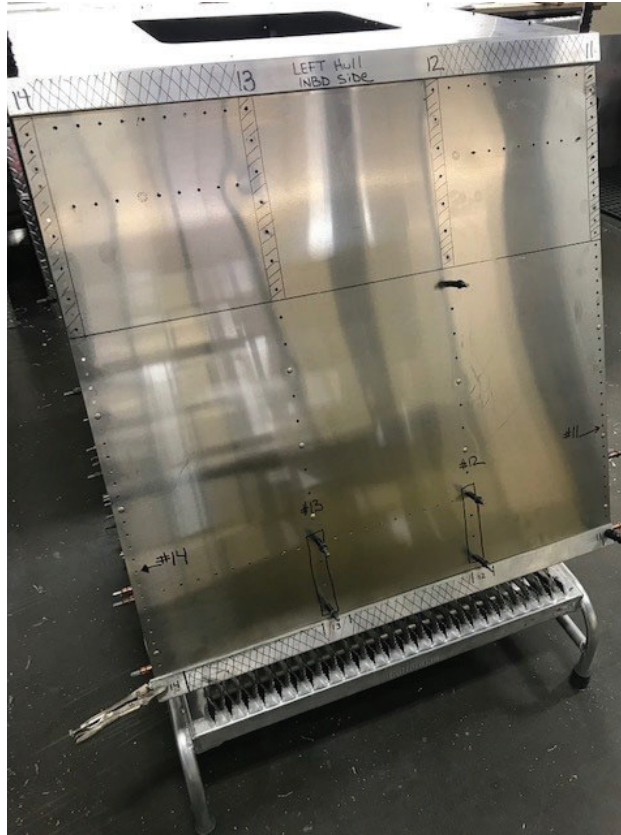
9. On the gunwall edge of the side skin, fit doublers 1012262 (#12 Left), 1012263 (#12 Right), 1012266 (#14 Left), and 1012267 (#14 Right). Position doublers 1012262 and 1012263 between #11 and #12 bulkheads. Position doublers 1012266 and 1012267 between #13 and #14 bulkheads. Cleco into side skin bulkhead holes and match drill flanges into the face of bulkheads #12 and #14. Once clecoed in place, match drill all holes into side skin.



10. Cleco channels 1012268 and 1012270 into place.



11. On outside of float, match drill all holes into doublers in chine area and in gunwall.



12. Cleco template 1012276 onto float. Pay attention to #14 bulkhead and gunwall note on the template. Drill eye bolt locations using a #40 drill bit.



13. Cleco outside doublers 1012272 and 1012274 onto the left float and 1012273 and 1012275 onto the right float. Match drill remaining holes and back drill eye bolt location hole from previous step.



14. Take everything apart. Deburr completely and seal all mating surfaces. Install using MS20470-5 rivets and MS20426-5 rivets. **Note:** Leave out any flush rivets in chine where inside fittings 13S01229-003 and 13S01229-004 will attach.

15. Draw a line 3/4" FWD of rivet line center on #13 bulkhead. Loosen Allen bolts on drill tooling T-1045. Then position drill fixture lining up 3/4" marks. Tighten Allen bolts to secure tooling to chine. Drill and pin holes.



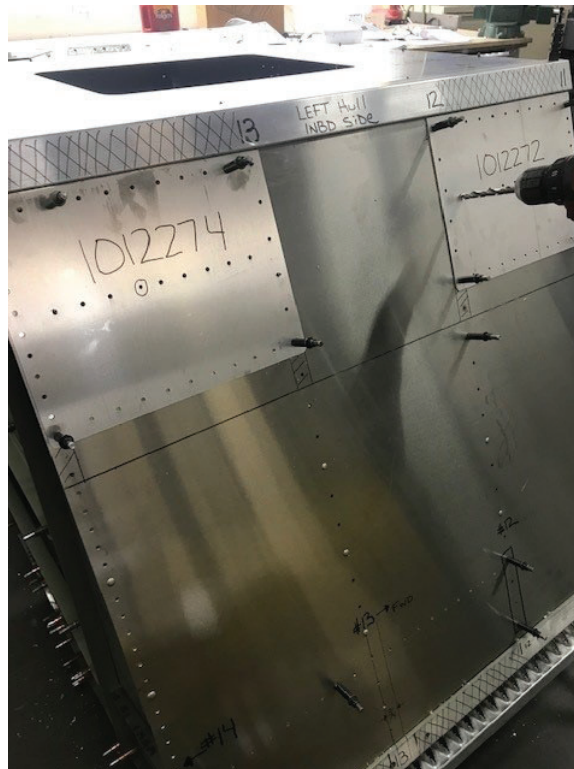
16. Fit up gussets 13S01229-003 and 13S01229-004.

- Left Float 13S01229-003 goes on aft side of #13 bulkhead and 13S01229-004 on the forward side.
- Right Float 13S01229-003 goes on forward side of #13 bulkhead and 13S01229-004 on the aft side.

Note: When fitting up the aft side gusset, trim out the gusset to fit up against the bulkhead flutes and flat on the chine.



17. Open up #40 eye bolt holes using piloted drill bit 31/64" and ream to 1/2" and install eye bolts 13S01736-001 using nuts MS21044N8.

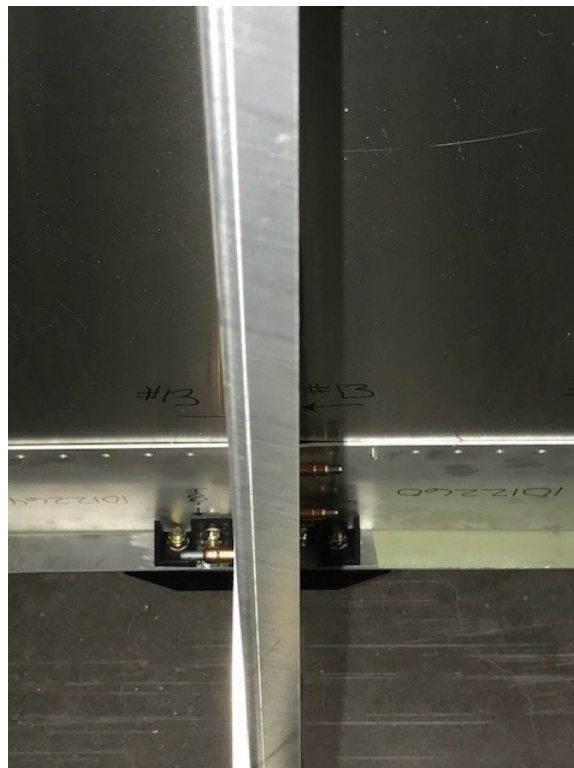


18. Using sealer, install bolts for chine fitting.

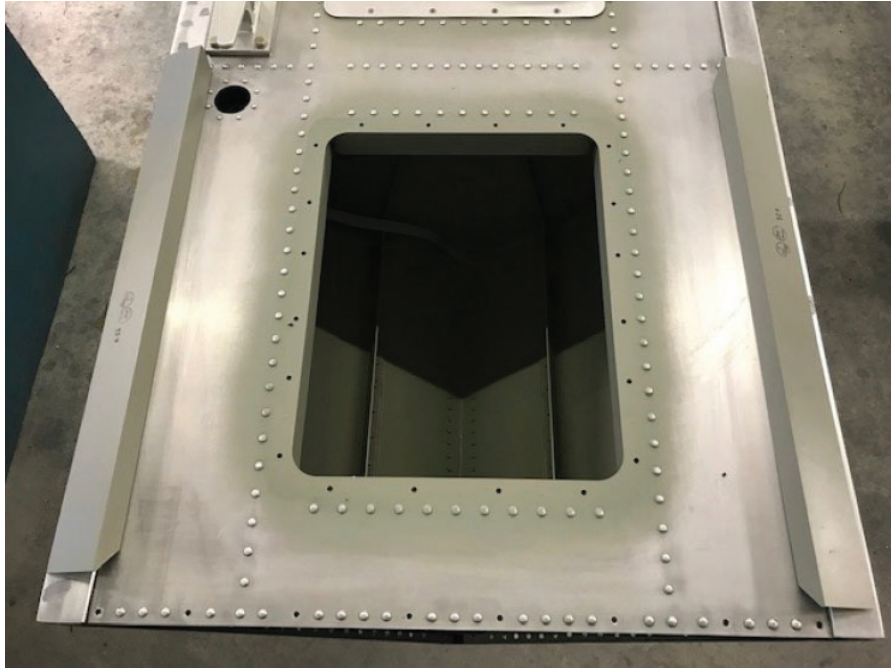
- Bolts AN6-11A, washers NAS1149D0663J, and nuts MS21083N6 go through the bottom fitting 13S01204-003 and gussets 13S01229-003 and 13S01229-004.
- Bolts AN6-13A, washers NAS1149D0663J, and nuts MS21083N6 go through the side skin fitting 13S01227-002 and gussets 13S01229-003 and 13S01229-004.



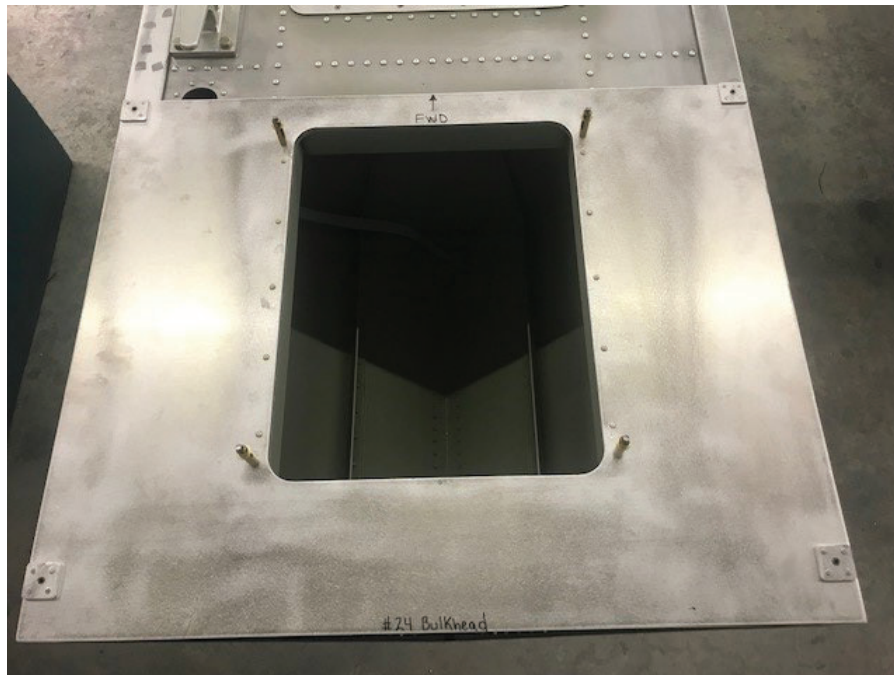
19. Tighten nuts and fill in gusset area where nuts sit with sealer and pack tight.



20. Fit up angles 13S01357-067 (2 each) in last compartment hull. Image below shows the orientation of the angles and how they will sit on the inside of the hull. Remove flush rivets on top side of gunwall where angles are orientated. Place tooling that is used in Step 21 and mark where eye bolts will go. Double flush any rivets in this area while fitting up these angles.



21. Place drill tooling for aft beaching gear on the back of the float and drill (4 each) holes per tooling. Open holes up with a 31/64" piloted drill and ream to 1/2". Deburr holes and install eye bolts with sealer.

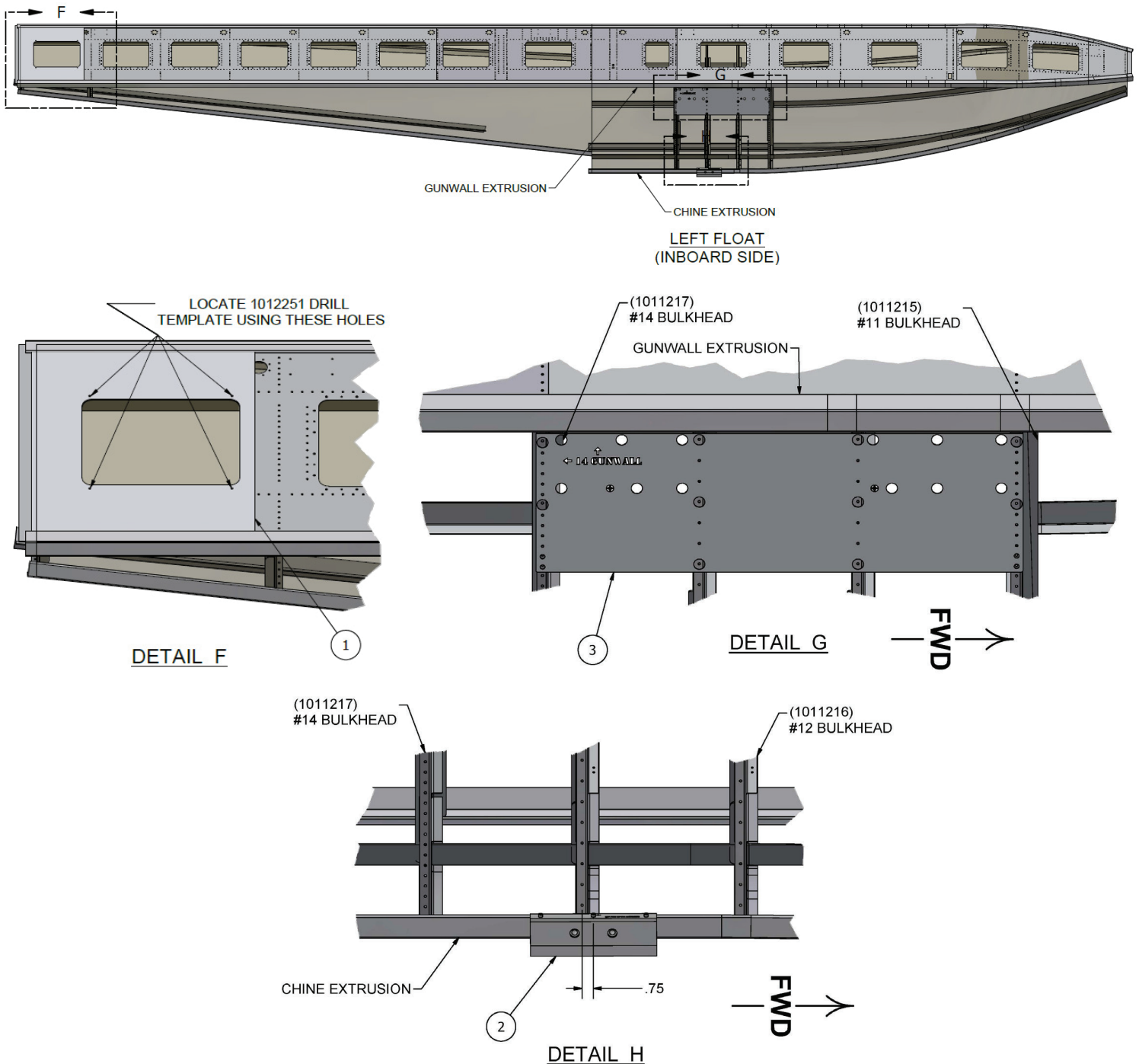


Appendix A

Tooling Parts (Reference Only)

ITEM	QTY	PART NUMBER	DESCRIPTION
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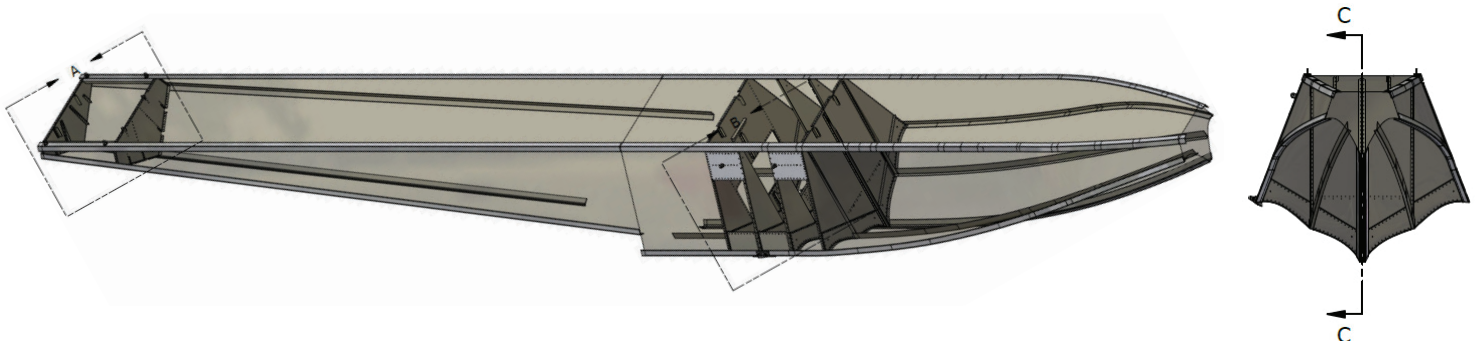
*Side Skin Template is included in the main parts kit (1012338-01, item 22 in table below), but is shown here alongside other tooling parts for clarity only.

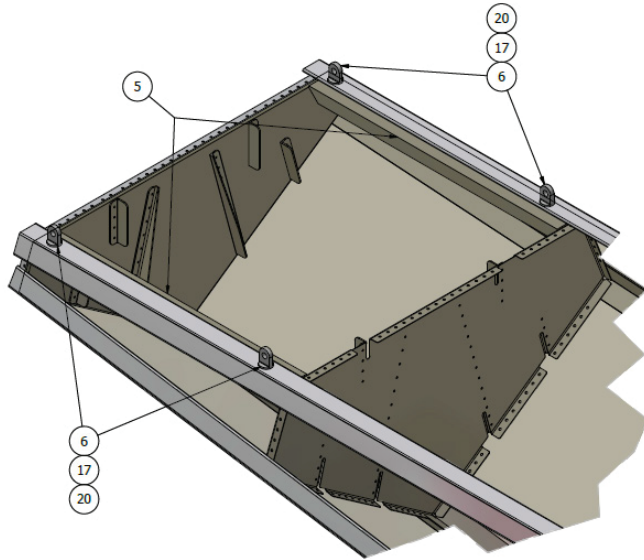


Beaching Gear Attach Point Parts

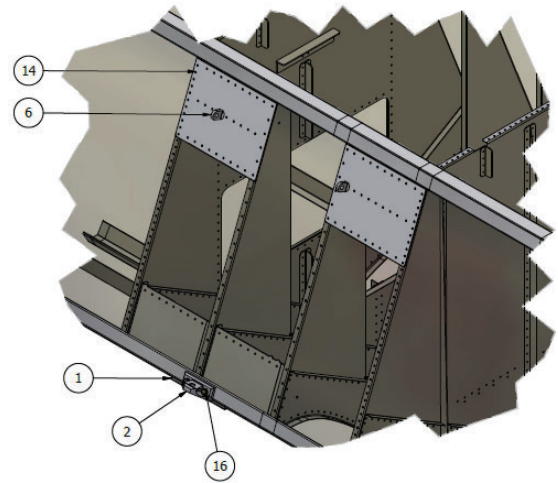
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*Included in kit, but also shown in tooling images above.

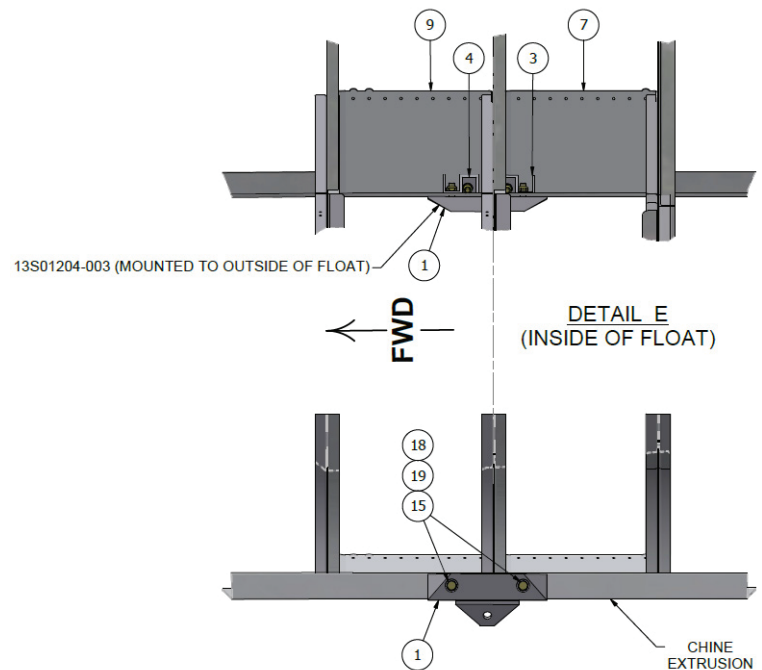
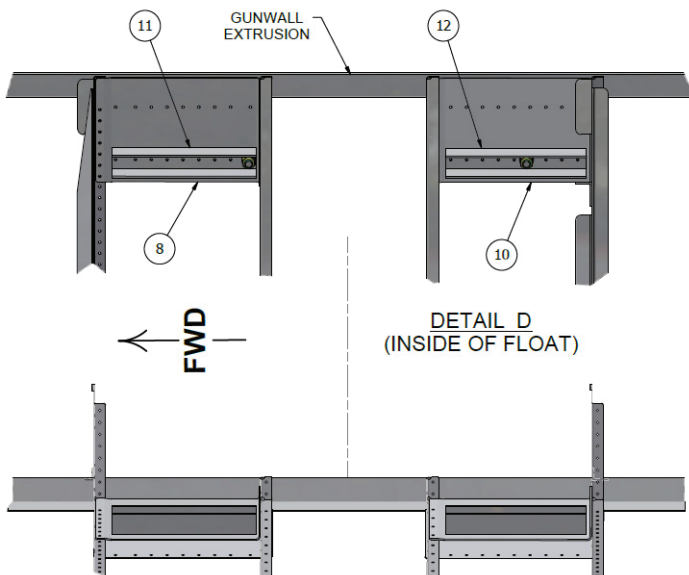
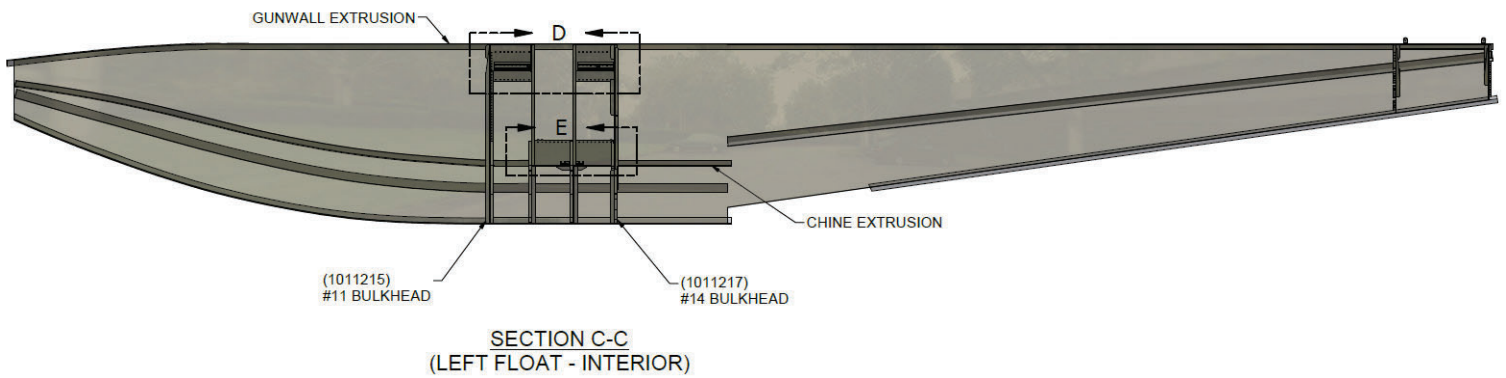


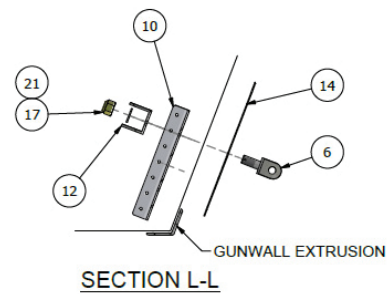
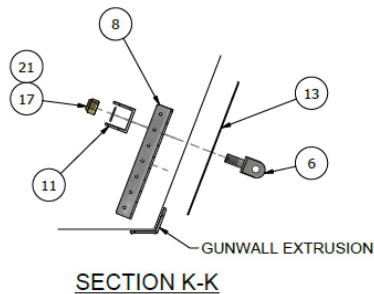
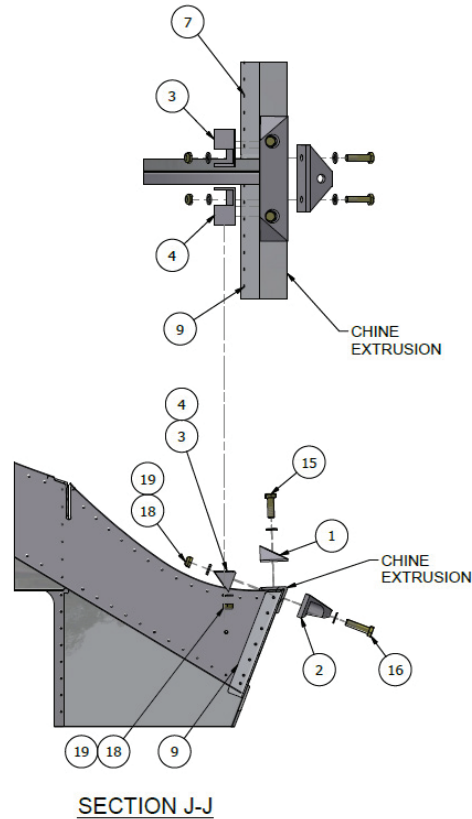
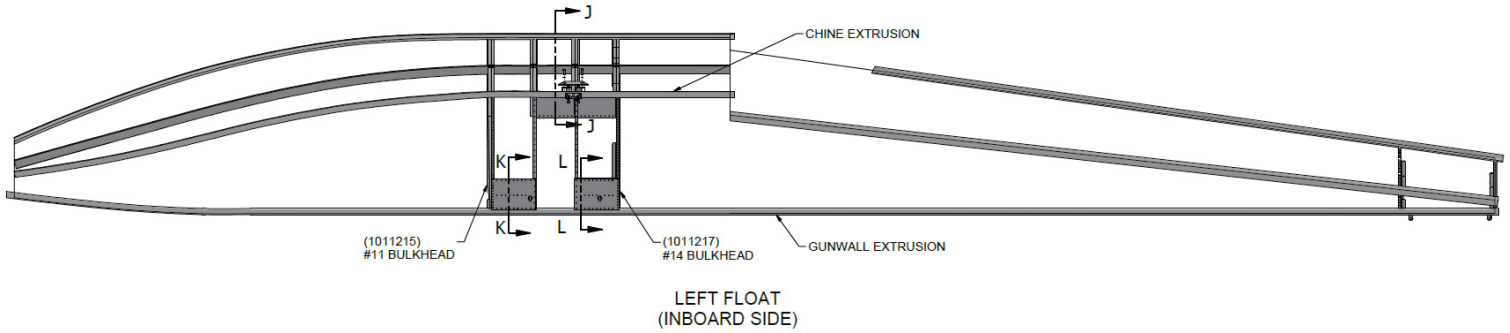


DETAIL A



DETAIL B





Aircraft Closing & Return to Service

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 251.