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SERVICE LETTER 199

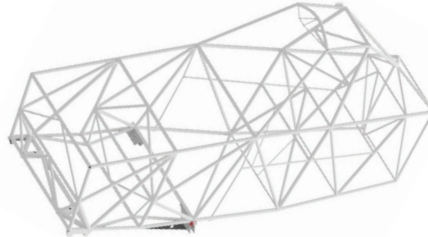
Main Pylon Attach Point Fuselage Bracket

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Optional	By: MAB
AT-802 & AT-802A	10000A	Part Number: 1011061	Approved: SDW
		Date: 1/21/2022	Revision: D

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	7/11/2019
B	Updated serial number effectivity.	10/22/2019
C	Updated Background, Compliance Method, and Approximate Shop Hours sections. Updated instructions in Inspect for Cracking section. Updated Work Instructions for Gusset Improvement Installation.	11/11/2021
D	Updated Background, Approximate Shop Hours, notes, Inspect for Cracking instructions, Gusset Improvement Installation instructions. Removed figures.	1/21/2022

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



EFFECTIVITY:

This service letter applies to aircraft models AT-802 with serial numbers 802-0626 and prior and AT-802A with serial numbers 802A-0626 and prior with Wipline Model 10000 Amphibious Floats installed per STC SA01795CH.

COMPLIANCE:

Optional compliance

BACKGROUND:

This Service Letter pertains to cracks forming along float attach brackets 1001495, 1001496, 10A02491-003, 10A02491-004 if the original bracket does not extend upward to the horizontal centerline of the longeron. Reference Service Letters 71 and 72 for more information. Service Kits 51, 52, and 53 are associated with this Service Letter.

COMPLIANCE METHOD:

Perform inspection and repairs if needed per the Work Instruction section of this service letter.

APPROXIMATE SHOP HOURS:

Performing the work in this service letter will take approximately 40 labor hours. This includes only the time to install the additional gussets and does not include time that may be necessary to remove the wings, floats, or other items that may be required for access.

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WARRANTY INFORMATION:

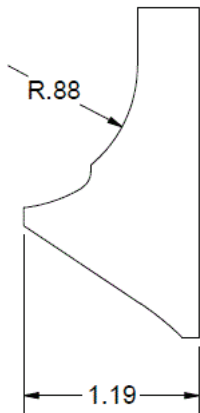
This service letter does not include warranty for labor and parts.

TECHNICAL DATA:

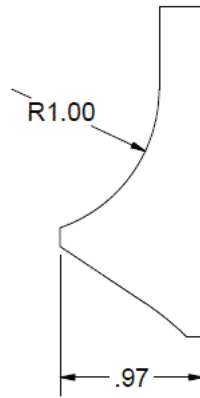
Copies of this service letter, associated service kit (if applicable), float service manual, and float parts manual are available by contacting Wipaire customer service.

ITEMS PROVIDED IN SERVICE KIT 1011061-01

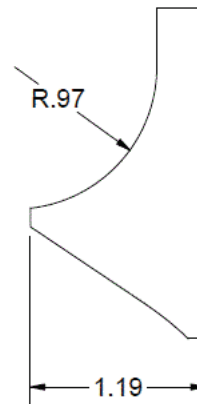
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011045-01	GUSSET, BRACKET, AT-802, FWD, RIGHT
2	1	1011045-02	GUSSET, BRACKET, AT-802, AFT, RIGHT
3	1	1011045-03	GUSSET, BRACKET, AT-802, FWD, LEFT
4	1	1011045-04	GUSSET, BRACKET, AT-802, AFT, LEFT



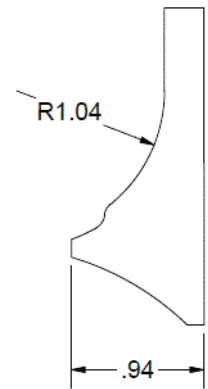
1011045-01



1011045-02



1011045-03

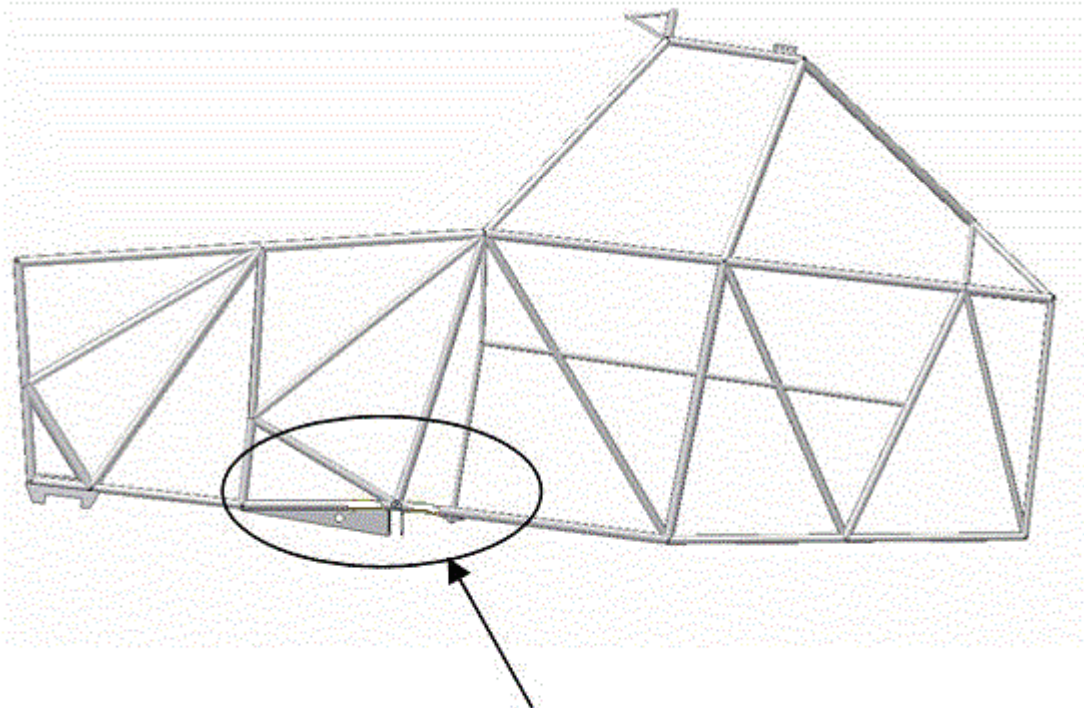


1011045-04

Note: All work should be done in accordance with AC 43.13-1B. Welding and stress relief should be accomplished in accordance with AC 43.13-1B with the additional guidance contained in this Service Letter. Repair cracks in accordance with AC 43.13-1B and Wipaire Service Letter 71.

INSPECT FOR CRACKING

1. Visually inspect lower longeron tube (Figure 1) and the entire nearby welded tube cluster for signs of cracking on both sides of the aircraft. Pay special attention to areas A and B on Figure 2. If there is doubt about crack presence, strip paint from tubes for visual inspection and consider magnetic particle, dye penetrant, or eddy current inspection.
2. If cracks are found, repair cracks per AC 43.13-1B and Wipaire Service Letter 71 before accomplishing the work instruction of this service letter. If cracks are not found installation of the gussets per the work instruction of this service letter is recommended but not required.



Affected Area

Figure 1

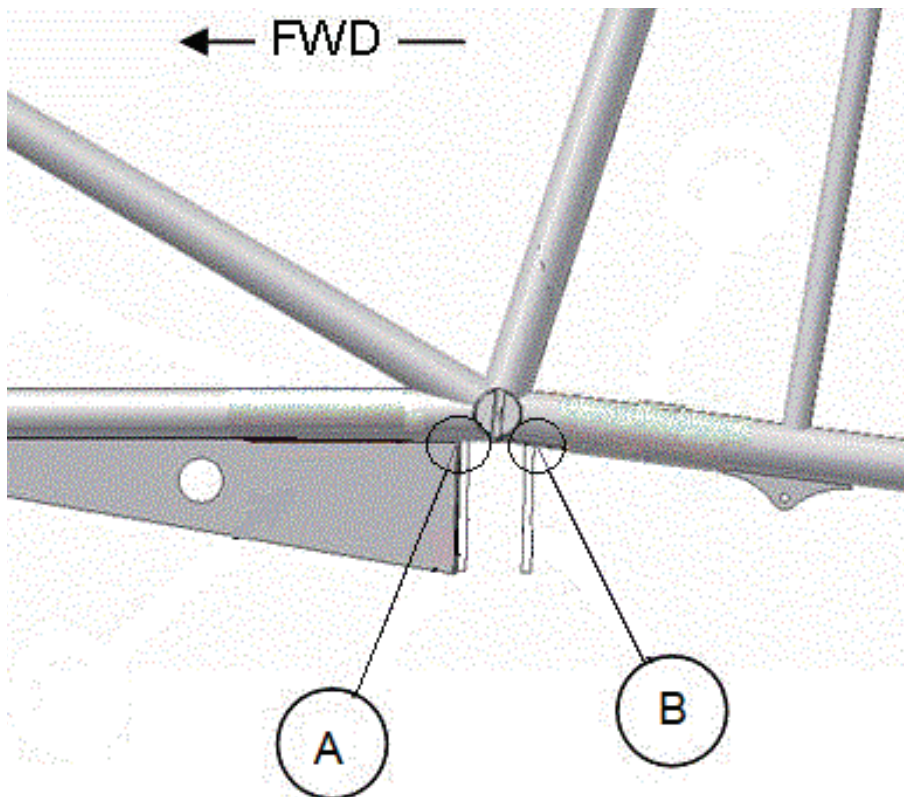
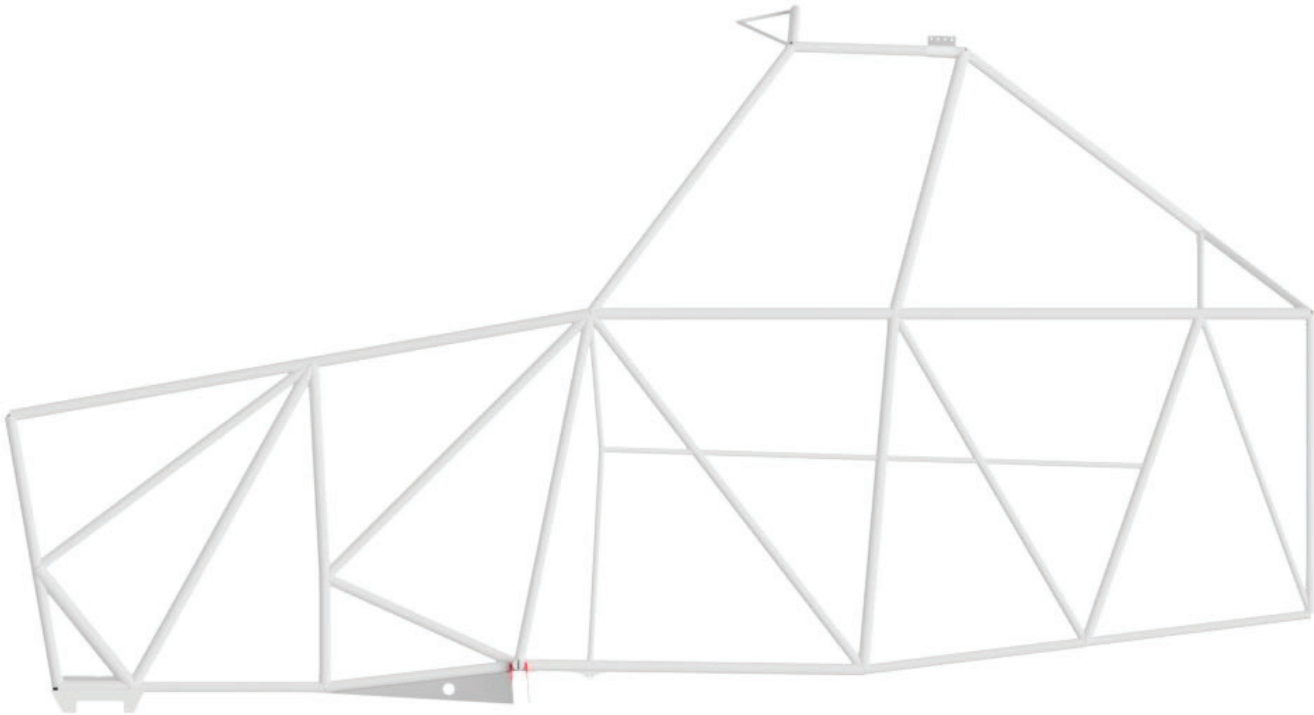


Figure 2

WORK INSTRUCTION FOR GUSSET IMPROVEMENT INSTALLATION

Note: Wipaire recommends removal (or partial removal) of the wing and floats to improve access and facilitate welding and stress relief of the added gussets. The wing rear spar should be moved clear of the fuselage fitting and the rear float attach fitting, removed from the fuselage bracket (refer to the appropriate aircraft AMM and Wipaire Float Conversion Service Manual for additional instruction). At the option of the installer alternate methods may be used to limit the temperature of the rear spar and rear float attach bracket (i.e. snow, wet blankets, fire blankets, heat shields, etc.); monitor the temperature of the aluminum parts during welding and stress relief. Temperature must not exceed 375°F and exposure to temperatures above 350°F must be limited to 15 minutes. Temperature to be determined using a 350°F Tempilstick (Markal) or equivalent method.

1. Remove the wings, rear float pylon, and rear fuselage float attach fitting (it is up to the individual/company performing the repair to decide if the wings or floats need to be removed for the welding and stress relief operations).
2. Disconnect aircraft battery and pull all circuit breakers.
3. Cut openings in fairings and fabricate new screw-on covers per Wipaire Service Letter 71; remove covers if previously installed.
4. Remove any electrical components, control cables, flap linkages or other components as required for access or that may be affected by heat.
5. Clean and dry all fuel, oil, contaminants from the area.
6. Strip paint in all areas requiring welding or stress relief.
7. Fill fuel tanks. Protect areas near the weld location; position fire blankets, heat shields, and wet blankets as required to protect from the heat of welding.
8. If cracks are present, groove cracks (Figure 2, areas A and B) and re-weld.
9. Depending the shape of the existing brackets, the new gussets may require grinding to fit. Groove new gussets and existing brackets as required for weld penetration.
10. Fully weld the gussets in place; GTAW with ER70S-2, ER70S-6 or ER80S-D2 filler and 100%Ar shielding gas or other approved method. Weld to be visually free of irregularities, cracks, craters, undercuts, and lack of fusion.
11. Stress-relieve areas ends of the added gussets; heat slowly with oxy-fuel torch until surrounding metal just starts to turn red, 1550°F. Alternately stress relief may be accomplished at a lower temperature; heat gradually to 1200°F using a 1200°F Tempilstick (Markal) or equivalent method. Allow to cool gradually in still air.
12. Restore protective finish. Clean, prime, and paint areas that were stripped or where the paint was chipped or damaged.
13. Reassemble (reverse steps 1-4).



Airframe After Repair

AIRCRAFT CLOSING AND RETURN TO SERVICE

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