WIPAIRE, INC.

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

SERVICE LETTER 199

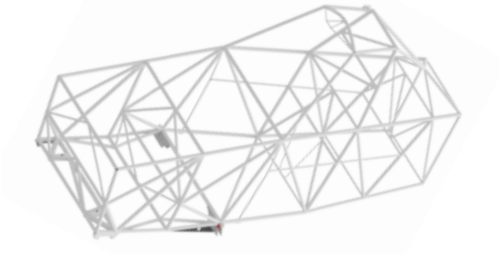
Main Pylon Attach Point Fuselage Bracket

Aircraft Makes/Model(s):	Float Model(s):	**Compliance:** Optional	**By:** MAB
AT-802 & AT-802A	10000A	**Part Number:** 1011061	**Approved:** SDW
		Date: 7/11/2019	**Revision:** A

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	7/11/2019

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 and AT-802A with Wipline Model 10000 Amphibious Floats installed per STC SA01795CH.

COMPLIANCE:

Optional compliance

BACKGROUND:

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

COMPLIANCE METHOD:

Perform repairs per the Work Instruction section of this service letter.

APPROXIMATE SHOP HOURS:

Performing the work in this service letter will take approximately 8 labor hours.

WARRANTY INFORMATION:

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

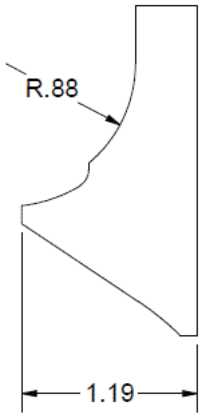
TECHNICAL DATA:

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

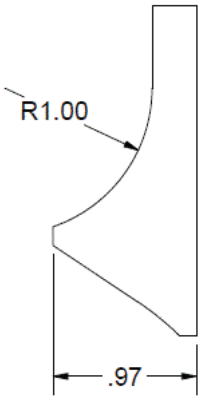
1700 Henry Ave - Fleming Field (KSGS), South St. Paul, MN 55075
Phone: 651.451.1205 | Fax: 651.457.7858
www.wipaire.com

ITEMS PROVIDED IN SERVICE KIT 1011061-01

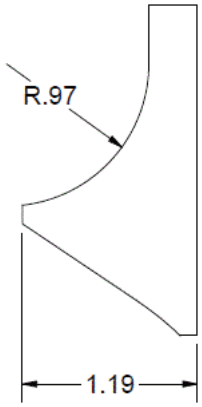
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1011045-01	GUSSET, BRACKET, AT-802, FWD, RIGHT
2	1	1011045-02	GUSSET, BRACKET, AT-802, AFT, RIGHT
3	1	1011045-03	GUSSET, BRACKET, AT-802, FWD, LEFT
4	1	1011045-04	GUSSET, BRACKET, AT-802, AFT, LEFT



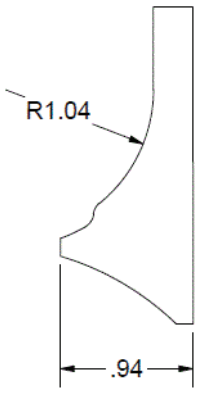
1011045-01



1011045-02



1011045-03



1011045-04

Note: Welding and stress relieving should be done according to the instructions from Air Tractor included with this service letter. All work should be done in accordance with AC 43.13. Any other cracks should be repaired in accordance with AC 43.13 and Wipaire, Inc. Engineering Department should be notified.

INSPECT FOR CRACKING

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 better visibility and consider mag particle dye penetrant or eddy current inspection.

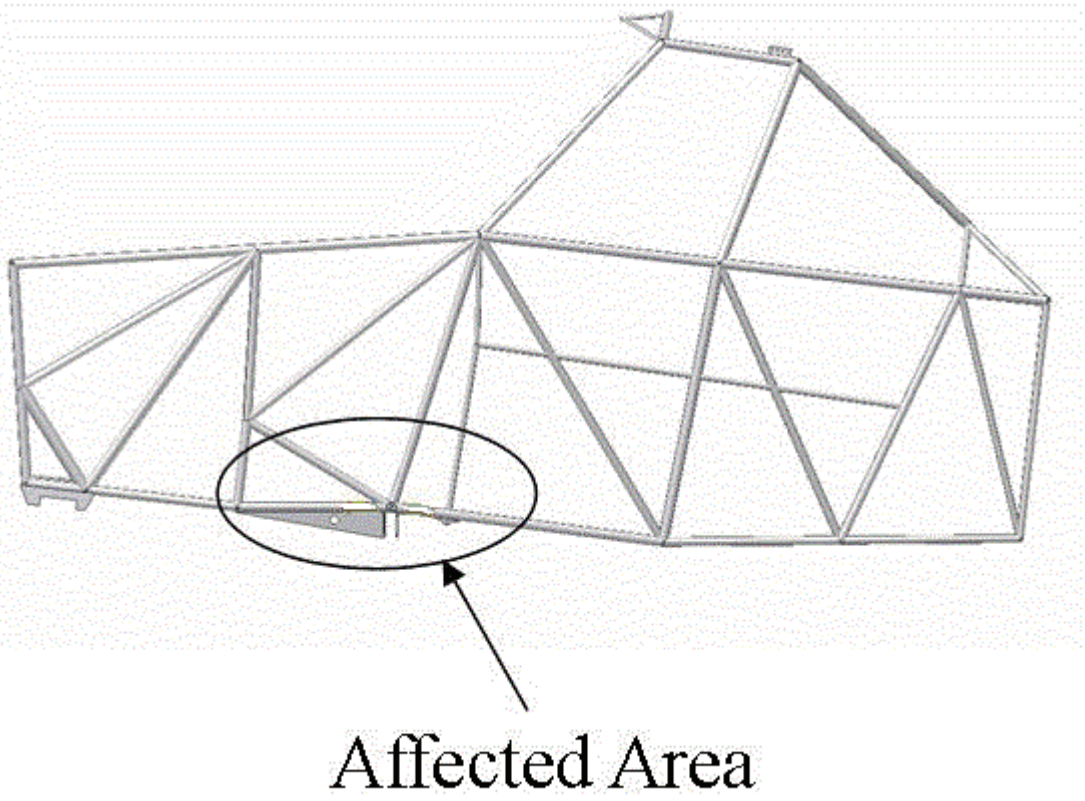


Figure 1

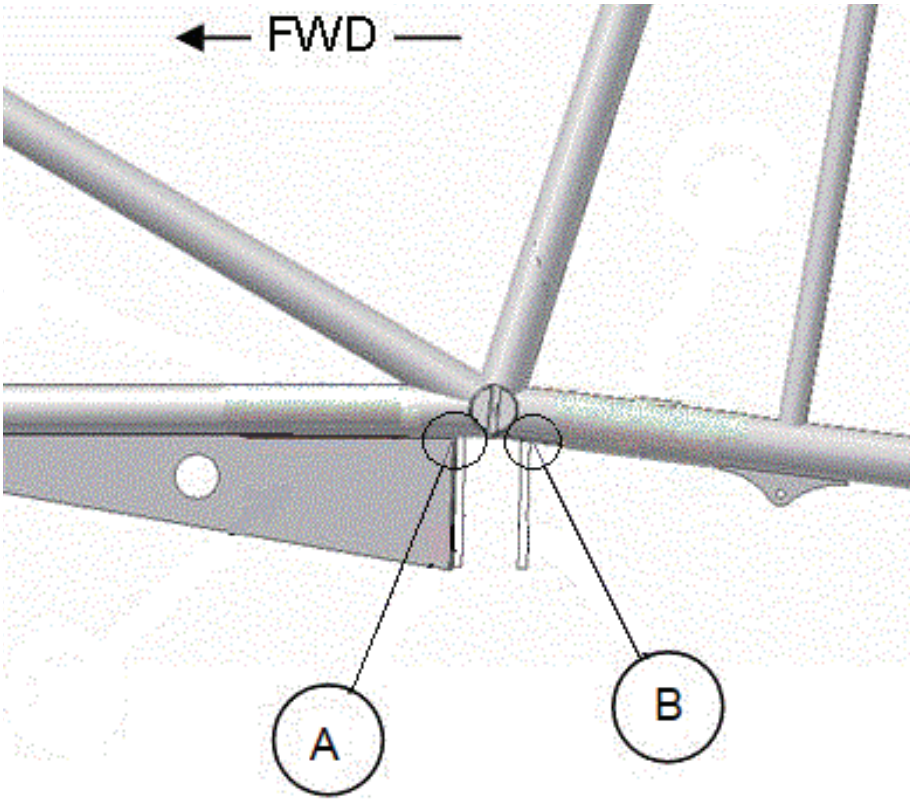
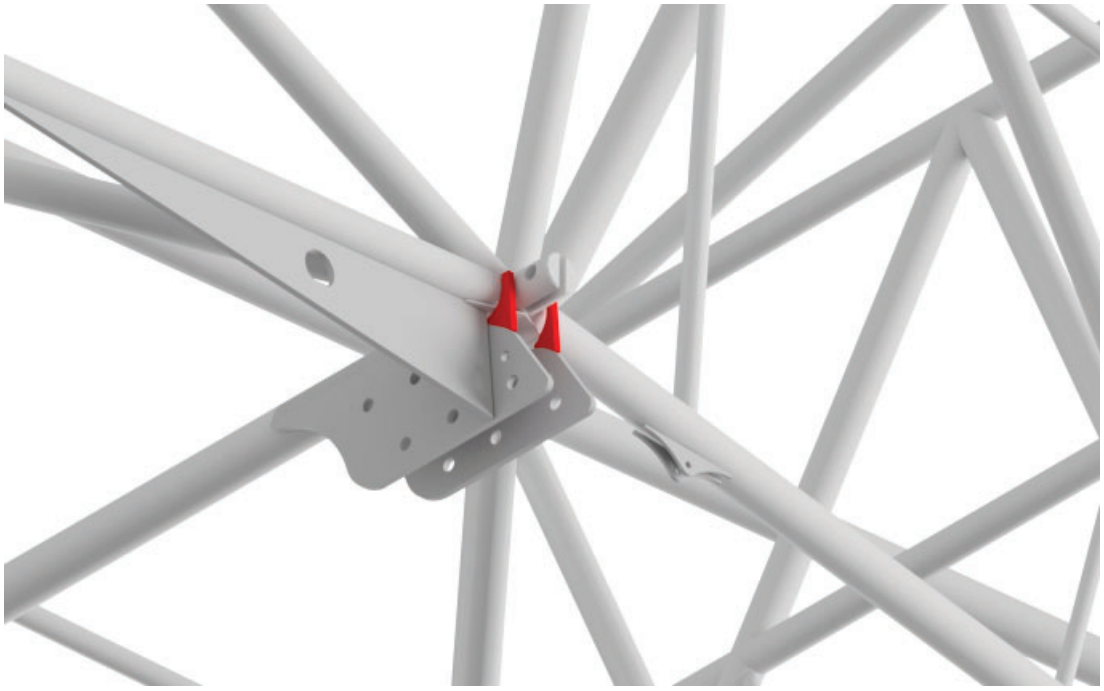


Figure 2

WORK INSTRUCTION FOR GUSSET IMPROVEMENT INSTALLATION

1. It is up to the company performing the repair to decide if the floats need to removed prior to welding.
2. Clean and dry all fuel from the area.
3. Disconnect battery prior to welding. Pull all breakers.
4. Cut openings in fairings and fabricate new screw-on covers, if not done already in previous service letter #51.
5. Strip paint in all areas requiring welding or stress relieving.
6. Fill fuel tanks. Protect area around weld location to protect from the heat of welding.
7. If cracked, groove out cracks (Figure 2, areas B and C) and re-weld.
8. Depending on how the existing gussets are shaped, the new gusset brackets may require grinding to fit correctly.
9. Carefully fully weld the gusset bracket in place.
10. Stress-relieve areas at ends of the gussets.
11. Clean, prime and paint areas that have been stripped or where the paint has been chipped or damaged.
12. Reassemble (Reverse steps 1-5).

Note: Reference included Air Tractor Instructions for stress relieving the metal and crack filling.



Brackets Added Close Up Left Hand Shown

SNOW ENGINEERING CO. Wichita Falls, Texas	ENGINEERING REPORT [X] ORDER [ ]	NUMBER 120
TITLE PROCESS SPECIFICATION	BY Leland Snow CHK'D	MODEL SERIAL
	DATE 6-2-03	PAGE 1 OF 1

WELDING 4130N STEEL

1. Factory welding is accomplished with a heli-arc (Miller) welding machine. A foot control is used to control amperage within a given range, and Argon is used to shield the arc.

2. Welding rod used is 1/16 to 3/32 dia No. 1 H.T. This is black in color, the AWS spec is A5.2 and is classification RG60 or R60. Alternate welding rod is ER70S-2 (first option) or ER70S-6 (second option) or ER80S-D2 (third option). Any diameter welding rod may be used, as the thickness of the material being welded dictates the rod diameter. These numbers are generally present on the shipping container.

3. Welding rod is stored in a container that prevents build-up of moisture. Rust on the rod has to be sanded off before use.

4. Welds are to be smooth and uniform. Undercut is to be avoided as well as burn-through. Pin holes will require welding over, as there will be leaks when the structure is oiled internally. Sufficient filler should be added to provide the proper fillet.

5. Surfaces to be welded should be free of grease, oil, or other contaminants. A wire brush is sometimes required if there is rust or residue present.

6. Tubing clusters should have fits such that gaps between parts should not exceed 1/8" for tubes up to .083 wall thickness, and should not exceed 3/16" for tubes having .120 wall or greater. Larger gaps are permissable if the gaps are for no more than 25% of the perimeter of the tube, and the welder is confident that filling the gap can be done easily.

7. Welders are to be certified, and are to weld clusters for testing purposes every 12 months. See 4 & 5 of P.S. 121.

8. Welders are to be classified as Production welders or Trainees. Production welders are to weld primary structure or any other parts, as long as the material welded is the same type that was used in their certification test. Trainees may not weld primary structure, but can weld non-critical parts that are approved by Engineering. The Q.C. manager is to closely control the selection of parts welded by Trainees.

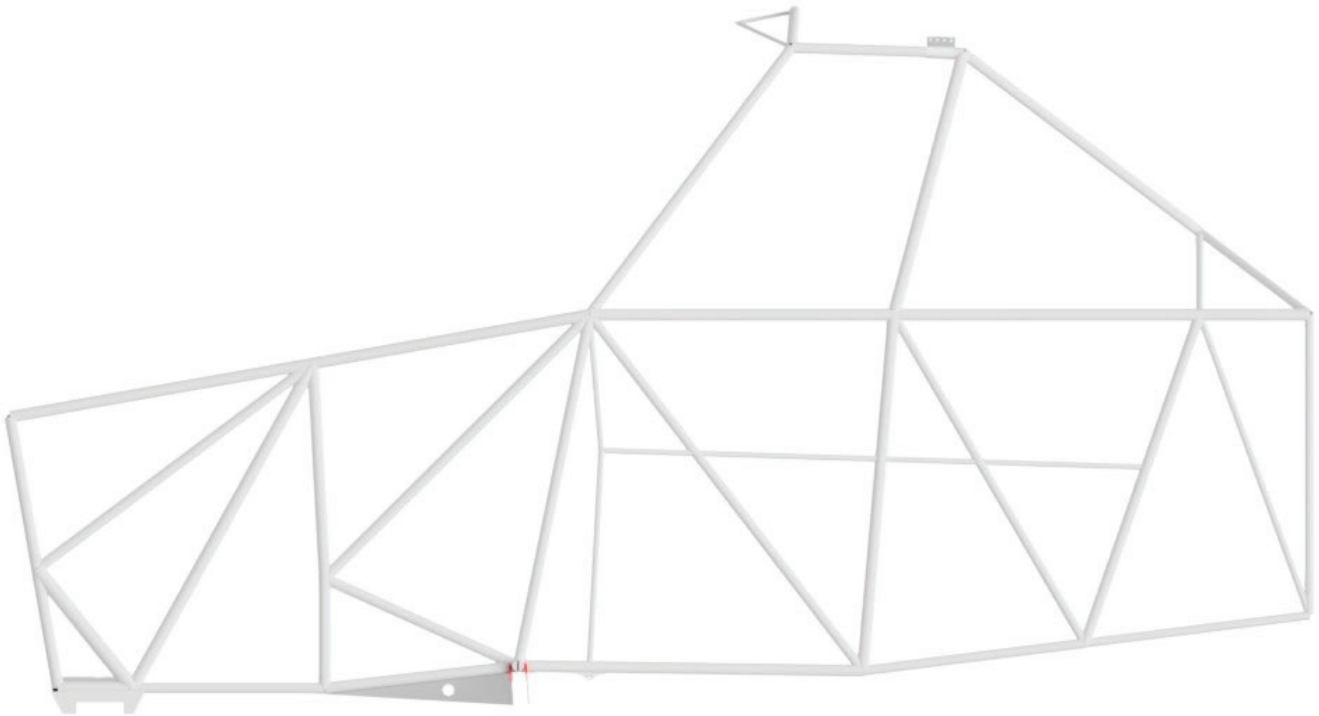
TITLE	BY / CHKD	SERIAL
PROCESS SPECIFICATION	Leland Snow	
	DATE 11/28/93	PAGE 1 OF 1

STRESS RELIEVING-TORCH

1. Parts too large for oven stress relieving may be stress relieved with a torch. This would include certain clusters in the fuselage frame that have high or repeated loads.

2. A heating tip is installed on the welding torch and a fairly large flame with a slight feather edge is established. The cluster is heated gradually by moving the torch over the entire surface as rapidly as possible so that the cluster heats up as a unit. When the weld areas and the surrounding metal is just starting to turn red, the correct temperature has been reached, and heating should be discontinued. Avoid overheating to cherry red, or heating in spots.

3. When the correct temperature has been reached, allow the cluster to cool gradually at room terperature.



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.