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SERVICE LETTER 234

Trimming of Fire Boss Interconnect Assembly

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Optional	By: MAB
Air Tractor AT-802 & AT-802A	10000A	Part Number: 1011928	Approved: SDW
		Date: 5/2/2022	Revision: B

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	7/13/2021
B	Updated Effectivity, Background, and Compliance Method. Added applicability note in modification section under step 1. Added work instructions for revised rigging procedure. Added Figures 2 and 3.	5/2/2022

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

EFFECTIVITY:

This service letter applies to Air Tractor models AT-802 and AT-802A with Wipline 10000 Amphibian Floats installed per STC SA01795CH. This modification has been incorporated into installation drawings 7D1-4385 revision G (AT-802A) and 1001360 revision G (AT-802) and later.

COMPLIANCE:

Optional compliance

BACKGROUND:

During installation of steering/retract/balance cables, the rudder-aileron interconnect assemblies are slightly “clocked” about their connections to the tubular frame in order to provide clearance. This introduces a possibility of interfering with other aircraft rigging, especially while adjusting the rudder pedals.

COMPLIANCE METHOD:

Modify both interconnect assemblies as shown in the “Work Instruction – Modify Interconnect Assembly” section of this letter. The “Work Instruction – Revised Rigging Procedure” section is also provided because trimming the interconnect assembly removes a reference point previously used during the rigging process.

APPROXIMATE SHOP HOURS:

The work instruction for this service letter will take approximately 2 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 at www.wipaire.com.

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Work Instruction - Modify Interconnect Assembly

1. Gain access to the interconnect assemblies and trim approximately 0.75" from the top of each aft arm. Do not interfere with the cable and hardware below (remove these items as needed while cutting). See Figure 1.

Note: The position of this cable attachment originally varied with the serial number of the aircraft, but all airframes eligible for Fire Boss conversion will have this cable connected to the lower hole.

2. Curve and smooth any sharp corners or edges.
3. Prime and paint the cut edges.
4. Reinstall aircraft panels.

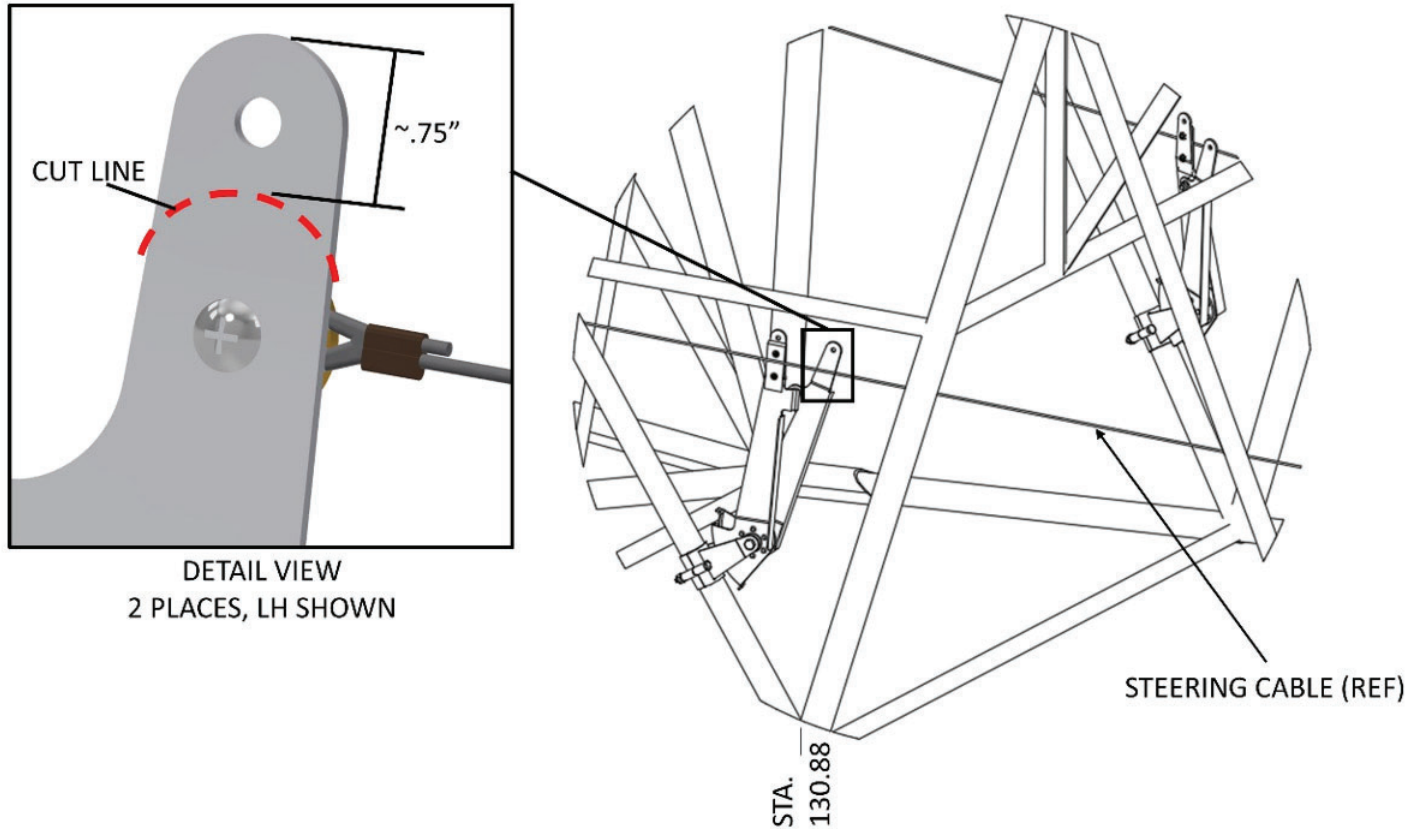


Figure 1

Work Instruction - Rigging of Modified Rudder-Aileron Interconnect Assemblies

Disclaimer: The rigging instructions shown here are largely unchanged from those provided by the aircraft manufacturer but are reproduced here for context. Steps 6, 9, 10, and 12 contain the key changes with respect to the Wipaire modification. These changes amount to: a) a clarification of the cable mounting location for Fire Boss aircraft, b) a geometric adjustment of measurement values from the unmodified rudder-aileron interconnect assembly to the Wipaire-modified version, and c) some additional steps necessary to attain these measurements. The overall scheme is not intended to be a departure from the procedure provided by the aircraft manufacturer. (References for unaltered interconnect assembly: AT-802 OM-2 and SIL 802-0107)

Note: Performing the modification described in the previous section does not fundamentally change the way the assembly is rigged, but rather eliminates a reference point. A check of the rigging after performing the modification is still recommended, using the following procedure.

Complete these instructions on both sides of the aircraft simultaneously.

1. Lock the flight control stick in the neutral position using the cockpit control lock. Confirm the ailerons are in the neutral position.
2. Check the position of the clamp that supports the two idler arms. This clamp should be 10.0 (+/- 1/2) inches from the interface of the longeron and diagonal tube. See figure 2. If necessary, loosen the clamp, adjust it within this range, and retighten hardware.
3. Check the position of each centering spring. Ensure that the Adel clamp anchoring each spring is located at a position of 8-3/4 (+/- 1/16) inches from the center of the clamp. See figure 2. Adjust the position of the Adel clamps if necessary.
4. Ensure that the lower centering spring is connected to the inboard idler arm and the upper centering spring is connected to the outboard idler arm.

5. Ensure that the 70814-4 interconnect spring is connected to the top hole of the outboard idler arm.

6. Ensure that the 70525 interconnect cable is connected to the lower factory hole in the inboard idler arm. See figure 2.

Note: The position of this cable attachment originally varied with the serial number of the aircraft, but all airframes eligible for Fire Boss conversion will have this cable connected to the lower hole. Additionally, the upper factory hole may have been trimmed away during float installation or as a result of this service letter.

7. Manually center the rudder and hold in place.

8. Visually ensure that the rudder pedals are even in the cockpit. Adjust if needed.

9. Temporarily remove Wipaire rub strip PN 1001468. This enables an accurate measurement for step 10 since the hardware in the rub strip is undersized relative to the factory hole.

10. Measure the horizontal spread of the idler arms using the lower factory hole* in each arm, shown as dimension "X" in Figure 2. This dimension should measure between 1.577" and 1.690" (approximately 1-37/64 to 1-11/16 inches). In addition, both sides must match within 1/16 inches.

***Notes:**

- a) Outboard arm: The Wipaire rub strip on the outboard arm makes use of the lower factory hole and adds a third, lower hole. The "lower factory hole" is therefore the middle hole of the three.
 - b) Inboard arm: The upper factory hole in the inboard arm is removed as a result of the modification described in the "Work Instruction – Modify Interconnect Assembly" section, making the "lower" factory hole the only remaining hole once this alteration is performed.
11. If necessary to match the dimension stated in Step 9, adjust the turnbuckles on the cables. See Figure 3. After adjusting, safety the turnbuckles with MS20995C32 wire (Reference: FAA Advisory Circular 43.13-1B).
 12. Reinstall Wipaire rub strip PN 1001468.
 13. Check the cable routing for pulleys that are out of alignment and for cable contact with any structure. Check the cables for any damage or wear that would necessitate replacement (Reference: FAA Advisory Circular 43.13-1B).
 14. Ensure that all hardware is tight and properly installed.
 15. Unlock the controls and move the rudder pedals and aileron controls through their full range of motion. Check for any binding or sticking of controls. Applying full righthand rudder input should result in a tendency for the righthand aileron to rise and applying full lefthand rudder input should result in a tendency for the lefthand aileron to rise.

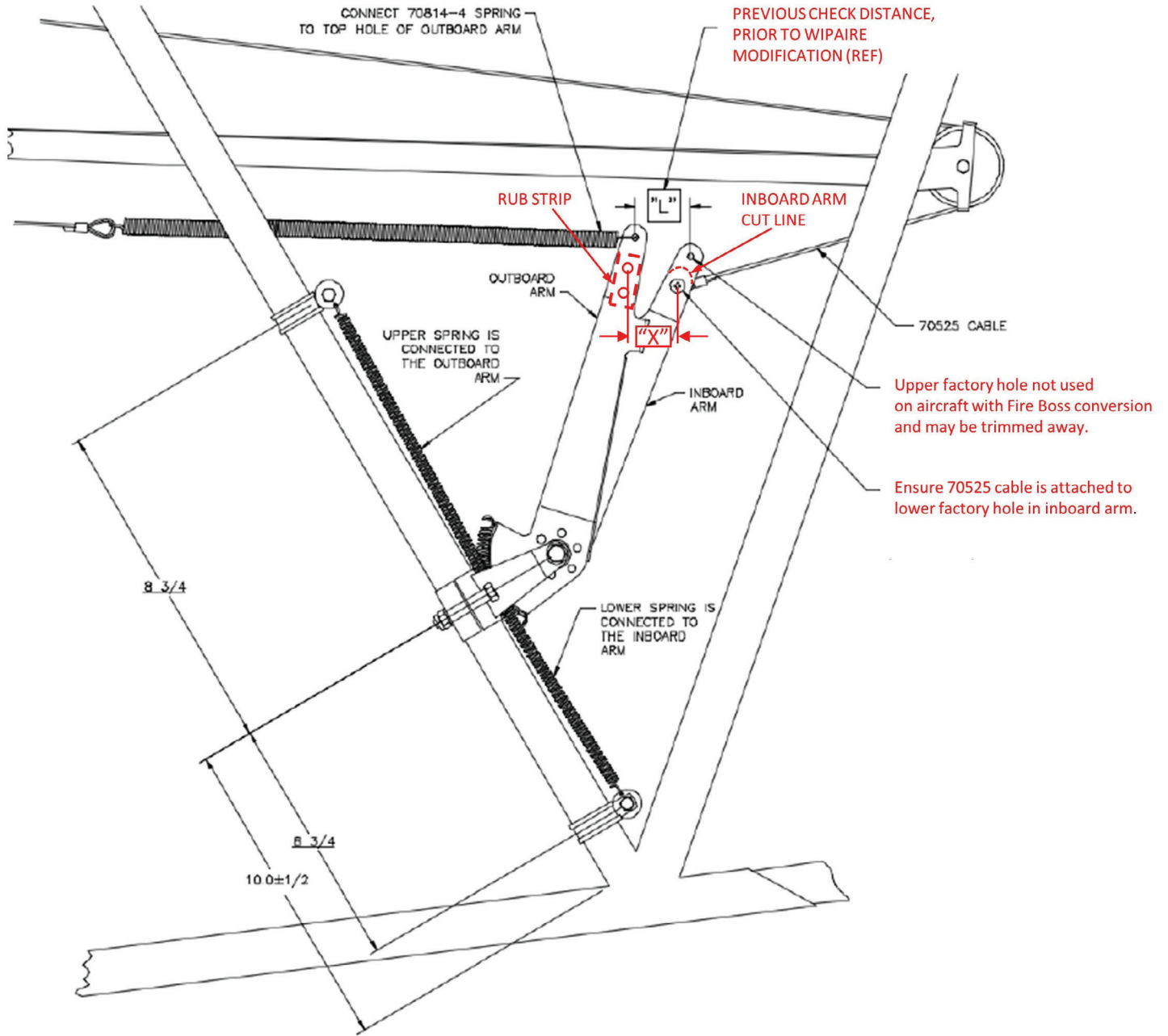


Figure 2

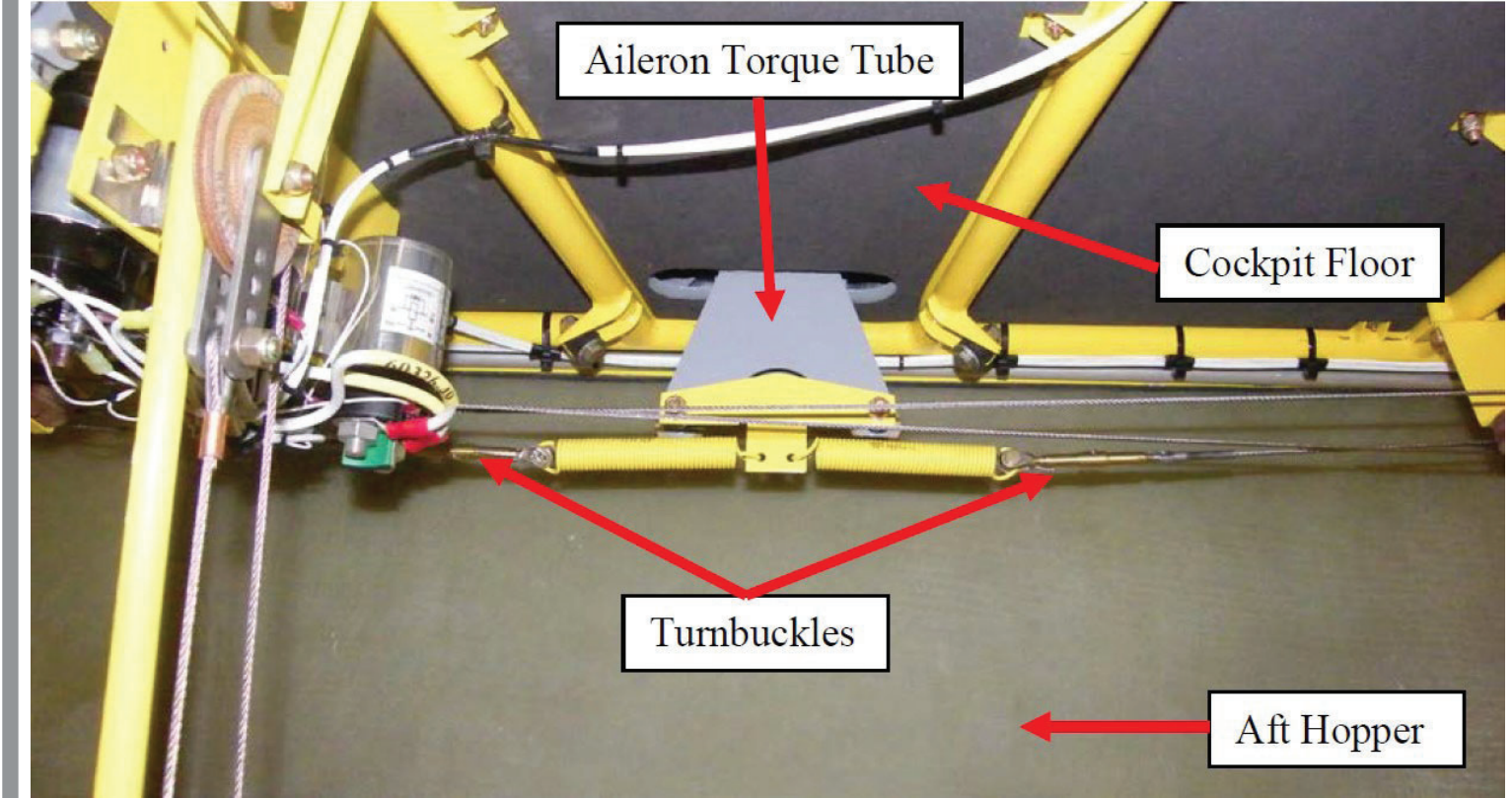


Figure 3 – Rudder-Aileron Interconnect Turnbuckles (under cockpit looking forward)

Aircraft Closing & Return to Service

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 234.