# **SERVICE LETTER 145**

# **Drag Strut Attachment, Top Deck Repair**

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Recommended	By: MAB
Air Tractor AT-802 & AT-802A	10000A	Part Number: 1005996	Approved: SDW
		Date: 12/21/2020	Revision: C

## LOG OF REVISIONS

Revision	Description	Date
А	Initial release	4/30/2013
В	Full rewrite - Doubler added to underside of top deck for added bearing strength.	8/11/2020
С	Updated Compliance Method and step 10 in Work Instructions.	12/21/2020

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 10000 Amphibian Floats installed per STC SA01795CH.

## **COMPLIANCE:**

Service letter compliance is recommended. If not already done, accomplish Service Letter 182.

Note: Longer Drag Strut Bolt MS20008-XX may be needed.

### **BACKGROUND:**

The bolted attachment of the drag strut to the float can become worn at the top deck, drag strut, and drag strut attach channel.

#### **COMPLIANCE METHOD:**

Remove pylon assembly connecting the float to the aircraft. Ream hole in top deck and drag strut attach channel, to suggested size, then fabricate plug. Ream hole in drag strut to suggested size, then press fit suggested bearing flange side up. Install a "locally fabricated" doubler on the underside of the top deck. Discard machined part 13A02070-004 (bathtub support fitting).

#### **APPROXIMATE SHOP HOURS:**

This service letter will take approximately 10-12 labor hours to complete.

#### **WARRANTY INFORMATION:**

Parts and labor warranty is not included for this modification.

#### **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.



# **Work Instructions**

### **NOTICE**

This repair is only applicable if the maximum wear opening is less than 1.19" in top deck, and 0.60" in drag strut.

(All dimensions are in inches)

**Note:** Figure 1 shows the attachment location in question. Figure 2 shows hole and plug sizes for repair of float top deck and drag strut attach channel.

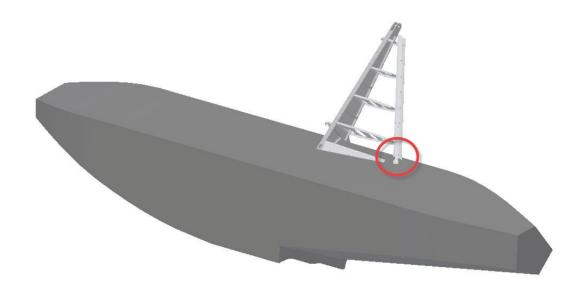


Figure 1 - Attachment location (Strut Fairings Removed)

- 1. Position aircraft safe for maintenance.
- 2. Provide for support of float and remove pylon assembly.
- 3. Install bushing into drag strut.
  - a. Ream 0.500" hole in drag strut to 0.6250" (+.0005 -.0000).
  - b. Use locktite green and press fit bushing (NAS77-8-037) into drag strut.
- 4. Install plug into top deck skin.
  - a. Ream hole ("A") in top skin/channel. Diameter shall be between 0.75" & 1.25" and at minimum .03" greater than max opening in worn area.
  - b. Chamfer upper edge of top skin .08" x 45°.
  - c. Fabricate plug from 2024-351 as shown in Figure 2, diameter ("B") shall be +.0007" to +.0013" over diameter ("A") of hole created in Step 4.
  - d. Use locktite green and press plug into reamed hole in top deck.



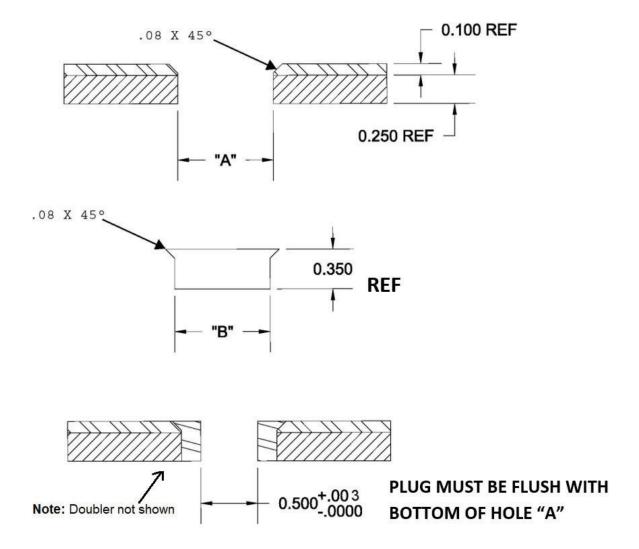


Figure 2 - Hole and Plug Sizes

5. Fabricate and install doubler to the inside of the top deck:

Note: Reference Figures 3 through 5

a. Fabricate per Figure 3 dimensions from 0.250" thick 2024-T3 (6.720" x 2.500").



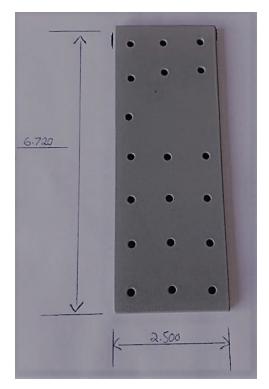


Figure 3 - Doubler Details (0.250" Thick 2024-T3)

b. Match rivet pattern in top skin and add holes in top skin as needed using Figure 4 as a guide. Prime the doubler after holes are located.

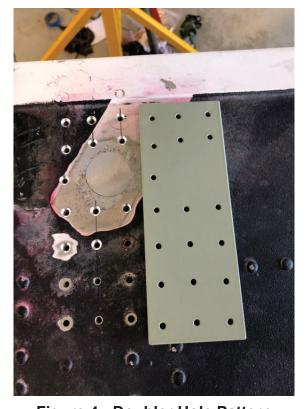


Figure 4 - Doubler Hole Pattern



c. Install doubler. Use flush rivets as needed per Figure 5 to avoid future contact with the drag strut.

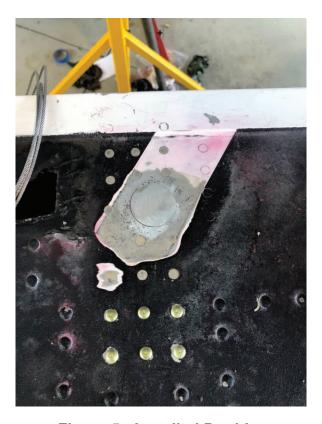


Figure 5 - Installed Doubler

- 6. Re-align drag strut with float, transfer hole center from bushing to plug
- 7. Check location of hole center to ensure a minimum plug wall thickness of .08" when reamed 0.500" + 0.003-0.0000.
- 8. Ream plug and doubler to 0.500" (+ 0.003/-0.0000).
- 9. Apply corrosion protection to plug and new 0.500" hole.
- 10. Assemble in accordance with normal procedure, excluding bathtub support fitting p/n 13A02070-004. Longer drag strut bolt p/n MS20008-XX may be needed.

# AIRCRAFT CLOSING AND RETURN TO SERVICE

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire service letter 145.