SERVICE LETTER NUMBER 149

AIR TRACTOR LONG FINLET SUPPORT STRUT

By: MAB	Aircraft Makes/Model(s): AT-802A w/PT6A-67F (1600 HP) AT-802 (2-Place)		
Approved: SDW		Float Model(s): 10000A	Note(s): Mandatory Compliance Service Letter P/N 1006743
Date: 2/3/2021			
Rev: F			

LOG OF REVISIONS

Revision	Description	Date
А	Initial release	8/21/2013
В	Added kit options based on serial number of aircraft	9/13/2013
С	Updated Figures 1, 2 and 3. Change quantities of 1006731 and 1006737 to (1) each.	10/3/2014
D	Updated work instructions	1/8/2016
E	E Updated work instructions	
F	Changed AN426AD3 to MS20426AD3 and changed AN470AD4 to MS20470AD4 in kit and added note about rivets	2/3/2021

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

EFFECTIVITY: This service letter applies to: AT-802/AT-802A with 1003204 tall finlets (28") installed IAW STC SA01795CH or STC SA01916CH. (One parts kit per set of tall finlets (set = 2))

Compliance with Service Letter 149 revision D or later is mandatory even if revision C or prior was previously accomplished. If Service Letter 149 revision C has been complied with, proceed to section 2 of this service letter.

NOTE: To verify revision D or later has been accomplished, remove inspection cover (Figure 4, item 11 of this service letter) to visually verify if 1008671 internal doubler has been installed.

Inspection of finlet required prior to purchasing kit. See COMPLIANCE section for more information.

PARTS KIT IDENTIFICATION TABLE

	Aircraft serial number 189 or newer with newer model finlet (Figure 2) strut P/N 1006741	Aircraft serial number 188 or older with newer model finlet (Figure 2) strut P/N 1006751	Aircraft serial number 188 or older with older model finlet (Figure 1) strut P/N 1006738
ĺ	Use KIT number 1006743-01	Use KIT number 1006743-02	Use KIT number 1006743-03

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COMPLIANCE: Mandatory. Inspect finlet attach fittings for smoking or loose rivets. If signs of stress are found, then perform the modification immediately. If no signs of stress are found, then perform modification on or before next 100 hour inspection. If cracks are found in the center rib near the strut attach point, rib 1003140 will need to be ordered and replaced (rib not included in kit).

BACKGROUND: Wipaire has added a support strut to 1003204 long finlets in order to reduce stress on the finlet attach fittings. Cracks were found on finlet attach fittings and the center rib in some cases.



COMPLIANCE METHOD: Install support strut assembly and replace center rib if needed. Any loose rivets must be replaced before returning the aircraft to service.

APPROXIMATE SHOP HOURS: Finlet inspection will take approximately 1 hour. Support strut installation will take approximately 4 labor hours to complete per finlet. Allow for 1 additional hour per finlet if center rib needs to be replaced.

WARRANTY INFORMATION: Parts and labor not included for this modification.

TECHNICAL DATA:

Copies of this service letter, associated service kit, float service manual, and float parts manual are available at www.wipaire.com.

See photos and figures below for details to aid in performing this modification.

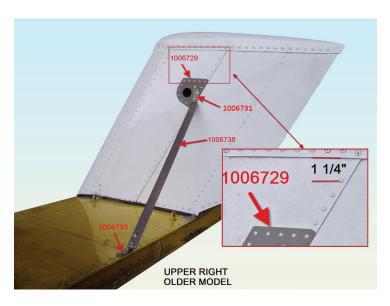
See Table 1 below for a list of parts and materials applicable to this modification.

For basic float model maintenance information, see applicable Wipaire service manual at www.wipaire.com.

For basic float model parts information, see applicable Wipaire parts manual at www.wipaire.com.



SECTION 1 - UPPER RIGHT/LOWER LEFT FINLET SUPPORT STRUT ASSEMBLY INSTALLATION



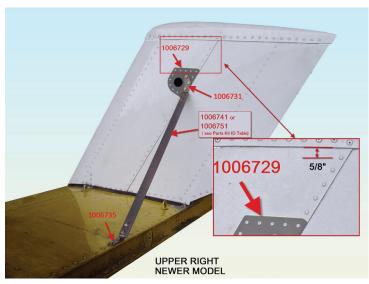


FIGURE 1 FIGURE 2

NOTE: See figures 1 and 2 to identify older model finlet versus newer model finlet

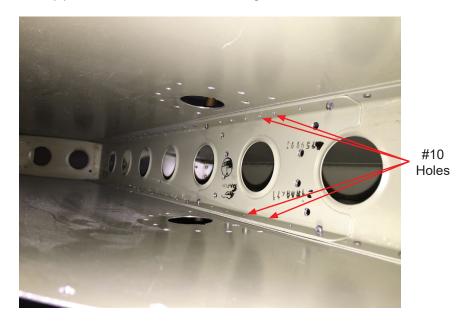
- 1. Secure the airplane and remove finlet
- 2. Remove top cap and top rib from finlet
- 3. Inspect center internal rib and replace rib if cracks are present. See Compliance section above
- 4. Fit 1006729 external doubler on both sides of finlet using figures 1 and 2. Note that the new style external doubler is now made of .063" aluminum and needs to be pre-bent to conform with the bend of the finlet skin
 - a. Remove existing rivets in rib and also 1 on each side of doubler (total of 7 rivets removed in rib)
 - b. Cleco on doublers and drill remaining holes through finlet skin
 - c. Locate and cut 1 3/8" access hole with key slot through finlet skin



d. Deburr all holes



- 5. Fit 1008671 internal doubler on center rib. Center on 3rd lightening hole from top. The doubler should nest in the rib snug
 - a. Drill (8) #10 holes internally through rib
 - b. Drill (10) #30 holes and (4) #10 holes from finlet skin through center rib and internal doubler

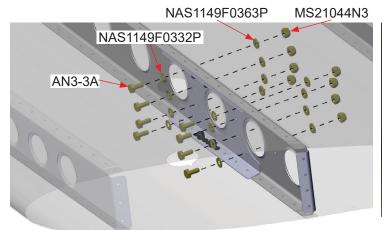


c. Remove 1008671 internal doubler and install (4) MS21047L3 nutplates using MS20426AD3 rivets where shown. Relieve nutplates as to not interfere in radius of doubler as needed. Deburr all holes



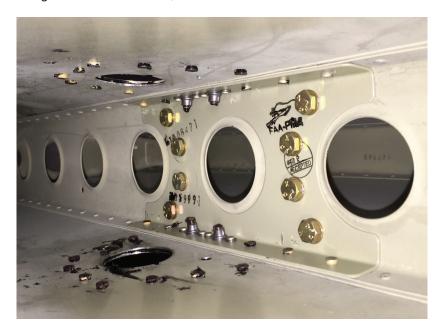


6. Install 1008671 internal doubler with attached nutplates using (8) AN3-3A bolts, (8) MS21044N3 nuts, (8) NAS1149F0363P thick washers, and (8) NAS1149F0332P thin washers

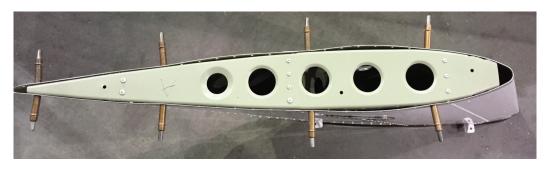




7. Attach all 3 doublers using MS20470AD4 rivets; use Pro-Seal on both 1006729 doublers

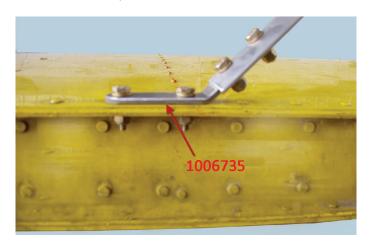


8. Re-install top rib using (9) CR3213-4-2 CherryMAX rivets





- 9. Re-install top cap using (28) 01692-0414 pop rivets and edge seal
- 10. Drill out the 2 existing rivets in horizontal tail plane near elevator where shown



- 11. Open the 2 rivet holes in the horizontal tail plane to Ø.193" and deburr
- 12. Install the 1006732 upper fitting, 1006738/1006741/1006751 (see parts kit ID table for strut P/N) strut, and 1006737 lower fitting (use 1006740 alternate lower fitting if holes do not line align properly) as shown in figure 3. Coat all hardware with grease
- 13. Plug side not using strut fitting as shown in figure 4
- 14. Install 132641-5G access cover to each side
- 15. Repeat as required per aircraft configuration. Refer to table 1 for opposing part numbers

SECTION 2 - SERVICE LETTER 149 REVISION C REMOVAL AND SERVICE LETTER 149 REVISION D INSTALLATION

- 1. Secure the airplane and remove finlet
- 2. Remove top cap and top rib from finlet
- 3. Remove existing 1006729 revision A external doublers (.04" thickness)
- 4. Begin instruction from Section 1 Step 3 using the new 1006729 revision B external doubler (.063" thickness) in place of previously removed external doubler. Modify existing holes as needed for proper fitment of new external doubler

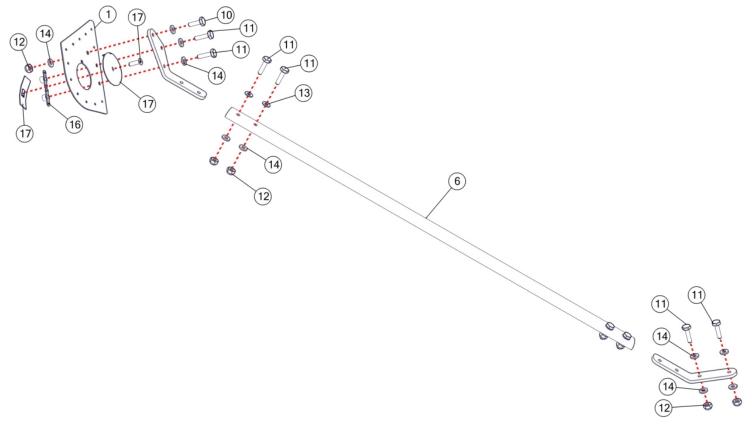


FIGURE 3

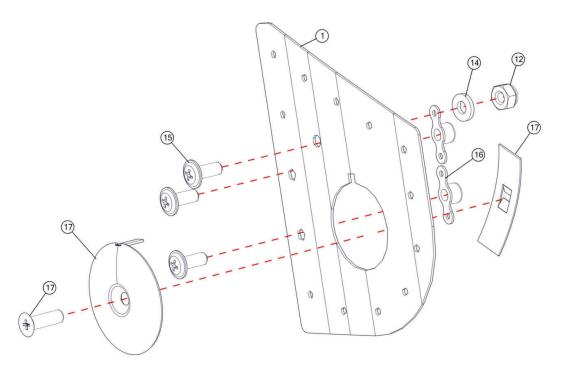


FIGURE 4

TABLE 1 (2 FINLETS)

ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	1006729	External Doubler
2	1	1006731	Fitting, Strut, Upper Right Finlet or Lower Left Finlet
3	1	1006732	Fitting, Strut, Upper Left Finlet or Lower Right Finlet (not shown)
4	1	1006735	Fitting,Strut, Upper Right Finlet or Lower Left Finlet
5	1	1006737	Fitting, Strut, Upper Left Finlet or Lower Right Finlet (not shown)
6	2	1006738/1006741/1006751	Strut (see Parts Kit Identification Table)
7	1	1006739	Fitting, Horizontal, Alt. (without holes) (not shown)
8	1	1006740	Fitting, Horizontal, Alt. (without holes) (not shown)
9	16	AN3-3A	Bolt
10	2	AN3-5A	Bolt
11	16	AN3-6A	Bolt
12	16	MS21044N3	Nut
13	12	NAS1149F0332P	Washer
14	21	NAS1149F0363P	Washer
15	6	AN525-10R8	Washer Head Screw
16	8	MS21047L3	Nut Plate
17	4	132641-5G	Access Cover
18	112	01692-0414	Pop Rivets
19	2	1008671	Internal Doubler
20	A/R	MS20426AD3*	Rivets
21	A/R	MS20470AD4*	Rivets
22	18	CR3213-4-2	CherryMAX Rivet (Not Shown)

^{*} Wipaire does not supply solid rivets MS20426AD3 or MS20470AD4.

NOTES:

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 149.