SERVICE LETTER 143 PAGE 1 of 17 REV: B

SERVICE LETTER NUMBER 143						
TITLE: MAIN LANDING GEAR PROXIMITY SWITCH						
BY: S. ST. JACQUE	AIRCRAFT MAKE/MODEL(S):	FLOAT MODEL(S):	NOTE(S):			
APP: C. WOKEN			MANDATORY COMPLAINCE			
DATE: 07/30/14	N/A	2100, 2350	S/L P/N 1005934			
REV: B			ECO 23719			

FAA APPROVAL HAS BEEN OBTAINED FOR TECHNICAL DATA IN THIS PUBLICATION THAT AFFECTS STC OR TSO DESIGN COMPLIANCE

#### **EFFECTIVITY:**

This service letter applies to:

Wipline model 2100 Amphibian Floats S/Ns 21862A and below, and 2350 Amphibian Floats S/Ns 23150A and below.

#### **COMPLIANCE:**

Service letter compliance is mandatory for all Floats with the 1002574 Cylinder installed and recommended for earlier models without the 1002574 Cylinder installed.

#### **BACKGROUND:**

Possible Cylinder or Coupler failure may still indicate Gear actuation.

### **COMPLIANCE METHOD:**

Install the parts included in this Service Kit in accordance with the instructions in the Technical Data section of this service letter and Float Service Manual.

## APPROX. SHOP HOURS:

This service letter will take approximately 3.5 labor hours to complete.

## WARRANTY INFORMATION:

Parts warranty is included for this modification.

## **TECHNICAL DATA:**

Copies of this service letter, associated service kit, Float Service Manual, modification drawing, and Float Parts Manual are available on the Wipaire website <a href="https://www.wipaire.com">www.wipaire.com</a>.

See drawings below for details on 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 Wipaire applicable Service Manual on website <a href="https://www.wipaire.com">www.wipaire.com</a>.

For basic Float model parts information, see applicable Wipaire Parts Manual on website www.wipaire.com.

#### Service Procedures:

- 1. Perform the following service procedures after first securing airplane.
- 2. Jack up the Aircraft until the Main and Nose Wheels are not in contact with the ground. (refer to Float Service Manual Section 4.0)
- 3. Remove side access covers (both Floats) as shown.
- 4. Follow procedures as described in the illustrations Steps 5 thru 18 below.
- 19. After completing the illustrated Steps 5 thru 18 then Adjust rigging per 2100/2350 Wipaire Float Service Manual Section 5.2. <a href="https://www.wipaire.com">www.wipaire.com</a>
- 20. Coat the attach hardware with grease and install as shown.
- 21. Repeat procedure on the opposite Float.
- 22. Retract and extend Gear to ensure proper Gear indication. Adjust if necessary.

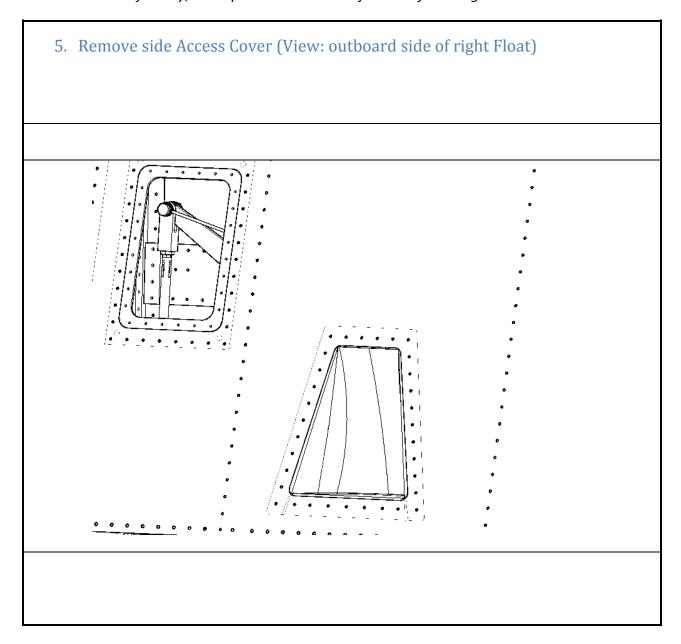
Reinstall covers and lower aircraft on to wheels.TABLE 1				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	2	1003343	SWITCH DOUBLER	
2	2	1005875	MAGNET PIN ASSEMBLY	
3	1	1005933	DRILL TEMPLATE	
4	4	MS20426AD-4-5	SOLID ALUM. RIVET	
5	8	MS21044N04	NUT	
6	2	MS24665-283	COTTER PIN	
7	8	MS24693-S6	SCREW	
8	8	NAS1149FN432P	WASHER	

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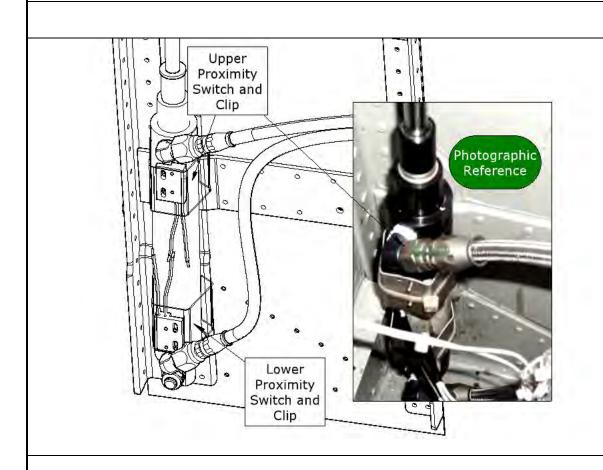
SERVICE LETTER 143
PAGE 3 of 17 REV: B

9 1 PR-1422 B-2 SEALANT
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-In the interest of clarity, some parts were omitted from the following illustrations.-



**6.** Locate and label the Proximity Switches "Upper" and "Lower" to help identify later. Remove 21A09005-262 Clips for both upper and lower Proximity Switches.

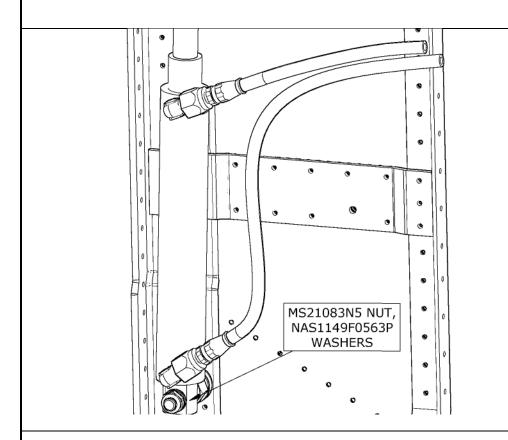


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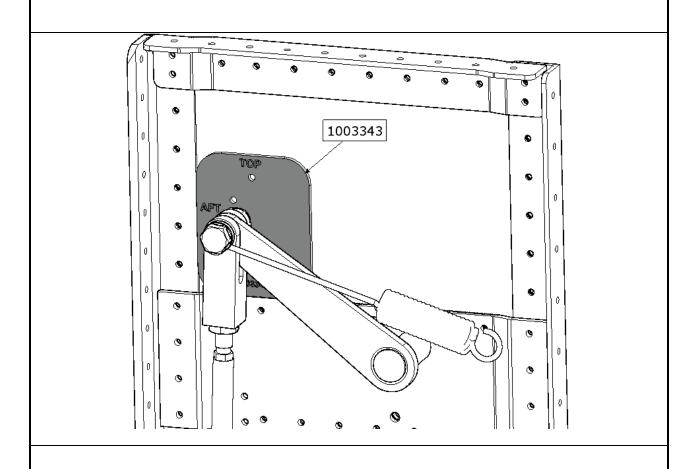
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**SERVICE LETTER 143** PAGE 5 of 17 REV: B

7. Discard 21A09005-262 Clips and attach hardware. Leave the Proximity Switches attached to the wiring harness as they will be reused in new location. Remove MS21083N5 Nut and NAS1149F0563P Washers and set aside to reinstall later. Do not remove Hydraulic Actuator.

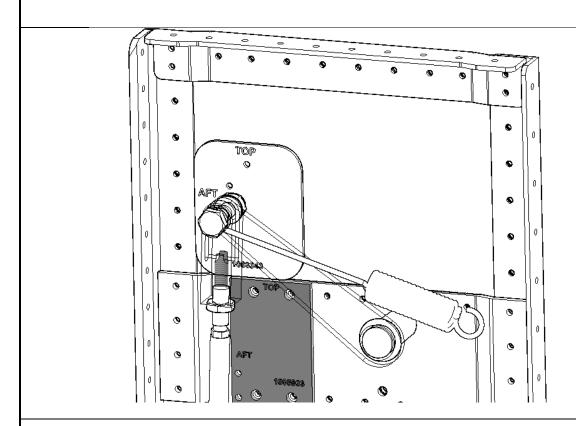


8. Locate and install the 1003343 Switch Doubler. Position 1003343 against Side Gear Panel components as shown and match drill through (2) #30 holes into Side Gear Panel. Deburr holes. Use PR-1422 B-2 Sealer or equivalent between Doubler and panel. (no rivets)

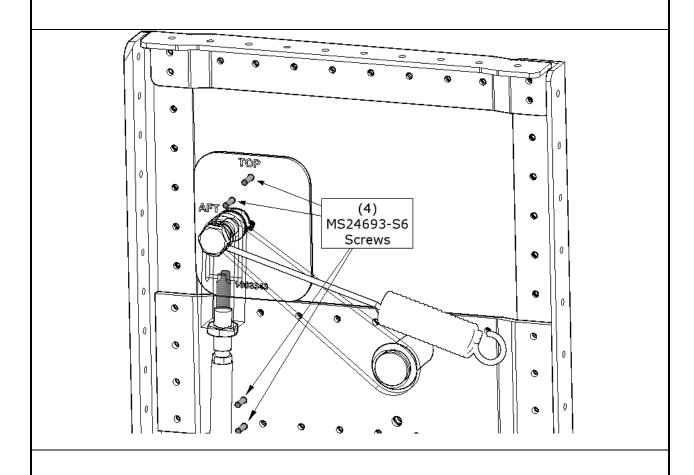


SERVICE LETTER 143 PAGE 7 of 17 REV: B

9. Position 1005933 Drill Template as shown. Drill (2) #30 holes through panel using drill template as a guide. Remove and discard 1005933 Template. Remove and double flush the lower rivet that is closest to the joggle.

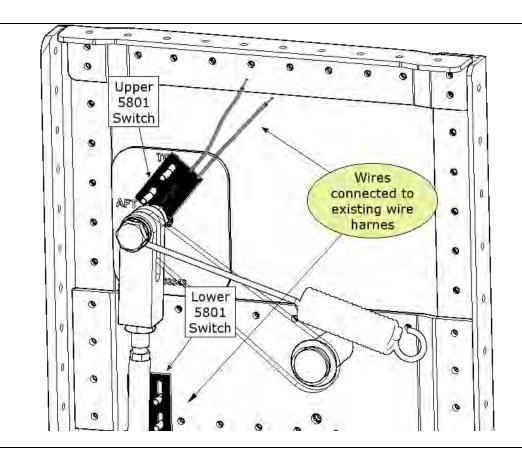


10. Countersink the backside of (4) new holes to fit flush MS24693-S6 screw. Install (4) MS24693-S6 Screws wet with PR-1422 B-2 or equivalent sealer.



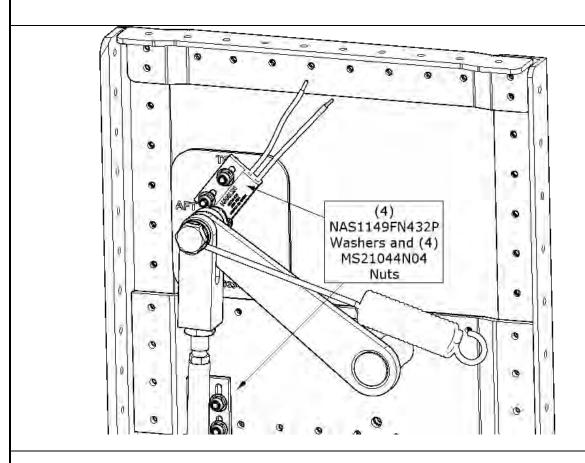
SERVICE LETTER 143
PAGE 9 of 17 REV: B

**11.** Position the 5801 Proximity Switches. Be sure to locate the Upper switch on the upper attach point of the panel and Lower switch on the lower attach point.



SERVICE LETTER 143
PAGE 10 of 17 REV: B

# 12. Add (4) NAS1149F032P Washers and (4) MS21044N04 Nuts.

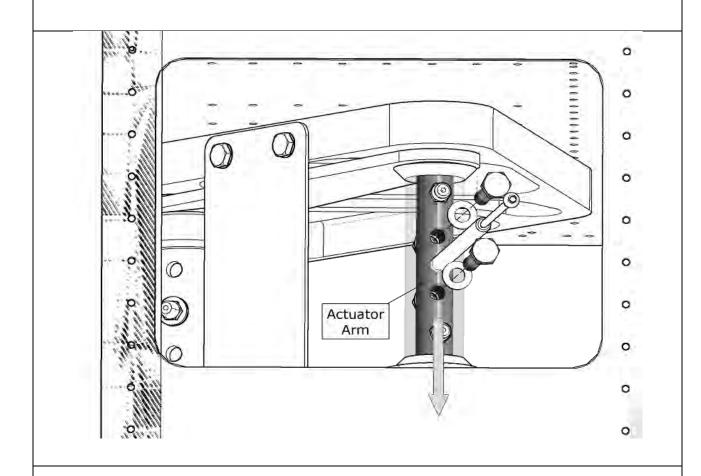


SERVICE LETTER 143 PAGE 11 of 17 REV: B

13. Locate and remove Top Access Cover to expose Main Gear. (View: Top and Outboard side of right Float)	

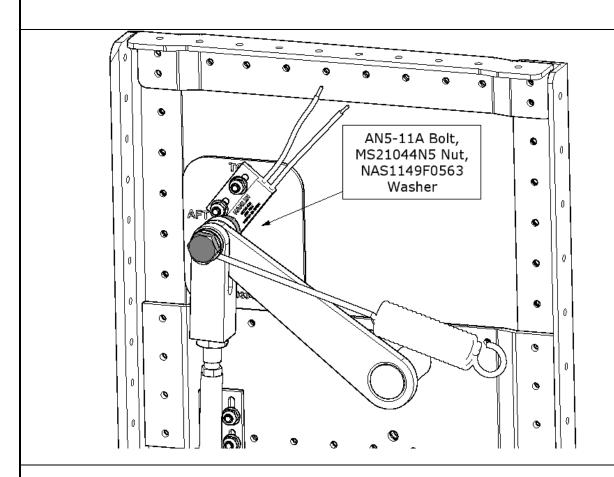
SERVICE LETTER 143
PAGE 12 of 17 REV: B

**14**. Remove (2) NAS6204-17, (4) NAS1149F0432P Washers, and (2) MS21044N4 Nuts. Keep hardware to reinstall later. Actuator Arm will slide in direction to aid in steps that follow.



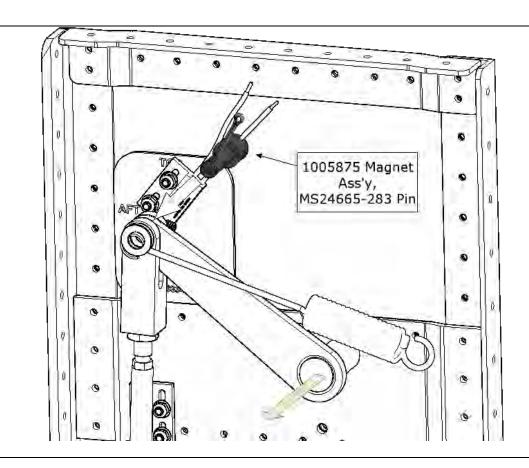
SERVICE LETTER 143
PAGE 13 of 17 REV: B

**15**. Remove AN5-11A Bolt, MS21044N5 Nut and NAS1149F0563 Washer and discard the Bolt and Nut only. (View: outboard side of right Float)



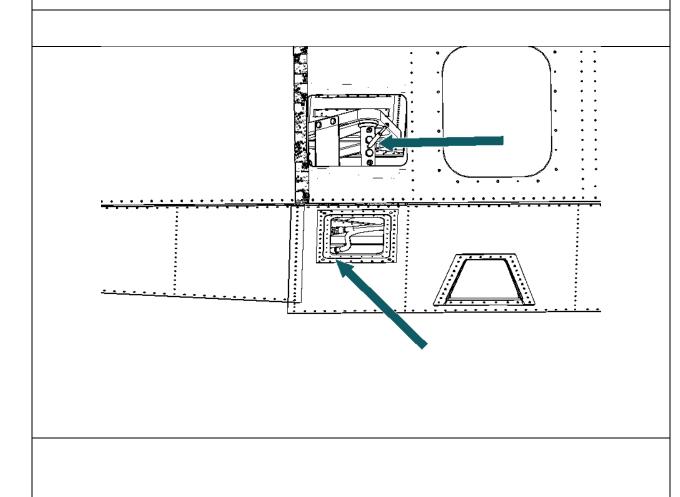
SERVICE LETTER 143 PAGE 14 of 17 REV: B

**16.** Replace with 1005875 Magnet Assembly and secure with MS24665-283 Cotter Pin. Pull Actuator Arm in direction shown to allow extra room to install 1005875 Magnet Assembly.



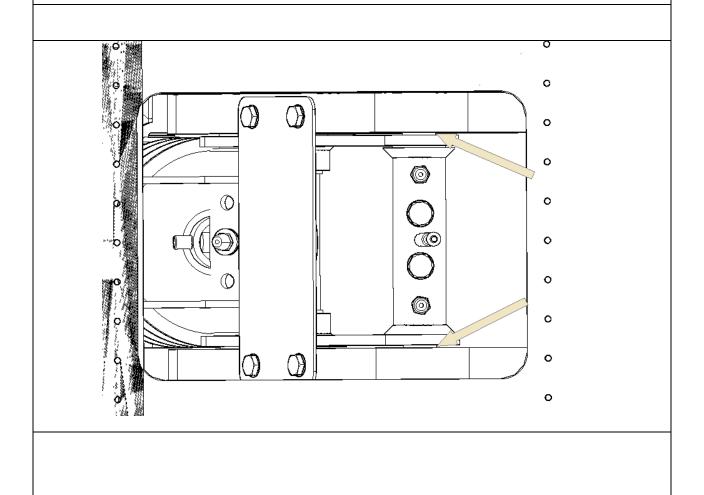
SERVICE LETTER 143 PAGE 15 of 17 REV: B

17. Reinstall Hydraulic Actuator and Actuator Arm mount hardware. (View: Top and outboard side of right Float) As needed, use  $\emptyset 5/8$ " Washers as spacers to reduce slop between Side Plates and Main Gear NAS1149F1032P on outboard side, and NAS1149F1063P on inboard side .



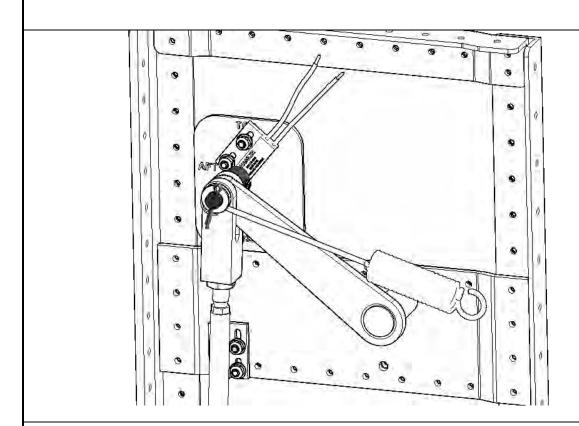
SERVICE LETTER 143
PAGE 16 of 17 REV: B

**18**. As needed, install Washers (NAS1149F1032P and NAS1149F1036P) as spacers to reduce slop between Side Plates and Main Gear. Must move freely!



SERVICE LETTER 143 PAGE 17 of 17 REV: B

19. Adjust the distance between the Magnet and Proximity Switch and secure using set screws and loctite/epoxy. Allow approximately a 1/32" of clearance between Magnet and Switches when Actuator Arm is pushed toward the Switches.



## **NOTES:**

After completion of the instructions in this service letter, make an entry as such in the aircraft logbook in accordance with your local Civil Aviation regulations. Wipaire considers the weight and balance change to be negligible for this modification.

### END ###