



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

SERVICE LETTER 97

NOSE AND MAIN GEAR ACTUATOR REPLACEMENT

Aircraft Makes/Model(s):	Float Model(s):	Compliance: Optional	By: MAS
Multiple	2100A, 2350A, 3000A, & 3450A	Part Number: 1002701	Approved: DRH
		Date: 12/6/2023	Revision: E

LOG OF REVISIONS

Revision	Description	Date
A	Initial release	11/30/2007
B	Updated Method of Compliance	2/10/2008
C	Updated effectivity, compliance method, shop hours, work instructions, and parts list.	2/7/2014
D	Updated instructions about bolt p/n 1005973	3/20/2020
E	Updated instructions to include new bolt p/n 30A05558-001 Rev E or later.	12/6/2023

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 serial number 21692A and prior.

Wipline model 2350 Amphibian Floats serial number 23105A and prior.

Wipline model 3000 Amphibian Floats serial number 30167A and prior.

Wipline model 3450 Amphibian Floats serial number 34227A and prior.

COMPLIANCE:

Compliance is optional.

BACKGROUND:

Wipaire has completely changed the design of the actuator so that it can be rebuilt with a seal kit when needed instead of the old disposable cylinder.

COMPLIANCE METHOD:

Customers may change the actuators as they need repair per the Work Instructions in this Service Letter.

APPROXIMATE SHOP HOURS:

This service letter will take approximately 1.5 labor hours to complete per Cylinder.

WARRANTY INFORMATION:

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

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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

Service Procedures: (Main Gear Actuator Replacement)

1. Perform the following service procedures after first securing airplane on jack stands. See Wipaire Service Manual (refer to Float Service Manual Section 4.0).
2. Remove access covers on both inboard and outboard side skins and indicator cover on top deck.
3. Remove hydraulic actuator connection hardware to main gear pivot arm.
4. Release hydraulic pressure by selecting up and then down on the emergency hand pump.
5. Remove Bimba hydraulic actuator by disconnecting hydraulic lines and mount bolt on 3000/3450; or nut on 2100/2350 at bottom of actuator.
6. 2100/2350 continue to step #9. 3000/3450 continue to step #7.
7. Remove bolt P/N 30A05558-001 that the hydraulic actuator is mounted to. Purchase bolt P/N 1005973 or 30A05558-001 Rev E or later and replace using new bolt until bottomed out in coupling.
8. Drill new safety hole on a different flat of nut 5/16" from the edge of the coupling nut and stamp an "X" on old hole and a "O" on new hole.
9. Inspect the clevis, jam nut, and spacer washer and remove from old actuator. (Replace parts as needed). Install washer with chamfer side down, jam nut, and clevis end on new actuator.
10. Install new hydraulic actuator (2100/2350 P/N1002574, 3000/3450 P/N1002573) and shim so there is no side preload on clevis end to pivot arm with actuator extended.
11. Reconnect hydraulic lines.
12. Repeat previous steps to other main gear actuator before proceeding.
13. Adjust rigging per 3000/3450 Wipaire Float Service Manual Section 5.2.
14. Coat the attach hardware with grease.

Service Procedures: (Nose Gear Actuator Replacement)

1. Perform the following service procedures after first securing airplane on jack stands. See Wipaire Service Manual (refer to Float Service Manual Section 4.0).
2. Remove access covers for bay #1, 2, 3, and nose gear box cover on top of nose box in bay #1.
3. Retract nose gear so that the actuator jam nut and rod end are in nose gear box access hole.
4. Release hydraulic pressure and disconnect hydraulic lines and remove gear switches from actuator.
5. Loosen jam nut and remove Bimba hydraulic actuator.
6. Fit new actuator (2100/2350 P/N1002571, 3000/3450 P/N1002572) without grommet in place in bulkhead #3 and mark hole in bulkhead #3 so that there is no side preload with grommet installed. Remove actuator.
7. Open up hole in bulkhead #3 to marks made in step #6. Put actuator in place and ensure there will be no side load with grommet installed.
8. With actuator removed install forward hydraulic 90-degree fitting and install new actuator in float with the forward hydraulic fitting on the top side when tightened and tighten 1 1/2" jam nut.
9. Once installed the actuator should have no preload in any direction with the grommet installed in bulkhead #3.
10. Reconnect hydraulic lines.
11. Repeat previous steps to other nose gear actuator before proceeding.

Gear check and Rigging

1. Bleed hydraulic system by cycling gear up and down. Leak check
2. Adjust rigging of gear system per 2100/2350 or 3000/3450 Wipaire service manual.
3. Remove aircraft from jack stands.
4. Grease all hardware and hydraulic fittings and close access covers.

TABLE 1

ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	1005973	DRAG LINK ATTACH BOLT (3000/3450 ONLY)
-	2	30A05558-001 Rev E or later	DRAG LINK ATTACH BOLT (3000/3450 ONLY)
2	2	1002571	NOSE GEAR HYDRAULIC ACTUATOR (2100/2350 ONLY)
2	2	1002572	NOSE GEAR HYDRAULIC ACTUATOR (3000/3450 ONLY)
2	2	1002573	MAIN GEAR HYDRAULIC ACTUATOR (3000/3450 ONLY)
2	2	1002574	MAIN GEAR HYDRAULIC ACTUATOR (2100/2350 ONLY)

Aircraft Closing & Return to Service

1. Upon completion of inspection, enter information in Aircraft Logbook for completion of Wipaire Service Letter 97. Wipaire considers the weight and balance change to be negligible for this modification.