



SERVICE LETTER NUMBER 152

TITLE: MAIN GEAR OLEO CYLINDER PISTON MOVEMENT

BY: J.SORTOR	AIRCRAFT MAKE/MODEL(S):	FLOAT MODEL(S):	NOTE(S):
APP: C. WOKEN	Quest Kodiak 100	7000	MANDATORY COMPLIANCE
DATE: 4/1/2014	Cessna 208/208B	8750	S/L P/N 1006779
REV: C			ECO 23676

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

EFFECTIVITY:

This service letter applies to:

Quest Kodiak 100 when equipped with Wipline 7000 Floats IAW STC SA02848CH,
Cessna 208/208B when equipped with Wipline 8750 Floats IAW STC SA1311GL

COMPLIANCE:

Compliance with this Service Letter is Mandatory

Compliance with Service Letter 154 satisfies compliance with this Service Letter

BACKGROUND:

Piston in the Main Gear Oleo Cylinder has been found to loosen during operation having the potential, once loosened far enough, to release the accumulated pressure as well as the Hydraulic fluid in the cylinder itself.

COMPLIANCE METHOD:

Inspection and measurement of Oleo cylinder in accordance with instructions in this service Letter

APPROX. SHOP HOURS:

This Service Letter will take approximately 5 labor hours to complete, excluding curing time.

WARRANTY INFORMATION:

Parts and labor will be provided for any floats within 12 months of purchase. Parts will be provided for floats within 24 months of purchase.

TECHNICAL DATA:

Copies of this service letter, associated service kit, float service manual, modification drawing, and float parts manual are available on the website www.wipaire.com.

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

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

Inspection Procedures:

1. Configure aircraft safe for maintenance.
2. Hoist aircraft using aircraft lifting rig or jack aircraft per applicable Service Manual, Float Handling and Jacking procedures. Note that due to the large gear travel if jacking is elected it is recommended that both sides be jacked at the same time until both main gear shock struts are fully extended.

NOTE

Landing gear must be completely extended to ensure accurate measurement of Shock Strut

3. Measure both Main Gear Shock struts per figure 1 to indicate if piston has loosened internally. See table below for limits and appropriate maintenance action if beyond limits.

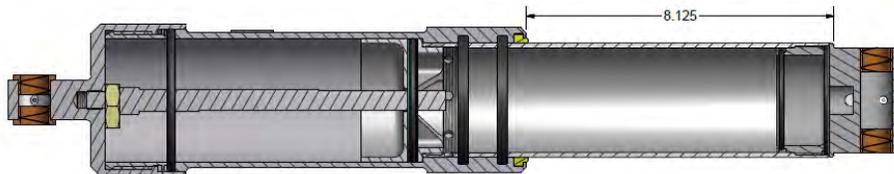


Figure 1

SHOCK STRUT LIMIT TABLE		
MEASURED	MAINTENANCE ACTION	RECURRING INSP.
8.125" – 8.250"	Not Required	25 Flight Hours/50 *
8.250" – 8.375"	Not Required	10 Flight Hours/20 *
8.375" and	Required, proceed to step 4	N/A

NOTE

(*) If maintenance action from this Service Letter below has been accomplished then inspection interval is no longer required.

4. Remove shock strut from float by unbolting upper and lower attach bolts.
5. Proceed to disassembly procedures for repair.

DISASSEMBLY OF SHOCK STRUT:

1. Slightly open Schrader valve to bleed all nitrogen pressure.
2. Once pressure is bled compress cylinder until fluid is visible in valve. Close valve.
3. Turn Strut over and remove Lower End Cap. Discard O-Ring
4. Drain all hydraulic fluid into approved container
5. Remove Schrader valve from Upper End Cap
6. Slide Inner Cylinder Assembly out of Outer Cylinder Assembly.
7. Discard T-Seals and O-Rings in Outer Cylinder Assembly.
8. Remove Piston from Inner Cylinder.

ASSEMBLY OF SHOCK STRUT:

1. Clean threaded area of Piston and Inner Cylinder.
2. Once clean apply a 360 degree bead of Loctite 2047 to the piston and assemble. Activator 7649 can be used to speed curing time.
3. Once Loctite curing time has elapsed, begin reassembly.
4. Install T-Seal P/N 1002028 onto Piston
5. Install T-Seal P/N 1001929 (2) onto Outer Cylinder
6. Slide Outer Cylinder over Inner Cylinder till Piston is bottomed out on Outer Cylinder.
7. Lightly lubricate threads with petroleum jelly on Schrader valve, reinstall valve on Upper End Cap
8. Install O-Ring P/N MS28775-340 on Outer Cylinder
9. Turn assembly over and add 975 Mils +/- 20 Mils of MIL-H-5606 Hydraulic Fluid.
10. Install Bottom End Cap.
11. Turn assembly over. Slightly open Schrader valve and compress strut until fluid is visible in valve.
12. Apply Nitrogen until strut reaches full extend position and stop.

(((CAUTION)))
ROTATE UPPER CYLINDER ASSY. CLOCKWISE (ONLY) TO ALIGN
GREASE ZERKS

13. Align grease zerks on Upper and Lower End Caps
14. Finish applying nitrogen to cylinder per placarded specification on cylinder and close Schrader valve.
15. Reinstall struts
16. Make appropriate entries to aircraft log books.
17. Submit compliance card to Wipaire, 1700 Henry Ave, South St. Paul, MN 55076

NOTES:

- 1) Upon completion of inspection, enter information in float logbook for completion of Wipaire Service Letter 152.
- 2) Once service letter is accomplished, please visit www.wipaire.com and update your aircraft service letter/kit record using the link found on the Customer Support dropdown menu under "Update Service Letter & Kit Compliance Status".

END