

<b>SERVICE LETTER NUMBER 155</b>			
<b>TITLE: FRONT STRUT FITTINGS REPLACEMENT</b>			
BY: M.DILLON	AIRCRAFT MAKE/MODEL(S): QUEST KODIAK 100	FLOAT MODEL(S):	NOTE(S): MANDATORY REPLACEMENT ECO—23673 S/L P/N 1008026
APP: J.SORTOR		WIPLINE MODEL 7000	
DATE: 12/19/14		SERIAL NUMBERS:	
REV: C		70001 - 70030	

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

**EFFECTIVITY:**

This service letter applies to:  
 All Quest Kodiak 100 floatplanes equipped with Wipline model 7000 floats with float serial numbers 70001 to 70030.

**COMPLIANCE**

Compliance with this service letter is mandatory, to be completed within 100 hours or at next regularly scheduled maintenance, whichever occurs first.

**BACKGROUND:**

Due to the flexible nature of the forward fuselage structure on the Quest Kodiak 100, the forward fitting has been modified to allow additional range of motion between the strut fitting and the fuselage attachment. Compliance with this service letter provides enhanced structural margins for the top fittings on the front struts.

**COMPLIANCE METHOD:**

For Model 7000 floats - Replacement of the right and left hand Engine Mount Fittings, P/N 1003334 and 1003335 with Engine Mount Fittings P/N 1005252 and 1005253. On each front strut, replace the upper forward strut fitting P/N 6A02198-003 with P/N 1003336.



APPROX. SHOP HOURS:

This Service Letter will take approximately 24 labor hours to complete.

WARRANTY INFORMATION:

This Service Letter Includes warranty parts and labor

TECHNICAL DATA:

Copies of this service letter, float service manuals and float parts manuals are available on the website [www.wipaire.com](http://www.wipaire.com).

For basic Float model maintenance information, see Wipaire applicable Service Manual on website [www.wipaire.com](http://www.wipaire.com).

For basic Float model parts information, see applicable Wipaire Parts Manual on website [www.wipaire.com](http://www.wipaire.com).



PARTS LIST: (Service Kit 1008026-01)

QTY	Part Number	Description
2	1003336	Fitting, Strut, Fwd, Kodiak
1	1005252	Fitting, Engine Mount, RH, Kodiak
1	1005253	Fitting, Engine Mount, LH, Kodiak
2	MS24665-285	Cotter Pin
13	MS24694S145	Screw, Machine, Csk. Flathead, 100° Cross Recess, Structural (+1 extra)
1	1004651	Strut Installation, Standard, Kodiak 100 (Drawing Rev D or Later)
1	1004652	Strut Installation, HS, Kodiak 100 (Drawing Rev D or Later)

SHOP SUPPLY LIST:

Description
#4 Phillips Bit - (square drive for use with torque wrench and impact screwdriver)
HCF 605 Grease (or equivalent)
Loctite Thread-locker Blue 242
Touch-up paint to match struts; or Dinitrol AV8; or Dinitrol AV30; or equivalent product for corrosion protection
Vibra-TITE 470 DriveGrip Anti-Cam Out Fluid; or Align-Rite ScrewGrab; or valve grinding/lapping compound
Torque Wrench
Impact Screwdriver (may be necessary)

PROCEDURE:

**NOTE: UNLESS OTHERWISE SPECIFIED,  
USE AC43.13 RECOMMENDED TORQUE VALUES ON ALL FASTENERS**

The preferred maintenance method is to support the aircraft from an overhead hoist. The alternate method of supporting the aircraft using aircraft jacks is described in ALTERNATE JACKING PROCEDURE on page 5 of this service letter.

1. Remove the engine cowl to gain access to the lower engine mount attachment bolts.
2. Remove aircraft wing root fairings and attach Wipaire Kodiak Lifting Rig (P/N 1004056) to the aircraft.
3. Lift the aircraft, and if available, place the aircraft on appropriate jack stands (Wipaire Jack Stand P/N 1005983-02 or equivalent).
4. Keep upward tension on the lifting rig to stabilize the aircraft (if jack stands are not available chock the main wheels to keep the aircraft from rolling).
5. Remove the forward boarding steps.
6. Remove the AN8 bolts attaching the forward strut to the Engine Mount Fitting on the aircraft and to the Forward Strut Attach Fitting on the float top deck. (If the optional Heavy Seas struts are installed, remove the lower AN6 bolt attaching the bottom of the forward heavy seas strut to the Forward Strut Attach Fitting allowing the heavy seas strut to be repositioned as necessary.)
7. Making sure to keep upward tension on the lifting rig, remove both of the front struts.
8. Remove the MS24694S145 (qty. 6) countersunk screws attaching the upper strut fitting to each of the forward struts. A #4 Phillips bit is required to properly fit the screws. It may be necessary to use an impact screwdriver and Vibra-TITE 470 DriveGrip Anti-Cam Out Fluid (or equivalent) to loosen the screws.
9. On each front strut, replace the upper strut fitting (P/N 6A02198-003) with the new Forward Strut Fitting – Kodiak (P/N 1003336).
10. Install new MS24694S145 screws into the strut fittings. Apply HCF P/N 605 grease under the head of each MS24694S145 screw and apply Loctite Thread-locker Blue 242 to the threads on each screw before installing. Do not apply grease to the screw threads. Install each screw hand tight and then torque the screws, alternating sides, up to 216 in-lbs (18 lb-ft). A drop of Vibra-TITE 470 DriveGrip Anti-Cam Out Fluid (or equivalent) will help keep the Phillips bit engaged while torquing the screws.
11. Touch up the paint on the bare screw heads or apply a corrosion preventative compound, such as Dinitrol AV8 or AV30 or equivalent.

12. Remove the AN4 bolts from each of the Engine Mount Fittings that attach the tube clamp to the lower engine mount tubes.
13. Remove the cotter pins from the lower engine mount bolts and remove the two lower engine mount bolts that pass through the Engine Mount Fittings.
14. Remove each of the existing Engine Mount Fittings and replace with P/N 1005252 on the Right (Starboard) side and P/N 1005253 on the Left (Port) side. To facilitate removal and installation of the Engine Mount Fittings, it may be necessary to support the weight of engine. If available, an approved engine lifting rig can be used to support the engine by lifting from the engine lifting points (see PWC maintenance manuals for further instructions). Alternatively, a jack may be used to push upward on the engine mount. Support the engine using a jack on the engine mount on one of the landplane forward nose gear attachment lugs. (Note: The Engine Mount Support (P/N 1003541) that has the steering bungee attached to it, is attached to the forward nose gear attachment lugs on the engine mount)
15. With the new Engine Mount Fittings (P/N's 1005252 and 1005253) in place torque the engine mount bolts to 480-690 in-lb (40-57.5 lb-ft) and pin with a new MS24665-285 cotter pin.
16. Install the tube clamps from step 12 reusing the AN4 bolts and secure with safety wire.
17. Reinstall the right and left front struts using the hardware removed in step 6. (If installed, reattach the optional heavy seas struts with the hardware removed in step 6)
18. Reinstall the forward boarding steps.
19. Remove aircraft from jack stands and remove the Kodiak Lifting Rig from the aircraft.
20. Reinstall cowl and relieve the lower cowl as necessary around the Engine Mount Fittings (1005252 and 1005253).
21. Reinstall wing root fairings

#### ALTERNATE JACKING PROCEDURE:

If a Wipaire Kodiak Lifting Rig (P/N 1004056) and overhead hoist are not available, hydraulic aircraft jacks may be used to support the aircraft fuselage.

- A. Park the aircraft on a flat level surface. Ensure that the fuel level is balanced between both wing tanks. Add or remove fuel as necessary to level the fuel. Shut off both fuel selector valves to prevent fuel transferring between the wing tanks.
- B. Chock the main gear to prevent the aircraft from rolling.
- C. Remove the engine cowl to gain access to the lower engine mount attachment bolts.
- D. Remove the forward boarding steps.
- E. Attach the Quest Aircraft Kodiak jack adaptor to the nose gear drag brace fitting. See Chapter 7 "Lifting and Shoring" in the Quest Aircraft Maintenance Manual for further information.

- F. Use aircraft jack to support the fuselage from the jack adaptor on the nose gear drag brace fitting. The jack support will pass aft of the forward spreader bar between the two floats. Lift the fuselage as necessary to reduce the load on the bolts attaching the front struts to the aircraft and floats. **Do not loosen or adjust any of the boxing or fly wires. The wires will maintain the float to aircraft geometry.**
- G. Proceed with Steps 6 to 17, removing and replacing the Forward Strut and Engine Mount Fittings.
- H. **On Step 14: When supporting the weight of the engine to facilitate removal and installation of the Engine Mount Fittings, give special attention to not remove the load on the jack supporting the fuselage. The fuselage jack must remain in place on the jack adaptor in order to properly support the fuselage.**
- I. After the forward struts are reinstalled between the floats and the aircraft, remove the jack and jack adaptor being used to supporting the fuselage.
- J. Reinstall the forward boarding steps.
- K. Reinstall cowl and relieve the lower cowl as necessary around the Engine Mount Fittings (1005252 and 1005253).

**NOTES:**

- 1) Upon completion of inspection, enter information in float logbook for completion of Wipaire Service Letter 155.
- 2) Once service letter is accomplished, please visit [www.wipaire.com](http://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 ###