



Service Bulletin SB-DHC3-01

- Date:** April 25, 2003
- Effectivity:** All DHC-3 Otter aircraft modified with Texas Turbine Conversions, Inc. STC SA09866SC or Canadian STC SA02-15, turbine engine conversion prior to October 1, 2002.
- Reason:** Faulty check valves in the combined center and rear tank fuel lines have not opened under some circumstances during aircraft operation. These check valves have not allowed some operators to feed from tanks necessary for long distance operation.
- Description:** This service bulletin provides the requirements and instructions for the modification of the fuel system to correct the feed problem.
- Compliance:** Within the next 100 hours of operation or next 100-hour inspection, whichever comes first. Modify the fuel system according to the following procedure. Until that time, the operator must verify, on every flight, proper fuel feed of the aft tanks as soon as practical after takeoff.

Modify the fuel system back to the original DeHavilland fuel system as per the following procedure:

1. Drain all three tanks.
2. Remove the external plumbing lines from the bottom of the center and aft tanks.
3. Install the original plumbing lines per the DeHavilland Maintenance Manual and Illustrated Parts Catalog.
4. Remove the fuel selector control in the cockpit per the DeHavilland Maintenance Manual and move the rear fuel low level indicator wire (E11A20) from pin 3 of the selector control to pin 4 of the control.
5. Remove the stop screw installed on the control faceplate at the twelve o'clock position.
6. Drill off the engraved control faceplate and rivet the original faceplate back on using the four AN470A3-6 rivets supplied.
7. Re-install the fuel selector control per the DeHavilland Maintenance Manual.
8. Test selector for proper operation and clocking.
9. Fill all three tanks and leak check.
10. Observe new fuel burn limitations (these limitations are being incorporated in the latest flight manual supplement revision, TTC-FMS-1, Rev B)
 - **Do not takeoff with less than 134 lbs (20 U.S. gal.) of fuel in all three tanks.**
 - **Burn from the front tank for takeoff and landing.**
 - **After takeoff, burn fuel from the aft tank forward. Retain as much as possible in the front for landing.**
 - **The electric boost pump must be used for takeoff, landing, fuel tank selection, and operations above 10,000 feet.**
11. Run engine on the ground and test fuel feed from all three tanks.

Approval: The engineering aspects of this change in type design are FAA approved.

Man-hours: The modification should take no more than eight man-hours. Parts and labor costs will be paid by Texas Turbine Conversions, Inc up to those limits. All parts removed must be returned to Texas Turbine Conversions, Inc.

Material: Fuel system components for the modification will be supplied by Texas Turbine Conversions, Inc.

Tooling: Not applicable.

Weight and Balance: No Change.