

Cessna 310 Aircraft - Auxiliary Fuel Tank
Check Valve

AWB 28-010 **Issue :** 1
Date : 28 February 2008

1. Applicability

Cessna 310 series aircraft.

2. Purpose

The purpose of this AWB is to bring to the attention of registered operators of Cessna 310 series aircraft that the check valve in the Aux tank vent line may not seal properly allowing air ingestion into the engine driven fuel pump (EDFP) through the vent line, which may lead to an engine failure.

3. Background

A Cessna 310 operator reported an ongoing problem with the right engine surging and losing power when the right auxiliary (Aux) fuel tank was selected. After several attempts to rectify the snag, check valve (Part number 0850375-5) in the Aux tank vent line was replaced, correcting the problem. Investigation revealed that the valve was corroded internally because of exposure to the moisture in the fuel and other factors, preventing the proper sealing of the vent line.

Due to the design of the Aux tank vent system; if the check valve does not seal the vent line properly, air in the vent line may flow in either direction. The EDFP will then draw air through the vent line in addition to the fuel from the tank, resulting in loss of fuel pressure and low power.

The phenomenon of engine surging and power loss is more likely to occur when the aux tanks fuel quantity is about half or below, and when aux tanks are selected. Accordingly, selection of main tanks will often restore the power.

4. Recommendation

CASA recommends to all Cessna 310 operators that:

- a) If your engine is experiencing power loss, carry out inspection of the subject check valve for proper sealing, internal corrosion and general condition, in addition to the other trouble shooting procedures.
- b) Carryout periodic functional check of the vent valve and all other check valves. Remove and replace corroded / unserviceable check valves.
- c) Report your findings of unserviceable valves to CASA using the SDR system.



AIRWORTHINESS BULLETIN

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5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

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Or in writing, to:

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