



AIRWORTHINESS BULLETIN

Cessna 208 Caravan PWC PT6A 114 **AWB** 72-004 **Issue :** 1
Series Engines Oil Transfer Fitting (elbow) **Date :** 8 February 2010
Failures

1. Effectivity

All Cessna 208 Caravans powered by Pratt & Whitney Canada (PWC) PT6A 114 Series engines.

2. Purpose

Advise operators and maintainers to consider undertaking specific maintenance actions with regard to Engine Mount Bracket Assy Attach. P/N 9910333-1 (vibration isolator) and P/N 310365501 oil transfer fitting or “elbow”.

3. Background

A preliminary investigation by CASA and the ATSB into the recent spate of PT6A in-flight engine shut-downs, indicates a possible link between the incorrect installation of an Engine Mount Bracket Assy Attach. P/N 9910333-1 (vibration isolator) and fatigue cracking of the P/N 310365501 oil transfer fitting or “elbow”.

Fatigue failure of the oil transfer fitting may allow engine oil to be pumped overboard.

As far as can be determined at this point of the investigation, the evidence suggests that there is a possibility that the fatigue failure of this fitting may be caused by unusual vibration caused by the incorrect installation of the upper vibration isolator, for example, the aft portion installed inverted or up-side down.

4. Recommendation

As a precautionary measure, it is recommended that all operators of the affected engines installed in Cessna 208 aircraft accomplish the following before further flight:

1. Inspect all Engine Mount Bracket Assy Attach. P/N 9910333-1 vibration isolators to ensure correct installation and serviceable in accordance with approved data.
2. Perform a close inspection on all P/N 310365501 elbows for any signs of cracking.
3. Immediately remove from service any elbow with cracking indications or that has been in service on an engine with an incorrectly installed engine mount / vibration isolator.

All instances of incorrectly installed vibration isolators and/or cracked elbows should be reported to CASA via the SDR system to assist the on-going investigation.



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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:

AirworthinessBulletin@casa.gov.au

Or in writing, to:

Airworthiness Engineering Branch
Civil Aviation Safety Authority
GPO Box 2005, Canberra, ACT, 2601