AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) to ADs.

Number:

CF-2018-07

Effective Date:

9 March 2018

ATA:

28

Type Certificate:

A-82

Subject:

Fuel System – Corrosion of fuel system components

Applicability:

Viking Air Ltd. (formerly Bombardier Inc.) model DHC-6-400 aeroplanes, serial numbers 845 to 957.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been reports of corrosion affecting components of the fuel system that are located in the fuel gallery because of inadequate corrosion protection. This condition affects only aeroplanes operating on floats.

The effects of corrosion-related damage to fuel system components have included fuel leaks, electrical arcing, loss of fuel boost pump function and erroneous fuel quantity readings. Inaccurate fuel quantity indication and loss of fuel boost pump function can lead to fuel starvation followed by loss of engine power. Electrical arcing in the fuel gallery and loss of electrical bonding between fuel system components increases the risk of fire.

Corrective Actions:

A. For aeroplanes operating on floats on the effective date of this AD:

1. Within 50 hours air time or 3 months, whichever occurs first, from the effective date of this AD, inspect and, as required, rectify before further flight any deficiencies noted with fuel gallery system components in accordance with the current version of Viking Air Ltd, Inspection Requirements Manual PSM 1-6-7, Part 2 Special Inspection, Section SP3.D. Item 15.(2).
2. Within 12 months from the effective date of this AD, accomplish the modifications specified in Viking Air Ltd. Service Bulletin (SB) V6/0044 Revision A, dated 14 July 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
3. If Option A is selected to comply with Part 5 of 5 of the Accomplishment Instructions of SB V6/0044, within 1000 hours air time after modification of the aeroplane, and at intervals not to exceed 1000 hours air time thereafter, remove all sealant, inspect for corrosion, clean, and re-apply sealant, in accordance with PSM 1-6-7 SP3.D., Item 15.a.(2). This corrective action applies to serial numbers 845 to 935.

B. For aeroplanes converted to operate on floats after the effective date of this AD:

1. Within 12 months of being converted to operate on floats, accomplish the modifications specified in Viking Air Ltd. Service Bulletin V6/0044 Revision A, dated 14 July 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

2. If Option A is selected to comply with Part 5 of 5 of the Accomplishment Instructions of SB V6/0044, within 1000 hours air time after modification of the aeroplane, and at intervals not to exceed 1000 hours air time thereafter, remove all sealant, inspect for corrosion, clean, and re-apply sealant, in accordance with PSM 1-6-7 SP3.D., Item 15.a.(2). This corrective action applies to serial numbers 845 thru 935.

Note: this corrective action requirement applies even if the aeroplane is converted from float landing gear back to non-float landing gear after less than 12 months of operation on floats.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Philip Tang
Acting Chief, Continuing Airworthiness
Issued on 23 February 2018

Contact:

Ross McGowan, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.