



# 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) with ADs.*

**Number:**

CF-2022-63

**Effective Date:**

1 December 2022

**ATA:**

53

**Type Certificate:**

A-142

**Subject:**

Fuselage – Wing-to-Fuselage Joint – Moisture Ingress Between Front and Rear Spar Frame Segments

**Applicability:**

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-401 and -402 aeroplanes, serial numbers 4001 and 4003 through 4624.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

Several cases of moisture have been found in-service, in the wing-to-fuselage joint, between the mating front spar and rear spar frame segments. This condition, if not corrected, could lead to corrosion and structural degradation of the wing-to-fuselage joint and possible separation of the wing from the aeroplane.

To address this unsafe condition, this AD mandates a visual inspection of the front and rear spar frames, and a retrofit that will improve the sealing of the airframe at the fuselage spar frame strut assemblies.

**Corrective Actions:**

**Part I – Applicable to Aeroplanes That Have Accumulated, as of the Effective Date of this AD, Less Than 32 000 Flight Cycles (FC) From Entry-Into-Service**

Before accumulating 40 000 FC from entry-into-service of the aeroplane, perform the visual inspection and all applicable actions in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada Service Bulletin (SB) 84-53-81, Revision A, dated 23 August 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

**Part II – Applicable to Aeroplanes That Have Accumulated, as of the Effective Date of this AD, 32 000 FC or More From Entry-Into-Service**

Within 8000 hours air time or 48 months, whichever occurs first, from the effective date of this AD, perform the visual inspection and all applicable actions in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-53-81, Revision A, dated 23 August 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

The visual inspection and all applicable actions performed in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-53-81, Initial Revision, dated 27 May 2022, prior to the effective date of this AD, also meets the requirements of Part I and Part II of this AD, as applicable.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Daniel Gosselin  
Acting Chief, Continuing Airworthiness  
Issued on 17 November 2022

**Contact:**

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