



No.	CF-2014-06	1/2
Issue Date 21 January 2014		

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.
This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: CF-2014-06

Subject: Fire Protection System - Tube Corrosion

Effective: 4 February 2014

Applicability: Bombardier Inc. model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4001 through 4424.

Compliance: As indicated below, unless already accomplished.

Background: Corrosion has been reported in the fire protection system low rate discharge tubes leading to the forward baggage compartment. In some cases, this has led to perforation of one or more tubes.

Perforation of forward baggage compartment fire protection system tubes may result in decreased effectiveness of the fire protection system in the event of a fire in the forward baggage compartment.

This AD mandates a repetitive integrity check of the forward baggage compartment fire protection system tube assemblies, and the replacement of aluminum forward baggage compartment fire protection system tube assemblies with corrosion resistant stainless steel (CRES) tubes.

Corrective Actions: **Part I – Integrity Check**

A. Initially, use the following schedule:

1. For aeroplanes that have accumulated 10 000 hours air time or more, or have been in service for 5 years or more, as of the effective date of this AD: within 2000 hours air time or 12 months, whichever occurs first, from the effective date of this AD.
2. For aeroplanes that have accumulated less than 10 000 hours air time, and have been in service for less than 5 years, as of the effective date of this AD: prior to reaching 12 000 hours air time or 6 years into service, whichever occurs first.

B. Perform an integrity check in accordance with Part A of the Accomplishment Instructions in Bombardier Service Bulletin (SB) 84-26-15, Revision A, dated 15 January 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

1. If no leakage is found, proceed to Part I, Paragraph C of this AD.
2. If the integrity check fails, replace the forward baggage compartment fire protection system tube assemblies in accordance with Part II of this AD before further flight.

Pursuant to **CAR 202.51** the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

To request a change of address, contact the **Civil Aviation Communications Centre (AARC)** at **Place de Ville, Ottawa, Ontario K1A 0N8**, or **1-800-305-2059**, or www.tc.gc.ca/civilaviation/communications/centre/address.asp

Canada

3. As an alternative to the requirement of Part I, paragraph B.2 above, the aeroplane may be returned to service for a maximum of 10 days provided the following conditions are met:

- a. The forward baggage compartment is empty. For ballast purpose, use of bags (made of glassfiber or Kevlar) of sand or ingots of non-magnetic metals (such as lead) is acceptable;
- b. The flight compartment and forward baggage compartment are placarded to indicate the forward baggage compartment as inoperative; and
- c. An appropriate entry in the aircraft journey log is made.

Performance of an integrity check in accordance with Part A of the Accomplishment Instructions in Bombardier SB 84-26-15, Original Issue, dated 7 June 2013, also meets the requirements of Part I, Paragraph B of this AD.

C. Subsequently, at intervals not to exceed 2000 hours air time or 12 months after the previous integrity check, whichever occurs first, repeat the integrity check detailed in Part I, Paragraph B above.

Part II – Tube Replacement

Replace the aluminum forward baggage compartment fire protection system tube assemblies with CRES tube assemblies in accordance with Part B of the Accomplishment Instructions in Bombardier SB 84-26-15, Revision A, dated 15 January 2014, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, using the following schedule:

- A. For aeroplanes that have accumulated 12 000 hours air time or more, or have been in service for 6 years or more, as of the effective date of this AD: within 6000 hours air time or 36 months, whichever occurs first, from the effective date of this AD.
- B. For aeroplanes that have accumulated less than 12 000 hours air time, and have been in service for less than 6 years, as of effective date of this AD: prior to reaching 18 000 hours air time or 9 years into service, whichever occurs first.

Previous tube assembly replacement incorporated in accordance with Part B of the accomplishment instructions in Bombardier SB 84-26-15, Original Issue, dated 7 June 2013, or Bombardier SB 84-26-13, Original Issue dated 21 September 2012, also meets the requirements of Part II of this AD.

The electrical bonding resistance check of the high rate discharge bottle, in Part B, Step 20 of the Accomplishment Instructions of Bombardier SB 84-26-15, Original Issue, dated 7 June 2013 is not required.

Part II of this AD constitutes terminating action to this AD. Part I of this AD is no longer required after accomplishment of Part II of this AD.

Authorization: For the Minister of Transport,

Robin Lau
Acting Chief, Continuing Airworthiness

Contact: Helen Tsai, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.