



No.	CF-2013-20R1	1/2
Issue Date	30 December 2013	

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-2013-20R1

Subject: Forward Passenger Door – Cracking of the Airstair Step Assembly

Effective: 13 January 2014

Revision: Supersedes AD CF-2013-20, issued 25 July 2013.

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

Compliance: As indicated below, unless already accomplished.

Background: There has been one in-service report of several cracks being found on the forward passenger airstair door step assembly between the steps and the sidewall panels. The investigation revealed that the application of potting compound may have been omitted during the bonding at the joint of the airstair door steps and the sidewalls. The omission of potting compound could cause the bonding sealant to crack. The cracks, if not detected, could propagate to result in the structural failure of the steps.

In the event of an emergency egress situation, the failure of the airstair step assembly could impede the evacuation of passengers.

This AD mandates the replacement of the affected forward passenger airstair step assembly with a new or reworked step assembly.

Revision 1 of this AD provides additional instructions for performing an electronic tap test of the airstair step assembly if the Serial Number (S/N) of the airstair step assembly cannot be found.

Corrective Actions: **Part I – Inspection & Replacement of Affected Doors – Applicable to Aeroplane Serial Numbers 4001 through 4393:**

- A. Within 320 days from the effective date of this AD, inspect the S/N of the airstair step assembly in accordance with the Accomplishment Instructions in Bombardier Service Bulletin (SB) 84-52-77, Revision B, dated 31 October 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If the S/N of the airstair step assembly cannot be found, or is illegible, perform an electronic tap test in accordance with the accomplishment instructions of the above-mentioned SB.
 - 1. If the existence of epoxy compound is confirmed, re-identify the airstair step assembly in accordance with the Accomplishment Instructions of the above-mentioned SB. Proceed to Part II of this AD.

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



2. If the existence of epoxy compound is not confirmed, proceed to paragraph D of this AD.
- C. If the S/N of the airstair step assembly is not in the affected range listed in section 1.A. of the above-mentioned SB, no further action is required. Proceed to Part II of this AD.
- D. If the S/N of the airstair step assembly is in the affected range listed in section 1.A. of the above-mentioned SB, or the existence of epoxy compound is not confirmed, within 6000 hours air time from the effective date of this AD, replace the airstair step assembly in accordance with the Accomplishment Instructions of the above-mentioned SB. Proceed to Part II of this AD.

For aeroplanes where the S/N of the airstair step assembly can be found, inspection and if required, replacement of the airstair step assembly in accordance with Revision A of Bombardier SB 84-52-77, dated 24 April 2013, also satisfies the requirements of Part I of this AD.

Part II – Spares – Applicable to Aeroplane Serial Numbers 4001 and Subsequent:

As of the effective date of this AD, it is prohibited for anyone to install an airstair step assembly part number 85217008-001 containing a S/N in the affected range listed in section 1.A. of the above-mentioned SB.

Authorization: For the Minister of Transport,

ORIGINAL SIGNED BY

Robin Lau
Acting Chief, Continuing Airworthiness

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