



No.	CF-2007-05	1/2
Issue Date	10 April 2007	

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) 593*. 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), Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

- Number:** CF-2007-05
- Subject:** Translating Door Over-Centering Spring Bracket Failure
- Effective:** 24 April 2007
- Applicability:** Bombardier Inc. Models DHC-8-400, DHC-8-401 and DHC-8-402, Serial Numbers 4001, 4003 through 4102.
- Compliance:** Within 1000 flight hours after the effective date of this directive, unless already accomplished.
- Background:** There has been a reported case of failure of a bracket (P/N 85217732-108) of the over-centering spring assembly inside the translating door of the forward baggage compartment. This condition can exist on other translating doors on the aircraft. Investigation concluded that an insufficient gap between the bottom eyebolt and the barrel of the spring assembly caused an increase of tension load on the bracket and resulted in subsequent failure of the bracket. Failure of the bracket caused the eyebolt at the bottom of the spring assembly to become loose, resulted in damage of the support beam during normal door handle movement. Damage of the support beam, which is dormant, in combination with failure of a doorstop attached to any remaining undamaged support beam will degrade the structural integrity of the door, resulting in possible depressurization or loss of the door.
- Corrective Actions:**
1. Perform a one-time inspection for damages of the forward baggage door, aft service door and aft passenger door spring support bracket and support beams as applicable. Bombardier Service Bulletin 84-52-51, Revision A, dated 6 September 2006, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, provides approved instructions for inspection and rectification. Damaged support bracket must be replaced according to the above-noted SB before further flight. Damaged support beams must be replaced or repaired as follows:
 - a) If any support beam is damaged at one spring location and the damage is within the limits defined in Bombardier Repair Drawing RD 8/4-52-202, repair the support beam according to RD 8/4-52-202 within 5,000 hours air time. Aircraft without the incorporation of RD 8/4-52-202 may be returned to service for a maximum of 5,000 hours air time, provided that each door stop of the affected door be inspected for integrity according to the above-noted SB and subsequently at intervals not exceeding 400 hours air time.
 - b) If any support beam is damaged at one or two spring locations and any damage exceeds the limits defined in RD 8/4-52-202, replace the damaged support beam with a new beam before further flight.
 - c) If any support beam is damaged at two spring locations and the damage is within the limits defined in RD 8/4-52-202, repair the support beam in accordance with RD 8/4-52-202 prior to 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

2. Remove and discard the nuts and washers at the bottom of the over-centering spring assemblies of the forward baggage door, aft service door and aft passenger door by incorporating Modsum 4-155296. Bombardier Service Bulletin 84-52-51, Revision A, dated 6 September 2006, or later revision approved by the Chief, Continuing Airworthiness, Aircraft Certification, provides approved instructions for incorporating Modsum 4-155296.

Authorization: For Minister of Transport, Infrastructure and Communities

B. Goyaniuk
Chief, Continuing Airworthiness

Contact: Mr. Philip Tang, Continuing Airworthiness, Ottawa, telephone 613-952-4365, facsimile 613-996-9178 or e-mail tangp@tc.gc.ca or any Transport Canada Centre.