



No.	CF-2011-04	1/3
Issue Date	08 March 2011	

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- 2011-04
- Subject:** Cracking of the Outer Wing Fuel Access Panel
- Effective:** 30 March 2011
- Applicability:** Bombardier Inc. DHC-8 Aeroplanes, Models 400, 401 and 402, Serial Numbers 4001, and 4003 through 4106
- Compliance:** As indicated below unless already accomplished.
- Background:** Airworthiness Directive (AD) CF-2005-37 was issued on 11 October 2005 to address cracking of the outer wing fuel access panel, Part Number (P/N) 85714230-001. Similar cracking on an outer wing fuel access panel, P/N 85714231-001, has been reported. Further investigation revealed that certain fuel access panels may have seal grooves manufactured with non-conforming fillet radii which could lead to cracking. Cracking of the fuel access panel, if not corrected, could result in arcing and ignition of fuel vapor in the outer wing fuel tank during a lightning strike.

This directive mandates the inspection and replacement of the affected fuel access panels.

- Corrective Actions:**
- A. Inspection and Replacement of the Outer Wing Fuel Access Panels, P/N 85714231-001**
1. Within 600 hours air time after the effective date of this directive, perform an external detailed visual inspection of the outer wing access panels and locate the rivets of the identification plate in accordance with paragraph 3.B.I, of Bombardier Service Bulletin (SB) 84-57-22, Revision A, dated 9 December 2010 or Revision B dated 16 February 2011 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
 2. If the rivets of the identification plate are found, the fuel access panel is post-mod 4-113502. No further action is required and compliance with Part A of this directive is complete. Proceed to Part B of this directive.
 3. If the rivets of the identification plate cannot be found, perform either paragraph 3.a or 3.b below prior to further flight:
 - a. Remove the access panels, P/N 85714231-001, in accordance with paragraph 3.B.I, Option 1, of the above-mentioned SB to verify if the identification plate is installed.

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



- i. If the identification plate is found, no further action is required and compliance with Part A of this directive is complete. Proceed to Part B of this directive.
 - ii. If the identification plate cannot be found, and the job detail number stamped on the underside of the access panel does not match any of those listed in Table 1 of the above-mentioned SB, no further action is required and compliance with Part A of this directive is complete. Proceed to Part B of this directive.
 - iii. If the identification plate cannot be found, and the job detail number stamped on the underside of the access panel matches any of those listed in Table 1 of the above-mentioned SB, replace the access panel with a new panel, P/N 85714231-003, in accordance with paragraph 3.B.II of the above-mentioned SB.
 - b. Perform an external detailed visual inspection on the access panels, P/N 85714231-001, for cracking in accordance with paragraph 3.B.I, Option 2, of the above-mentioned SB.
 - i. Subsequently, at intervals not to exceed 600 hours air time, repeat the inspection specified in Part A, paragraph 3.b of this directive.
 - ii. If the fuel access panel is found cracked during any required inspections, prior to further flight, replace the access panel with a new panel, P/N 85714231-003, in accordance with paragraph 3.B.II of the above-mentioned SB.
 - iii. Within 6000 hours air time after the initial inspection required by Part A, paragraph 3.b of this directive, complete Part A, paragraph 3.a of this directive.
4. If a fuel access panel is found cracked during any required inspections, prior to further flight, replace the access panel with a new panel, P/N 85714231-003, in accordance with paragraph 3.B.II of the above-mentioned SB.
5. As of the effective date of this directive, it is not permitted to install a replacement/spare fuel access panels, P/N 85714231-001, with the job detail number listed in Table 1 of the above-mentioned SB.

B. Inspection and Replacement of Outer Wing Fuel Access Panels, P/N 85714232-001

1. Within 1200 hours air time after the effective date of this directive, perform an external detailed visual inspection of the outer wing fuel access panels and locate the rivets of the identification plate in accordance with paragraph 3.B.I, of Bombardier Service Bulletin (SB) 84-57-23, Revision A, dated 9 December 2010 or Revision B, dated 16 February 2011 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. If the rivets of the identification plate are found, the fuel access panel is post-mod 4-113502. No further action is required and compliance with Part B of this directive is complete.
3. If rivets of the identification plate cannot be found, perform either paragraph 3.a or 3.b below prior to further flight:
 - a. Remove access panels, P/N 85714232-001, in accordance with paragraph 3.B.I, Option 1, of the above-mentioned SB to verify if the identification plate

is installed.

- i. If the identification plate is found, no further action is required and compliance with Part B of this directive is complete.
 - ii. If the identification plate cannot be found, and the job detail number stamped on the underside of the access panel does not match any of those listed in Table 1 of the above-mentioned SB, no further action is required and compliance with Part B of this directive is complete.
 - iii. If the identification plate cannot be found, and the job detail number stamped on the underside of the access panel matches any of those listed in Table 1 of the above-mentioned SB, replace the access panel with a new panel, P/N 85714232-003, in accordance with paragraph 3.B.II of the above-mentioned SB.
- b. Perform an external detailed visual inspection on the access panels, P/N 85714232-001, for cracking in accordance with paragraph 3.B.I, Option 2, of the above-mentioned SB.
- i. Subsequently, at intervals not to exceed 1200 hours air time, repeat the inspection specified in Part B, paragraph 3.b of this directive.
 - ii. If the fuel access panel is found cracked during any required inspections, prior to further flight, replace the access panel with a new panel, P/N 85714232-003, in accordance with paragraph 3.B.II of the above-mentioned SB.
 - iii. Within 12 000 hours air time after the initial inspection required by Part B, paragraph 3.b of this directive, complete Part B, paragraph 3.a of this directive.
4. If a fuel access panel is found cracked during any required inspections, prior to further flight, replace the access panel with a new panel, P/N 85714232-003, in accordance with paragraph 3.B.II of the above-mentioned SB.
5. As of the effective date of this directive, it is not permitted to install a replacement/spare fuel access panel P/N 85714232-001 with the job detail number listed in Table 1 of the above-mentioned SB.

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: M. Anthony Wan, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail CAWWEBFeedback@tc.gc.ca or any Transport Canada Centre.