



No.	CF-2005-37	1/2
Issue Date	11 October 2005	

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-2005-37
- Subject:** Cracking of the Outer Wing Fuel Access Panel
- Effective:** 31 October 2005
- Applicability:** Bombardier Inc. Models DHC-8-400, DHC-8-401 and DHC-8-402; serial numbers 4001, and 4003 through 4106.
- Compliance:** Compliance is required as indicated unless already accomplished.
- Background:** There have been a number of cases of cracks being reported on P/N 85714230-001, outer wing fuel access panels, during routine "A" and "C" checks. In some cases, cracks of up to four inches have been reported. Investigation revealed that certain fuel access panels were manufactured with seal grooves having sharp corner radii. Cracking of the fuel access panel, if not corrected, could result in arcing and ignition of fuel vapour in the outer wing fuel tank during a lightning strike.
- Corrective Action:**
- A. Initial Inspection of Outer Wing Fuel Access Panels.**
1. Within 400 hours air time after the effective date of this directive, carry out an ultrasonic inspection for cracks of the outer wing fuel access panels, P/N 85714230-001, on both left and right wing, in accordance with Accomplishment Instructions of Bombardier Service Bulletin 84-57-13, dated 17 August 2005, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
 2. If any access panel is cracked, perform one of the following prior to further flight:
 - (a) Replace cracked panel with either panel, P/N 85714230-003 or 85714230-005.
 - (b) Incorporate temporary repair in accordance with Bombardier Repair Drawing, RD 8/4-57-451. Subsequently, replace the repaired panel within 1000 hours air time from time of incorporation of RD 8/4-57-451.
 - (c) Replace the cracked panel with a new panel P/N 85714230-001. Ensure that the replacement panel has no crack, by carrying out an ultrasonic inspection for cracks in accordance with Accomplishment Instructions of the above-noted Bombardier Service Bulletin.
 3. If the inspection required in paragraph A.1 of this directive reveals no crack, or if a cracked access panel is replaced in accordance with paragraph A.2.(c) of this directive; prior to further flight, conduct an ultrasonic inspection of the outer wing fuel access panels, P/N 85714230-001, to determine the presence of a radius in the seal groove, in accordance with Accomplishment Instructions of the above-noted Bombardier Service Bulletin.

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



B. Repeat Inspection for Cracks of Outer Wing Fuel Access Panels.

1. If no crack is found on P/N 85714230-001 outer wing fuel access panel, and a radius is present in the seal groove at all locations, carry out repetitive detailed visual inspections of the external surface of the panel for any sign of cracking, in accordance with accomplishment instructions of the above-noted Bombardier Service Bulletin; at intervals not exceeding 1200 hours air time.
2. If no crack is found on P/N 85714230-001 outer wing fuel access panel, and a radius is not present at any of the locations noted for inspection, repeat the ultrasonic inspection for cracks in accordance with paragraph A.1 and A.2 of this directive, at intervals not exceeding 1200 hours air time.

C. Terminating Action.

1. Within 6000 hours air time after the initial inspection required by this directive, replace the left and right outer wing fuel access panels, P/N 85714230-001, with either P/N 85714230-003 or 85714230-005 panel.
2. Replacement of both left and right outer wing fuel access panels, P/N 85714230-001, with either P/N 85714230-003 or P/N 85714230-005 panel, constitutes terminating action for the initial and repeat inspections required by section A and B of this directive.

Authorization: For Minister of Transport



B. Goyaniuk
Chief, Continuing Airworthiness

Contact: Mr. Philip Tang, Continuing Airworthiness, Ottawa, telephone 613 952-4379, facsimile 613 996-9178 or e-mail tangp@tc.gc.ca or any Transport Canada Centre.