



No.	CF-2013-34	1/1
Issue Date 1 November 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-2013-34
- Subject:** Fore Rudder Bearing Wear in Hinge Assembly
- Effective:** 15 November 2013
- Applicability:** Bombardier Inc. model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4166 to 4175.
- Compliance:** Within 2000 hours air time or 12 months, whichever occurs first, from the effective date of this AD, unless already accomplished.
- Background:** It was reported that rudder bearings were falling out of the fore rudder hinge bracket during assembly. Investigation revealed the root cause as improper application of the adhesive compound and the lack of application of sealant during the installation of the rudder bearings into the fore rudder hinge bracket. The improper bearing installation, if not corrected, could result in abnormal wear and could potentially increase the freeplay in the rudder system. This may result in airframe vibration, eventually compromising the flutter-margins of the aeroplane.
- This AD mandates the inspection, and rectification as required, of the fore rudder bearings in the hinge bracket assembly.
- Corrective Actions:** Inspect the fore rudder for proper installation of bearings and rectify, as required, any damage of bearing and fitting bore of the hinge bracket in accordance with the Accomplishment Instructions of Bombardier Service Bulletin (SB) 84-27-44, Revision A, dated 10 June 2009, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- Inspection and rectification in accordance with Bombardier SB 84-27-44, Initial Issue, dated 13 April 2009, also meet the requirement of this AD.
- Authorization:** For the Minister of Transport,
- ORIGINAL SIGNED BY*
- Derek Ferguson  
Chief, Continuing Airworthiness
- Contact:** Anthony Wan, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail [AD-CN@tc.gc.ca](mailto:AD-CN@tc.gc.ca) or any Transport Canada Centre.

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](http://www.tc.gc.ca/civilaviation/communications/centre/address.asp)