



No.	CF-2010-34	1/2
Issue Date	5 October 2010	

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-2010-34
- Subject:** Horizontal Stabilizer Trim Actuator - Rubber Bull Gear Wheel Material Hardness out of Specification
- Effective:** 19 October 2010
- Applicability:** Bombardier Inc. Models CL-600-2C10, CL-600-2D15 and CL-600-2D24 aeroplanes equipped with Horizontal Stabilizer Trim Actuator part numbers: 8489-5, 8489-6, 8489-7, and 8489-7R.
- Compliance:** As indicated below, unless already accomplished.
- Background:** An inspection by the vendor revealed that a number of Rubber Bull Gears (RBG) in the Horizontal Stabilizer Trim Actuator (HSTA) of the CL-600-2C10, CL-600-2D15 and CL-600-2D24 aeroplanes were installed with a wheel material hardness out of specification. This non-conformity has a direct impact on the HSTA life limit. The teeth of these non-conformant RBGs could break and in extreme cases, could lead to uncontrolled HSTA movement without the ability to re-trim the aeroplane. If not corrected, this condition could result in a difficulty to control the pitch and subsequent loss of the aeroplane.
- This directive mandates replacement of the RBGs which have material hardness out of specification.
- Corrective Actions:**
- A. For HSTAs Serial Number (S/N): 107, 111, 124, 126, 135, 139, 142, 145, 146, 266, 268, 271, 274, 276, 277, 280, 282 through 285, 290, 292, 294, 297, 299, 307, 309, 320, 337, 400, 402, 403, 410, 412, 418, 421 through 428, 430, 435 through 439, 441, 443 through 446, 448 through 450, 452 through 454, 456, 459, 461, 463 through 470, 472, 474 through 476, 478, 545 through 549, 570, 571, 573, 574, 600, 603, 608, 612 through 616, 623, 627, and 629 through 659, incorporate the original issue of the Bombardier Inc. Service Bulletin (SB) 670BA-27-058, dated 31 August 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, in accordance with the following schedule:
 1. For HSTAs that have accumulated 8700 cycles or less, within 3000 flight cycles from the effective date of this directive, or before the HSTA has accumulated 10 500 flight cycles, whichever occurs first.
 2. For HSTAs that have accumulated more than 8700 flight cycles, within 1800 flight cycles from the effective date of this directive.

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. For HSTAs S/N: 185, 479, 481, 482, 485, 487, 489, 491 through 496, 498, 499, 501, 503, 504, 506, 507, 509, 512 through 514, 517, 519 through 522, 524, 526 through 528, 530, 534 through 536, 539, 542 and 543, within 1800 flight cycles from the effective date of this directive, remove and replace the affected HSTA in accordance with Part 2 of the Accomplishment instructions in the original issue of Bombardier Inc. SB 670BA-27-058, dated 31 August 2010, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- C. As of the effective date of this directive, no replacement of the HSTA, P/N 8489-5, 8489-6, 8489-7, or 8489-7R, with a serial numbers listed in paragraphs A. or B. of this directive, shall be installed on the CL-600-2C10, CL-600-2D15 and CL-600-2D24 aeroplanes unless the S/N has a suffix "B" beside the S/N.

Authorization: For Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

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