



# AIRWORTHINESS DIRECTIVE

*This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) to ADs.*

<b>Number:</b>	<b>Effective Date:</b>
CF-2016-22	8 July 2016
<b>ATA:</b>	<b>Type Certificate:</b>
27	A-131

**Subject:**

Flight Controls - Horizontal Stabilizer Trim Actuator - Rubber Bull Gear Wheel – Excessive Wear

**Applicability:**

Bombardier Inc. models CL-600-2C10, CL-600-2D15, CL-600-2D24 and CL-600-2E25 aeroplanes equipped with Horizontal Stabilizer Trim Actuator part numbers: 8489-7 or 8489-7R.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

An inspection by the vendor revealed that a number of Rubber Bull Gear (RBG) Wheels installed in the Horizontal Stabilizer Trim Actuator (HSTA) of the CL-600-2C10, CL-600-2D15, CL-600-2D24 and CL-600-2E25 aeroplanes were manufactured from the incorrect material specification. The use of the incorrect material specification has a direct impact on the RBG Wheels life limit. The teeth of these non-conforming RBG Wheels may experience premature wear out and if not corrected, this condition could result in difficulties in maneuvering the aeroplane.

This AD mandates replacement of the RBGs whose wheels have been made using an incorrect material specification.

**Corrective Actions:**

- A. Within 600 hours air time from the effective date of this AD, verify the serial number (S/N) of the installed HSTA in order to identify if the HSTA S/N falls within the range of number S/Ns listed in Part 1.A of the Planning information contained in the initial issue of Bombardier Service Bulletin (SB) 670BA-27-072, dated 26 April 2016, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada. If the S/N of the installed HSTA is not listed in the above mentioned SB then no further action is required. Verification of the S/N can be done through an aeroplane inspection or a review of the aeroplane’s records.
- B. Remove and replace the affected HSTA as per Part 2 Accomplishment Instructions contained in the initial issue of Bombardier SB 670BA-27-072, dated 26 April 2016, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada in accordance with the following table:

For HSTAs with S/N suffix A or with no suffix that have accumulated 10 000 flight cycles (FC) or less.	Within 3600 FC accumulated on the unit from the effective date of this AD.
For HSTAs with S/N suffix A or with no suffix that have accumulated more than 10 000 FC.	Within 1800 FC accumulated on the unit from the effective date of this AD.
For HSTAs with S/N suffix B or AB that have accumulated 10 000 FC or less since the incorporation of SB 670BA-27-058.	Within 3600 FC accumulated on the unit from the effective date of this AD.

For HSTAs with S/N suffix B or AB that have accumulated more than 10 000 FC since the incorporation of SB 670BA-27-058.	Within 1800 FC accumulated on the unit from the effective date of this AD.
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- C. As of the effective date of this AD, no replacement of the HSTA part number, 8489-7, or 8489-7R, with a serial number as listed in Part 1.A of the Planning Information contained in the initial issue Bombardier SB 670BA-27-072, dated 26 April 2016, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada shall be installed on the CL-600-2C10, CL-600-2D15, CL-600-2D24 and CL-600-2E25 aeroplanes unless the S/N has a suffix "C" marked on the identification plate adjacent to the S/N.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Rémy Knoerr  
Chief, Continuing Airworthiness  
Issued on 24 June 2016

**Contact:**

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