



# 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.*

**Number:**

CF-2019-42

**Effective Date:**

22 November 2019

**ATA:**

27

**Type Certificate:**

A-131

**Subject:**

Flight Controls – Rudder Control System – Rudder Feel Unit Shaft Fracture

**Applicability:**

Bombardier Inc. aeroplanes:

Model CL-600-2B19, serial number 7003 through 7990 and 8000 and subsequent;

Model CL-600-2C10, serial number 10002 through 10347;

Model CL-600-2D15 and CL-600-2D24, serial number 15001 through 15469;

Model CL-600-2C11, all serial numbers.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

There have been three reports of fractured rudder primary feel unit shafts. The subsequent investigation determined that the fractures in the shaft are consistent with fatigue damage. The fracture of the rudder primary feel unit shaft could result in a loss of feel in the yaw axis thereby impacting the controllability of the aeroplane.

This AD mandates the replacement of the rudder primary feel unit shaft with a new shaft manufactured from a different material.

**Corrective Actions:**

Replace the rudder primary feel unit shaft Part Number (P/N) 600-90251-1 in accordance with the Accomplishment Instructions of the applicable Bombardier Service Bulletin (SB) 601R-27-166, Revision NC, dated 05 April 2019 or SB 670BA-27-075, Revision NC, dated 05 April 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, in accordance with the following schedule:

Accumulated Aeroplane Flight Cycles (FC)	Replacement Schedule
For aeroplanes that have accumulated 22 000 FC or less as of the effective date of this AD.	Before the aeroplane reaches 30 000 FC.
For aeroplanes that have accumulated more than 22 000 FC but less than 37 000 FC as of the effective date of this AD.	Within 8000 FC from the effective date of this AD.
For aeroplanes that have accumulated 37 000 FC or more but less than 40 000 FC as of the effective date of this AD.	Before the aeroplane reaches 45 000 FC.
For aeroplanes that have accumulated 40 000 FC or more but less than 46 500 FC as of the effective date of this AD.	Within 5000 FC from the effective date of this AD.
For aeroplanes that have accumulated 46 500 FC or more as of the effective date of this AD.	Before the aeroplane reaches 51 500 FC.

As of the effective date of this AD, the installation of the rudder primary feel unit shaft P/N 600-90251-1 on Bombardier aeroplane models CL-600-2B19, CL-600-2C10, CL-600-2C11, CL-600-2D15 or CL-600-2D24 as a replacement part is prohibited.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Rémy Knoerr  
Chief, Continuing Airworthiness  
Issued on 8 November 2019

**Contact:**

Mihaela Kramer, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail [AD-CN@tc.gc.ca](mailto:AD-CN@tc.gc.ca) or any Transport Canada Centre.