



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-2020-03

Effective Date:

19 March 2020

ATA:

28

Type Certificate:

A-276

Subject:

Fuel System - Primary Ejector Fuel Feed Flexible Hoses Inner Tube Cracking

Applicability:

Bombardier Inc. aeroplanes:

Model CL-600-2C10 and CL-600-2C11, serial numbers 10002 through 10325,
Model CL-600-2D15 and CL-600-2D24, serial numbers 15001 through 15263,
Model CL-600-2E25, serial numbers 19001 through 19013.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been several reported failures of the high-time (>30 000 hours air time) primary ejector fuel feed flexible hoses installed in accordance with Bombardier Inc. (BA) Service Bulletin (SB) 670BA-28-008C, dated 23 January 2003. In four of the events, the fuel was leaking inside the centre fuel tank from the cracked inner liner of the hose, and caused lateral fuel imbalance conditions on the aeroplane. These events resulted in an emergency descent or air turn back (ATB).

Subsequent investigation determined that hoses with part number (P/N) CC670-62022-3 and P/N CC670-62022-4, from serial number 001 through 2470, may have a thinner wall thickness of the Teflon™ liner than specified by the design requirements, and therefore are more susceptible to cracking. Analysis also indicates that depending on the size of the crack and the resultant amount of fuel leakage, the possibility exists that a fuel supply disruption to the engines may be significant enough to cause an inflight engine shutdown (IFSD).

To address the potential of the subject fuel hose leak issue causing a lateral imbalance with an adverse effect on the aeroplane's controllability, or resulting in a dual IFSD, BA has issued a SB to remove the affected high-time primary ejector fuel feed flexible hoses from service. This AD mandates compliance with requirements of SB 670BA-28-040, dated 30 September 2019.

Corrective Actions:

Replace each hose P/N CC670-62022-3 and P/N CC670-62022-4 from serial number 001 through 2470, in accordance with BA SB 670BA-28-040, dated 30 September 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, in accordance with the following compliance schedule, as applicable, in Table 1 below:

Table 1

Aeroplane Model	Compliance Time
CL-600-2C10 and CL-600-2C11 aeroplanes, serial numbers 10005 through 10065 that have accumulated less than 31 200 hours air time since the SB 670BA-28-008 was incorporated	Before reaching 40 000 hours air time since the SB 670BA-28-008 was incorporated
CL-600-2C10 and CL-600-2C11 aeroplanes, serial numbers 10005 through 10065 that have accumulated 31 200 hours air time or more since the SB 670BA-28-008 was incorporated	Within 8800 hours air time from the effective date of this AD
CL-600-2C10 and CL-600-2C11 aeroplanes, serial numbers 10002 through 10004 and 10066 through 10325 that have accumulated less than 31 200 hours air time as of the effective date of this AD	Before reaching 40 000 total hours air time
CL-600-2C10 and CL-600-2C11 aeroplanes, serial numbers 10002 through 10004 and 10066 through 10325 that have accumulated 31 200 hours air time or more as of the effective date of this AD	Within 8800 hours air time from the effective date of this AD
CL-600-2D15 and CL-600-2D24 aeroplanes, serial numbers 15001 through 15263 that have accumulated less than 31 200 hours air time as of the effective date of this AD	Before reaching 40 000 total hours air time
CL-600-2D15 and CL-600-2D24 aeroplanes, serial numbers 15001 through 15263 that have accumulated 31 200 hours air time or more as of the effective date of this AD	Within 8800 hours air time from the effective date of this AD
CL-600-2E25 aeroplanes, serial numbers 19001 through 19013 that have accumulated less than 31 200 hours air time as of the effective date of this AD	Before reaching 40 000 total hours air time
CL-600-2E25 aeroplanes, serial numbers 19001 through 19013 that have accumulated 31 200 hours air time or more as of the effective date of this AD	Within 8800 hours air time from the effective date of this AD

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
 Chief, Continuing Airworthiness
 Issued on 5 March 2020

Contact:

A K Durrani, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.