



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-2017-26

Effective Date:

14 August 2017

ATA:

49

Type Certificate:

A-234

Subject:

Challenger Aeroplane Auxiliary Power Unit (APU) Inlet Fire during In-flight APU Start

Applicability:

Bombardier model BD-100-1A10 aeroplanes, serial numbers (S/N) 20003 through 20500 and 20501 through 20696.

Compliance:

As indicated below, unless already accomplished.

Background:

APU inlet fire incidents causing tail cone damage have been reported after an initial failed APU start followed by two or more in-flight APU start attempts. Bombardier Inc. (BA) has determined that the in-flight negative pressure differential at the APU inlet allows flash fires of residual fuel in the APU combustor to exit through the APU inlet.

As an interim mitigating action, BA has revised the affected aeroplane Aircraft Flight Manual (AFM) procedure for in-flight APU start to limit the number of APU start attempts.

To further address the safety concerns associated with in-flight APU inlet fire, BA is introducing a modification to the APU Electronic Control Unit (ECU) wiring harness that will prevent a second attempt to start the APU following a failed start in flight. This AD is issued to mandate compliance with BA Service Bulletin (SB) 100-49-04 or SB 350-49-001, as applicable, on affected aeroplanes.

Corrective Actions:

For BD-100-1A10 Aeroplane, S/N 20003 to 20500:

Within 30 months from the effectivity date of this AD, modify APU ECU harness in accordance with the accomplishment instructions of SB 100-49-04 dated 29 March 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

For BD-100-1A10 Aeroplane, S/N 20501 to 20696:

Within 30 months from the effectivity date of this AD, modify APU ECU harness in accordance with the accomplishment instructions of SB 350-49-001 dated 29 March 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Matthew Weeks
Acting Chief, Continuing Airworthiness
Issued on 31 July 2017

Contact:

A K Durrani, Continuing Airworthiness, Ottawa, telephone 1-888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.