



# 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-2019-19R1

**Effective Date:**

15 November 2019

**ATA:**

28

**Type Certificate:**

A-236

**Subject:**

Fuel Distribution - Fuel Feed Tube Damage at Bonding Clamp Location Inside the Fuel Tank

**Revision:**

Supersedes AD CF-2019-19, issued 13 May 2019.

**Applicability:**

Airbus Canada Limited Partnership (ACLP) (formerly C Series Aircraft Limited Partnership (CSALP), formerly Bombardier Inc.) aeroplanes:

Model BD-500-1A10, serial numbers 50001 through 50018 and 50020 through 50041,

Model BD-500-1A11, serial numbers 55001 through 55016, 55018 through 55054, 55056 and 55057.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

Wear damage has been discovered on multiple aeroplanes, between the bonding clamps and the fuel feed tubes inside the Left and Right fuel tanks. In one incident, the wear damage ultimately led to a hole in the main engine feed tube located in the collector tank, resulting in fuel imbalance during flight.

Service experience indicates that a number of fuel feed tubes inside both of the fuel tanks are exposed to chafing damage, which may lead to the failure of the fuel tube. Failure of certain affected fuel tubes could lead to a severe fuel imbalance or fuel starvation of one engine, or in the event of the failure of multiple fuel tubes feeding both engines, could result in the unsafe condition of in-flight shutdown of both engines.

Bombardier had issued Service Bulletin (SB) BD500-282001 Issue 3, dated 8 March 2019, to periodically inspect the affected fuel tubes for damage and replace as necessary. AD CF-2019-19 was issued to mandate compliance with this SB.

ACLP has now issued SB BD500-282004 to modify the affected fuel feed lines in the Left and Right Hand fuel collector tanks, and compliance with this SB terminates the inspection requirement of SB BD500-282001. This AD revision, CF-2019-19R1, is issued to add mandatory compliance with SB BD500-282004 requirements for the modification of the affected fuel line installation. This AD is considered an interim action and further AD action may follow.

**Corrective Actions:**

**Part I – Initial Inspection of the Fuel Tubes**

- A. For aeroplanes with serial numbers 50001 through 50018, 50020 through 50032, 55001 through 55016, and 55018 through 55053 that have not complied with Part III of this AD as of the effective date of this AD:

Within 1800 hours air time from 27 May 2019, the effective date of AD CF-2019-19, inspect affected fuel feed tubes for damage and rectify any noted discrepancy in accordance with Part A and Part B of the Accomplishment Instructions of Bombardier SB BD500-282001 Issue 3, dated 8 March 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

- B. For aeroplanes with serial numbers 50033 through 50041 and 55054, 55056 and 55057 that have not complied with Part III of this AD as of the effective date of this AD:

Within 1800 hours air time from 27 May 2019, the effective date of AD CF-2019-19, inspect affected fuel feed tubes for damage and rectify any noted discrepancy in accordance with Part C and Part D of the Accomplishment Instructions of Bombardier SB BD500-282001 Issue 3, dated 8 March 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

### **Part II – Repetitive Inspection of the Fuel Tubes**

For aeroplanes with serial numbers 50001 through 50018, 50020 through 50041, 55001 through 55016, 55018 through 55054, 55056 and 55057 that have not complied with Part III of this AD as of the effective date of this AD:

At intervals not to exceed 1800 hours air time from the time of completion of Part I A. or Part I B. of this AD, inspect affected fuel feed tubes for damage and rectify any noted discrepancy, in accordance with Part C and Part D of the Accomplishment Instructions of Bombardier SB BD500-282001 Issue 3, dated 8 March 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

### **Part III – Modification**

For aeroplanes with serial numbers 50001 through 50018, 50020 through 50041, 55001 through 55016, 55018 through 55054, 55056 and 55057:

Within 3600 hours air time from the effective date of this AD, modify the fuel feed line installations in the Left and Right Hand fuel collector tanks in accordance with ACLP SB BD500-282004, Issue 1, dated 30 August 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with Part III of this AD constitutes terminating action for the above Part I and Part II inspection requirements.

### **Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Rémy Knoerr  
Chief, Continuing Airworthiness  
Issued on 1 November 2019

### **Contact:**

A.K. Durrani, 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.