



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) with ADs.

Number:

CF-2022-70

Effective Date:

4 January 2023

ATA:

28

Type Certificate:

A-236

Subject:

Fuel Distribution – Motive Flow Fuel-feed Tubes Damaged at Bonding Clamp and Clamp Block Locations Inside the Fuel Tank

Applicability:

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

Model BD-500-1A10, serial numbers 50001 and subsequent,

Model BD-500-1A11, serial numbers 55001 and subsequent.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been several in-service findings of mechanical wear damage on motive flow fuel-feed tubes that were secured by bonding clamps and clamp blocks inside the collector tank. In some instances, the wear damage led to a hole in a motive flow fuel-feed tube resulting in a fuel imbalance during flight that required the flight crews to correct the imbalance using the gravity transfer system.

Failure of the affected motive flow fuel-feed tubes and a subsequent failure of the gravity transfer system could lead to a fuel imbalance condition resulting in a reduction in aeroplane functional capabilities and increased crew workload.

ACLPL has released Service Bulletin (SB) BD500-282012 to perform repeated operational checks of the gravity cross flow shut-off valve as mitigating action. In addition, ACLPL has released SB BD500-282015 requiring inspection, and rectification as required, of the motive flow fuel-feed tubes at the clamp blocks location, however corrective action for the bonding clamp locations is not available at this time. This AD mandates compliance with the above-mentioned SB requirements.

This AD is considered interim action and further AD action may follow.

Corrective Actions:

For the purpose of this AD, the following definitions apply:

ACLPL SB BD500-282012: ACLPL SB BD500-282012, Issue 002, dated 20 July 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

ACLPL SB BD500-282015: ACLPL SB BD500-282015, Issue 003, dated 10 November 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Group 1 aeroplanes: aeroplanes with serial numbers 50010 through 50018, 50020 through 50057, 55003 through 55016, 55018 through 55088, and 55090 through 55104.

Part I – Applicable to All Aeroplane Serial Numbers

- A. Within 930 hours air time from the effective date of this AD, perform an operational check of the gravity cross flow shut-off valve in accordance with the Accomplishment Instructions of ACLP SB BD500-282012.
- B. Repeat the operational check in paragraph A above at intervals not to exceed 930 hours air time.

Accomplishment of the operational check in accordance with ACLP SB BD500-282012 Issue 001, dated 19 March 2021, prior to the effective date of this AD, also meets the requirements of Part I paragraph A of this AD.

Part II – Applicable to Group 1 Aeroplanes

Within 9800 hours air time from the effective date of this AD, inspect the motive flow fuel-feed tubes for a pre-load condition, and rectify as required, in accordance with the Accomplishment Instructions of ACLP SB BD500-282015.

Inspection and rectification in accordance with Issue 001 or Issue 002 of the ACLP SB BD500-282015, prior to the effective date of this AD, also meets the requirements of Part II of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 21 December 2022

Contact:

Robert Farinas, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.