



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-2025-24

Effective Date:

13 May 2025

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.

Replacement:

Supersedes AD CF-2022-70, issued 21 December 2022.

Applicability:

Airbus Canada Limited Partnership (ACLP) (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.

ACLP 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, ACLP has released SB BD500-282015 requiring inspection, and rectification as applicable, of the motive flow fuel-feed tubes at the clamp blocks location. AD CF-2022-70 mandated compliance with the above-mentioned SB requirements, however corrective action for the bonding clamp locations was not available when AD CF-2022-70 was issued.

Since AD CF-2022-70 was issued, ACLP has released SB BD500-282021 requiring replacement of saddle clamp of the motive flow tubes on both left and right sides. In addition, SB BD500-282021 requires inspection, and rectification of flow fuel-feed tubes, as applicable. ACLP has also incorporated the corrective actions in the production line.

This AD, CF-2025-24, retains the requirements of AD CF-2022-70, which is superseded, and mandates compliance with the SB BD500-282021 requirements.

Corrective Actions:

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

ACL P SB BD500-282012: ACLP SB BD500-282012, Issue 002, dated 20 July 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada (TC).

ACL P SB BD500-282015: ACLP SB BD500-282015, Issue 004, dated 04 December 2023, or later revisions approved by the Chief, Continuing Airworthiness, TC.

ACL P SB BD500-282021: ACLP SB BD500-282021, Issue 001, dated 27 January 2025 or later revisions approved by the Chief, Continuing Airworthiness, TC.

Group 1 aeroplanes: aeroplanes with serial numbers 50001 through 50057, 55001 through 55088, and 55090 through 55104.

Group 2 aeroplanes: aeroplanes with serial numbers 50058 through 50069, 55089, 55105 through 55240, and 55242 through 55253

Part I – Initial and repetitive operational check of the gravity cross flow shut-off valve – Applicable to All Aeroplane Serial Numbers

- A. Within 930 hours air time from the effective date of AD CF-2022-70 (4 January 2023), 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, CF-2025-24, also meets the requirements of Part I paragraph A and paragraph B of this AD.

Part II – Inspection of the motive flow fuel-feed tubes – Applicable to Group 1 Aeroplanes

Within 9800 hours air time from the effective date of AD CF-2022-70 (4 January 2023), inspect the motive flow fuel-feed tubes for a pre-load condition, and rectify, as applicable, in accordance with the Accomplishment Instructions of ACLP SB BD500-282015.

Inspection and rectification in accordance with earlier Issues of the ACLP SB BD500-282015, prior to the effective date of this AD, CF-2025-24, also meets the requirements of Part II of this AD.

Part III – Replacement of saddle clamp – Applicable to Group 1 and Group 2 Aeroplanes

Within 9800 hours air time from the effective date of this AD, CF-2025-24, replace the saddle clamp and inspect the motive flow fuel-feed tubes for a damage, and rectify, as applicable, in accordance with the Accomplishment Instructions of ACLP SB BD500-282021.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 29 April 2025

Contact:

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