



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-2024-37

Effective Date:

18 November 2024

ATA:

28

Type Certificate:

A-236

Subject:

Fuel Distribution – Fuel Transfer Valve – Fuel Transfer Float Valve Failed in Closed Position

Applicability:

Airbus Canada Limited Partnership (ACLP) (formerly C Series Aircraft Limited Partnership (CSALP), Bombardier Inc.) aeroplanes model BD-500-1A10 and BD-500-1A11, all serial numbers that are approved for extended-range twin-engine operation performance standards (ETOPS).

Compliance:

As indicated below, unless already accomplished.

Background:

There have been several reports of fuel transfer float valves failing in the closed position preventing normal fuel transfer between the center fuel tank and wing fuel tanks. An investigation determined that high friction of the float valve carbon seal prevents the float valve from opening.

Each wing tank is equipped with one fuel transfer float valve. In the event of one transfer float valve failing closed, the crew is alerted and may manually transfer fuel to correct the resulting lateral fuel imbalance. A gravity fuel transfer system provides a back-up to the manual transfer. In the event of both fuel transfer float valves simultaneously failing closed, the crew is alerted, and fuel in the center tank becomes unusable as the center tank fuel cannot be transferred to the wing tanks. The crew may need to divert to prevent fuel starvation before reaching the destination airport.

Simultaneous failure of both fuel transfer float valves in the closed position is critical for ETOPS missions as fuel starvation may occur before reaching a diversion airport.

To address this unsafe condition, this AD mandates the removal of the existing fuel transfer float valves and their replacement with improved fuel transfer float valves for aeroplanes conducting ETOPS operations.

Corrective Actions:

- A. Do not operate an aeroplane on ETOPS operations unless, within 7500 hours air time or 36 months, whichever occurs first, from the effective date of this AD, the removal and replacement of the affected fuel transfer float valves has been performed in accordance with the Accomplishment Instructions of ACLP Service Bulletin (SB) BD500-282017, Issue 001, dated 22 September 2023, or later revisions approved by Chief, Continuing Airworthiness, Transport Canada.
- B. Inserting a copy of this AD into the ETOPS Configuration, Maintenance and Procedures (CMP) of an aeroplane or using CMP Issue 009.00, dated 17 October 2024 or later and, thereafter, operating that aeroplane accordingly, is acceptable for compliance with the requirements of paragraph A of this AD for that aeroplane.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 4 November 2024

Contact:

Christopher Banken, 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.