



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-2024-23

Effective Date:

2 July 2024

ATA:

26

Type Certificate:

A-236

Subject:

Fire Protection – Fire Extinguisher – Defective Cargo Fire Extinguisher Bottles

Applicability:

Airbus Canada Limited Partnership (ACLP) (formerly C Series Aircraft Limited Partnership (CSALP), Bombardier Inc.) model BD-500-1A10 and model BD-500-1A11 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been in-service events where the Cargo Bottle Fail Caution message has been posted during flight resulting in diversions. Investigation of the in-service events found that the Low Rate Discharge (LRD) bottle had been depleted of extinguishing agent. Further investigation by the supplier revealed a manufacturing quality escape affecting the LRD bottle metering device. The manufacturing quality escape created a condition where the metering device could be loose allowing extinguishing agent to escape resulting in loss or degraded capability of the cargo extinguishing system.

ACLP has issued a Service Bulletin (SB) to replace affected LRD bottles, inspect extinguishing discharge lines, and replace extinguishing discharge lines, if required. This AD mandates the ACLP SB to correct this unsafe condition.

Corrective Actions:

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

ACLP SB: SB BD500-262010, Issue 001, dated 30 April 2024, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Affected Part: LRD bottle, part number (P/N) 475086-1, P/N 475124-1 or P/N 475087-1, with a serial number listed in the Applicability Section of the ACLP SB, unless that LRD bottle is marked with an encircled 'C' on the LRD bottle label.

Group 1 aeroplanes: Model BD-500-1A10 aeroplanes having serial numbers 50014, 50017, 50020, 50022 through 50037, 50039 through 50045, 50047 through 50053, 50055 through 50060, 50062, 50063, 50065, and 50067, and model BD-500-1A11 aeroplanes having serial numbers 55002 through 55011, 55014, 55016 through 55023, 55025, 55027 through 55033, 55035 through 55057, 55059 through 55092, 55094, 55095, 55098, 55099, 55101 through 55108, 55110 through 55116, 55118 through 55169, 55171 through 55174, 55176, 55177, 55179, 55180, 55182, 55183, 55194, 55209 and 55217.

Group 2 aeroplanes: Model BD-500-1A10 and model BD-500-1A11 aeroplanes, all serial numbers.

Part I – Removal, Replacement, Inspection, and Installation – Applicable to Group 1 Aeroplanes

- A. Within 24 months from the effective date of this AD, verify the aeroplane technical records to determine if an affected part is installed on the aeroplane.
- B. If an affected part is installed or if the verification of the aeroplane technical records cannot be performed or if an inspection of the LRD bottle is preferred to a records check, within 24 months from the effective date of this AD, perform the removal, replacement, and inspection of the LDR bottles and discharge lines, in accordance with the procedure in Section 2 of the Accomplishment Instructions of the ACLP SB.
- C. If no affected part is installed, the Corrective Action of Part I.B of this AD is not required.

Part II – Installation Prohibition of Components – Applicable to Group 2 Aeroplanes

As of the effective date of this AD, it is prohibited to install an affected part as a replacement part.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 18 June 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.