



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-2023-70

Effective Date:

19 October 2023

ATA:

51

Type Certificate:

A-236

Subject:

Standard Practices/Structures – Verification of Aircraft Repairs and Damage Assessments

Applicability:

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

Compliance:

As indicated below, unless already accomplished.

Background:

A design review of A220 model BD-500-1A10 and BD-500-1A11 aircraft structural and stress reports has resulted in a revision of operational loads for some aircraft flight phases, affecting certain aircraft sections. These changes affect the source data reports for the A220 Aircraft Structural Repair Manual (ASRP). As a result, repairs and damage assessments accomplished on aircraft to date may have exceeded the available structural margins and require review to ensure they comply with the revised stress data for the affected sections.

As of ASRP 136.01, dated 26 August 2022, Airbus Canada Limited Partnership (ACLP) has deactivated all permitted damage limits (PDLs) and generic repair engineering orders (GREOs) for affected aeroplane structure. Additionally, ACLP has issued Operators Information Transmission (OIT) A220-OIT-00-00-007 Revision B, dated 22 September 2022, which communicates these deactivation activities, as well as the plan to progressively re-activate affected PDLs and GREOs based on the updated operational loads.

AD CF-2023-37 mandated that ASRP 136.01 or later approved versions, or ACLP source data approved at the time of the disposition, be used for any new structural assessments, repairs and dispositions for all model BD-500-1A10 and model BD-500-1A11 aeroplanes. AD CF-2023-37 also mandated corrective action for model BD-500-1A10 aeroplanes.

This AD mandates additional corrective action for model BD-500-1A11 aeroplanes to review and disposition all repairs and damage assessments and prohibits the use of certain previously authorized repairs as source data to generate new repairs for affected structure.

Corrective Actions:

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

Group A aeroplanes are model BD-500-1A11 aeroplanes, having serial numbers 55003 through 55191, 55193, 55195, 55196, 55198 through 55202, 55205, 55209, 55210, 55228, 55231, 55244, 55246 through 55248 and 55250.

Affected Structure is aircraft structure requiring review and disposition of repairs and damage assessments as identified in Service Bulletin (SB) BD500-530012, Issue 001, dated 13 September 2023 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, for model BD-500-

1A11 aeroplanes.

Part I – Assessment and Disposition of Existing Structural Repairs and Damage Assessments – Applicable to Group A Aeroplanes

- A. Within 48 months from the effective date of this AD, identify all existing repairs and damage assessments for affected structure and request disposition from ACLP, in accordance with the Accomplishment Instructions of ACLP SB BD500-530012, Issue 001, dated 13 September 2023, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If the ACLP disposition has determined that an existing repair was carried out that is no longer within permitted repair limits or that a previous damage assessment was approved that is no longer within PDLs, carry out the ACLP disposition instructions within the compliance time specified by those instructions, or other method approved by the Chief, Continuing Airworthiness, Transport Canada.

Part II – Prohibition for Use of Certain Source Data for New Structural Repairs – Applicable to all Model BD-500-1A11 Aeroplanes

As of the effective date of this AD, all ACLP Repair Engineering Orders (REOs) for affected structure, with an issue date prior to 1 January 2023, are no longer authorized for use as source data to create a new repair disposition.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 5 October 2023

Contact:

Barry Devereux, 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.