



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-2022-01

Effective Date:

21 January 2022

ATA:

11

Type Certificate:

A-236

Subject:

Placards and Markings – Elevator and Rudder Surface Rigging Inaccuracy Resulting from Flight Control Decal Positional Offset

Applicability:

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

Model BD-500-1A10, serial numbers 50001 through 50018, 50020 through 50059, and 50061,

Model BD-500-1A11, serial numbers 55001 through 55016, 55018 through 55088, and 55090 through 55123.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been reports of degradation and peeling of flight control decals, as well as reports of operators painting over them. An investigation determined that the degradation and peeling of the flight control decals was caused by an incorrect clear protective coating being applied on these decals in production, and that flight control decals were being painted over as a result of unclear in-service procedures. Additionally, the in-service procedures used to replace these decals were not accurate, potentially causing the replacement decals to be incorrectly positioned. The in-service procedures described above have been revised to clearly state that the flight control decals are to be masked prior to painting, and to ensure the flight control decals are properly placed going forward. Incorrectly positioned decals can introduce control surfaces rigging offset, which, when combined with other failures or severe maneuvers, can result in loss of control surface effectiveness or structural loading in excess of airframe capability.

To address this unsafe condition, this AD requires maintenance actions to restore and preserve the condition and placement of the flight control decals, and rigging of the rudder and elevator surfaces, as applicable. The applicability of this AD is divided into groups of aeroplanes to give credit for corrective actions already performed.

Corrective Actions:

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

The **applicable SB** is defined as Airbus Canada Limited Partnership Service Bulletin (SB) BD500-112006 Issue 001, dated 30 November 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Group A aeroplanes are model BD-500-1A10 aeroplanes having serial numbers 50001 through 50018, 50020 through 50059, and 50061, and model BD-500-1A11 aeroplanes having serial numbers 55001 through 55002, 55007, 55010 through 55016, 55018 through 55037, 55040, 55042 through 55088, and

55090 through 55123.

Group B aeroplanes are model BD-500-1A11 aeroplanes having serial numbers 55003 through 55006, 55008 through 55009, 55038 through 55039, and 55041.

All actions below are applicable to Group A and Group B aeroplanes unless specified otherwise.

- A. Within 8 months or 1700 hours air time, whichever occurs first, from the effective date of this AD:
1. Inspect the left and right horizontal stabilizer flight control decals, re-rigging the elevator surfaces before further flight, as required, in accordance with Part A of the applicable SB.
 2. For Group A aeroplanes only: Inspect the rudder and left and right elevator flight control decals, replacing and applying clear coat protection on these decals and re-rigging the rudder and elevator surfaces before further flight, as required, in accordance with Part C and Part D of the applicable SB.
- B. Part A of the applicable SB determines the conditions under which an aeroplane must complete Part B of the applicable SB. If any of those conditions are met while completing Paragraph A.1. of this AD, replace the left and right horizontal stabilizer flight control decals, in accordance with Part B of the applicable SB, within 8500 hours air time from the effective date of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 7 January 2022

Contact:

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