



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-2023-68

Effective Date:

18 October 2023

ATA:

55

Type Certificate:

A-236

Subject:

Stabilizer – Horizontal Stabilizer – Jamming of the Horizontal Stabilizer Trim Actuator (HSTA)

Applicability:

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

Model BD-500-1A10, serial numbers 50001 through 50090,

Model BD-500-1A11, serial numbers 55001 through 55409.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been reported events of annunciated HSTA jams occurring at the end of the cruise phase of flight. Investigation revealed water intrusion in the primary ball nut and/or secondary nut housing of the HSTA ballscrew assembly. Water intrusion and subsequent freezing has caused jamming of the HSTA, resulting in the loss of pitch trim capability.

ACLP issued Service Bulletin (SB) BD500-274004 to lubricate and inspect the HSTA to collect data to aid in determining a corrective action.

Since then, ACLP has implemented an improved lubrication method as well as a reduced lubrication interval of the HSTA to mitigate the risk of water accumulation in the HSTA ballscrew assembly and subsequent HSTA jamming. ACLP issued SB BD500-274006 to perform the improved lubrication task and existing Airworthiness Limitation (AWL) HSTA lubrication task at a reduced interval.

To mitigate this unsafe condition, this AD mandates compliance with the above-mentioned SB requirement.

Corrective Actions:

Part I – Initial Lubrication of the HSTA

Within 1100 hours air time from the effective date of this AD or 12 months from the date of the last HSTA lubrication task, whichever occurs first, perform the lubrication of the HSTA in accordance with the Accomplishment Instructions of ACLP SB BD500-274006, Issue 001, dated 29 June 2023, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part II – Repetitive Lubrication of the HSTA

Thereafter, at intervals not to exceed 1000 hours air time or 12 months, whichever occurs first, repeat the HSTA lubrication task in accordance with the Accomplishment Instructions of ACLP SB BD500-274006, Issue 001, dated 29 June 2023, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 4 October 2023

Contact:

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