



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-2023-68R1

Effective Date:

14 May 2024

ATA:

55

Type Certificate:

A-236

Subject:

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

Revision:

Supersedes AD CF-2023-68, issued 04 October 2023.

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, AD CF-2023-68 mandated compliance with the above-mentioned SB requirement.

This AD revision, CF-2023-68R1, clarifies the compliance time for aeroplanes that have not previously completed a lubrication task of the HSTA since Entry Into Service (EIS).

Corrective Actions:

Part I – Initial Lubrication of the HSTA

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, within the following compliance time:

- A. For aeroplanes that have previously completed a HSTA lubrication task since EIS: within 1100 hours air time from the effective date of AD CF-2023-68 (18 October 2023) or 12 months from the date of the last HSTA lubrication task, whichever occurs first.
- B. For aeroplanes that have not previously completed a HSTA lubrication task since EIS: within 1100 hours air time or 12 months, whichever occurs first, from EIS.

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 30 April 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.