



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) to ADs.

Number:

CF-2019-23

Effective Date:

2 July 2019

ATA:

27

Type Certificate:

A-234

Subject:

Flight Controls – Pitch Trim System – Upgrade of the Horizontal Stabilizer Trim Electronic Control Unit (HSTECU)

Applicability:

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers 20001 through 20337.

Compliance:

As indicated below, unless already accomplished.

Background:

During an unscheduled inspection, a mis-installed no-back pawl was discovered on a Horizontal Stabilizer Trim Actuator (HSTA). The no-back mechanism is a primary means to prevent back driving of the HSTA, and the Motor Brake Assemblies (MBA) are the secondary means. If not corrected, unavailability of the no-back mechanism in combination with loss of, or degraded HSTA MBA braking capability, could lead to a loss of the aeroplane.

This AD mandates a software upgrade for the HSTECU to verify the MBA for braking capability during the power up test.

Corrective Actions:

Within 100 hours air time or 60 days, whichever occurs first, from the effective date of this AD, accomplish the following:

1. Verify the Part Number (P/N) of the HSTECU installed on the aeroplane. If the installed HSTECU has one of the following P/Ns: C47329-003, C47329-004, C47329-005 or C47329-006, proceed to Paragraph (2) of this AD.

If the installed HSTECU has P/N C47329-007 or subsequent configurations, no further action is required.

2. Upgrade the HSTECUs P/N C47329-003, C47329-004, C47329-005, and C47329-006 in accordance with the Accomplishment Instructions of Bombardier Service Bulletin (SB) 100-27-15, Revision 1, dated 11 June 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

As of the effective date of this AD, it is prohibited for anyone to allow the installation of the HSTECU P/Ns C47329-003, C47329-004, C47329-005 or C47329-006 on BD-100-1A10 aeroplanes.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 18 June 2019

Contact:

Gordanko Jeremic, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.