



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-2022-53

Effective Date:

22 September 2022

ATA:

32

Type Certificate:

A-177

Subject:

Landing Gear – Brake Control System – Uncommanded Brake Pressure due to Brake Control Unit (BCU) Failure

Applicability:

Bombardier Inc. model BD-700-1A10 and BD-700-1A11 aeroplanes, serial numbers 9002 through 9879, 9998 and 60001 through 60079.

Compliance:

Within 48 months from the effective date of this AD, unless already accomplished.

Background:

An in-service event has occurred where a main landing gear tire burst upon landing. The investigation into the event found that with the loss of a 5V power supply in the BCU wheel control card, a residual current may build within the brake control valve (BCV) driver circuit. This residual current may result in uncommanded brake pressure during landing. If not corrected, this can cause one or more tires to burst due to a dragging brake or a locked brake, unexpected deceleration, degraded braking performance, directional difficulties, and/or brake(s) overheating.

This AD mandates the replacement of the affected BCUs with a new part number (P/N) that grounds the residual current if there is a 5V power supply failure.

Corrective Actions:

Part I – Verification of Installed Parts

Inspect the aircraft to determine if BCU P/N GW415-7125-7 (Crane P/N 42-965-3) is installed. If this BCU is not installed, proceed to Part III of this AD.

Part II – Replacement of BCU

In accordance with Section 2. Accomplishment Instructions of the applicable Bombardier Service Bulletin (SB) listed in Table 1 below or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada:

- A. Remove BCU P/N GW415-7125-7 (Crane P/N 42-965-3).
- B. Install BCU P/N GW415-7125-9 (Crane P/N 42-965-4).

Table 1: SB References

Aeroplane Model	Marketing Designation	SB Number and Issue, dated 25 May 2022
BD-700-1A10	Global Express	700-32-045 Basic Issue
BD-700-1A10	Global Express XRS	700-32-045 Basic Issue
BD-700-1A10	Global 6000	700-32-6022 Basic Issue
BD-700-1A10	Global 6500	700-32-6508 Basic Issue
BD-700-1A11	Global 5000	700-1A11-32-032 Basic Issue
BD-700-1A11	Global 5000 ft. GVFD	700-32-5022 Basic Issue
BD-700-1A11	Global 5500	700-32-5508 Basic Issue

Part III – Prohibit Installation of Affected Part

As of the effective date of this AD, BCU P/N GW415-7125-7 (Crane P/N 42-965-3) is not eligible for installation as a replacement part on model BD-700-1A10 and BD-700-1A11 aeroplanes.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Philippe Ngassam
 Director, National Aircraft Certification
 Issued on 8 September 2022

Contact:

Scott W. Wales, 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.