



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-2017-32

Effective Date:

10 October 2017

ATA:

27

Type Certificate:

A-177

Subject:

Flight Controls – Elevator Control System Bracket Cracking

Applicability:

Bombardier Inc. model BD-700-1A10 and model BD-700-1A11 aeroplanes, serial numbers 9492 through 9711, 9713 through 9717, 9719 through 9726, 9728, 9730, 9732, 9733, 9743, and 9751.

Compliance:

Within 60 months from the effective date of this AD, or before accumulating 7500 total flight cycles, whichever occurs first, unless already accomplished.

Background:

During a repair on an aircraft in-service, cracking was observed at the fastener holes of the left hand side elevator bell crank support bracket for the control linkage in the vertical stabilizer. Further investigation confirmed the presence of similar cracking on other aircraft on both the left and right hand side brackets. An investigation found that the fastener holes on some brackets did not conform to the required tolerance and fastener installation resulted in fastener hole cracks.

This AD requires an inspection of both elevator bell crank support brackets, and replacement if they are found cracked or do not meet the required fastener hole tolerance. Left unrepaired, cracking of an elevator bell crank support bracket could lead to detachment of the bracket and loss of functionality of the elevator on the affected side, resulting in reduced controllability of the aircraft. Failure of both brackets could result in loss of pitch control of the aircraft.

Corrective Actions:

1. Inspect the elevator bell crank support brackets, part numbers GD248-8750-3 and GD248-8750-4, for cracks at the fastener holes and to confirm the hole diameters are within tolerance. Part A of the accomplishment instructions of the applicable Bombardier Inc. service bulletin (SB), SB 700-27-6009 or SB 700-27-5009, both at Revision 01, dated 18 July 2017 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, provides approved instructions to inspect the brackets.
2. If the fastener holes are out of tolerance or cracks are found, discard the bracket and install a new bracket prior to the next flight. Part B of the accomplishment instructions of the above-mentioned SBs provides approved instructions to replace the brackets.
3. Completion of SB 700-27-6009 or SB 700-27-5009, at Basic Issue, dated 29 May 2017 prior to the effective date of this AD also meets the intent of this AD.
4. Aeroplanes that have incorporated Bombardier Inc. Service Request for Product Support Action (SRPSA) 000161104 meet the intent of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 26 September 2017

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