



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-2018-20

Effective Date:

10 August 2018

ATA:

32

Type Certificate:

A-234

Subject:

Landing Gear – Main Landing Gear Side Brace Actuators Contain Non-Conforming Split Ball Bearing

Applicability:

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers 20003 through 20500 and 20501 through 20665, equipped with split ball bearing part number 104467672.

Compliance:

As indicated below, unless already accomplished.

Background:

The landing gear supplier has informed Bombardier Aerospace about a quality escape involving Main Landing Gear (MLG) side brace actuators that have been assembled using non-conforming split ball bearings. The affected bearings are manufactured from material that does not meet the required material properties. If not corrected, this condition can result in potentially asymmetric MLG gear extension or retraction and subsequent gear collapse during landing.

This AD mandates verification of the installed MLG side brace actuator assemblies and replacement of the affected parts.

Corrective Actions:

- A. Verify the serial number (S/N) of the left and right MLG side brace actuator assembly part number (P/N) 40310-103 in accordance with Bombardier Service Bulletin (SB) 100-32-30, Basic Issue, dated 18 December 2017 or P/N 2-8554-2 in accordance with SB 350-32-006, Basic Issue, dated 18 December 2017, as applicable, or later revisions of these SBs approved by the Chief, Continuing Airworthiness, Transport Canada, with the following schedule:

Aeroplane Cycles	Compliance
As of the effective date of this AD: 3350 total flight cycles or less	Before accumulating 3750 total flight cycles or 48 months, whichever occurs first, from the effective date of this AD.
As of the effective date of this AD: more than 3350 total flight cycles	Within 400 flight cycles or 12 months, whichever occurs first, from the effective date of this AD.

- B. If the S/N of the part installed is listed in Table 1, Paragraph 2.B., Part A – Special Check, in SB 100-32-30, Basic Issue, dated 18 December 2017 or SB 350-32-006, Basic Issue, dated 18 December 2017, or later revisions of these SBs approved by the Chief, Continuing Airworthiness, Transport Canada, as applicable, replace the split ball bearing P/N 104467672 in accordance with Paragraph 2.C. Part B – Modification – Replacement of the split ball bearing of the applicable SB.

- C. If the installed part is not listed in Table 1 of the SB 100-32-30, Basic Issue, dated 18 December 2017 or SB 350-32-006, Basic Issue, dated 18 December 2017, or later revisions of these SBs approved by the Chief, Continuing Airworthiness, Transport Canada, no further action is required.
- D. As of the effective date of this AD, it is prohibited for anyone to install the MLG side brace actuator on BD-100-1A10 aeroplanes with a S/N listed in Table 1, Paragraph 2.B., of the SB 100-32-30, Basic Issue, dated 18 December 2017 or SB 350-32-006, Basic Issue, dated 18 December 2017, or later revisions of these SBs approved by the Chief, Continuing Airworthiness, Transport Canada, unless the split bearing P/N 104467672 has been previously replaced.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 27 July 2018

Contact:

Gordanko Jeremic, Continuing Airworthiness, Ottawa, telephone 1-888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.