



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-2019-43

Effective Date:

22 November 2019

ATA:

32

Type Certificate:

A-234

Subject:

Landing Gear – Nose Landing Gear (NLG) Shock Strut Cylinder Corrosion

Applicability:

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers 20003 through 20767.

Compliance:

As indicated below, unless already accomplished.

Background:

Corrosion was found on the shock strut cylinders during unscheduled maintenance of the NLG. In some cases, the corrosion was found to be beyond repair limits. If not corrected, this condition could result in structural failure of the NLG.

This AD mandates the inspection of the NLG shock strut cylinder and the addition of protective treatments to improve corrosion resistance.

Corrective Actions:

Part I – Applicable to Aeroplane Models with Serial Numbers 20003 Through 20500

1. For aeroplanes with NLG assemblies with 96 months or less Time Since New (TSN) as of the effective date of this AD, perform, at the NLG 96 months scheduled inspection, a modification of the NLG shock strut cylinder in accordance with Paragraph 2.B. of the Accomplishment Instructions of Bombardier (BA) Service Bulletin (SB) 100-32-33, Revision 2, dated 30 September 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. For aeroplanes with NLG assemblies with more than 96 months TSN as of the effective date of this AD, perform a modification of the NLG shock strut cylinder in accordance with Paragraph 2.C. of the Accomplishment Instructions of BA SB 100-32-33, Revision 2, dated 30 September 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, in accordance with the following schedule:

NLG Assemblies with TSN as of the effective date of this AD	Compliance time from the effective date of this AD
More than 96 months but less than 108 months	Within 56 months
108 months or more but less than 120 months	Within 50 months
120 months or more but less than 132 months	Within 44 months
132 months or more but less than 144 months	Within 36 months
144 months or more but less than 156 months	Within 27 months
156 months or more but less than 174 months	Within 18 months
174 months or more but less than 192 months	At 192 months overhaul

3. Incorporation of BA SB 100-32-33 Basic Issue dated 31 October 2018, or Revision 1 dated 31 July 2019, Paragraph 2.B. or 2.C. as applicable, also meets the requirements of this AD.

Part II – Applicable to Aeroplane Models with Serial Numbers 20501 Through 20767

- At the 96 months scheduled inspection, perform a modification of the NLG shock strut cylinder in accordance with Paragraph 2.B. of the Accomplishment Instructions of BA SB 350-32-009, Revision 2, dated 30 September 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- Incorporation of BA SB 350-32-009 Basic Issue dated 31 October 2018, or Revision 1 dated 31 July 2019, Paragraph 2.B., also meets the requirements of this AD.

Part III – Installation of Replacement NLG Shock Strut Cylinder

As of the effective date of this AD, the installation of the NLG shock strut assembly Part Number 40630-111, 40630-113 or 44630-101 on BD-100-1A10 aeroplanes as a replacement part is prohibited unless the part is reworked and marked as per BA SB 100-32-33 Paragraph 2.B. or Paragraph 2.C. or BA SB 350-32-009 Paragraph 2.B. as applicable.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 8 November 2019

Contact:

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