



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-2018-05

Effective Date:

6 February 2018

ATA:

32

Type Certificate:

A-177

Subject:

Landing Gear – Safety Device Modification at Nose Gear Retraction Actuator to Main Fitting Joint

Applicability:

Bombardier Inc. model BD-700-1A10 and BD-700-1A11 aeroplanes, serial numbers 9002 to 9638 and 9998.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been in-service findings whereby the cotter pin at the retraction actuator to nose landing gear (NLG) strut main fitting was observed to be damaged after a NLG retraction-extension cycling. This condition could lead to a loss of hardware and result in an actuator disconnect resulting in a failure to retract or extend, or in an undamped freefall of the NLG.

This AD mandates a revision to the approved maintenance schedule. This AD also mandates a visual inspection of the cotter pin for certain configurations of NLG strut assembly, and if found damaged, the incorporation of a modification which introduces a new castellated nut, spacer, end plate and sleeve to the NLG retraction actuator to main fitting joint.

Corrective Actions:

Part I – Time Limits/Maintenance Checks (TLMC) – Manual Change

Within 30 days from the effective date of this AD, amend the Transport Canada approved maintenance schedule by incorporating Airworthiness Limitation (AWL) Task 32-33-01-111, restoration of the nose landing gear shock-strut assembly to retraction-actuator main-fitting joint. It is acceptable to use either the applicable Temporary Revision (TR) or TLMC Manual Revision indicated in Table 1.

Compliance with superseding TRs or later revisions of the affected sections of the above-mentioned TLMC Manual approved by Transport Canada also meets the requirements of Part I of this AD.

Table 1: Acceptable TR and TLMC Manual Revisions by Aeroplane Model

Aeroplane Models	TLMC Manual Number	Acceptable Maintenance Requirement Manual (MRM) Revision(s) or TR Number(s)	Date of Issue
BD-700-1A10	GL 700 TLMC	TR-5-2-46	19 May 2015
		Revision 24	6 August 2015
		Revision 25	10 February 2016
		Revision 26	29 July 2016
		Revision 27	6 September 2016
	GL XRS TLMC	TR-5-2-9	19 May 2015
		Revision 12	6 August 2015
		Revision 13	10 February 2016
		Revision 14	29 July 2016
	GL 6000 TLMC	TR-5-2-13 & TR-5-2-14	19 May 2015
		Revision 6	6 August 2015
		Revision 7	10 February 2016
		Revision 8	29 July 2016
BD-700-1A11	GL 5000 TLMC	TR-5-2-15	19 May 2015
		Revision 16	6 August 2015
		Revision 17	10 February 2016
		Revision 18	29 July 2016
	GL 5000 GVFD TLMC	TR-5-2-13 & TR-5-2-14	19 May 2015
		Revision 6	6 August 2015
		Revision 7	10 February 2016
		Revision 8	29 July 2016

Part II - Visual Inspection and Condition-Dependent Modification.

Within 6 months from the effective date of this AD, visually check the condition of the cotter pin locking the castellated nut and bolt, and if damaged, perform the modification of the NLG attachment joint in accordance with the accomplishment instructions of the applicable Bombardier Service Bulletin (SB) as shown in Table 2.

No action is required for aircraft that do not have the NLG configuration specified in Paragraph 1.A. of the applicable Bombardier SB as shown in Table 2:

Table 2: Service Bulletins for Inspection and Modification

Aeroplane Model	Bombardier SB	Date
BD-700-1A10	700-32-035, Revision 2	6 November 2017
	700-32-6011, Revision 2	6 November 2017
BD-700-1A11	700-1A11-32-022, Revision 2	6 November 2017
	700-32-5011, Revision 2	6 November 2017

For aeroplanes that have incorporated the applicable above-mentioned SBs at Basic Issue, dated 13 May 2015, or Revision 1, dated 26 August 2015, prior to the effective date of this AD, the intent of Part II of this AD is met if conditions a) and b) below are satisfied. If either of these conditions are not satisfied, perform the applicable SB as indicated in Table 2 within 6 months of the effective date of this AD:

- a. It can be confirmed that at least 25 NLG extension-retraction cycles had been completed on the NLG at the time of SB incorporation; and
- b. Neither the NLG nor the NLG retract actuator have been replaced or modified since the time of SB incorporation.

Incorporation of later revisions of the SBs indicated in Table 2 approved by the Chief, Continuing Airworthiness, Transport Canada, also meets the intent of Part II of this AD.

Aeroplanes that have incorporated any of the following Bombardier-issued Service Requests for Product Support Action (SRPSA) have met the intent of Part II of this AD: 13929, 15280, 16384, 16577, 16578, 16582, 16623, 18392, and 18435.

Part III – Future Modifications

As of the effective date of this AD, no person shall permit the incorporation of LIEBHERR-AEROSPACE SB 1285A-32-07 at any revision level on Bombardier Inc. Model BD-700-1A10 and BD-700-1A11 aeroplane NLG strut assemblies.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Craig McAllister
Acting Chief, Continuing Airworthiness
Issued on 23 January 2018

Contact:

Daniel Gosselin, 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.