



適航指令發布單

Airworthiness Directive Issuance Form

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|--|--|---------------------|-----------|------------------------------|--------------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------------|---|------------------------------------|-------------------------------|--|--|--------------------------------------|
| 民航局AD編號 AD Number | CAA-2018-01-005 | 發布日期 Date issued | 2018/1/25 | | | | | | | | | | | | |
| 適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable) | Bombardier Inc. model BD-700-1A10 and BD-700-1A11 aeroplanes, serial numbers 9002 to 9638 and 9998. | | | | | | | | | | | | | | |
| 主旨摘要 | Landing Gear – Safety Device Modification at Nose Gear Retraction Actuator to Main Fitting Joint | | | | | | | | | | | | | | |
| 民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other | 設計國民航主關機構 Original Authorities <table border="0"> <tr> <td><input type="checkbox"/> FAA</td> <td><input type="checkbox"/> Germany LBA</td> </tr> <tr> <td><input type="checkbox"/> EASA</td> <td><input type="checkbox"/> CAA-NL</td> </tr> <tr> <td><input type="checkbox"/> Brazil</td> <td><input type="checkbox"/> UK CAA</td> </tr> <tr> <td><input checked="" type="checkbox"/> Transport Canada Civil Aviation</td> <td><input type="checkbox"/> Japan CAB</td> </tr> <tr> <td><input type="checkbox"/> DGAC</td> <td><input type="checkbox"/> CAA of Israel</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Other _____</td> </tr> </table> | | | <input type="checkbox"/> FAA | <input type="checkbox"/> Germany LBA | <input type="checkbox"/> EASA | <input type="checkbox"/> CAA-NL | <input type="checkbox"/> Brazil | <input type="checkbox"/> UK CAA | <input checked="" type="checkbox"/> Transport Canada Civil Aviation | <input type="checkbox"/> Japan CAB | <input type="checkbox"/> DGAC | <input type="checkbox"/> CAA of Israel | | <input type="checkbox"/> Other _____ |
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| <input checked="" type="checkbox"/> Transport Canada Civil Aviation | <input type="checkbox"/> Japan CAB | | | | | | | | | | | | | | |
| <input type="checkbox"/> DGAC | <input type="checkbox"/> CAA of Israel | | | | | | | | | | | | | | |
| | <input type="checkbox"/> Other _____ | | | | | | | | | | | | | | |
| | 設計國AD編號 Original AD number | CF-2018-05 | | | | | | | | | | | | | |
| | 1. 直接採用原AD之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) ____ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將AD執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No) | | | | | | | | | | | | | | |
| 備註 Note | BD-700-1A10 SB 700-32-035, Revision 2, 700-32-6011, Revision 2 and BD-700-1A11 SB 700-1A11-32-022, Revision 2, 700-32-5011, Revision 2. | | | | | | | | | | | | | | |

註： 1. AD內容後附。
 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。
 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw

Note： 1. The AD text is enclosed.
 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval.
 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：adcaa@mail.caa.gov.tw



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.