



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) with ADs.

Number:

CF-2022-12

Effective Date:

4 April 2022

ATA:

32

Type Certificate:

A-142

Subject:

Landing Gear – Lubrication of Main Landing Gear

Applicability:

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-401 and -402 aeroplanes, serial numbers 4001, 4003 and subsequent.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been incidents reported where, following a main landing gear (MLG) extension, one of the MLGs could not be locked in the gear down position. An investigation revealed that, over time, there is a reduction in the effectiveness of the grease applied to the lock actuator assembly, stabilizer brace to nacelle structure attachment, downlock assembly, stabilizer brace pivot, stabilizer brace to yoke attachment and retractor actuator lug end. The resulting increase in friction within the mechanism can lead to a failure to achieve an MLG down and locked condition. Although there is a Maintenance Review Board Report task requiring lubrication of the MLG assembly every 500 hours air time, since there is no calendar-based limit for this task, reduction in the effectiveness of the grease over time will potentially lead to a failure to achieve an MLG down and locked condition.

To address this unsafe condition, this AD mandates repetitive lubrication of the MLG assembly in accordance with Service Bulletin (SB) 84-32-168.

Corrective Actions:

- A. Within 500 hours air time or 3 months, whichever occurs first, from the effective date of this AD, lubricate the MLG assembly in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-32-168, Revision A dated 8 February 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Lubrication of the MLG assembly in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-32-168, Initial Revision dated 3 December 2021, prior to the effective date of this AD, also meets the intent of Paragraph A of this AD.

- B. Thereafter, at intervals not to exceed 500 hours air time or 3 months, whichever occurs first, lubricate the MLG assembly in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada SB 84-32-168, Revision A dated 8 February 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 21 March 2022

Contact:

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