



# 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-2022-57

**Effective Date:**

19 October 2022

**ATA:**

32

**Type Certificate:**

A-234

**Subject:**

Landing Gear – Nose Landing Gear (NLG) Door Hinge Fitting Failure

**Applicability:**

Bombardier Inc. model BD-100-1A10 aeroplanes, all serial numbers.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

An in-service event occurred where the NOSE GEAR DOOR amber caution message displayed on the crew alerting system during the initial climb after gear retraction. A post-landing inspection found that one of the NLG door hinge fitting assemblies was broken. The absence of an inspection to detect cracks in the fillet radii of the NLG door hinge fitting could result in door misalignment with the aeroplane. A door misalignment could increase the drag and yawing movement during flight, could cause jamming of the door affecting the ability to extend/retract the NLG or could potentially result in the door detaching from the aeroplane. Bombardier introduced a new Time Limits/Maintenance Checks (TLMC) inspection task to ensure timely detection of cracks.

This AD mandates the accomplishment of the new inspection in accordance with Task Number 32-22-00-104\* Special Detailed Inspection of the Nose-Landing-Gear Door-Hinge Fittings Fillet Radii (PSE 32-22-101).

**Corrective Actions:**

- A. Within 60 days from the effective date of this AD, incorporate the new task, 32-22-00-104\* Special Detailed Inspection of the Nose-Landing-Gear Door-Hinge Fittings Fillet Radii, in Part 2 Section 5-10-30 of the BD-100-1A10 TLMC as introduced by the Temporary Revision (TR) identified in Table 1 below, as applicable to the aeroplane model.
- B. Perform the Special Detailed Inspection, Task Number 32-22-00-104\*, at the threshold and repeat interval specified in the applicable TLMC TR listed in Table 1 below.

Compliance with superseding TRs affecting this task or later revisions of the applicable TLMC approved by Transport Canada also meets the intent of this AD.

**Table 1**

<b>Aeroplane Model</b>	<b>BD-100 TLMC TR</b>	<b>Date</b>
BD-100-1A10 (Challenger 300)	TR5-2-101	30 June 2022
BD-100-1A10 (Challenger 350)	TR5-2-30	30 June 2022

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Philippe Ngassam  
Director, National Aircraft Certification  
Issued on 5 October 2022

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