



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-2024-12

Effective Date:

3 May 2024

ATA:

32

Type Certificate:

A-131

Subject:

Landing Gear – Uncommanded Steering Due to Nosewheel Steering Potentiometer Universal Coupling Setscrew Failure

Applicability:

Bombardier Inc. model CL-600-1A11, CL-600-2A12 and CL-600-2B16 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

There has been an in-service report, where upon landing with touchdown on the runway centerline, following standard procedure, the flight spoilers and thrust reverser were used after the nose wheel touchdown. As the aeroplane speed reduced below 80 knots, it veered to the left. The aeroplane was maintained on the runway by use of the rudder and by differential braking. Further investigation determined that the nosewheel steering potentiometer universal coupling setscrews were loose causing an uncommanded steering input. This condition, if not corrected can lead to a runway excursion.

This AD requires the replacement of the nosewheel steering potentiometer universal coupling setscrews, the inspection of the installation torque and the application of a secondary locking feature. This AD also requires updating the Time Limits/Maintenance Checks (TLMC).

Corrective Actions:

Part I – Replacement of Nosewheel Steering Potentiometer Universal Coupling Setscrews

Within 36 months or 1400 hours air time, whichever occurs first, from the effective date of this AD, replace the nosewheel steering potentiometer universal coupling setscrews in accordance with Section 2.B. and 2.C. of the Accomplishment Instructions of the applicable Bombardier Service Bulletin (SB) identified in Table 1 below, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part II – Introduction of TLMC Task

- A. Within 60 days from the effective date of this AD, incorporate the new TLMC task for the removal and replacement of the coupling setscrews in the TLMC manual, as identified in Table 2 below.
- B. Within 96 months, from performing Part I of this AD, perform the initial removal and replacement of the coupling setscrews, in accordance with the TLMC task introduced in the affected TLMC manual as detailed in Table 2 below.
- C. Thereafter, repeat the removal and replacement of the coupling setscrews, in accordance with the TLMC task introduced in the affected TLMC manual as detailed in Table 2 below.

Compliance with superseding Temporary Revisions (TR) affecting these tasks, or later revisions of the TLMC, approved by Transport Canada, also meets the intent of this AD.

Table 1 – SB References

Aeroplane Model (Marketing Designation)	Aeroplane Serial Number	Applicable SB
CL-600-1A11 (Challenger 600)	1004 through 1085 Post SB 600-0380 Rev. 02 (Part E)	600-0782, Basic Issue, dated 30 October 2023
CL-600-2A12 (Challenger 601-1A) and CL-600-2B16 (Challenger 601-3A/3R)	3001 through 3059 Post SB 601-0092 Rev. 01 (Part D) and 3060 through 3066 and 5001 to 5194	601-1114, Basic Issue, dated 30 October 2023
CL-600-2B16 (Challenger 604)	5301 through 5665	604-32-033, Basic Issue, dated 30 October 2023
CL-600-2B16 (Challenger 605)	5701 through 5990	605-32-010, Basic Issue, dated 30 October 2023
CL-600-2B16 (Challenger 650)	6050 through 6193	650-32-007, Basic Issue, dated 30 October 2023

Table 2 – Applicable TLMC Manuals

Aeroplane Model (Marketing Designation)	TLMC Manual	TLMC TR
CL-600-1A11 (Challenger 600)	PSP 605	TR# 5-165 Section 5-10-20, issued 25 October 2023
CL-600-2A12 (Challenger 601-1A)	PSP 601-5	TR# 5-269 Section 5-10-20, issued 25 October 2023
CL-600-2B16 (Challenger 601-3A/3R)	PSP 601A-5	TR# 5-283 Section 5-10-20, issued 25 October 2023
CL-600-2B16 (Challenger 604)	CL-604	TR# 5-2-73 Section 5-10-11, issued 25 October 2023
CL-600-2B16 (Challenger 605)	CL-605	TR# 5-2-29 Section 5-10-11, issued 25 October 2023

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 19 April 2024

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