



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-2025-06

Effective Date:

3 February 2025

ATA:

49

Type Certificate:

A-131

Subject:

Auxiliary Power Unit (APU) – APU Muffler Drainage Blockage Causing Fuel Leakage Accumulation

Applicability:

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

Compliance:

As indicated below, unless already accomplished.

Background:

In September 2021, the crew of a Challenger aeroplane started the APU during the approach and allowed it to run for approximately 10-minutes after landing. When the crew shut the APU down, an APU FIRE warning message was posted on EICAS. The APU fire suppression was discharged; however, the fire was not fully extinguished following the discharge of the fire bottles.

Upon further investigation, it was discovered that a fuel solenoid valve was leaking, and the APU muffler drainage was blocked leading to an accumulation of fuel in the muffler. The fuel in the APU muffler was ignited by the high temperature exhaust gases in the muffler. This condition if not corrected, could lead to an uncontrolled fire in the APU bay.

This AD requires a functional test to verify APU muffler drainage.

Corrective Actions:

Within the thresholds and repeat intervals identified within the tasks, complete the functional test of the APU Muffler Drain in accordance with the new limitation contained in Airworthiness Limitation (AWL) section of the Bombardier Time Limits/Maintenance Checks (TLMC) publications identified in Table 1 below as applicable to the aeroplane model and configuration.

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

Table 1 – Aeroplane Model TLMC Manual Revisions

| Aeroplane Model (Marketing Designation) | TLMC Manual | TLMC Section | TLMC TR |
|---|-------------|--------------|-------------------------------------|
| CL-600-2A12 (Challenger 601) | PSP 601-5 | 5-10-30 | TR# 5-271 Issued 30 September, 2024 |
| CL-600-2B16 (Challenger 601-3A/3R Variants) | PSP 601A-5 | 5-10-30 | TR# 5-285 Issued 30 September, 2024 |

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|---|--------|---------|---------------------------------|
| CL-600-2B16 (Challenger 604 Variant)-Challenger 604 | CL-604 | 5-10-40 | TR# 5-2-74 Issued 28 June, 2024 |
| CL-600-2B16 (Challenger 604 Variant)-Challenger 605 | CL-605 | 5-10-40 | TR# 5-2-30 Issued 28 June, 2024 |
| CL-600-2B16 (Challenger 604 Variant)-Challenger 650 | CL-650 | 5-10-40 | TR# 5-2-6 Issued 28 June, 2024 |

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 20 January 2025

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