



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-2016-32R4

Effective Date:

27 October 2020

ATA:

28

Type Certificate:

A-131

Subject:

Fuel - Engine and Auxiliary Power Unit Electrical Fuel Pump Cartridge/Canister Fuel Leakage

Revision:

Supersedes AD CF-2016-32R3, issued 22 May 2019 and AMOC AARDG-2018/A64, issued 6 December 2018.

Applicability:

Bombardier Inc. model CL-600-2B16 aeroplanes, serial numbers 5301 through 5665, 5701 through 5990 and 6050 through 6163.

Compliance:

As indicated below, unless already accomplished.

Background:

Fuel leaks have been reported from the electrical connectors and conduits of the engine and auxiliary power unit (APU) electrical fuel pump (EFP) cartridge/canister. The Emergency AD CF-2014-17 was issued to revise the Aircraft Flight Manual that restricts the landing light operation on-ground, in order to address the potential fire hazard as a result of fuel leak from the APU EFP electrical conduit in the hot landing light compartment.

As an interim mitigating action, Bombardier Inc. (BA) issued Service Bulletins (SB) 604-28-022 and 605-28-010 with instructions to periodically inspect and, if required, rectify subject fuel leaks on affected aeroplanes. AD CF-2016-32 was issued on 29 September 2016 and subsequently revised on 12 October 2016 to mandate compliance with the aforementioned SBs, as applicable, on affected aeroplanes.

Based on AD CF-2016-32R1 compliance result and additional in-service experience, BA revised the SB 604-28-022 Accomplishment Instructions, the SB 605-28-010 effectivity and have issued a new SB 650-28-001 to inspect additional affected aeroplanes. AD CF-2016-32R2 was issued on 22 November 2018 to mandate compliance with BA SBs 604-28-022R3, 605-28-010R3 and 650-28-001R2, as applicable on affected aeroplanes.

Subsequently, BA revised SB 650-28-001R3 to update the compliance time and work scope for some of the affected aeroplanes. Transport Canada Civil Aviation (TCCA) also issued to BA an AMOC, AARDG-2018/A64, to extend the compliance time for SB 605-28-010R3 incorporation on applicable aeroplanes affected by AD CF-2018-32R2. Revision 3, CF-2016-32R3, was then issued to mandate changes in accordance with SB 650-28-001R3 and reflect the previously mentioned AMOC provisions.

To address the root cause of the fuel leaks, BA has now issued SBs 604-28-024, 605-28-012 and 650-28-002. AD CF-2020-38 mandates compliance with the aforementioned SBs. This AD revision, CF-2016-32R4, is issued to revise the applicability and to inform that compliance with AD CF-2020-38 constitutes terminating action for the periodic fuel leak inspection requirement as mandated by this AD.

Corrective Actions:

A. For model CL-600-2B16 aeroplanes, serial numbers 5301 through 5665;

1. Within 600 hours air time or 12 months, whichever occurs first, from 13 October 2016, the effective date of CF-2016-32R1, inspect for and rectify any fuel leak from the engine and APU EFP electrical wiring conduit outlets, in accordance with Accomplishment Instructions in BA SB 604-28-022R3, dated 31 August 2018 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. On aeroplanes that have been inspected prior to the effective date of this AD according to SB 604-28-022 basic version only, within 4 months or 150 hours air time from the effective date of this AD or 1 year from the last inspection, whichever occurs first, incorporate SB 604-28-022R3 requirements.

Compliance with SB 604-28-022R1 or SB 604-28-022R2 prior to the effective date of this AD also meets the requirement of steps A.1. and A.2. of this AD.

3. Repeat above step A.1. Inspection/Rectification at intervals not exceeding 600 hours air time or 12 months, whichever occurs first.

B. For model CL600-2B16 aeroplanes, serial numbers 5701 through 5955, 5957, 5960 through 5966, 5968 through 5971 and 5981:

1. Within 600 hours air time or 12 months, whichever occurs first, from 13 October 2016, the effective date of CF-2016-32R1, inspect for and rectify any fuel leak from the engine and APU EFP electrical wiring conduit outlets, in accordance with Accomplishment Instructions in BA SB 605-28-010R3 dated 31 August 2018 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. On aeroplanes that have been inspected prior to the effective date of this AD according to SB 605-28-010 basic version only, within 4 months or 150 hours air time from effective date of this AD or 1 year from the last inspection, whichever occurs first, incorporate SB 605-28-010R3 requirements.

Compliance with SB 605-28-010R1 or SB 605-28-010R2 prior to the effective date of this AD also meets the requirement of steps B.1. and B.2. of this AD.

3. Repeat above step B.1. Inspection/Rectification at intervals not exceeding 600 hours air time or 12 months, whichever occurs first.

C. For model CL600-2B16 aeroplanes, serial numbers 5956, 5958, 5959, 5967, 5972 through 5980 and 5982 through 5990:

1. Within 600 hours air time or 12 months, whichever occurs first, from 6 December 2018, the effective date of AD CF-2016-32R2, inspect for and rectify any fuel leak from the engine and APU EFP electrical wiring conduit outlets, in accordance with Accomplishment Instructions in BA SB 605-28-010R3, dated 31 August 2018 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with SB 605-28-010R1 or SB 605-28-010R2 prior to the effective date of this AD also meets the requirement of step C.1. of this AD.

2. Repeat above step C.1. Inspection/Rectification at intervals not exceeding 600 hours air time or 12 months, whichever occurs first.

D. For model CL-600-2B16 aeroplanes, serial numbers 6050 through 6124:

1. Within 600 hours air time or 12 months, whichever occurs first, from the effective date of this AD, inspect for and rectify any fuel leak from the engine and APU EFP electrical wiring conduit outlets, in accordance with Accomplishment Instructions in BA SB 650-28-001R3, dated 3 January 2019 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. On aeroplanes that have been inspected according to SB 650-28-001 Basic, SB 650-28-001R1 or SB 650-28-001R2 versions prior to the effective date of this AD, within 1 year from the last inspection, incorporate SB 650-28-001R3 requirements.
3. Repeat above step D.1. Inspection/Rectification at intervals not exceeding 600 hours air time or 12 months, whichever occurs first.

E. For model CL-600-2B16 aeroplanes, serial numbers 6125 through 6163:

1. Within 600 hours air time or 12 months, whichever occurs first, from the date of aeroplane entry in-service, inspect for and rectify any fuel leak from the engine and APU EFP electrical wiring conduit outlets, in accordance with Accomplishment Instructions in BA SB 650-28-001R3, dated 3 January 2019 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
 2. On aeroplanes that have been inspected according to SB 650-28-001 Basic, 650-28-001R1 or 650-28-001R2 versions prior to the effective date of this AD, within 1 year from the last inspection, incorporate SB 650-28-001R3 requirements
 3. Repeat above step E.1. Inspection/Rectification at intervals not exceeding 600 hours air time or 12 months, whichever occurs first.
- F. Compliance with AD CF-2020-38 issued on 13 October 2020 constitutes terminating action for above section A. through E. requirements. Serial number 6164 and subsequent aeroplanes have the intent of AD CF-2020-38 incorporated during production through MODSUM (MS) 600-6631 Revision C.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 13 October 2020

Contact:

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