



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) to ADs.

Number:

CF-2019-13

Effective Date:

18 April 2019

ATA:

26

Type Certificate:

A-142

Subject:

Fire Detection System - Contamination of the sensor contacts for Advanced Pneumatic Detectors (APD) System

Applicability:

Bombardier Inc. model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4001, 4003 and subsequent, equipped with the following Kidde (UTAS) APD Part Numbers (and applicable serial numbers):

- 10-1096 (All Serial Numbers),
- 10-1096-01 (All Serial Numbers),
- 10-1096-02 (Serial numbers before AEM9907),
- 10-1097 (All Serial Numbers),
- 10-1097-01 (All Serial Numbers),
- 10-1097-02 (Serial Numbers before 17-0005),
- 10-1098 (All Serial Numbers),
- 10-1098-01 (Serial Numbers before 17-0110),
- 10-1099 (All Serial Numbers), and
- 10-1099-01 (Serial Numbers before 17-0009).

Compliance:

As indicated below, unless already accomplished.

Background:

The APD supplier Kidde has informed Bombardier Inc. of a quality escape in the manufacturing of the APD switches. An investigation revealed the presence of contamination in the form of black dots on the contact pin of the APD pressure switch. This contamination could insulate the contact pin from the diaphragm resulting in a delayed or non-reported alarm. Undetected or late detection of a fire could result in an unsafe operation of the aeroplane.

This AD mandates verification of APDs and replacement of affected parts.

Corrective Actions:

Within 8000 hours air time or 48 months, whichever occurs first, from the effective date of this AD, conduct the on-wing test of the APD system in accordance with the Accomplishment Instructions of Bombardier Service Bulletin (SB) 84-26-19, initial revision, dated 24 October 2018, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

As of the effective date of this AD, it is prohibited to install an APD identified in the Applicability section of this AD which has not been re-identified as per the above-mentioned SB.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 4 April 2019

Contact:

Brian Daly, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.