



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-2021-12

Effective Date:

14 April 2021

ATA:

26

Type Certificate:

A-142

Subject:

Fire Protection System – Main Landing Gear (MLG) Primary Zone Advanced Pneumatic Detector (APD) Chafing Damage

Applicability:

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-401 and -402 aeroplanes, serial numbers 4001 and 4003 through 4614.

Compliance:

Within 48 months or 8000 flight hours, whichever occurs first, from the effective date of this AD, unless already accomplished.

Background:

A loss of hydraulic fluid and annunciation of the check fire detect light was reported by the flight crew during flight. A subsequent inspection in the vicinity of the leak, revealed chafing between a hydraulic tube assembly and the right hand (RH) MLG primary zone APD sensing line, due to insufficient clearance. Also, chafing between a hydraulic tube assembly and the left hand (LH) MLG primary zone APD was reported, but without a hydraulic leak and an annunciation of the check fire detect light.

The clearance between the APD sensing line and adjacent components/structure was found to be inadequate. If not corrected, insufficient separation between the APD sensing line and surrounding components can lead to hydraulic leak, loss of hydraulic systems and loss of fire detection in the MLG primary zone should prolonged contact occur.

This AD mandates the inspection and rectification of any damage to the LH and RH MLG primary zone APD sensing lines, hydraulic tube assemblies and the surrounding structure, and ensures that there is adequate separation between components.

Corrective Actions:

Perform a detailed visual inspection and rectification of the LH and RH MLG primary zone APD sensing lines, hydraulic tube assemblies and the surrounding structure in accordance with Section 3.B. of the Accomplishment Instructions of De Havilland Service Bulletin (SB) 84-26-20, Revision A, dated 9 March 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Incorporation of SB 84-26-20, Revision NC, dated 21 October 2020, also meets the requirements of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 31 March 2021

Contact:

Marie-Claude Cardinal, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.