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-2020-51R1

Effective Date:

10 March 2021

ATA:

54

Type Certificate:

A-142

Subject:

Nacelles/Pylons – Attachment Pin Corrosion

Revision:

Supersedes AD CF-2020-51, issued 25 November 2020.

Applicability:

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4001, 4003 through 4550, 4583 through 4585, 4587, 4588 and 4590.

Compliance:

As indicated below, unless already accomplished.

Background:

It was discovered that the application of epoxy primer to the internal bore of the nacelle and landing gear attachment pins was not carried out. Reports of corrosion on the internal bore of the wing rear spar attachment pins were also received. Due to the absence of the protective primer, there is a possibility for premature corrosion and subsequent failure of the nacelle to landing gear and nacelle to rear wing spar attachment pins. Undetected corrosion on the attachment pins can lead to a possible single or dual main landing gear (MLG) collapse.

Service Bulletin (SB) 84-54-27 and SB 84-54-28 were issued in 2017 to address this condition, however, the initial release of those SBs did not provide instructions for adequate corrosion protection.

AD CF-2020-51 mandated the inspection and rectification of the affected attachment pins in order to add the required protective treatments.

This AD revision, CF-2020-51R1, modifies paragraph B in Parts I, II and III to correct an error in the applicability statement.

Corrective Actions:

Part I – Applicable to Aeroplane Models with Aircraft Serial Numbers 4001, 4003 through 4550:

Perform a detailed visual inspection and rectification of the nacelle to wing rear spar attachment pins in accordance with Section 3.B. Part A of the Accomplishment Instructions of De Havilland SB 84-54-28, Revision B, dated 24 January 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, using the following schedule:

A. For nacelle to wing rear spar attachment pins that have accumulated less than 26 000 flight cycles as of the effective date of AD CF-2020-51, 9 December 2020, and have been in service less than 12 years from their entry-into-service as of the effective date of CF-2020-51, 9 December 2020: prior to the pins reaching 14 years from their entry-into-service, or prior to the aeroplane reaching 30 000 flight cycles, whichever occurs first.

B. For nacelle to wing rear spar attachment pins that have accumulated 26 000 flight cycles or more as of the effective date of AD CF-2020-51, 9 December 2020, or have been in service 12 years or more from their entry-into-service as of the effective date of AD CF-2020-51, 9 December 2020: within 4 years or 8000 flight hours from the effective date of AD CF-2020-51, 9 December 2020, whichever occurs first.

Incorporation of Bombardier (BA) SB 84-54-28, Revision A, dated 10 April 2019, also meets the requirements of Part I of this AD.

Part II – Applicable to Aeroplane Models with Aircraft Serial Numbers 4001, 4003 through 4533:

Perform a detailed visual inspection and rectification of the nacelle and landing gear attachment pins in accordance with Section 3 Part A of the Accomplishment Instructions of De Havilland SB 84-54-31, Revision B, dated 21 February 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, using the following schedule:

A. For nacelle and landing gear attachment pins that have accumulated less than 26 000 flight cycles as of the effective date of AD CF-2020-51, 9 December 2020, and have been in service less than 12 years from their entry-into-service as of the effective date of AD CF-2020-51, 9 December 2020: prior to the pins reaching 14 years from their entry-into-service, or prior to the aeroplane reaching 30 000 flight cycles, whichever occurs first.

B. For nacelle and landing gear attachment pins that have accumulated 26 000 flight cycles or more as of the effective date of AD CF-2020-51, 9 December 2020, or have been in service 12 years or more from their entry-into-service as of the effective date of AD CF-2020-51, 9 December 2020: within 4 years or 8000 flight hours from the effective date of AD CF-2020-51, 9 December 2020, whichever occurs first.

Incorporation of BA SB 84-54-31, Revision A, dated 15 October 2019, also meets the requirements of Part II of this AD.

Incorporation of BA SB 84-54-31, Initial Revision, dated 1 May 2019, also meets the requirements of Part II of this AD.

Part III – Applicable to Aeroplane Models with Aircraft Serial Numbers 4583 through 4585, 4587, 4588 and 4590:

Perform a detailed visual inspection and rectification of the nacelle and landing gear attachment pins in accordance with Section 3 Part B of the Accomplishment Instructions of De Havilland SB 84-54-31, Revision B, dated 21 February 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, using the following schedule:

A. For nacelle and landing gear attachment pins that have accumulated less than 26 000 flight cycles as of the effective date of AD CF-2020-51, 9 December 2020, and have been in service less than 12 years from their entry-into-service as of the effective date of AD CF-2020-51, 9 December 2020: prior to the pins reaching 14 years from their entry-into-service, or prior to the aeroplane reaching 30 000 flight cycles, whichever occurs first.

B. For nacelle and landing gear attachment pins that have accumulated 26 000 flight cycles or more as of the effective date of AD CF-2020-51, 9 December 2020, or have been in service 12 years or more from their entry-into-service as of the effective date of AD CF-2020-51, 9 December 2020: within 4 years or 8000 flight hours from the effective date of AD CF-2020-51, 9 December 2020, whichever occurs first.

Incorporation of BA SB 84-54-31, Revision A, dated 15 October 2019, also meets the requirements of Part III of this AD.

Incorporation of BA SB 84-54-31, Initial Revision, dated 1 May 2019, also meets the requirements of Part III of this AD.

Part IV – Applicable to Aeroplanes That Have Accomplished BA SB 84-54-27, Initial Revision, Dated 11 August 2017:

Within 14 years or 30 000 flight cycles from the date of incorporation of BA SB 84-54-27, Initial Revision, dated 11 August 2017, whichever occurs first, perform a detailed visual inspection and rectification of the nacelle and landing gear attachment pins in accordance with Section 3.B. of the Accomplishment Instructions of BA SB 84-54-31, Revision B, dated 21 February 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Incorporation of BA SB 84-54-31, Revision A, dated 15 October 2019, also meets the requirements of Part IV of this AD.

Incorporation of BA SB 84-54-31, Initial Revision, dated 1 May 2019, also meets the requirements of Part IV of this AD.

Part V – Applicable to Aeroplanes That Have Accomplished BA SB 84-54-28, Initial Revision, Dated 11 August 2017:

Within 14 years or 30 000 flight cycles from the date of incorporation of BA SB 84-54-28, Initial Revision, dated 11 August 2017, whichever occurs first, perform a detailed visual inspection and rectification of the nacelle to wing rear spar attachment pins in accordance with Section 3.B. Part B of the Accomplishment Instructions of BA SB 84-54-28, Revision B, dated 24 January 2020, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Incorporation of BA SB 84-54-28, Revision A, dated 10 April 2019, also meets the requirements of Part V of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 24 February 2021

Contact:

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