



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-2024-47

Effective Date:

6 January 2025

ATA:

53, 55, 57

Type Certificate:

A-131

Subject:

Fuselage, Stabilizers, Wings

Applicability:

Bombardier Inc. (BA) model CL-600-2B16, serial numbers 5301 through 5665.

Compliance:

As indicated below, unless already accomplished.

Background:

Transport Canada has received reports of cracks being found on the lower wing plank at the rear spar wing station (WS) 59 to WS 65 web and or flange on three aeroplanes. Following an internal BA investigation, it was discovered that six Non-Destructive Testing Manual (NDTM) Procedures, associated with Airworthiness Limitations (AWL) Tasks potentially could not detect cracks. Undetected cracks could lead to structural failure of the aeroplane.

This AD requires inspections of the lower wing plank rear spar web and lower flange, forward surface of the pressure bulkhead frame under the stiffeners between Left Buttock Line (LBL) 9.00 and Right Buttock Line (RBL) 9.00 at Fuselage Station (FS) 409.00, Vertical Stabilizer (VSTAB) front spar to frame attachment fitting and repairs of the cracks if found.

This AD is considered interim action and further AD action may follow.

Corrective Actions:

Part I – Inspections of the Lower Wing Plank at the Rear Spar WS 59 to WS 65 Web and or Flange – Applicable to all Serial Numbers

A. Ultrasound Inspection (UT)

1. Before accumulating 5297 total flight cycles (FC) or within 5297 flight cycles from the last inspection performed as required by Time Limits/Maintenance Checks (TLMC) task 57-10-00-114, perform a special detailed inspection of the rear spar web lower fasteners common to the main landing gear trunnion fitting inboard and outboard of WS 65.75 in accordance with UT 57-20-001 procedure dated 25 March 2019, published in Part 04 of publication number CH 604 NDTM. If any cracks are found, contact BA for a repair or instructions to rectify the cracks and carry out the repair or rectification prior to further flight.
2. Thereafter, repeat above UT 57-20-001 inspection every 5297 FC from previous inspection.

B. Eddy Current Inspection (ET)

1. Before accumulating 5297 total FC or within 5297 FC from the last inspection required by TLMC task 57-10-00-114, perform a special detailed inspection of the lower wing plank at the rear spar WS 59.00 to WS 65.00 in accordance with ET 57-20-020 procedure dated 02 June 2021, published in Part 06 of publication number CH 604 NDTM. If any cracks are found, contact BA for a repair or instructions to rectify the cracks and carry out the repair or rectification prior to further flight.
2. Thereafter, repeat above ET 57-20-020 inspection every 5297 FC from previous inspection.

Part II – Inspections of VSTAB Front Spar to Frame Attachment Fittings Lower Legs FS 755.00 – Applicable to all Serial Numbers

For the purpose of part II of this AD, the following compliance time phase in apply:

Table 1: Compliance Time for Part II

Aeroplane Total FC Accumulated as of the Effective Date of this AD	Compliance Time
7000 or less	Before accumulating 7800 total FC
greater than 7000 and less than 10 500	Before accumulating 11 500 total FC or within 1500 FC from the effective date of this AD, whichever occurs first
10 500 or greater	Within 1000 FC from the effective date of this AD

A. UT

1. Perform, in accordance with the applicable compliance time indicated in Table 1 above, a special detailed inspection of the VSTAB front spar to frame attachment fitting lower legs at FS 755.00 in accordance with UT 55-30-002 procedure dated 01 March 2018, published in Part 04 of publication number CH 604 NDTM. If any cracks are found, contact BA for a repair or instructions to rectify the cracks and carry out the repair or rectification prior to further flight.
If, TLMC task 55-30-00-111 was performed using the UT 55-30-002 procedure dated 01 March 2018, part II A of this AD is not applicable.

B. ET

1. Perform, in accordance with the applicable compliance time indicated in Table 1 above, a special detailed inspection of the VSTAB front spar to frame attachment fitting lower leg at FS 755.00 in accordance with ET 55-30-003 procedure dated 01 March 2018, published in Part 06 of publication number CH 604 NDTM. If any cracks are found, contact BA for a repair or instructions to rectify the cracks and carry out the repair or rectification prior to further flight.
If, TLMC task 55-30-00-111 was performed using the ET 55-30-003 procedure dated 01 March 2018, Part II B of this AD is not applicable.

Part III – Inspections of Pressure Bulkhead Web between LBL 9 and RBL 9 at FS 409 – Applicable to Serial Numbers 5357, 5380, 5381, 5382, 5397, 5398, 5402, 5407, 5415, 5421, 5424**A. UT**

1. Before accumulating 6419 total FC or within 843 FC from the last inspection performed as required by TLMC task 53-20-00-148, perform a special detailed inspection of the pressure bulkhead web between LBL 9.00 and RBL 9.00 at FS 409.00 in accordance with UT 53-20-001 procedure dated 19 November 2018, published in Part 04 of publication number CH 604 NDTM. If any cracks are found, contact BA for a repair or instructions to rectify the cracks and carry out the repair or rectification prior to further flight.
2. Thereafter, repeat above UT 53-20-001 inspection every 843 FC from previous inspection.

B. ET

1. Before accumulating 6419 total FC or within 843 FC from the last inspection performed as required by TLMC task 53-20-00-148, perform a special detailed inspection of pressure bulkhead web between LBL 9.00 and RBL 9.00 above water line (WL) 50.65 at FS 409.00 in accordance with ET 53-20-011 procedure dated 19 November 2018, published in Part 06 of publication number CH 604 NDTM. If any cracks are found, contact BA for a repair or instructions to rectify the cracks and carry out the repair or rectification prior to further flight.
2. Thereafter, repeat above ET 53-20-011 inspection every 843 FC from previous inspection.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 23 December 2024

Contact:

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