



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-2019-21

Effective Date:

May 29 2019

ATA:

57

Type Certificate:

A-131

Subject:

Wing Structure – Lower Wing Plank – Cracking at Stringer Run-out

Applicability:

Bombardier Inc. model CL-600-2B19 aeroplanes, serial number 7003 and subsequent.

Compliance:

As indicated below, unless already accomplished.

Background:

During aeroplane wing fatigue testing, fatigue cracks were found on the lower Right Hand Side (RHS) wing plank at the end of the integrally machined stringers. Cracks were found at Wing Station (WS) 65.75 close to the machined rib forward and aft side of the wing centre plank. No cracks have been reported on in-service aeroplanes at this time.

Subsequent to this finding:

1. The existing Non Destructive Testing Manual (NDTM) Part 6 Maintenance Inspection Task, for Airworthiness Limitation (AWL) Task 57-21-112 (applicable to aeroplanes pre SB 601R-57-044) was revised to extend the inspection footprint into the area of the stringer run-outs between STGR7 to STGR10 and STGR14 to STGR17 at Buttock Line (BL) 45.00, WS65.75 and WS148.00.
2. Maintenance Requirements Manual (MRM) Temporary Revision (TR) 2B-2269 dated 18 July 2018 was issued to add the new AWL Task 57-21-169 applicable to aeroplanes post SB 601R-57-044.

Failure to use the latest inspection method or the new AWL task may result in undetected cracks on the lower wing plank at the stringer run-out. This condition, if not detected and corrected, could affect the structural integrity of the wing.

This AD prohibits the use of NDTM CSP A-010 Revision 39 or earlier revisions for AWL Task 57-21-112 and mandates the incorporation of the new AWL Task 57-21-169.

Corrective Actions:

Part I - Aeroplanes Pre SB 601R-57-044

After 30 days from the effective date of this AD, it is prohibited to use NDTM CSP A-010 Revision 39 or earlier revisions to accomplish Task 57-21-112 for the Special Detailed Inspection (SDI) of the Lower Wing Skin Splice Joints at BL45.00, WS65.75, and WS148.00.

Part II - Aeroplanes Post SB 601R-57-044

Within 30 days from the effective date of this AD, amend the Transport Canada (TC) approved maintenance schedule by incorporating the new AWL Task 57-21-169 as introduced by TR2B-2269, dated 18 July 2018.

Initial compliance with the above mentioned AWL task must be carried out in accordance with the phase-in as described in the TR2B-2269, dated 18 July 2018.

Compliance in accordance with superseding TR or later revisions of the MRM, approved by TC, also meets the intent of Part II of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 15 May 2019

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