



No.	CF-2011-35	1/2
Issue Date 29 August 2011		

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to **Canadian Aviation Regulation (CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: CF- 2011-35

Subject: Cracking of the Main Landing Gear Upper Member Forward Lug

Effective: 12 September 2011

Applicability: Bombardier Inc. aeroplanes:

model CL-215-1A10 - Serial Numbers 1051 through 1125,
model CL-215-6B11 (CL-215T Variant) - Serial Numbers 1056 through 1125,
model CL-215-6B11 (CL-415 Variant) - Serial Numbers 2001 through 2990.

Compliance: As indicated below.

Background: Multiple cracks were reported on the Main Landing Gear (MLG) upper member forward lug, part numbers 160-714-3 (L/H) and 160-714-4 (R/H). An investigation determined the cause to be fatigue cracks at the base of the step radius with multiple initiation sites. The fatigue cracking may compromise the structural integrity of the MLG during takeoff or landing, leading to failure.

This directive mandates repetitive eddy current inspections and a one-time fluorescent penetrant inspection of the MLG upper member forward lugs to determine fleet condition. Pending fleet inspection results, further action may result to mitigate the risk of failure due to fatigue cracks.

Corrective Actions: **Part I – Eddy Current Inspection**

- A. Within 50 hours air time from the effective date of this directive, perform an in situ eddy current inspection on the MLG forward lug, part numbers 160-714-3 (L/H) and 160-714-4 (R/H), in accordance with the accomplishment instructions in the applicable Bombardier Alert Service Bulletin (ASB) listed in Table 1, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If cracks are found, before next flight, replace the MLG upper member forward lug in accordance with the accomplishment instructions in the applicable Bombardier ASB listed in Table 1, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- C. If no cracks are found, at intervals not exceeding 165 land landings, repeat the eddy current inspection on the MLG forward lug, part numbers 160-714-3 (L/H) and 160-714-4 (R/H), in accordance with the applicable Bombardier ASB listed in Table 1, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Pursuant to **CAR 202.51** the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

To request a change of address, contact the **Civil Aviation Communications Centre (AARC)** at **Place de Ville, Ottawa, Ontario K1A 0N8**, or **1-800-305-2059**, or www.tc.gc.ca/civilaviation/communications/centre/ address.asp

Model	ASB
CL-215-1A10, CL-215-6B11 (CL-215T Variant)	215-A548, dated 15 July 2011
CL-215-6B11 (CL-415 Variant)	215-A4451, dated 15 July 2011

Table 1: Alert Service Bulletins for Eddy Current Inspection

Part II – Fluorescent Penetrant Inspection (FPI)

- A. Within 2 months from the effective date of this directive, perform a one-time FPI on the MLG forward lug, part numbers 160-714-3 (L/H) and 160-714-4 (R/H), in accordance with the accomplishment instructions in the applicable Bombardier ASB listed in Table 2, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If cracks are found, before next flight, replace the MLG upper member forward lug in accordance with the accomplishment instructions in the applicable Bombardier ASB listed in Table 2, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Model	ASB
CL-215-1A10, CL-215-6B11 (CL-215T Variant)	215-A547, dated 08 July 2011
CL-215-6B11 (CL-415 Variant)	215-A4450, dated 08 July 2011

Table 2: Alert Service Bulletins for Fluorescent Penetrant Inspection

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Philip Tang
Acting Chief, Continuing Airworthiness

Contact: Ms. Yosha Mendis, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail CAWWEBFeedback@tc.gc.ca or any Transport Canada Centre.

