# 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-2014-08R1

**Effective Date:**

13 August 2019

**ATA:**

52

**Type Certificate:**

A-142

**Subject:**

Doors – Translating Doors Loose Bolts

**Revision:**

Supersedes AD CF-2014-08, issued 10 February 2014.

**Applicability:**

De Havilland Aircraft of Canada Limited (formerly Bombardier Inc.) model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4001 through 4530.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

There was one in-service report where the bolts securing the translating door crank assembly to the outside handle shaft were found loose. It was also found on another translating door that sealant was missing on these bolts. If both bolts become loose or fall out after the door is closed and locked, the door cannot be opened from inside or outside.

The aft entry translating door and aft service translating door are classified as emergency exits. The inability to open an emergency exit could impede evacuation in the event of an emergency.

AD CF-2014-08 mandated the inspection of the translating door crank assemblies for loose bolts, as well as the application of Loctite to prevent their loosening.

Following the issuance of AD CF-2014-08, loose bolts were found in aeroplane serial numbers that were outside the AD's applicability range. Additionally, Bombardier Inc. has, on some aircraft, reclassified the forward baggage door as an emergency exit and this door was not subject to AD CF-2014-08. Also, Bombardier Inc. has modified the design of the translating door crank handle in order to improve retention of the bolts.

This AD revision, CF-2014-08R1, expands the scope of the inspection for loose bolts. It also requires a new modification to the translating door handles in order to prevent loss of the door crank assembly bolts, which replaces the application of Loctite as the terminating action of the AD.

**Corrective Actions:**

**Part I – Inspection for aeroplane serial numbers 4001 through 4411**

Within 600 hours air time or 100 days, whichever occurs first, from the effective date of AD CF-2014-08, 24 February 2014, perform a detailed visual inspection of the translating door crank assembly bolts in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin (SB) 84-52-75, Revision A, dated 11 July 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

A. If a loose bolt is found, complete Part III of this AD before further flight.

B. If no loose bolt is found, proceed to Part III of this AD.

Accomplishment of SB 84-52-75 Part A, Initial Issue dated 27 July 2012, prior to the effective date of AD CF-2014-08, 24 February 2014, also meets the requirements of Part I of this AD.

**Part II – Inspection for aeroplane serial numbers 4412 through 4491**

Within 800 hours air time or 120 days, whichever occurs first, from the effective date of this AD, perform a detailed visual inspection of the translating door crank assembly bolts in accordance with paragraph 3.B., Procedure, of the Accomplishment Instructions of Bombardier SB 84-52-96, Initial Issue, dated 26 February 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

A. If a loose bolt is found, complete Part III of this AD before further flight.

B. If no loose bolt is found, proceed to Part III of this AD.

**Part III – Modification for aeroplane serial numbers 4001 through 4530**

Within 8000 hours air time or 48 months, whichever occurs first, from the effective date of this AD, modify the door crank handle with an improved bolt retention design on the Type 1 Emergency door (if applicable to the aeroplane configuration), the Aft Entry Door, and the Aft Service Door, in accordance with the Accomplishment Instructions of the following SBs:

A. Type 1 Emergency Door: SB 84-52-94, Revision A, dated 24 January 2018

B. Aft Entry Door: SB 84-52-89, Revision A, dated 29 January 2018

C. Aft Service Door: SB 84-52-92, Revision A, dated 24 January 2018

For aeroplanes with ModSum 4Q459324 incorporated (the Cargo Combi configuration), accomplishment of Part III, B and C of this AD in combination with ModSum IS4Q5200101 Revision A, dated 5 July 2019, also meets the intent of Part III of this AD for the aft entry and aft service doors.

Modification of the applicable doors prior to the effective date of this AD in accordance with the initial revision of the SBs indicated in Part III paragraphs A through C, dated 10 May 2017, also meets the intent of Part III of this AD.

Modification of the applicable doors in accordance with later revisions of the SBs indicated in Part III paragraphs A through C approved by the Chief, Continuing Airworthiness, Transport Canada, also meets the intent of Part III of this AD.

Accomplishment of Part III of this AD constitutes terminating action to this AD. Part I and Part II of this AD are no longer required after the accomplishment of Part III of this AD.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 30 July 2019

**Contact:**

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