



No.	CF-2008-31	1/2
Issue Date 9 October 2008		

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) 593**. 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), Aircraft Certification Branch, Transport Canada, Ottawa, telephone (613) 952-4357.

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TRANSPORT CANADA EMERGENCY AIRWORTHINESS DIRECTIVE

PLEASE FORWARD IMMEDIATELY TO THE PERSON RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF YOUR AIRCRAFT

Number: CF-2008-31
Subject: Elevator PCU Attachment Bolt Fracture
Effective: Immediately upon receipt
Applicability: Bombardier Aerospace BD-700-1A10 and BD-700-1A11 airplanes, serial numbers (S/N) 9002 through 9222, equipped with the Elevator PCUs P/N GT411-3800 – 5 or GT411-3800 – 7
Compliance: As indicated unless already accomplished.
Background: During scheduled maintenance inspection, a bolt which connects the PCU to the elevator surface was found fractured in the assembly. Further inspection of the assembly revealed that the bearing on the PCU rod end had seized which resulted in damage to the attachment fitting bushing and fracture of the bolt. Inspection of other in-service airplanes revealed two more seized PCU attachment joints. However, except seizure, no fractured bolt was found on these airplanes. Failure of the bolts in both PCUs on one side could result in disconnection of the elevator control surface which would lead to flutter and loss of the aircraft.

This Airworthiness Directive (AD) is issued to mandate the inspection and lubrication of all part number (P/N) GT411-3800-5 and GT411-3800-7 PCU attachment joints.

Corrective Actions:

A. For all elevator PCU P/N GT411-3800-5 and for elevator PCU P/N GT411-3800-7, S/N 0615 and lower, excluding S/N listed in Table 1 below, which accumulated 1000 hours air time or more as of the effective date of this directive accomplish the following:

1. Within 10 flight cycles or 50 hours air time, whichever comes first from the effective date of this AD, inspect and lubricate the PCU attachment joints in accordance with Service Bulletin (SB) A700-1A11-27-024 basic issue dated 2 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, or SB A700-27-066 basic issue dated 2 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as applicable.
2. Within 90 days or 200 hours air time, whichever comes first, following the successful completion of paragraph A.1, repeat an inspection and lubrication of the PCU attachment joints in accordance with SB A700-1A11-27-024 basic issue dated 2 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, or SB A700-27-066 basic issue dated 2 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as applicable.
3. Within 45 days or 100 hours air time, whichever comes first, following the successful completion of paragraph A.2, repeat an inspection of the PCU attachment joints and lubrication in accordance with SB A700-1A11-27-024 basic issue dated 2 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, or SB A700-27-066 basic issue dated 2 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as applicable.

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 (AARA) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1 800 305-2059, or <http://www.tc.gc.ca/civilaviation/certification/menu.htm>.

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4. Within 45 days or 100 hours air time, whichever comes first, following the successful completion of paragraph A.3 complete a disassembly with inspection and lubrication of the PCU attachment joint components in accordance with SB 700-1A11-27-025 basic issue dated 9 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, or SB 700-27-067 basic issue dated 9 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as applicable.

If any damage or seizure was found following the above mention inspections, prior to further flight contact Bombardier Aerospace for disposition.

SB 700-1A11-27-025 or 700-27-067 may be accomplished in lieu of paragraphs A.1, A.2 or A.3 of this directive.

Table 1: Units listed below have been lubricated by the vendor and are not required to accomplish the instructions in paragraph A.1, A.2, and A.3.

P/N GT411-3800-7 units sent to vendor for maintenance have been returned as greased bearings							
0030	0092	0141	0179	0206	0296	0427	0506
0031	0097	0145	0181	0208	0301	0429	0513
0033	0101	0156	0183	0210	0310	0430	0533
0041	0105	0161	0188	0214	0323	0431	0536
0046	0108	0163	0190	0218	0365	0433	0586
0060	0109	0164	0191	0222	0369	0435	
0062	0110	0165	0197	0223	0406	0438	
0066	0111	0171	0198	0240	0407	0453	
0081	0119	0173	0199	0262	0408	0491	
0083	0130	0174	0202	0265	0413	0495	
0087	0138	0178	0205	0281	0420	0504	

NOTE: Units listed in the above table must comply with the requirements of paragraph B. below.

- B. For all other elevator PCU P/N GT411-3800-7 that are not covered in the part A of this directive, within 180 days or 400 hours air time from the effective date of this directive, whichever comes first, complete a disassembly with inspection and lubrication of the PCU attachment joint components in accordance with SB 700-1A11-27-025 basic issue dated 9 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, or SB 700-27-067 basic issue dated 9 October 2008 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, as applicable.
- C. Incorporation of Bombardier SB 700-1A11-27-025 or 700-27-067 constitutes closing action for this directive.
- D. Within 14 days after each inspection requirements listed in Part A and Part B above, report all findings to Bombardier Aerospace as defined in the applicable SB.

Authorization: For Minister of Transport, Infrastructure and Communities

Derek Ferguson
Acting Chief, Continuing Airworthiness

Contact: Mr. Jeremic Gordanko, Continuing Airworthiness, Ottawa, telephone (613) 952-4379, facsimile (613) 996-9178 or e-mail jeremig@tc.gc.ca or any Transport Canada Centre.