



No.	<b>CF-2002-43</b>	1/2
Issue Date	30 September 2002	

# 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.

**Number:**            **CF-2002-43**

**Subject:**            **Bombardier CL-604 – “Challenger”– Main Landing Gear Side-Brace Fitting Shaft**

**Effective:**            31 October 2002

**Applicability:**      Bombardier CL-600-2B16 (CL-604), serial numbers 5301 through 5550

**Compliance:**        As indicated below, unless already accomplished.

**Background:**        Two reports have been received of fractures of the main landing gear (MLG) side-brace fitting shafts on CL-604 aircraft. The fractures were caused by corrosion on the forward side of the side-brace fitting shafts. Although the fractured shafts did not become dislodged in either of the cases reported, breakage of a shaft could potentially result in collapse of a landing gear.

**Corrective Actions:**    **Part A – Rework - MLG Side-Brace Fitting Shaft Replacement**

Part A is applicable to the following aircraft: Serial No. 5367 to 5393, 5395, 5397, 5403, 5411, 5414, 5416, 5418, 5419 and 5421.

1. Within 3 months of the effective date on this directive, carry out the following in accordance with the Accomplishment Instructions, Paragraph 2.B. Part A of Bombardier Alert Service Bulletin A604-32-018, Revision 01, dated 22 February 2002, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada:
  - (a) Remove the side-brace fitting shafts from the LH and RH main landing gear (MLG) and complete the Removal-of-pin-from-Aircraft Report and Pin-off-Report for both the LH and RH MLG as detailed in TSR-CL-604-001, Appendix A of the above mentioned ASB.
  - (b) Install the replacement side-brace fitting shafts from Kit 604K32-018B using the nuts, washers and cotter pins as provided in Kit 604K32-018A.
  - (c) Complete the New-Pin-Installation Report detailed in TSR-CL-604-001, Appendix A of the above referenced ASB.
  - (d) Within 30 days of replacing the side-brace fitting shafts, forward the removed hardware and the completed Reports to Bombardier.

**Part B – Special Check/Rework – Main Landing Gear Side-Brace Fitting Shaft Inspection**

Part B is applicable to aircraft Serial No. 5302 through 5335, 5337 through 5366, 5394, 5396, 5398 through 5400, 5402, 5404, 5409, 5410, 5412, 5413, 5415, 5417, 5420, 5422 through 5500, 5501, 5504, 5511 and 5528.

2. Within 5 months of the effective date of this directive, carry out the following in accordance with the Accomplishment Instructions, Paragraph 2.C. Part B of Bombardier Alert Service Bulletin A604-32-018, Revision 01, dated 22 February 2002, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada:
  - (a) Remove the side-brace fitting shafts from the LH and RH main landing gear (MLG)
  - (b) Visually inspect the removed side-brace fitting shafts for corrosion.
  - (c) If no corrosion exists, reinstall the removed side-brace fitting shafts. Discard the removed nuts, washers and cotter pins and install new nuts, washers and cotter pins as provided in Kit 604K32-018A.
  - (d) If corrosion is found on the side-brace fitting shafts, replace with side-brace fitting shafts from Kit 604K32-018B. Install nuts, washers and cotter pins as provided in Kit 604K32-081A.

### **Part C – Rework – Nut and Washer Replacement**

Part C is applicable to aircraft Serial No. 5301, 5336, 5401, 5405 through 5408, 5502, 5503, 5505 through 5510, 5512 through 5527, 5529 through 5550, and to all aircraft that have previously complied with the Bombardier ASB A604-32-018, dated 23 October 2001.

3. Within 5 months of the effective date of this directive, carry out the following in accordance with the Accomplishment Instructions, Paragraph 2.D. Part C of Bombardier Alert Service Bulletin A604-32-018, Revision 01, dated 22 February 2002, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada:
  - (a) Remove and discard the nut, washer and cotter pin on the forward side of each side-brace fitting shaft.
  - (b) Install the forward side nut, washer and cotter pin provided in Kit 604K32-018A.

**Authorization:** For Minister of Transport



B. Goyaniuk  
Chief, Continuing Airworthiness

**Contact:** Mr. Ian McLellan, Continuing Airworthiness, Ottawa, telephone (613) 952-4362, facsimile (613) 996-9178 or e-mail [mclelli@tc.gc.ca](mailto:mclelli@tc.gc.ca) or any Transport Canada Centre.