



No.	CF-2011-09	1/2
Issue Date	13 May 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- 2011-09
- Subject:** Oxygen Supply System – Deformation of the Pressure Regulator on the Oxygen Cylinder and Regulator Assembly
- Effective:** 25 May 2011
- Applicability:** Bombardier Inc. Model BD-100-1A10, Serial Numbers 20003 through 20291
- Compliance:** Within 750 hours air time from the effective date of this directive, but no later than 31 December 2011, unless already accomplished.
- Background:** During a routine inspection, deformation was found at the neck of the pressure regulator body on the oxygen Cylinder and Regulator Assemblies (CRA) of a BD-700-1A11 aeroplane.

An investigation by the vendor, Avox Systems Inc., revealed that the deformation was attributed to two (2) batches of raw material that did not meet the required tensile strength. This may cause elongation of the pressure regulator neck, which could result in rupture of the oxygen cylinder and in the case of cabin depressurization, oxygen not being available when required.

Although there have been no reported failures to date on any Model BD-100-1A10 aeroplanes, oxygen pressure regulators, Part Numbers (P/N) 806370-06 and 806370-14 could be part of the affected batches.

This directive mandates the replacement of oxygen CRAs containing pressure regulators that do not meet the required material properties.

Corrective Actions: **Part I – Inspection of the oxygen pressure regulator serial number:**

- A. Inspect the serial number of each oxygen pressure regulator, P/N 806370-06 and 806370-14, in accordance with the accomplishment instructions in Section 2.B.(2) of the Bombardier Service Bulletin (SB) 100-35-05, Revision 2, dated 31 January 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. If the serial number of the pressure regulator, P/N 806370-06 or 806370-14, is listed in Table 2 of the above-mentioned SB, proceed to Part II of this directive.
- C. If the serial number of the pressure regulator, P/N 806370-06 or 806370-14, is not listed in Table 2 of the above-mentioned SB, no further action is required and compliance with this directive is complete.

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



Part II – Replacement of the affected oxygen CRA:

Replace the affected oxygen CRA in accordance with the accomplishment instructions in Section 2. C. of the above-mentioned SB.

Part III – Future Installation of the oxygen CRA:

As of the effective date of this directive, installation of an oxygen pressure regulator, P/N 806370-06 or 806370-14, with a serial number listed in Table 2 of the Bombardier SB 100-35-05, Revision 2, dated 31 January 2011, is not permitted on any Model BD-100-1A10 aeroplane unless the serial number has a suffix "A" beside the serial number.

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

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