



No.	CF-2003-21R2	1/4
Issue Date	28 September 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- 2003-21R2
- Subject:** Life Limited Landing Gear Parts Not Serialised
- Effective:** 18 October 2011
- Revision:** Supersedes Airworthiness Directive CF-2003-21R1.
- Applicability:** Bombardier Inc. Model CL-600-2A12 (Challenger 601 Variant), serial numbers 3001 through 3066 and CL-600-2B16 (Challenger 601-3A/-3R Variants), serial numbers 5001 through 5194
- Compliance:** As indicated below, unless already accomplished.
- Background:** Certain landing gear parts that are listed in the aeroplane model Airworthiness Limitations Section, as safe life items with structural life limits, could be rotatable and may not have been serialized, making tracking difficult. This directive mandates that such parts be serialized. This directive also provides the procedure to determine the number of landings for those parts where the service history cannot be established.
- Since the release of the original issue of this directive, Bombardier has revised the landing gear maintenance task intervals that affect the accessibility for adding serial numbers for certain landing gear parts. Revision 1 of this directive is therefore issued to extend the compliance time of certain landing gear parts.
- Revision 2 of this directive adds paragraphs F, G, H and I to mandate serialisation of five (5) additional landing gear parts.
- Corrective Actions:**
- A. Prior to reaching the life limit specified in the aeroplane model Airworthiness Limitations Section for the landing gear part affected, but no later than the earliest of the following:
- five (5) years from the effective date of the Original Issue of this directive (29 August 2003), or
 - prior to the installation of a new landing gear part, or
 - prior to the reinstallation of a used landing gear part.
- Add serial numbers and part numbers, when applicable, to the following parts, as directed in Bombardier Service Bulletin (SB) 601-0546, Basic Issue, dated 31 May 2002, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
1. Left and Right Main Landing Gear:
- (a) Shock Strut Pins
- P/N 6232-1 and 6232-3

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

2. Nose Landing Gear:

- | | | |
|-----|------------------------------|---|
| (a) | Sliding Tube/End Fitting Pin | P/N 200811602 |
| (b) | Axle Fitting | P/N 200811306, 200811307, or
200811308 |

B. Prior to reaching the life limit specified in the aeroplane model Airworthiness Limitations Section for the landing gear part affected, but no later than the earliest of the following:

- ten (10) years from the effective date of the Original Issue of this directive (29 August 2003), or
- prior to the installation of a new landing gear part, or
- prior to the reinstallation of a used landing gear part.

Add serial numbers and part numbers, when applicable, to the following parts, as directed in Bombardier SB 601-0546, Basic Issue, dated 31 May 2002, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

1. Nose Landing Gear:

- | | | |
|-----|--------------------------|---------------|
| (a) | Shock Strut Sliding Tube | P/N 200811707 |
| (b) | Pivot Pins | P/N 200811601 |
| (c) | Drag Brace Hinge Pin | P/N 200814624 |

2. Left and Right Main Landing Gear:

- | | | |
|-----|---|------------|
| (a) | Side Strut Retraction Actuator Eye Bolt | P/N 9025-1 |
|-----|---|------------|

C. At the compliance times applicable in paragraphs A and B, if the part does not have a serial number and the Cycles Since New (CSN) have not been tracked, the number of landings on such part are to be established as follows:

1. For parts listed under paragraph B. 2(a):

Landings = 7511 + the actual number of landings
on the aeroplane since 6 April 1989.

2. For parts listed under paragraphs A. 1(a), A. 2(b), B. 1(a) and B. 1(b):

Landings = 8900 + the actual number of landings
on the aeroplane since 31 May 2001.

3. For part listed under paragraph B. 1(c):

Landings = 10647 + the actual number of landings
on the aeroplane since 1 March 1996.

4. For part listed under paragraph A. 2(a):

Landings = 6704 + the actual number of landings
on the aeroplane since 20 October 1993.

D. At the times that paragraphs A., B., and C. are complied with, amend the aeroplane technical records to incorporate the new part numbers, serial numbers and landings assigned to these parts.

E. Within 30 days after the effective date of the Original Issue of this directive (29 August 2003), revise the Transport Canada approved maintenance schedule to incorporate the life limits for landing gear parts as introduced by the following Temporary Revisions (TR) of the Challenger aeroplane Time Limits/Maintenance Check (TLMC) Manual:

TR Number	Date	TLMC Manual	Manual Section
5-190	11 April 2002	PSP 601-5	5-10-10
5-191	11 April 2002	PSP 601-5	5-10-11
5-192	11 April 2002	PSP 601-5	5-10-12
5-204	11 April 2002	PSP 601A-5	5-10-10
5-205	11 April 2002	PSP 601A-5	5-10-11
5-206	11 April 2002	PSP 601A-5	5-10-12

F. Prior to reaching the life limit specified in the aeroplane model Airworthiness Limitations Section for the landing gear part affected, but no later than the earliest of the following:

- five (5) years from the effective date of this directive, or
- prior to the installation of a new landing gear part, or
- prior to the reinstallation of a used landing gear part.

Add serial numbers and part numbers, when applicable, to the following parts, as directed in Bombardier Service Bulletin (SB) 601-0546, Revision 03, dated 09 May 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

1. Left and Right Main Landing Gear:

- | | | |
|-----|----------------|----------------------|
| (a) | Side Strut Pin | P/N 6318-1 or 6318-3 |
| (b) | Hinge Pin | P/N 6329-3 |

Addition of serial numbers and part numbers in accordance with Revision 02 of Bombardier SB 601-0546, dated 29 October 2007, also satisfies the requirement of paragraph F of this directive.

G. Prior to reaching the life limit specified in the aeroplane model Airworthiness Limitations Section for the landing gear part affected, but no later than the earliest of the following:

- ten (10) years from the effective date of this directive, or
- prior to the installation of a new landing gear part, or
- prior to the reinstallation of a used landing gear part.

Add serial numbers and part numbers, when applicable, to the following parts, as directed in Bombardier SB 601-0546, Revision 03, dated 09 May 2011, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

1. Nose Landing Gear:

- | | | |
|-----|----------------------------|---------------|
| (a) | Main Fitting/Drag Stay Pin | P/N 200811721 |
| (b) | Drag Brace Pivot Pins | P/N 200814601 |

2. Left and Right Main Landing Gear:

- | | | |
|-----|------------|------------|
| (a) | Pintle Pin | P/N 6324-1 |
|-----|------------|------------|

Addition of serial numbers and part numbers in accordance with Revision 02 of Bombardier SB 601-0546, dated 29 October 2007, also satisfies the requirement of paragraphs G. 1(a) and G. 2(a) of this directive.

- H. At the compliance times applicable in paragraphs F and G, if the part does not have a serial number and the Cycles Since New (CSN) have not been tracked, the number of landings on such part are to be established as follows:

Use Appendix 1 of Bombardier SB 601-0546, Revision 03, dated 09 May 2011, or later revision approved by the Chief, Continuing Airworthiness, Transport Canada, to calculate the number of landings.

Use of Bombardier Service Bulletin Information Sheet of Bombardier SB 604-32-014, dated 06 July 2010, to calculate the number of landings also satisfies the requirements of paragraph H of this directive.

- I. At the times that paragraphs F, G, and H are complied with, amend the aeroplane technical records to incorporate the new part numbers, serial numbers and landings assigned to these parts.

Authorization: For the Minister of Transport, Infrastructure and Communities

ORIGINAL SIGNED BY

David Turnbull
Director, National Aircraft Certification

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