



# 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-2016-24

**Effective Date:**

2 September 2016

**ATA:**

32

**Type Certificate:**

A-234

**Subject:**

Landing Gear – Uncommanded Nose Wheel Steering

**Applicability:**

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers (S/Ns) 20003 to 20383, and 20386.

**Compliance:**

Within 48 months from the effective date of this AD, unless already accomplished.

**Background:**

Several cases of nose wheel steering failures have been reported in service. In one case, the aeroplane experienced uncommanded nose wheel steering, resulting in a runway excursion.

Investigations found the presence of moisture inside the electrical stage of the electro-hydraulic servo valve (EHSV) unit, which resulted in low insulation resistance and corrosion. This condition, in combination with a steering selector valve failure, could result in uncommanded nose wheel steering, which could lead to a runway excursion at high speed.

This AD mandates the replacement of the steering manifold to provide better moisture ingress protection of the EHSV.

**Corrective Actions:**

Replace the steering manifold, part number (P/N) 40750-101, with the new design steering manifold, P/N 40750-103. Bombardier Service Bulletin (SB) 100-32-25, Revision 1, dated 30 June 2015, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, provides approved instructions for replacing the steering manifold.

Incorporation of the Basic Issue of the above-mentioned SB, dated 24 September 2014, also meets the requirements of this AD.

As of the effective date of this AD, no person shall permit the installation of a steering manifold P/N 40750-101 on the nose landing gear assembly of BD-100-1A10 aeroplanes.

**Authorization:**

For the Minister of Transport,

ORIGINAL SIGNED BY

Philip Tang  
Acting Chief, Continuing Airworthiness  
Issued on 19 August 2016

**Contact:**

Daniel Gosselin, Continuing Airworthiness, Ottawa, telephone 613-773-8229, facsimile 613-996-9178 or e-mail [AD-CN@tc.gc.ca](mailto:AD-CN@tc.gc.ca) or any Transport Canada Centre.