



# AIRWORTHINESS DIRECTIVE

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*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-2018-01

**Effective Date:**

24 January 2018

**ATA:**

32

**Type Certificate:**

A-142

**Subject:**

Landing Gear – Nose Landing Gear Drag Strut Lock Link Wear

**Applicability:**

Bombardier Inc. model DHC-8-400, -401 and -402 aeroplanes, serial numbers 4001 and subsequent.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

A landing incident took place whereby the aeroplane's nose landing gear (NLG) was locked in a partially-extended position, leading to gear collapse upon NLG touch down. The investigation revealed that the NLG was locked in this position due to the bushings on the lock link of the NLG locking mechanism becoming loose. This condition was present due to insufficient interference fit which resulted in some bushing outer diameter wear and fretting. A dislodged bushing will also cause the bushing sealant to break. Broken sealant allows moisture ingress and corrosion that can accelerate free play buildup. Excessive free play at the lock link can result in the inability to fully retract or deploy the NLG, resulting in a risk of NLG collapse on landing.

Bombardier Inc. has developed an inspection to identify and correct this condition. This AD requires a repetitive inspection and corrective actions based on the inspection findings.

**Corrective Actions:**

1. Inspect, and if necessary repair or replace before further flight, the NLG lower lock link in accordance with the accomplishment instructions of Bombardier Inc. Service Bulletin (SB) 84-32-153, dated 22 September 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. Initial compliance is required as follows:
  - a. For aeroplanes with NLG lower lock links that have accumulated 7200 total flight cycles or less as of the effective date of this AD, comply with paragraph 1 before accumulating 8000 total flight cycles.
  - b. For aeroplanes with NLG lower lock links that have accumulated more than 7200 total flight cycles as of the effective date of this AD, comply with paragraph 1 within 800 flight cycles.
3. Thereafter, repeat the inspection in accordance with paragraph 1 at intervals not to exceed 1600 flight cycles on the NLG lower lock link.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Rémy Knoerr  
Chief, Continuing Airworthiness  
Issued on 10 January 2018

**Contact:**

Daniel Gosselin, Continuing Airworthiness, Ottawa, telephone 1-888-663-3639, facsimile 613-996-9178 or e-mail [AD-CN@tc.gc.ca](mailto:AD-CN@tc.gc.ca) or any Transport Canada Centre.