



# 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-2016-11R2

**Effective Date:**

1 November 2017

**ATA:**

27

**Type Certificate:**

H-107

**Subject:**

Flight Controls - Corrosion of Bellcrank Pivot Bearings

**Revision:**

Supersedes AD CF-2016-11R1, dated 21 September 2016.

**Applicability:**

Bell Helicopter Textron Canada Limited (BHTC) model 429 helicopters equipped with bellcrank part numbers (P/Ns) 429-001-523-101, 429-001-523-103, 429-001-532-101 or 429-001-532-103.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

In service reports showed that bearings in the roof-mounted flight control bellcranks are adversely affected by precipitation. Pooling can occur at the forward portion of the roof structure providing a source of contamination for bearings in the roof-mounted flight controls. Precipitations may reduce the effectiveness of the grease in the bearings, allowing corrosion to occur and resulting in intermittent restrictions such as binding and roughness in the flight controls.

An undetected corroded bearing could lead to restrictions in the collective, directional or pitch control systems resulting in difficulty controlling the helicopter.

Revision 1 of this AD limited the applicability to specific part numbers, and provided compliance time instructions for helicopters that had previously been inspected per the BHTC Alert Service Bulletin (ASB). No retroactive action was required for helicopters inspected in accordance with the original issue of this AD.

Revision 2 of this AD mandates compliance with Revision B of BHTC ASB 429-15-21. That revision of the ASB removes the alternate procedure of using a hydraulic test stand to perform functional checks. Field reports indicate that the hydraulic power used in the alternate procedure could reduce the chance of detecting a damaged bearing.

This AD is considered an interim action and further AD action may follow.

**Corrective Actions:**

**Part I – Initial Inspection**

1. Within 12 months of the helicopter manufacture date, perform a functional check of the flight controls and replace, as applicable, discrepant bearings in accordance with BHTC ASB 429-15-21 Revision B, dated 11 May 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

2. Inspection performed in accordance with the original issue or Revision A of BHTC ASB 429-15-21 prior to the effective date of this AD also meets the requirements of Part I of this AD.
3. For helicopters that have exceeded the age threshold specified above, this action must be completed within 30 days of the effective date of this AD.

**Part II – Recurring inspection**

1. Subsequently, at intervals not exceeding 6 months, repeat the actions specified in Part I of this AD.
2. If the most recent functional check of the helicopter was performed with the alternate procedure of using a hydraulic test stand, or if it is not known what method was used to perform the functional check, within 30 days of the effective date of this AD, perform a functional check of the flight controls and replace, as applicable, discrepant bearings in accordance with BHTC ASB 429-15-21 Revision B, dated 11 May 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Robert Farinas  
Acting Chief, Continuing Airworthiness  
Issued on 18 October 2017

**Contact:**

Ross McGowan, 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.