



# 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-2019-28

**Effective Date:**

8 August 2019

**ATA:**

27

**Type Certificate:**

H-112

**Subject:**

Flight Controls – Swashplate Assembly – Improperly Staked Bearings

**Applicability:**

Bell Helicopter Textron Canada Limited (BHTCL) model 505 helicopters, serial number 65011 through 65211.

**Compliance:**

Within 20 hours air time or 20 days, whichever occurs first, from the effective date of this AD, unless already accomplished.

**Background:**

An in-service report showed that a bearing migrated out of the swashplate inner ring. It was determined that bearings in the swashplate assembly might not have been staked as required. An investigation revealed that, although the inspection witness mark was applied to the part, the bearing had not been staked during manufacturing. An un-staked bearing, which has migrated out of its bore, may lead to restriction of the swashplate's movement as a result of contact or binding between the control tube clevis and the bearing housing. This contact or binding may restrict control authority and may also introduce unintended loads into the control system causing a failure of the control tube and/or bearing. This situation, if not corrected, could lead to loss of control of the helicopter.

This AD mandates a one-time inspection of all five (5) swashplate assembly bearings for proper staking and rectification, as required, of the affected parts.

**Corrective Actions:**

- A. Identify the serial number of the installed swashplate assembly, part number 206-010-450-123, to determine if it is an affected swashplate assembly listed in Table 1 of BHTCL Alert Service Bulletin (ASB) 505-19-13, Basic Issue, dated 2 July 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
- B. For an affected swashplate assembly, perform a one-time inspection of the bearings in all five (5) locations for proper staking, and rectify any improperly staked bearing, before further flight, in accordance with BHTCL ASB 505-19-13, Basic Issue, dated 2 July 2019, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

**Authorization:**

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr

Chief, Continuing Airworthiness

Issued on 25 July 2019

**Contact:**

Audrey Vézina-Manzo, Continuing Airworthiness, Ottawa, telephone 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.