



EMERGENCY 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) with ADs.

Number:

CF-2024-03

Effective Date:

29 January 2024

ATA:

55

Type Certificate:

H-112

Subject:

Empennage Structure – Vertical Stabilizer Top End Cap Assembly Cracking

Applicability:

Bell Textron Canada Limited (BTCL) model 505 helicopters, serial numbers 65011 and subsequent.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been multiple occurrences of the vertical stabilizer top end cap assembly being found cracked, with some cases including the departure of the NAV/VOR/GS antenna and tuning weight from the helicopter during flight. Detailed investigation has identified that the stabilizer top end cap assembly was not designed for the full fatigue spectrum.

The investigation has determined that if no corrective actions are implemented, there is potential for the antenna and tuning weight to depart which could impact and damage the tail rotor, resulting in the loss of directional control of the helicopter.

This AD mandates an initial inspection, instructions for the replacement of the vertical stabilizer top end cap if required, and a recurring inspection of the top end cap for cracks.

The corrective actions contained in this AD are interim actions until a permanent solution can be made available for the fleet.

Corrective Actions:

1. Within 10 hours air time from the effective date of this AD, accomplish a one-time detailed visual inspection of the vertical stabilizer top end cap assembly in accordance with the Accomplishment Instructions in Part I of BTCL Alert Service Bulletin (ASB) 505-24-38, Initial Release, dated 24 January 2024 or later revisions approved by Chief, Continuing Airworthiness, Transport Canada.
2. If a crack is found when accomplishing corrective action 1 above or 3 below, before further flight, replace the cracked top end cap assembly in accordance with the Accomplishment Instructions in Part II of the above-noted BTCL ASB.
3. Perform recurring detailed visual inspections of the vertical stabilizer top end cap assembly at intervals not greater than 25 hours air time following the accomplishment of corrective actions 1 or 2 above, in accordance with the Accomplishment Instructions in Part III of the above-noted BTCL ASB.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 25 January 2024

Contact:

Grant Walker, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.

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