



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-2017-03

Effective Date:

31 January 2017

ATA:

55

Type Certificate:

H-103

Subject:

Empennage Structure – Cracked Vertical Fin Skins

Applicability:

Bell Helicopter Textron Canada Limited (BHTC) model 427 helicopters equipped with vertical fin part numbers (P/Ns) 427-035-840-105 or 427-035-840-109.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been three reports of cracked vertical fin skins. Evaluation of the cracked parts led to the conclusion that the cracks were the result of metal fatigue. BHTC has published Alert Service Bulletin (ASB) 427-15-38 Revision A that provides instructions for the inspection of the vertical fin and specifies a repetitive inspection to detect cracking. This inspection has been added to the Airworthiness Limitations Schedule (ALS) for the model 427 helicopter.

A crack that is not detected may grow to a critical length causing the fin to experience structural failure, separate from the helicopter and damage the main or tail rotor blades, leading to their in-flight failure. Loss of the fin may also adversely affect directional stability of the helicopter leading to loss of directional control.

Corrective Actions:

Part I - Initial inspection

Using the following schedule, inspect the vertical fins in accordance with Part II of BHTC ASB 427-15-38 Revision A dated 14 November 2016 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada. If a crack is detected, replace the vertical fin before further flight. If a defect other than a crack is detected, before further flight, contact Bell Helicopter Product Support Engineering for instructions.

A. For helicopters that have accumulated less than 1500 hours air time as of the effective date of this AD, accomplish the inspection within 25 hours air time as of the effective date of this AD or when the helicopter has accumulated 1500 hours air time, whichever occurs later.

B. For helicopters that have accumulated 1500 hours or more air time as of the effective date of this AD, accomplish the inspection within 25 hours air time as of the effective date of this AD.

Inspections performed in accordance with the original issue of BHTC ASB 427-15-38 also meet the requirements of Part I of this AD.

Part II – Recurring inspection

Subsequently, repeat the inspection specified in Part II of BHTC ASB 427-15-38 Revision A dated 14 November 2016 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada at the interval specified in the model 427 ALS contained in Chapter 4 of the Maintenance Manual BHT-427-MM.

Part III - Spares affected

As of the effective date of this AD, it is prohibited for anyone to install a vertical fin P/N 427-035-840-105 or 427-035-840-109 that has accumulated more than 1500 hours air time unless the vertical fin has been inspected in accordance with this AD and been found to be free of cracks.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 17 January 2017

Contact:

Ross McGowan, Continuing Airworthiness, Ottawa, telephone 1-888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.