



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-2023-63

Effective Date:

19 August 2023

ATA:

64

Type Certificate:

H-92

Subject:

Tail Rotor Blade – Missing Adhesive between Upper Skin and Core

Applicability:

Bell Textron Canada Limited (Bell) model 407 helicopters, serial numbers 53000 through 53900, 53911 through 53999, 54000 through 54166, 54300 through 54800 and 54805 through 54999.

Compliance:

As indicated below, unless already accomplished.

Background:

It was reported to Bell that while manually rotating the tail rotor blade, an operator noted that one of the blades had an abnormal sound. The operator then performed a tap test which indicated a disbanded area of approximately 18 inches by 3 inches.

Bell's investigation revealed that 43 of the tail rotor blades manufactured could potentially have adhesive missing between the upper skin and the core. To address this issue Bell has published Alert Service Bulletin (ASB) 407-23-132 to require a one-time inspection for tail rotor blade skin to core voids and replacement of tail rotor blades found with voids exceeding the limits.

Voids and lack of adhesive between the tail rotor blade skin and core, if not corrected, could result in severe vibration and in extreme cases, subsequent failure of the tail rotor blade and loss of tail rotor control. This AD is issued to mandate the corrective actions of the ASB.

Corrective Actions:

For the purpose of this AD, the following definitions apply:

The applicable ASB: Bell ASB 407-23-132, Basic Issue, dated 14 August 2023.

Affected tail rotor blade: part number (P/N) 406-016-100-119 tail rotor blade having serial numbers listed in Table 1 of Part I of the Accomplishment Instructions of the applicable ASB.

Serviceable tail rotor blade: P/N 406-016-100-119 tail rotor blade that is not an affected tail rotor blade or that is an affected tail rotor blade which has been inspected in accordance with this AD and found without voids exceeding the specified limits.

- A. Within 10 hours air time or 14 days, whichever occurs first, from the effective date of this AD:
1. Determine if an affected tail rotor blade is installed on the helicopter.
 2. If an affected tail rotor blade is installed on the helicopter, inspect the affected tail rotor blade for skin to core voids in accordance with the Accomplishment Instructions of the applicable ASB.

- B. If voids exceeding the limits specified in the applicable ASB are found, prior to further flight, replace the tail rotor blade with a serviceable tail rotor blade.
- C. From the effective date of this AD, only serviceable tail rotor blades are eligible to be used as a replacement part.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 17 August 2023

Contact:

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