



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-2025-16

Effective Date:

31 March 2025

ATA:

67

Type Certificate:

H-107

Subject:

Rotors Flight Control – Stability and Control Augmentation System (SCAS) Actuators Incorrect Lockwire

Applicability:

Bell Textron Canada Limited (Bell) model 429 helicopters, serial numbers 57001 and subsequent with SCAS actuator part numbers (P/N) 429-001-065-107/-109/-111.

Compliance:

As indicated below, unless already accomplished.

Background:

Bell became aware of several instances where the lockwire on a SCAS actuator jam nut (90-117C10L), which has a left-hand thread, was incorrectly installed. The incorrect installation of the lockwire could allow the actuator jam nut to loosen. A loose jam nut would allow the SCAS actuator to rotate about the axis of the tube and completely jam or limit control movement when the body of the actuator interferes with adjacent structure. This condition, if not corrected, could lead to partial or complete loss of control of the helicopter.

Bell has published Alert Service Bulletin (ASB) 429-23-61, Revision A, dated 26 September 2023, incorporating a one-time inspection of the SCAS actuators for proper installation of lockwire on the jam nut and, if the lockwire is improperly installed, the removal and replacement of the lockwire. 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 429-23-61 Revision A, dated 26 September 2023, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Affected actuator assembly: actuator assembly with P/N 429-001-065-107/-109/-111 having a date code of 04/23 or prior on either of the two actuator bodies.

- A. Applicable to helicopter serial numbers 57001 through 57468, within 100 hours air time or 3 months, whichever occurs first, from the effective date of this AD:
 - 1. Inspect the cyclic longitudinal, cyclic lateral, and directional SCAS actuator assemblies for proper installation of lockwire on the jam nut, in accordance with the accomplishment instructions in the applicable ASB;
 - 2. Before further flight, correct any deficiencies in accordance with the accomplishment instructions in the applicable ASB.

- B. Applicable to helicopter serial numbers 57001 and subsequent, as of the effective date of this AD, it is prohibited to install an affected actuator assembly unless it meets one of the following conditions:
1. The correct installation of the jam nut lockwire has been confirmed in accordance with the accomplishment instructions in the applicable ASB; or,
 2. The installation of the lockwire has been corrected in accordance with the accomplishment instructions in the applicable ASB.
- C. Accomplishment of the corrective actions mandated in this AD, in accordance with the original release of Bell ASB 429-23-61, dated 27 March 2023, prior to the effective date of this AD, satisfies the requirements of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Craig McAllister
Acting Chief, Continuing Airworthiness
Issued on 17 March 2025

Contact:

Ryan Anderson, 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.