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-2025-22

Effective Date:

7 May 2025

ATA:

23

Type Certificate:

H-92

Subject:

Communication – Electrical harness chafing condition

Applicability:

Bell Textron Canada Limited (BTCL) Model 407 helicopters, serial numbers 54300 through 54752, 54805 through 54999, and 56300 through 56366 and 56368

Compliance:

As indicated below, unless already accomplished.

Background:

BTCL was made aware of the possibility for an electrical harness to chafe at various locations in the aircraft instrument panel. Chafing can occur between the Primary Flight Display (PFD)/Multi-Function Display (MFD) harnesses and the Cable Harness Protection System (CHiPS) rack, and between the electrical harnesses and the shroud behind the instrument panel area.

This AD is issued to inspect and correct any chafing conditions as it has been identified to initiate smoke or fire in the cockpit leading to an unsafe condition.

Corrective Actions:

For the purpose of this AD, the following definition applies:

Applicable SB: BTCL Alert Service Bulletin (ASB) 407-23-129 Revision A, or later revisions approved by Chief, Continuing Airworthiness, Transport Canada

Within 100 hours air time or 90 days from the effective date of this AD, whichever occurs first,

1. Conduct a detailed visual inspection (DVI) of the electrical harnesses behind the instrument panel area for chafing in accordance with the accomplishment instructions in the applicable SB.
2. For helicopter serial numbers 54300 through 54696 without a sleeve installed on the wire bundle in the flexible chain link conduit of CHiPS rack, install a sleeve to cover the wire bundle into the flexible chain link conduit for both CHiPS rack as per the accomplishment instructions in the applicable SB.
3. Rotate the lower GEA backshell cast housing of connectors as per accomplishment instructions in the applicable SB.
4. Install wire harness bracket and support as per the accomplishment instructions in the applicable SB
5. If damaged wires/bundles are found per corrective action 1 above, before further flight, repair the damaged wires/bundles and correct the source of the chafing in accordance with the accomplishment instructions in the applicable SB.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 23 April 2025

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.