

Airworthiness Directive

AD No.: 2021-0163

Issued: 07 July 2021

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

BELL TEXTRON Inc.

Type/Model designation(s):

212 and 412 helicopters

Effective Date: 21 July 2021

TCDS Number(s): EASA.IM.R.106

Foreign AD: Federal Aviation Administration (FAA) AD 2019-09-02, which superseded FAA AD 2018-17-01.

Supersedure: None

ATA 28 / 79 – Fuel / Oil – Check Valves – Inspection / Replacement
Manufacturer(s):

Bell Textron Inc. (Bell), formerly Bell Helicopter Textron Inc., Bell Helicopters Inc.

Applicability:

212, 412 and 412EP helicopters, all serial numbers (s/n).

Definitions:

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

The applicable ASB: Bell ASB 212-20-163 Revision B (oil check valve), ASB 212-20-164 Revision B (fuel check valve), ASB 412-20-182 Revision B (oil check valve) and ASB 412-20-183 Revision C (fuel check valve), as applicable.

Affected part(s): Oil check valves, having Part Number (P/N) 209-062-520-001 (older valves may indicate P/N 209-062-520-1), and fuel check valves, having P/N 209-062-607-001 (or P/N 209-062-607-1), manufactured by Circor Aerospace (marked "Circle Seal"), which exceed the dimensions specified in Part I of the applicable ASB, except those which have a "TQL" marking (identifying the use of the correct torque level).

Serviceable part: Any oil or fuel check valve, eligible for installation, which is not an affected part.

Groups: Group 1 helicopters are those that have an affected part installed.
Group 2 helicopters are those that do not have an affected part installed.

Reason:

An occurrence was reported where, due to the application of an incorrect torque level during the assembly process, certain oil and fuel check valves are susceptible to cracking, which may lead to fuel or oil leakage.

This condition, if not detected and corrected, could lead to a lack of engine lubrication and/or loss of fuel supply to the engine, possibly resulting in uncommanded engine in-flight shut-down or fire and subsequent loss of control of the helicopter.

Previously, FAA issued AD 2019-09-02 to require removal from service of certain affected parts, as defined in this AD, having a manufacturing date between October 2011 and March 2015 inclusive. That AD was adopted by EASA.

Since that AD was issued, it has been determined that affected parts manufactured before October 2011 may also be susceptible to cracking. Consequently, Bell has published the applicable ASB, as defined in this AD, to provide inspection instructions for all affected parts with a manufacturing date up to March 2015 inclusive.

At this time, it is not known whether (or when) the FAA, representing the State of Design for the affected helicopters, will take new AD action, possibly superseding AD 2019-09-02, to address the expanded batch of affected parts.

For the reasons described above, this AD requires repetitive inspections and replacement of any affected parts found cracked, and removal from service of affected parts. This AD also prohibits (re)installation of affected parts.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Within 25 flight hours (FH) or 30 days, whichever occurs first after the effective date of this AD, inspect the helicopter in accordance with the instructions of Part I of the applicable ASB to determine if the helicopter is Group 1 or Group 2, as defined in this AD.
- (2) For Group 1 helicopters: Before next flight after the inspection as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 25 FH or 30 days, whichever occurs first, inspect each affected part in accordance with the instructions of Part II of the applicable ASB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (2) of this AD, any crack is found on an affected part, as identified in the applicable ASB, before next flight, replace that affected part with a serviceable part in accordance with the instructions of Part III of the applicable ASB.



Replacement:

- (4) For Group 1 helicopters: Within 600 FH or 12 months, whichever occurs first after the inspection as required by paragraph (1) of this AD, replace each affected part with a serviceable part in accordance with the instructions of Part III of the applicable ASB.

Terminating Action:

- (5) Replacement on a helicopter of each affected part with a serviceable part, as required by paragraph (3) or (4) of this AD, as applicable, constitutes terminating action for the repetitive inspections as required by paragraph (2) of this AD for that helicopter.

Part(s) Installation:

- (6) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install an affected part on any helicopter.

Ref. Publications:

Bell ASB 212-20-163 Revision B dated 06 April 2021.

Bell ASB 212-20-164 Revision B dated 06 April 2021.

Bell ASB 412-20-182 Revision B dated 06 April 2021.

Bell ASB 412-20-183 Revision C dated 06 April 2021.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Bell Textron Inc., Bell Product Support Engineering
Tel.: +1-450-437-2862 or +1-800-363-8023
E-mail: productsupport@bellflight.com.

