



Airworthiness Directive

AD No.: 2024-0212

Issued: 13 November 2024

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

LEONARDO S.p.A.

Type/Model designation(s):

AB412 helicopters

Effective Date: 27 November 2024

TCDS Number(s): EASA.R.114

Foreign AD: Not applicable

Supersedure: None

ATA – Rotorcraft Flight Manual – Normal Procedures – Amendment

Manufacturer(s):

AgustaWestland S.p.A., formerly Agusta S.p.A., Agusta un'azienda di Finmeccanica S.p.A.,
Costruzioni Aeronautiche Giovanni Agusta

Applicability:

AB412 and AB412EP helicopters, all serial numbers (s/n).

Definitions:

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

The SB: Leonardo Service Bulletin (SB) 412-163.

Reason:

Occurrences of cracked main gearbox (MGB) support case have been reported on Bell Textron Inc. (BTI) Model 412 helicopters.

BTI has investigated and found situations where the pilot reported rapid buildup of one-per-rev vertical vibration associated with a large steady state forward cyclic displacement in combination with collective input while at 100%/103% revolutions per minute (RPM) with any part of the skid gear in contact with the ground.



This condition, if not corrected, could lead to structural failure of the MGB support case and subsequent reduced control of the helicopter.

Consequently, BTI issued amended rotorcraft flight manual (RFM) procedures and the Federal Aviation Administration (FAA) issued AD 2020-22-07 to require amendment of the applicable RFM for BTI Model 412 helicopters.

Due to similarity of design, AB412 helicopters could also be affected by this potential unsafe condition. To address this, Leonardo published the SB, as defined in this AD, providing updated RFM normal procedures.

For the reason described above, this AD requires amendment of the RFM.

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

Required as indicated by this AD, unless the actions required by this AD have been already accomplished:

RFM Amendment:

- (1) Within 7 days after the effective date of this AD, amend the applicable RFM – normal procedures in accordance with the instructions of the SB, inform all flight crews and, thereafter, operate the helicopter accordingly.
- (2) Amendment of the RFM of a helicopter by implementation of any RFM revision that incorporates the same content as defined in the SB is an acceptable method to comply with the RFM amendment required by paragraph (1) of this AD for that helicopter.

Ref. Publications:

Leonardo SB Leonardo SB 412-163 original issue dated 27 January 2021.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

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. All interested persons may send their comments, referencing the AD Number, to the E-mail address specified in below Remark 3, prior to 11 December 2024. Only if any comment is received during the consultation period, a Comment Response Document will be published in the EASA Safety Publications Tool, in a compressed ('zipped') file, attached to the record for this AD.
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: Leonardo S.p.A. Helicopters, Customer Support & Services, Product Support Engineering, E-mail: absereng.aw@leonardo.com.

