

Airworthiness Directive

AD No.: 2022-0258

Issued: 20 December 2022

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):

AB212 and AB412 helicopters

Effective Date: 03 January 2023

TCDS Number(s): EASA.R.114

Foreign AD: Not applicable

Supersedure: None

ATA 63 – Main Rotor Drive – Main Transmission Support Case – Inspection / Replacement

Manufacturer(s):

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

Applicability:

AB212, AB412 and AB412EP helicopters, all serial numbers (s/n).

Definitions:

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

Groups:

- Group 1: AB412 helicopters up to s/n 25669 inclusive.
- Group 2: AB412 helicopters, s/n 25801 and higher; and AB412EP helicopters, all s/n.
- Group 3: AB212 helicopters, all s/n.
- Group 4: Group 1 helicopters with a main transmission installed that has accumulated 6 000 total hours' time in service (TIS) or more.
- Group 5: Group 1 helicopters with a main transmission installed that has accumulated less than 6 000 total hours' TIS.

Group 6: Group 2 and 3 helicopters with a main transmission installed that has accumulated 5 000 total hours' TIS or more.

Group 7: Group 2 and 3 helicopters with a main transmission installed that has accumulated less than 5 000 total hours' TIS.

The CR&O: Bell Textron Inc. (BTI) Component Repair and Overhaul Manual (CR&O) BHT-412-CR&O Chapter 63, paragraph 63-57, steps 3-6 (Groups 1 and 2), or step 1 (Groups 4, 5, 6 and 7); or BTI CR&O BHT-212-CR&O Chapter 63, paragraph 63-49, steps 8-11 (Group 3), or step 4 (Groups 6 and 7), as applicable, depending on helicopter model and Group. For the repairs as required in this AD, refer to BTI CR&O BHT-412-CR&O Chapter 63, paragraph 63-58, steps 6-8 or BTI CR&O BHT-212-CR&O Chapter 63, paragraph 63-50, steps 11-13.

Reason:

Occurrences have been reported of finding cracks on the lateral mounts of the main transmission support case. Such cracking is usually caused by excessive corrosion of the surface under the washer and originates from a washer attachment screw threaded hole. Cracking can occur at the upper or lower surfaces of the lateral mount.

This condition, if not detected and corrected, could lead to loss of load carrying capabilities of the main transmission, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, BTI published the CR&O to provide inspection instructions.

For the reason described above, this AD requires repetitive visual inspections and fluorescent penetrant inspection (FPI) of the main transmission support case and, depending on findings, replacement.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Within the compliance time and, thereafter, at intervals as specified in Table 1 of this AD, accomplish a visual inspection of the main transmission support case in accordance with the instructions of the CR&O.

Table 1 – Initial and Repetitive Visual Inspections (see Note 1 of this AD)

Helicopter	Compliance Time (after the effective date of this AD)	Interval
Group 1	Within 3 100 hours TIS	3 100 hours TIS
Group 2	Within 2 500 hours TIS	2 500 hours TIS
Group 3	Within 3 000 hours TIS	3 000 hours TIS

Note 1: The hours TIS as specified in Table 1 and Table 2 of this AD are those accumulated by the main transmission.



- (2) Within the compliance time and, thereafter, at intervals as specified in Table 2 of this AD, accomplish a FPI of the main transmission support case in accordance with the instructions of the CR&O.

Table 2 – Initial and Repetitive FPI (see Note 1 of this AD)

Helicopter	Compliance Time	Interval
Group 4	Before exceeding 300 hours TIS after the effective date of this AD	6 000 hours TIS
Group 5	Before exceeding 6 300 total hours TIS	6 000 hours TIS
Group 6	Before exceeding 300 hours TIS after the effective date of this AD	5 000 hours TIS
Group 7	Before exceeding 5 300 total hours TIS	5 000 hours TIS

Corrective Action(s):

- (3) For Group 1, Group 2 and Group 3 helicopters: If, during any inspection as required by paragraph (1) of this AD, any corrosion, pitting, thread damage or mechanical damage is found on any inspected component which is outside the acceptable limits defined in the CR&O, before next flight, replace that component in accordance with the instructions of the CR&O.
- (4) For Group 1, Group 2 and Group 3 helicopters: If, during any inspection as required by paragraph (1) of this AD, any corrosion, pitting, thread damage or mechanical damage is found on any inspected component which is within the acceptable limits defined in the CR&O, before next flight, repair or replace that component in accordance with the instructions of the CR&O.
- (5) For Group 4, Group 5, Group 6 and Group 7 helicopters: If, during any inspection as required by paragraph (2) of this AD, any crack is found on the main transmission support case, before next flight, replace the main transmission support case in accordance with the instructions of the CR&O.

Terminating Action:

- (6) None.

Ref. Publications:

Bell Textron Inc. CR&O BHT-412-CR&O Revision 12 dated 27 February 2020, or Revision 13 dated 12 January 2021.

Bell Textron Inc. CR&O BHT-212-CR&O Revision 12 dated 15 June 2020, or Revision 13 dated 12 January 2021.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.



2. This AD was posted on 01 December 2022 as PAD 22-162 for consultation until 15 December 2022. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the 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@leonardocompany.com.

