



Airworthiness Directive

AD No.: 2022-0046

Issued: 17 March 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, 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: 24 March 2022

TCDS Number(s): EASA.R.114

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2022-0035 dated 07 March 2022.

ATA 53 – Fuselage – Tailboom Attachment – 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.

Definitions:

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

The ASB: Leonardo Alert Service Bulletin (ASB) 212-215 or ASB 412-170, as applicable.

Serviceable part: A tailboom attachment bolt or barrel nut, eligible for installation, that is new (never previously installed on a helicopter).

Reason:

Reports have been received of cracked tailboom attachment barrel nuts. The root cause for cracking could not be conclusively determined, but corrosion damage, high time in service and hydrogen embrittlement may be contributing factors. In addition, two recent reports of in-flight upper left-hand (LH) tailboom attachment bolt fracture have been investigated. In both cases, the fracture has been attributed to fatigue and low torque.



This condition, if not detected and corrected, could lead to fracture of one or more tailboom attachment bolts, possibly resulting in failure of the tailboom attachment and subsequent loss of control of the helicopter.

To address this potential unsafe condition, Leonardo published the ASB, as defined in this AD, providing inspection and replacement instructions, and EASA issued AD 2022-0035 to require a one-time inspection and/or replacement of the affected bolts and barrel nuts, and recurrent torque checks with associated corrective actions.

Since that AD was issued, it was determined that the list of tailboom attachment bolt Part Numbers (P/N) in AD 2022-0035 was incomplete.

For the reason described above, this AD retains the requirements of EASA AD 2022-0035, which is superseded, and, by removing reference to specific P/N, requires action on any tailboom attachment bolt and barrel nut installed on the helicopter.

This AD is still considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Note: Replacement of the upper LH tailboom attachment bolt, inspection of the three remaining bolts and a subsequent torque check of the four tailboom attachment bolts, accomplished as required by AD 2022-0035, are acceptable to comply with the requirements of this AD.

Inspection / Replacement:

- (1) Within the compliance time as specified in Table 1 of this AD, as applicable, replace the upper LH tailboom attachment bolt with a serviceable bolt, inspect the upper right-hand (RH), lower LH and lower RH tailboom attachment bolts and inspect all four barrel nuts for corrosion and damage in accordance with the instructions of Part I of the ASB.

Table 1 – Inspection / Replacement

Affected Part(s)	Compliance Time
Tailboom attachment bolts P/N NAS626-24, P/N NAS628-26 and P/N NAS629-24, and barrel nuts P/N NAS577B9A, P/N NAS577B8A or P/N NAS577B6A.	Within 25 flight hours (FH) or 3 months, whichever occurs first after 14 March 2022 [the effective date of EASA AD 2022-0035]
Tailboom attachment bolts and barrel nuts having any other P/N	Within 25 FH or 3 months, whichever occurs first after the effective date of this AD

- (2) If, during the inspection as required by paragraph (1) of this AD, any corrosion or damage, as defined in the ASB, is found on a bolt or on its barrel nut, before next flight, replace that bolt and/or barrel nut, as applicable, with a serviceable part in accordance with the instructions of Part I of the ASB.



Torque Checks:

- (3) From the effective date of this AD, within 5 FH, but not before accumulating 1 FH, after each replacement of a tailboom attachment bolt or after tailboom installation, accomplish a torque check of the four tailboom attachment bolts in accordance with the instructions of Part II of the ASB.

Corrective Action:

- (4) If, during any torque check as required by paragraph (3) of this AD, incorrect torque value is measured on a bolt, repeat the torque check up to three times at intervals not exceeding 5 FH, but not before accumulating 1 FH after the previous torque check, to determine if the torque stabilizes.
- (5) If, after the torque checks as specified in paragraph (4) of this AD, any discrepancy is detected, as defined in the ASB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of Part II of the ASB.

Ref. Publications:

Leonardo S.p.A. ASB 212-215 original issue dated 01 March 2022.

Leonardo S.p.A. ASB 412-170 original issue dated 01 March 2022.

The use of later approved revisions of the above-mentioned documents 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.
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 & Licenses DPT, Via Giovanni Agusta 520, 21017 Cascina Costa di Samarate (VA) – Italy, Tel.: +39 0331 711429, Fax: +39 0331 915145, E-mail: absereng.AW@leonardocompany.com.

