

Emergency Airworthiness DirectiveAD No.:2022-0169-EIssued:12 August 2022

Note: This Emergency 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: AIRBUS HELICOPTERS

Effective Date: 16 August 2022

TCDS Number(s): EASA.R.125

Foreign AD: Not applicable

Supersedure: None

Type/Model designation(s) SA 341 G and SA 342 J belicopters

ATA 64 – Tail Rotor – Tail Rotor Blades – Inspection/Replacement

Manufacturer(s):

Eurocopter, Eurocopter France, Aerospatiale, Sud Aviation

Applicability:

SA 341 G and SA 342 (Gazelle) helicopters, all serial numbers (s/n).

Definitions:

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

Affected part: Tail rotor blades (TRB), having Part Number (P/N) 341A33-5130-04 or P/N 341A33-5130-06.

Serviceable part: TRB that is not an affected part and that is eligible for installation on the helicopter; or an affected TRB that, prior to installation, has passed (no defect found) the inspection(s) in accordance with the instructions of the ASB; or a new TRB (not previously installed) delivered after 04 August 2022 [the date of issue of the ASB].

The ASB: Airbus Helicopters (AH) Emergency Alert Service Bulletin (ASB) SA341 65.71 and ASB SA342 65.71 (published as a single document, also ref. No. ASB GAZ-65.71).



Reason:

An occurrence was reported about manufacturing defects found on several TRBs. Visual inspection of an additional number (representative sampling) of TRBs, coming from different batches, and further analysis revealed visual linear indications on approximately 75% of the TRBs, positioned at the aerofoil connection radius and perpendicular to the grain flow direction. The results of followup dye penetrant inspections confirmed up to 20 % of the TRB population to be discrepant and therefore having a high risk for crack propagation.

This condition, if not detected and corrected, could lead to an (in-flight) TRB loss, possibly resulting in unbalance and/or damage of the tail or other parts of the helicopter, with consequent potential loss of control of the helicopter.

To address this potential unsafe condition, AH issued the ASB, as defined in this AD, providing instructions to inspect and replace the affected parts.

For the reasons described above, this AD requires a one-time inspection of the affected parts and, depending on findings, accomplishment of applicable corrective action(s). In addition, this AD allows one ferry flight, and prohibits the installation of affected parts.

Pending further results of the still on-going investigation of the root cause of the forging process defect and considering that AH is not yet capable to confirm whether the determined discrepancy is limited to a certain population of TRBs, this AD is considered an immediate protective measure and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) Before next flight after the effective date of this AD, accomplish a visual check of the root area of each affected part, as defined in this AD, in accordance with the instructions of the ASB. TRBs which, at the effective date of this AD, accumulated more than 500 flight hours (FH) since new are exempt and do not need to be inspected.
- (2) If, during the inspection as required by paragraph (1) of this AD, a linear indication is found, before next flight, accomplish a dye penetrant inspection of the root area of each discrepant part in accordance with the instructions of the ASB.

Replacement:

- (3) If, during the inspection as required by paragraph (2) of this AD, a linear indication is found, before next flight, replace the affected part with a serviceable part, as defined in this AD, in accordance with the instructions of the ASB.
- (4) If, for a certain affected part, the number of FH accumulated since new is unknown, before next flight, replace the affected part with a serviceable part, as defined in this AD.
- (5) If, on the effective date of this AD, an affected helicopter is at a location where the inspection as required by paragraph (2) of this AD and/or the replacement(s) as required by paragraph (3)



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of this AD cannot be accomplished, it is allowed to make one ferry flight without passengers with that helicopter.

Parts Installation:

(6) From the effective date of this AD, do not install on any helicopter an affected part, unless the part has passed (no defect found) the inspection(s) in accordance with the instructions of the ASB.

Ref. Publications:

AH Emergency ASB SA341 65.71 and ASB SA342 65.71 (published as a single document, also ref. No. ASB GAZ-65.71) original issue dated 04 August 2022.

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. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
- 3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: <u>ADs@easa.europa.eu</u>.
- 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 <u>EU aviation safety</u> 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.
- For any question concerning the technical content of the requirements in this AD please contact: Airbus Helicopters (Technical Support) at: Web portal: <u>https://airbusworld.helicopters.airbus.com</u> / Technical Requests Management, or E-mail: <u>TechnicalSupport.Helicopters@airbus.com</u>, or Telephone +33 (0)4.42.85.97.89.

