FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE
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DATE: June 27, 2023
AD #: 2023-13-51

This superseding Emergency Airworthiness Directive (AD) 2023-13-51 is sent to owners and operators of Airbus Helicopters Model SA341G and SA342J helicopters.

Background

The FAA issued AD 2022-19-08, Amendment 39-22177 (87 FR 56865, September 16, 2022) (AD 2022-19-08), for Airbus Helicopters Model SA341G and SA342J helicopters. AD 2022-19-08 was prompted by a report of manufacturing defects on multiple tail rotor blades (TRBs). AD 2022-19-08 required visually inspecting certain part-numbered TRBs for the presence of a linear indication; and depending on the inspection results, fluorescent penetrant inspecting the TRB and further corrective actions if necessary. AD 2022-19-08 also prohibited installing an affected TRB unless certain requirements have been met, as specified in European Union Aviation Safety Agency (EASA) Emergency AD 2022-0169-E, dated August 12, 2022 (EASA AD 2022-0169-E). The FAA issued AD 2022-19-08 to detect linear indications on a TRB, which could result in an in-flight TRB loss, unbalance or damage to the tail or other parts of the helicopter, and subsequent loss of control of the helicopter.

EASA, which is the Technical Agent for the Member States of the European Union, issued EASA AD 2022-0169-E to correct an unsafe condition for Airbus Helicopters Model SA 341 G and SA 342 J (Gazelle) helicopters, all serial numbers. EASA advised that an additional sample of TRBs from different manufacturing batches were visually inspected and further analysis revealed visual linear indications on approximately 75% of the TRBs inspected. EASA further advised that the visual linear indications were positioned at the aerofoil connection radius and perpendicular to the grain flow direction. EASA advised that follow-up dye penetrant inspections confirmed up to 20% of the TRBs were found to be affected and have a high risk for crack propagation. Additionally, EASA advised that the investigation of the root cause of the unsafe condition was still on-going; therefore EASA considered EASA AD 2022-0169-E an immediate protective measure and stated that further action may follow.

Actions Since AD 2022-19-08 was Issued

Since the FAA issued AD 2022-19-08, EASA superseded EASA AD 2022-0169-E with EASA Emergency AD 2023-0128-E, dated June 26, 2023 (EASA AD 2023-0128-E). EASA advises that after EASA AD 2022-0169-E was issued, it was determined that affected parts that have accumulated more than 500 flight hours (FH) since new are also affected. In addition, the defined compliance time for the visual inspection of the root area of each affected part was determined to be too strict. Consequently, Airbus Helicopters revised its service information accordingly. Superseding EASA AD 2023-0128-E retains most of the requirements of EASA AD 2022-0169-E, adds an inspection of affected parts that accumulated more than 500 FH since new, and amends the compliance time for the visual inspection of affected parts. Additionally, EASA advises that EASA AD 2023-0128-E is (still) considered an interim measure and that further AD action may follow. See EASA AD 2023-0128-E for additional background information.

Related Service Information

EASA AD 2023-0128-E requires, before any cleaning of the TRB, using a lamp (1000 lux) to visually inspect the root area of each affected TRB for the presence of any linear indication; and cleaning certain areas of each TRB and repeating the visual inspection of the TRB for a linear indication. Depending on the inspection results, EASA AD 2023-0128-E requires performing a dye penetrant inspection of the root area of a TRB, and if a linear indication is detected, replacing the affected TRB with a serviceable part. Finally, EASA AD 2023-0128-E prohibits installing an affected TRB on any helicopter after its effective date.

Other Related Service Information

The FAA reviewed Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. SA341-65.71 for Model SA341G helicopters and non FAA-type certificated military Model SA341B, C, D, E, F, and H helicopters; and EASB No. SA342-65.71 for Model SA342J helicopters and non FAA-type certified military Model SA342K, L, L1, M, M1, and MA helicopters, each Revision 2 and dated June 19, 2023 (co-published as one document). This service information specifies procedures for visually checking the TRB for presence of a linear indication; cleaning the TRB with a lint free rag and solvent and repeating the visual check; performing a fluorescent penetrant inspection if a linear indication is detected; removing and replacing any affected TRB if necessary; and recording compliance with the service information.

FAA's Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA, its technical representative, has notified the FAA about the unsafe condition described in its emergency AD. The FAA is issuing this emergency AD after evaluating all known relevant information and determining that the unsafe condition described previously is likely to exist or develop on other helicopters of the same type designs.

Emergency AD Requirements

This emergency AD requires accomplishing the actions specified in EASA AD 2023-0128-E, described previously, which is incorporated by reference, except for any differences identified as exceptions in the regulatory text of this emergency AD and except as discussed under "Differences Between this Emergency AD and EASA AD 2023-0128-E."

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, EASA AD 2023-0128-E is incorporated by reference in this FAA emergency AD. This emergency AD, therefore, requires compliance with EASA AD 2023-0128-E in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this emergency AD. Using common terms that are the same as the heading of a particular section in EASA AD 2023-0128-E does not mean that operators need comply only with that section. For example, where the emergency AD requirement refers to "all required actions and compliance times," compliance with this emergency

AD requirement is not limited to the section titled "Required Action(s) and Compliance Time(s)" in EASA AD 2023-0128-E.

Differences Between This Emergency AD and EASA AD 2023-0128-E

Although EASA AD 2023-0128-E does not define the phrase "a linear indication," service information referenced in EASA AD 2023-0128-E defines this phrase as an indication for which the longest dimension is at least three times longer than the smallest one. This emergency AD defines a linear indication as any linear indication perpendicular to the grain direction of the blade that is detected regardless of size. Where EASA AD 2023-0128-E requires performing a dye penetrant inspection, this emergency AD requires a fluorescent penetrant inspection performed by a Level II or Level III inspector certified in the FAA-acceptable standards for nondestructive inspection personnel.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 et seq.) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause," finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this emergency AD to all known U.S. owners and operators of these helicopters. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule because the affected part is critical to the control of a helicopter. In addition, failure of an affected part can cause the part to depart from the helicopter, thereby causing damage to the helicopter and subsequent loss of control of the helicopter. Also, the FAA has no information pertaining to how quickly the condition may propagate to failure. Investigation is still on-going to determine the root cause of the defect and the number of parts affected by the same condition. In light of this, the initial visual inspection must be accomplished within 10 hours time-in-service. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Presentation of the Actual Emergency Airworthiness Directive

The FAA is issuing this emergency airworthiness directive under 49 U.S.C. 106(g), 40113, and 44701 according to the authority delegated to me by the Administrator.

2023-13-51 Airbus Helicopters: Project Identifier MCAI-2023-00784-R.

(a) Effective Date

This emergency airworthiness directive (AD) is effective upon receipt.

(b) Affected ADs

This emergency AD replaces AD 2022-19-08, Amendment 39-22177 (87 FR 56865, September 16, 2022) (AD 2022-19-08).

(c) Applicability

This emergency AD applies to all Airbus Helicopters Model SA341G and SA342J helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

(e) Unsafe Condition

This emergency AD was prompted by a report of manufacturing defects on multiple tail rotor blades (TRBs) and a subsequent determination that TRBs that have accumulated 500 or more hours time-in-service (TIS), and which were not included in AD 2022-19-08, are also affected by the unsafe condition and must perform the required corrective actions. The FAA is issuing this emergency AD to detect linear indications on a TRB. The unsafe condition, if not addressed, could result in an in-flight TRB loss, unbalance or damage to the tail or other parts of the helicopter, and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this emergency AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this emergency AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency Emergency AD 2023-0128-E, dated June 26, 2023 (EASA AD 2023-0128-E).

(h) Exceptions to EASA AD 2023-0128-E

(1) Where EASA AD 2023-0128-E requires compliance in terms of flight hours, this emergency AD requires using hours TIS.

(2) Where EASA AD 2023-0128-E refers to its effective date, this emergency AD requires using the effective date of this emergency AD.

(3) Where EASA AD 2023-0128-E refers to the effective date of EASA AD 2022-0169-E

(dated August 12, 2022), this emergency AD requires using October 3, 2022 (the effective date of AD 2022-19-08).

(4) Where paragraph (2) of EASA AD 2023-0128-E states, "linear indication," for the purposes of this emergency AD, a linear indication is any linear indication perpendicular to the grain direction of the blade that is detected regardless of size.

(5) Where paragraph (2) of EASA AD 2023-0128-E states to "accomplish a dye penetrant inspection of the root area of that discrepant part in accordance with the instructions of the ASB," for this emergency AD replace that text with "perform a fluorescent penetrant inspection (FPI) of the root area of each affected part that has any linear indication (perpendicular to the grain direction of the blade and regardless of size), in accordance with the Accomplishment Instructions, paragraph 3.B.3. of the ASB. This FPI must be accomplished by a Level II or Level III inspector certified in the FAA-acceptable standards for nondestructive inspection personnel."

Note 1 to paragraph (h)(5): Advisory Circular 65-31B contains examples of FAA-acceptable Level II and Level III qualification standards criteria for inspection personnel doing nondestructive test inspections.

(6) Where paragraph (3) of EASA AD 2023-0128-E specifies to replace any affected part having a confirmed linear indication with a serviceable part; instead, for this emergency AD, if as a result of the action required by paragraph (2) of EASA AD 2023-0128-E, there is any linear indication (perpendicular to the grain direction of the blade and regardless of size), before further flight, remove the affected TRB from service and replace it with a serviceable part as defined in EASA AD 2023-0128-E.

(7) Where the service information referenced in EASA AD 2023-0128-E specifies to discard the TRB if a linear indication is detected, this emergency AD requires, before further flight, removing that part from service.

(8) Where the service information referenced in EASA AD 2023-0128-E specifies to use tooling, this emergency AD allows the use of equivalent tooling.

(9) This emergency AD does not adopt the "Remarks" section of EASA AD 2023-0128-E.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2023-0128-E specifies to submit certain information to the manufacturer, this emergency AD does not include that requirement.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this emergency AD, if those actions were performed before the effective date of this emergency AD using AD 2022-19-08.

(k) Special Flight Permits

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the visual inspection or FPI can be performed, provided no passengers are onboard. Special flight permits are prohibited if a linear indication has been detected by an FPI or a visible crack has been detected on a TRB.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this emergency AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (m)(1) of this emergency AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(m) Related Information

(1) For more information about this emergency AD, contact Dan McCully, Aviation Safety Engineer, International Validation Branch, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (404) 474–5548; email william.mccully@faa.gov.

(2) For EASA AD 2023-0128-E, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find the EASA material on the EASA website at https://ad.easa.europa.eu.

(3) For Airbus Helicopters service information identified in this emergency AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at https://www.airbus.com/helicopters/services/technical-support.html. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Issued on June 27, 2023.

Michael Linegang, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.