



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0513; Product Identifier 2019-SW-037-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2018-08-01 for Airbus Helicopters Model EC225LP helicopters. AD 2018-08-01 requires inspecting the control rod attachment yokes (yoke) of certain main rotor rotating swashplates (swashplate). Since the FAA issued AD 2018-08-01, Airbus Helicopters has identified additional swashplate serial numbers affected by the unsafe condition and has established a life limit for the swashplates. This proposed AD would retain the inspection requirements of AD 2018-08-01, expand the applicability, establish a life limit, and add a one-time inspection of stripped yokes. The actions of this proposed AD are intended to address an unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <https://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0513; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Union Aviation Safety Agency (EASA) AD, any comments received and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed rule, contact Airbus Helicopters, 2701 N. 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 FURTHER INFORMATION CONTACT: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101

Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email
Matthew.Fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The FAA also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments received on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments received.

Discussion

The FAA issued AD 2018-08-01, Amendment 39-19254 (83 FR 17617, April 23, 2018) (“AD 2018-08-01”) for Airbus Helicopters Model EC225LP helicopters. AD 2018-08-01 requires, for certain serial-numbered swashplates part number

(P/N) 332A31-3074-00 and P/N 332A31-3074-01, a repetitive visual inspection of the five yokes for a crack and replacing the swashplate if there is a crack in any of the yokes.

AD 2018-08-01 was prompted by EASA AD No. 2017-0191R2, dated December 15, 2017 (EASA AD 2017-0191R2), issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA advised of a finding by Airbus Helicopters that the yoke is susceptible to cracking due to strain aging of the metal. EASA advised that this condition, if not detected and corrected, could lead to structural failure of a yoke, possibly resulting in loss of control of the helicopter.

Actions Since AD 2018-08-01 Was Issued

Since the FAA issued AD 2018-08-01, Airbus Helicopters revised the related service information, Emergency Alert Service Bulletin (EASB) No. 05A051, Revision 1, dated November 16, 2017, to Revision 2, dated February 26, 2019 (EASB 05A051). EASB 05A051 establishes a life limit (also called a service life limit) of 12 years for the swashplate and adds a reporting requirement if there is a crack or corrosion in a yoke.

Thereafter, EASA superseded EASA AD 2017-0191R2 with EASA AD No. 2019-0074, dated March 28, 2019 (EASA AD 2019-0074). EASA advises that additional analysis determined that it is necessary to introduce a new life limit for the affected swashplates. Accordingly, EASA AD 2019-0074 retains the requirements of EASA AD 2017-0191R2 and adds the life limit and the reporting requirement.

Additionally, the FAA issued AD 2018-08-01 to address the unsafe condition of a crack in a swashplate yoke. However, AD 2018-08-01 did not require stripping certain yokes and performing a one-time inspection within 100 hours time-in-service (TIS) for corrosion and a crack as specified in EASA AD 2017-0191R2, as there is sufficient time

to allow for notice and comment prior to this long-term AD requirement going into effect. The FAA has determined this inspection is needed to address this unsafe condition and has proposed to require, within 100 hours TIS and for certain yokes, removing the grease and stripping certain areas of the yokes and inspecting these areas for corrosion, pitting, loss of material, and a crack in this proposed AD.

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 has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that an unsafe condition is likely to exist or develop on other helicopters of the same type design.

Related Service Information Under 1 CFR part 51

The FAA reviewed one document that co-publishes two Airbus Helicopters EASB identification numbers: EASB 05A051 for Model EC225LP helicopters and EASB No. 05A046, Revision 2, dated February 26, 2019, for non-FAA type-certificated Model EC725AP helicopters. EASB 05A051 is proposed for incorporation by reference in this proposed AD. Airbus Helicopters EASB No. 05A046 is not proposed for incorporation by reference in this proposed AD.

This service information specifies inspections for swashplate P/N 332A31-3074-00 and P/N 332A31-3074-01. This service information specifies procedures for a repetitive inspection of the yokes for a crack and a one-time inspection of the stripped yokes for corrosion and a crack. If in doubt about whether there is a crack, this service

information specifies performing a non-destructive inspection. This service information also specifies touching up the swashplate with varnish if there is corrosion, removing any damage within allowable limits, and refinishing the yokes. If there is a crack in a yoke, this service information specifies replacing the swashplate. This service information also specifies a life limit of 12 years since the date of manufacture for the swashplates and reporting requirements if a crack or corrosion is discovered.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA reviewed one document that co-publishes two Airbus Helicopters EASB identification numbers: No. 05A051 for Model EC225LP helicopters and No. 05A046 for non-FAA type-certificated Model EC725AP helicopters, each Revision 1 and dated November 16, 2017. Revision 1 of this service information specifies the same inspections as Revision 2 of this service information. However, Revision 2 of this service information clarifies some of the inspection instructions and adds a life limit and a reporting requirement.

Proposed AD Requirements

This proposed AD would require, before further flight, reviewing Appendix 4.A. of EASB 05A051 to determine the date of manufacture of the swashplate and establishing a life limit of 12 years since the date of manufacture. This proposed AD would retain the repetitive visual inspections of AD 2018-08-01 to inspect each yoke for a crack at intervals not to exceed 15 hours time-in-service for swashplates that have

accumulated less than 7 years since the date of manufacture. For a swashplate that has accumulated 7 or more years, but less than 12 years, since the date of manufacture, this proposed AD would require removing the grease and stripping certain areas of the yokes and inspecting these areas for corrosion, pitting, loss of material, and a crack. If there are no cracks, this AD would require performing a dye penetrant inspection of the yoke for a crack.

Depending on the results of this inspection, the proposed AD would require either repairing the surface of the swashplate or removing it from service.

Differences Between this Proposed AD and the EASA AD

The EASA AD requires performing a non-destructive inspection only if there is doubt whether there is a crack. Instead, this proposed AD requires a visual inspection and if there are no cracks, requires a non-destructive inspection. The EASA AD specifies instructions for reporting inspection reports; this proposed AD does not.

Costs of Compliance

The FAA estimates that this proposed AD affects 26 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this proposed AD. Labor costs are estimated at \$85 per work-hour.

Determining the date of manufacture of the swashplate would take about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$1,118 for the U.S. fleet.

Inspecting the yokes would take about 0.25 work-hour for an estimated cost of \$21 per helicopter and \$546 for the U.S. fleet per inspection cycle.

Removing grease, stripping the yokes, and inspecting the stripped yokes would take about 8 work-hours, for a total estimated cost of \$680 per helicopter.

Dye-penetrant inspecting a yoke for a crack would take about 6 work-hours and parts would cost about \$50, for an estimated cost of \$560 per yoke.

Removing any corrosion or repairing damage within the allowable limit would take about 3 work-hours, for an estimated cost of \$255 per yoke.

Replacing the swashplate would take about 6 work-hours, and parts would cost about \$85,661 for an estimated cost of \$86,171 per instance.

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.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national

Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Will not affect intrastate aviation in Alaska, and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2018-08-01, Amendment 39-19254 (83 FR 17617, April 23, 2018), and adding the following new AD:

Airbus Helicopters: Docket No. FAA-2020-0513; Product Identifier 2019-SW-037-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model EC225LP helicopters, certificated

in any category, with a main rotor (M/R) rotating swashplate (swashplate) part number (P/N) 332A31-3074-00 or P/N 332A31-3074-01 installed.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a swashplate control rod attachment yoke (yoke). This condition could result in failure of the yoke, loss of M/R control, and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD replaces AD 2018-08-01, Amendment 39-19254 (83 FR 17617, April 23, 2018).

(d) Comments Due Date

The FAA must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

Before further flight, review Appendix 4.A. of Airbus Helicopters Emergency Alert Service Bulletin No. 05A051, Revision 2, dated February 26, 2019 (EASB 05A051) to determine the date of manufacture of the swashplate.

(1) If the swashplate has accumulated 12 or more years since the date of manufacture, remove from service the swashplate.

(2) If the swashplate has accumulated less than 12 years since the date of manufacture, create a component history card or equivalent record indicating a life limit

of 12 years since the date of manufacture. Thereafter, continue to record the life limit of the swashplate on its component history card or equivalent record and remove from service any swashplate before accumulating 12 years since the date of manufacture.

(3) For each swashplate that has accumulated less than 7 years since the date of manufacture, within 15 hours time-in-service (TIS) and thereafter at intervals not to exceed 15 hours TIS, until the swashplate accumulates 7 years since the date of manufacture, visually inspect each yoke for a crack, paying particular attention to the areas shown in Details B, C, and D of Figure 1 of EASB 05A051.

(i) If there are no cracks, perform a dye penetrant inspection of the yoke for a crack.

(ii) If there is a crack on a yoke, before further flight, remove from service the swashplate.

(4) For each swashplate that has accumulated 7 or more years, but less than 12 years, since the date of manufacture, within 100 hours TIS:

(i) Remove the grease from areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051. Using a plastic spatula, strip areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051. Do not use a metal tool to strip any area of a yoke.

(ii) Inspect areas (E), (F), (G), (H), (J) and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051 for corrosion, pitting, and loss of material.

(A) If there is any corrosion less than 0.0078 in. (0.2 mm), before further flight, remove the corrosion and apply varnish (Vernelec 43022 or equivalent) to the surface of areas (E), (F), (G), (H), (J) and (K).

(B) If there is any pitting or loss of material of less than 0.0078 in. (0.2 mm), before further flight, remove the damage by sanding with sandpaper 200/400 or 330.

(C) If there is any corrosion, pitting, or loss of material of 0.0078 in. (0.2 mm) or greater, before further flight, remove from service the swashplate.

(iii) Visually inspect each yoke for a crack, paying particular attention to the areas shown in Details B, C, and D of Figure 1 of EASB 05A051.

(A) If there are no cracks, perform a dye penetrant inspection of the yoke for a crack.

(B) If there is a crack on a yoke, before further flight, remove from service the swashplate.

(g) Credit for Previous Actions

If you performed the actions in paragraph (f)(4) before the effective date of this AD using Airbus Helicopters Emergency Alert Service Bulletin No. 05A051, Revision 1, dated November 16, 2017, you met the requirements of paragraph (f)(4) of this AD.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards

district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(i) Additional Information

The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD No. 2019-0074, dated March 28, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> in the AD Docket.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6230, Main Rotor Mast/Swashplate.

Issued on May 27, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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