DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
14 CFR Part 39
[Docket No. FAA-2021-0455; Project Identifier 2018-SW-031-AD]
RIN 2120-AA64
Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Leonardo S.p.a. Model AW189 helicopters. This proposed AD was prompted by fatigue testing and analyses. This proposed AD would require establishing a life limit for a certain part-numbered tail gearbox fitting. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Hand Delivery: Deliver to Mail address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at https://www.leonardocompany.com/en/home. You may view this 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.

**Examining the AD Docket**

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0455; 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 NPRM, the European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0455; Project Identifier 2018-SW-031-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually
treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Background**


Accordingly, EASA AD 2018-0087 requires accomplishing the actions specified in 89-A-AMPI-00-P ALS Issue 13 and revising the Aircraft Maintenance Program (AMP) with the actions specified in 89-A-AMPI-00-P ALS Issue 13.

**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 the unsafe condition described previously is likely to exist or develop on other helicopters of the same type design.

Related Service Information

The FAA reviewed AW189 Air Vehicle Maintenance Planning Information, 89-B-AMPI-00-P, Chapter 4, Issue 6, dated July 17, 2018 (89-B-AMPI-00-P ALS Issue 6). 89-B-AMPI-00-P ALS Issue 6 specifies various airworthiness limitations information including retirement lives, mandatory inspections, and certification maintenance requirements. 89-B-AMPI-00-P ALS Issue 6 is equivalent to 89-A-AMPI-00-P ALS Issue 13.

Proposed AD Requirements in this NPRM

This proposed AD would require determining the total hours time-in-service (TIS) and total number of landings of tail gearbox fitting part number (P/N) 4F5350A04152. If the total hours TIS and total number of landings cannot be determined, this proposed AD would require removing the part from service. This proposed AD would establish a life limit for tail gearbox fitting P/N 4F5350A04152 and require removing the part from service according to the new life limit.
Differences between this Proposed AD and the EASA AD

EASA AD 2018-0087 applies to Model AW189 helicopters, whereas this proposed AD would apply to that model helicopter with tail gearbox fitting P/N 4F5350A04152 installed instead. EASA AD 2018-0087 requires accomplishing the actions specified in 89-A-AMPI-00-P ALS Issue 13 and revising the AMP with the actions specified in 89-A-AMPI-00-P ALS Issue 13, whereas this proposed AD would require establishing a life limit for tail gearbox fitting P/N 4F5350A04152 and removing that part from service accordingly instead.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 4 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Replacing a tail gearbox fitting would take about 48 work-hours and parts would cost about $30,000 for an estimated cost of $34,080 per helicopter and $136,320 for the U.S. fleet, per replacement cycle.

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) Would not affect intrastate aviation in Alaska, and
(3) Would 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 adding the following new airworthiness directive:

Leonardo S.p.a.: Docket No. FAA-2021-0455; Project Identifier 2018-SW-031-AD.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].
(b) Affected ADs

None.

(c) Applicability

This AD applies to Leonardo S.p.a. Model AW189 helicopters, certificated in any category, with tail gearbox fitting part number (P/N) 4F5350A04152 installed.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

(e) Unsafe Condition

This AD was prompted by fatigue testing and analyses. The FAA is issuing this AD to prevent parts from remaining in service beyond their fatigue life. The unsafe condition, if not addressed, could result in failure of a part, which could result in loss of control of the helicopter.

(f) Compliance

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

(g) Required Actions

Before further flight after the effective date of this AD:

(1) Determine the total hours time-in-service (TIS) and total number of landings of tail gearbox fitting P/N 4F5350A04152. For purposes of this AD, a landing is counted anytime a helicopter lifts off into the air and then lands again regardless of the duration of the landing and regardless of whether the engine is shutdown. If the total hours TIS and total number of landings cannot be determined, before further flight, remove the part from service.

(2) Remove any part from service that has reached or exceeded its life limit as follows. Thereafter, remove any part from service on or before reaching its life limit as follows. Tail gearbox fitting P/N 4F5350A04152: 14,600 total hours TIS or 57,300 total landings, whichever occurs first.
(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this 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 (i)(1) of this 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.

(i) Related Information

(1) For more information about this AD, contact Kristi Bradley, Program Manager, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email kristin.bradley@faa.gov.

(2) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD 2018-0087, dated April 18, 2018. You may view the EASA AD on the Internet at https://www.regulations.gov in Docket No. FAA-2021-0455.

Issued on June 3, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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