DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0512; Project Identifier MCAI-2020-01621-R; Amendment 39-21627; AD 2021-13-21]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Leonardo S.p.a. Model AB139, AW139, and AW189 helicopters. This AD was prompted by a report of the in-flight failure of one of the three stainless steel external rings bonded to the main rotor swashplate boot. This AD requires repetitive inspections of these stainless steel external rings for corrosion, cracks, and the condition of the adhesive that bonds the rings to the main rotor swashplate boot, and corrective action if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this 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 above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For EASA material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu 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 this IBR material on the EASA website at https://ad.easa.europa.eu. You may view the EASA material 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 the EASA material at the FAA, call (817) 222-5110. The EASA material is also available at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0512.

Examining the AD Docket

You may examine the AD docket at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0512; 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 AD, the EASA AD, any comments received, and other information. The street address for Docket Operations is listed above.
**SUPPLEMENTARY INFORMATION:**

**Background**

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0271, dated December 8, 2020 (EASA AD 2020-0271) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for Leonardo S.p.A. (formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation) Model AB139, AW139, and AW189 helicopters, all serial numbers. Although EASA AD 2020-0271 applies to Model AB139, AW139, and AW189 helicopters, all serial numbers, this AD applies to helicopters with an affected part installed instead.

This AD was prompted by a report of the in-flight failure of one of the three stainless steel external rings bonded to the main rotor swashplate boot installed on Model AB139 and AW139 helicopters. The broken ring, under the effects of the centrifugal force, was released from the main rotor swashplate boot and impacted one tail rotor blade, causing extensive damage. Investigation revealed that the failure of the external ring was caused by fatigue initiated by corrosion. A contributing factor to the external ring failure was disbonding at the four points where the affected ring was bonded to the main rotor swashplate boot. Leonardo S.p.a. Model AW189 helicopters have a similar design, therefore, this model may be subject to the same unsafe condition revealed on the Model AB139 and AW139 helicopters. Since EASA AD 2020-0271 was published, there have been two more reports of discrepant main rotor boots.
The FAA is issuing this AD to address corrosion, cracking, and damage to the adhesive (e.g., disbonding) of any stainless steel external ring bonded to the main rotor swashplate boot, which could result in release of a ring from the main rotor swashplate boot, resulting in damage to, and reduced control of, the helicopter. See the EASA AD for additional background information.

**Related IBR Material Under 1 CFR Part 51**

EASA AD 2020-0271 specifies procedures for repetitive detailed inspections (DET) of the affected external rings for corrosion (including superficial oxidation), and cracks, and, depending on findings, polishing corrosion, and replacing an affected external ring with a serviceable part. EASA AD 2020-0271 also requires repetitive inspections for damage of the adhesive (e.g. disbonding) between the bonding areas of the affected external rings and the main rotor swashplate boot and re-applying the adhesive if necessary. For certain helicopters, EASA AD 2020-0271 requires a one-time restoring of the adhesive between the bonding areas of the affected external rings and the main rotor swashplate boot. For all helicopters, EASA AD 2020-0271 allows, under certain conditions, (re)installation of an affected part on a helicopter.

This material 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.

**FAA’s Determination**

These products have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is issuing this AD after evaluating all pertinent information and determining that the unsafe condition exists and is likely to exist or develop on other products of these same type designs.
Requirements of this AD

This AD requires accomplishing the actions specified in EASA AD 2020-0271, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD.

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, EASA AD 2020-0271 is incorporated by reference in the FAA final rule. This AD would, therefore, require compliance with EASA AD 2020-0271 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in the EASA AD. Service information specified in EASA AD 2020-0271 that is required for compliance with EASA AD 2020-0271 is available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0512.

FAA’s Justification and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (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 AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule because the in-flight failure of a stainless steel external ring bonded to the main rotor swashplate boot could result in damage to, and reduced control of, the helicopter. In addition, the compliance time for the required action is shorter than the time necessary for the public to comment and for publication of the final rule. Based on the average utilization rate for the affected Model AB139 and AW139 helicopters, it would take approximately one month for an affected helicopter to reach 25 hours time-in-service. Therefore, notice and opportunity for prior public comment are impracticable and contrary to 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.

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0512; Project Identifier MCAI-2020-01621-R” at the beginning of your comments. The most helpful comments reference a specific portion of the AD, 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 AD 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 AD.

**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 AD 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 AD, 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 AD. Submissions containing CBI should be sent to Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Regulatory Flexibility Act (RFA)**

The requirements of the RFA do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.
Costs of Compliance

The FAA estimates that this AD affects 142 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

### Estimated costs for Required Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial inspection of external boot rings and adhesive restoration</td>
<td>3 work-hours X $85 per hour = $255</td>
<td>$0</td>
<td>$255</td>
<td>$36,210</td>
</tr>
<tr>
<td>Reporting after initial inspection</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
<td>$12,070</td>
</tr>
<tr>
<td>Repetitive inspections of boot rings and adhesive</td>
<td>0.5 work-hour X $85 per hour = $42.50 per inspection cycle</td>
<td>$0</td>
<td>$42.50</td>
<td>$6,035</td>
</tr>
</tbody>
</table>

### Estimated costs of on-condition actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polish corrosion</td>
<td>0.5 work-hour X $85 per hour = $42.50</td>
<td>$0</td>
<td>$42.50</td>
</tr>
<tr>
<td>Replace affected ring</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$300</td>
<td>$385</td>
</tr>
<tr>
<td>Reapply adhesive</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
</tr>
</tbody>
</table>

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance.
section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Pkwy., Fort Worth, TX 76177-1524.

**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 AD would not have federalism implications under Executive Order 13132. This 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 above, I certify this regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866, and (2) Will not affect intrastate aviation in Alaska.
List of Subjects in 14 CFR Part 39

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

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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:

   2021-13-21 Leonardo S.p.a.: Amendment 39-21627; Docket No. FAA-2021-0512;
   Project Identifier MCAI-2020-01621-R.

   (a) Effective Date

   This airworthiness directive (AD) becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

   (b) Affected ADs

   None.

   (c) Applicability

   This AD applies to Leonardo S.p.a. Model AB139, AW139, and AW189 helicopters, certificated in any category, equipped with a main rotor swashplate boot, having part number (P/N) 3G6230V00251.

   (d) Subject


   (e) Unsafe Condition

   This AD was prompted by a report of the in-flight failure of one of the three stainless steel external rings bonded to the main rotor swashplate boot. The FAA is
issuing this AD to address corrosion, cracking, and damage to the adhesive (e.g., disbonding) of any stainless steel external ring bonded to the main rotor swashplate boot, which could result in release of a ring from the main rotor swashplate boot, resulting in damage to, and reduced control of, the helicopter.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2020-0271, dated December 8, 2020 (EASA AD 2020-0271).

(h) Exceptions to EASA AD 2020-0271

(1) Where EASA AD 2020-0271 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2020-0271 does not apply to this AD.

(3) Where EASA AD 2020-0271 refers to flight hours (FH), this AD requires using hours time-in-service.

(4) Where paragraphs (3) and (6) of EASA AD 2020-0271 refer to “any discrepancy” or “discrepancies,” for this AD, discrepancies include corrosion (including superficial oxidation) and cracking.

(5) Where paragraph (4) of EASA AD 2020-0271 refers to “any discrepancy,” for this AD, discrepancies include corrosion (including superficial oxidation), cracking, and damage to the adhesive (e.g., disbonding).

(6) Paragraph (6) of EASA AD 2020-0271 specifies to report inspection results to Leonardo S.p.a. within a certain compliance time. For this AD, report inspection results at the applicable time specified in paragraph (h)(6)(i) or (ii) of this AD.
(i) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(ii) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(i) 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 (j) 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.

(j) Related Information

For more information about this AD, contact Darren Gassetto, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7323; email Darren.Gassetto@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(ii) [Reserved]

(3) For EASA AD 2020-0271, contact the 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 this EASA AD on the EASA website at https://ad.easa.europa.eu.

(4) 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. This material may be found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2021-0512.
You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on June 18, 2021.

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