DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0308; Product Identifier 2016-SW-083-AD; Amendment 39-19022; AD 2017-18-13]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: We are superseding Airworthiness Directive (AD) 2015-22-51 for Agusta S.p.A. (Agusta) Model A109A and A109A II helicopters. AD 2015-22-51 required pre-flight checking and inspecting each main rotor blade (blade) for a crack and replacing any cracked blade. This new AD removes the check and requires inspecting each blade more frequently. This AD is prompted by a crack that was not detected during any of the pre-flight checks. The actions of this AD are intended to address the unsafe condition on these products.

DATES: This AD becomes effective September 25, 2017.

We must receive comments on this AD by November 7, 2017.

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

- Federal eRulemaking Docket: Go to http://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 http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0308; or in person at the Docket Operations Office between 9
a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G. Agusta 520, 21017 C. Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at http://www.leonardocompany.com/bulletins. You may review the 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

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, 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 them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

Discussion

We issued Emergency AD 2015-22-51, which was published in the Federal Register as a Final rule; request for comments on February 1, 2016, at 81 FR 5037. AD 2015-22-51 applied to Agusta Model A109A and A109AII helicopters with a blade part number (P/N) 109-0103-01-7, P/N 109-0103-01-9, or P/N 109-0103-01-115 that had 500 or more hours time-in-service (TIS). AD 2015-22-51 required, before further flight and every 24 clock-hours, inspecting the top and bottom surface of each blade for a crack. AD 2015-22-51 also required, before each flight, checking the top and bottom surface of each blade for a crack. AD 2015-22-51 allowed this check to be performed by a pilot and required further inspection of the blade if there was a crack.

AD 2015-22-51 was prompted by AD No. 2015-0190-E, dated September 18, 2015, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Agusta Model A109A and A109A II helicopters. EASA advised that abnormal vibrations were reported during a flight on a Model A109A II helicopter. During a post-flight inspection, a crack was found on a P/N 109-0103-01-9 blade. EASA AD No. 2015-0190-E required pre-flight inspections and repetitive inspections of each blade. EASA advised that due to similarity of design, the inspections also applied to P/N 109-0103-01-7 and P/N 109-0103-01-115 blades. EASA further advised that a cracked blade, if not detected and corrected, could affect the structural integrity of the blade, possibly resulting in blade failure and loss of control of the helicopter. EASA revised its
AD and issued AD No. 2015-0190R1, dated October 23, 2015, to extend the interval of the repetitive inspections to 10 flight hours.

**Actions Since AD 2015-22-51 Was Issued**

Since we issued AD 2015-22-51, Leonardo Helicopters (previously Agusta) issued Alert Bollettino Tecnico (BT) No. 109-150, Revision B, dated October 21, 2016, and EASA superseded AD 2015-0190R1 by issuing AD No. 2016-0213, dated October 26, 2016. EASA AD No. 2016-0213 was prompted by a crack in a blade P/N 109-0103-01-9 on a Model A109A II helicopter that was not detected during any of the pre-flight inspections. Upon a subsequent review of data, it was determined that the pre-flight inspections were ineffective to address the unsafe condition and that a shorter interval of the repetitive inspection is necessary. For these reasons, EASA AD 2016-0213 requires inspecting the blades for a crack at intervals not exceeding five flight hours.

Additionally, the FAA is in the process of updating Agusta's name change to Leonardo Helicopters on its FAA type certificate. Because this name change is not yet effective, this AD specifies Agusta.

**Comments on AD 2015-22-51**

After our Final rule; request for comments was published, we received comments from one commenter.

**Request**

The commenter stated the AD's cost estimate for a new blade is erroneous, and while the AD identifies the cost of a single inspection, it does not account for the cumulative cost of the daily inspection over time.

We agree. We have revised the cost of the blade in this final rule. As far as a cumulative cost of the repetitive inspections, this new AD changes the compliance interval to every 5 hours TIS. Since the cumulative cost would be different for every operator, we have made no change to the estimated costs in this regard.

The commenter also requested the FAA require Agusta to design and provide a new blade to operators at no charge. The commenter stated the actual cost of the AD is financially devastating to operators and renders the helicopter worthless.

We do not have the authority to direct manufacturers to provide parts or repairs to operators at no charge. We can only require repair or replacement of defective components that are installed on the helicopter. In light of this, we have made no change to the AD in this regard.

**FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs.

**Related Service Information**

We reviewed Leonardo Helicopters Alert BT No. 109-150, Revision B, dated October 21, 2016. This service information specifies inspecting the top and bottom surfaces of each blade for a crack in the area between station 1550 (the station at the end of the doublers) and station 3100 (the station at the beginning of the abrasion strip) for a crack every 5 flight hours and replacing a cracked blade.
AD Requirements

This AD requires, before further flight, unless done within the last 5 hours TIS, and thereafter at intervals not to exceed 5 hours TIS, visually inspecting the top and bottom surface of each blade for a crack in the area between stations 1550 and 3100 using a 3X or higher power magnifying glass. If there is a crack, this AD requires replacing the blade.

Differences Between This AD and the EASA AD

The EASA AD requires a type II dye penetrant inspection if in doubt about whether there is a crack, while this AD does not. The EASA AD also includes warning the pilot regarding cracked blades resulting in possible vibration, while this AD does not.

Interim Action

We consider this AD interim action. If final action is later identified, we might consider further rulemaking then.

Costs of Compliance

We estimate that this AD affects 33 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at $85 per work-hour. We estimate 8 work-hours to inspect a set of four blades at a cost of $680 per helicopter and $22,440 for the fleet per inspection cycle. We estimate 4 work-hours to replace a blade and the required parts will cost $124,000, for a replacement cost of $124,340 per blade.

According to Leonardo Helicopter's service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Leonardo Helicopter. Accordingly, we have included all costs in our cost estimate.

FAA's Justification and Determination of the Effective Date

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the required corrective actions must be completed before further flight or within 5 hours TIS after the effective date of this AD.

Since an unsafe condition exists that requires the immediate adoption of this AD, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Authority for This Rulemaking


We are 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

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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 that this AD:
1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. 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.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

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

Adoption of 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 removing Airworthiness Directive (AD) 2015-22-51, Amendment 39-18386 (81 FR 5037, February 1, 2016), and adding the following new AD:

(a) Applicability

This AD applies to Model A109A and A109A II helicopters with a main rotor blade (blade) part number (P/N) 109-0103-01-7, P/N 109-0103-01-9, or P/N 109-0103-01-115 that has 500 or more hours time-in-service (TIS) installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a blade. This condition could result in failure of a blade and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2015-22-51, Amendment 39-18386 (81 FR 5037, February 1, 2016).

(d) Effective Date

This AD becomes effective September 25, 2017.

(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, unless already done within the last 5 hours TIS, and thereafter at intervals not to exceed 5 hours TIS:

1. Using a 3X or higher power magnifying glass, visually inspect the top and bottom surface of each blade for a crack in the area between the station at the end of the doublers (station 1550) and the station at the beginning of the abrasion strip (station 3100).

2. If there is a crack, replace the blade before further flight. Replacing the blade with blade P/N 109-0103-01-7, P/N 109-0103-01-9, or P/N 109-0103-01-115 does not constitute terminating action for the repetitive inspections required by this AD.

(g) Special Flight Permits

Special flight permits are prohibited.
(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, 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, we suggest 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

(1) Leonardo Helicopters Alert Bollettino Tecnico No. 109-150, Revision B, dated October 21, 2016, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at http://www.leonardocompany.com/bulletins. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2016-0213, dated October 26, 2016. You may view the EASA AD on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2017-0308.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6210, Main Rotor Blade.

Issued in Fort Worth, Texas, on August 30, 2017.

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