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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0881; Directorate Identifier 2013-SW-056-AD; Amendment 39-17628; AD 2013-20-51]

RIN 2120-AA64

Airworthiness Directives; AgustaWestland S.p.A. (Agusta) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for Agusta Model A109A, A109A II, A109C, A109E, A109K2, A109S, AW109SP, A119, and AW119 MKII helicopters. The emergency AD was sent previously to all known U.S. owners and operators of these helicopters. This AD requires, before further flight, inspecting certain Thomas coupling nuts on the tail rotor drive shaft line for a crack and replacing all the nuts if any nut is cracked. Also this AD requires replacing all affected Thomas coupling nuts within 10 hours time-in-service (TIS) or 30 days, whichever occurs first. This AD was prompted by two incidents of cracking on the nuts that connect the flexible disc coupling (Thomas coupling) with the splined adapter on the tail rotor drive shaft. We are issuing this AD to correct the unsafe condition on these helicopters.

DATES: This AD is effective October 25, 2013 to all persons except those persons to whom it was made immediately effective by Emergency AD 2013-20-51, issued on October 3, 2013, which contained the requirements of this amendment.

We must receive comments on this AD by December 24, 2013.

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

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above 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> 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 foreign authority's AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is in the ADDRESSES section.

For service information identified in this AD, contact Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39-0331-711133; fax 39 0331 711180; or at <http://www.agustawestland.com/technical-bulletins>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone: (817) 222-5110; email gary.b.roach@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On October 3, 2013, we issued Emergency AD 2013-20-51, which requires, before further flight, inspecting certain Thomas coupling nuts on the tail rotor drive shaft line for a crack and replacing all the nuts if any nut is cracked. Also the emergency AD requires replacing all affected Thomas coupling nuts within 10 hours TIS or 30 days, whichever occurs first. This emergency AD was sent previously to all known U.S. owners and operators of these helicopters. This action was prompted by two incidents of cracking on the nuts that connect the flexible disc coupling (Thomas coupling) with the splined adapter on the tail rotor drive shaft.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2013-0225-E, dated September 20, 2013, to correct an unsafe condition for certain Agusta Model A109A, A109A II, A109C, A109E, A109K2, A109S, AW109SP, A119, and AW119 MKII helicopters. The EASA advises that during scheduled inspection on the tail rotor drive shaft line of two in-service Model AW109SP helicopters, one part-numbered nut that connects the Thomas coupling with the splined adapter was cracked. The subsequent investigation identified that the reported cracks of the nuts are the results of a production deficiency (hydrogen embrittlement) at the nut supplier.

Related Service Information

Agusta has issued the following service information:

- Alert Bollettino Tecnico (ABT) No. 109K-58 for all Model A109K2 helicopters;
- ABT No. 109-136, for all Model A109A, A109A II, and A109C helicopters;
- ABT No. 109EP-130, for Model A109E helicopters up to and including serial number (S/N) 11832, except S/N 11796, from 11808 to 11810, and from 11812 to 11829;
- ABT No. 109L-066 for all Model A109LUH helicopters;
- ABT No. 109S-055, for all Model A109S helicopters;
- ABT No. 109SP-069, for Model AW109SP helicopters up to including S/N 22316, except S/N 22284, 22286, 22307, and 22308; and
- ABT No. 119-061 for Model A119 and AW119 MKII helicopters up to and including S/N 14811, except S/N 14805 and 14807.

All the ABTs are dated September 20, 2013, and specify a one-time inspection of the Thomas coupling nuts, part number (P/N) MS21042L4. If any nut is cracked, the ABTs specify replacing all nuts with nuts, P/N NAS1805-4.

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 their 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.

AD Requirements

This AD requires, before further flight, visually inspecting each Thomas coupling nut, P/N MS2104L4, along the tail rotor drive shaft line for a crack. If any nut is cracked, replacing all the nuts with nuts, P/N NAS1805-4, is required before further flight. Replacing all nuts, P/N MS21042L4, with nuts, P/N NAS1805-4, is required within 10 hours TIS or 30 days, whichever occurs first. Finally, this AD prohibits installing a Thomas coupling nut, P/N MS21042L4, on any tail rotor drive shaft line.

Differences Between This AD and the EASA AD

This AD differs from the EASA AD in that we include all model helicopters rather than limiting the applicability to specific serial-numbered helicopters, and we do not include Model A109LUH helicopters as they do not have a U.S. type certificate.

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 adoption of this rule because inspecting for and replacing a cracked nut must be done before further flight, and replacing all nuts is required within 10 hours TIS or 30 days, whichever occurs first, which is a very short time period based on the average flight-hour utilization rate of these helicopters.

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

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include the Docket Number FAA-2013-0881 and Directorate Identifier 2013-SW-056-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD will affect 222 helicopters of U.S. Registry. We estimate the following costs to comply with this AD. Labor costs are estimated at \$85 per hour. We estimate 2 work hours to inspect each nut and 16 work hours to replace all nuts at a cost of \$1,530 per helicopter and a total fleet cost of \$339,600.

According to the manufacturer, the costs of this AD may be covered under warranty, thereby reducing the cost to affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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.

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 helicopters identified in this rulemaking action.

Regulatory Findings

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 above, 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 adding the following new airworthiness directive (AD):



2013-20-51 Agusta S.p.A: Amendment 39-17628; Docket No. FAA-2013-0881; Directorate Identifier 2013-SW-056-AD.

(a) Applicability

This AD applies to the following Agusta S.p.A. (Type certificate currently held by AgustaWestland S.p.A) (Agusta) helicopters, with a tail rotor drive shaft flexible disc coupling (Thomas coupling) nut, part number (P/N) MS21042L4, certificated in any category:

- (i) Model A109A, A109A II, A109C, A109E, A109S, A109K2, AW109SP helicopters; and
- (ii) Model A119 and AW119 MKII helicopters.

(b) Unsafe Condition

This AD defines the unsafe condition as a production deficiency in a certain Thomas coupling nut. This condition could result in failure of the Thomas coupling, failure of the tail drive shaft, and subsequent loss of control of the helicopter.

(c) Effective Date

This AD is effective October 25, 2013 to all persons except those persons to whom it was made immediately effective by Emergency AD 2013-20-51, issued on October 3, 2013, which contained the requirements of this amendment.

(d) 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.

(e) Required Actions

(1) Before further flight, using a borescope or light source and mirror, inspect each Thomas coupling nut for a crack. If any Thomas coupling nut is cracked, before further flight, replace all the Thomas coupling nuts with nuts, P/N NAS1805-4, torquing each nut to 5.6-7.9 Nm.

(2) Within 10 hours time-in-service or 30 days, whichever occurs first, replace each Thomas coupling nut, P/N MS21042L4, with a nut, P/N NAS1805-4, torquing each nut to 5.6-7.9 Nm.

(3) After the effective date of this EAD, do not install a nut, P/N MS21042L4, on any Thomas coupling.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email gary.b.roach@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.

(g) Additional Information

(1) Agusta Alert Bollettino Tecnico (ABT) No. 109K-58, ABT No. 109-136, ABT No. 109EP-130, ABT No. 109L-066, ABT No. 109S-055, ABT No. 109SP-069, and ABT No. 119-061, all dated September 20, 2013, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact: Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39-0331-711133; fax 39 0331 711180; or at <http://www.agustawestland.com/technical-bullettins>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) Emergency Airworthiness Directive 2013-0225-E, effective September 21, 2013. You may view the EASA AD at <http://www.regulations.gov> in Docket No. FAA-2013-0881.

(h) Subject

Joint Aircraft Service Component (JASC): 6400 Tail rotor system.

Issued in Fort Worth, Texas, on October 16, 2013.

Kim Smith,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.