[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0501; Directorate Identifier 2009-SW-083-AD;

Amendment 39-17258; AD 2012-23-02]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Agusta S.p.A. (Agusta) Model A109E and Model A109S helicopters with certain lower semichannel assemblies installed. This AD requires a one-time inspection of the lower semichannel assemblies to determine if metallic spacers are installed. If the metallic spacers are installed, this AD requires an inspection for the correct installation of the metallic spacers on the semichannels and for the correct seating of the gaskets. If the metallic spacers are not installed with rivets, the lower semichannel assemblies must be modified, and the main drive shaft must be inspected for damage. This AD was prompted by reports of damage to the main drive shaft caused by improperly secured metallic spacers on some A109 model helicopters. The actions of this AD are intended to detect missing spacer rivets, which could allow the metallic spacers to rotate and lead to damage and failure of the main drive shaft, and subsequent loss of helicopter control.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: 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 the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

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, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Jim Grigg, Manager, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email jim.grigg@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On May 22, 2012, at 77 FR 30234, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Model A109E helicopters, up to and including serial number (S/N) 11694, except 11633 and 11634; and Model A109S helicopters, up to and including S/N 22034, except 22026 and 22033; with lower semichannel assemblies, part number (P/N)109-0641-10-213 or 109-0642-01-171, installed. That NPRM proposed to require a one-time inspection of the lower semichannel assemblies to determine if metallic spacers are installed. If the metallic spacers are installed, the AD proposed to require an inspection for the correct installation of the metallic spacers and correct seating of the gaskets. If the metallic spacers are installed without rivets, the AD proposed to require modification of the lower semichannel assemblies and inspection of the main drive shaft for damage. The proposed requirements were intended to detect missing spacer rivets, which could allow the metallic spacers to rotate and lead to damage and failure of the main drive shaft, and subsequent loss of helicopter control.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD No. 2007-0192-E, dated July 13, 2007 (EAD 2007-0192-E), to correct an unsafe condition for certain serial-numbered Agusta Model A109E, A109S, and A109LUH helicopters with lower semichannel assemblies, P/N 109-0641-10-213 or 109-0642-01-171, installed. EASA advises that some cases of interference between the metallic spacer, P/N 109-0642-01-195, and the main drive shaft, P/N 109-0415-06-103, have been detected on the

Model A109LUH helicopter, a military version of the Model A109 helicopter that is not type certificated in the U.S., and that this interference has damaged the main drive shaft. EASA advises that this condition, if not corrected, could lead to failure of the main drive shaft "with significant effects on the safety of the helicopter."

Comments

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (77 FR 30234, May 22, 2012).

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 and that air safety and the public interest require adopting the AD requirements as proposed.

Differences Between this AD and the EASA AD

This AD differs from the EASA AD as follows:

- This AD is not applicable to A109LUH model helicopters because they are not type certificated for use in the United States;
- This AD does not require compliance "not later than September 30, 2007" because that date has passed;
- This AD uses the term "hours time-in-service" rather than "flight hours" when referring to compliance times; and

- This AD does not contain the steps necessary to install the main drive shaft.

Related Service Information

Agusta has issued Mandatory Alert Bollettino Tecnico No. 109EP-79, dated July 12, 2007 (BT 109EP-79), which applies to certain S/Ns of the model A109E helicopter, and Mandatory Alert Bollettino Tecnico No. 109S-15, dated July 12, 2007 (BT 109S-15), which applies to certain S/Ns of the model A109S helicopter. Both BT 109EP-79 and BT 109S-15 specify performing an inspection on the left side and right side lower semichannel assemblies to determine if metallic spacers are installed. If the metallic spacers are installed, BT 109EP-79 and BT 109S-15 specify inspecting the metallic spacers for correct installation, inspecting the gaskets for correct seating, modifying the semichannel assemblies by installing missing rivets, and inspecting the main drive shaft for damage if the metallic spacers are installed without rivets.

Costs of Compliance

We estimate that this AD will affect about 90 helicopters of U.S. registry. We also estimate an average labor rate of $85 per work hour. Based on these assessments, we calculate the following costs:

- Inspecting the lower semichannel assembly for metallic spacers will take about 15 minutes for a labor cost of $21 per helicopter. No parts will be needed, so the total cost for the 90-helicopter fleet will be $1,890.

- Inspecting for missing rivets will take about three work-hours for a total labor cost of $255 per helicopter. Parts will cost $10, increasing the per-helicopter cost to $265.

- Removing, inspecting for damage, and reinstalling the main drive shaft will take four work-hours for a labor cost of $340. No parts will be required.

- Replacing the main drive shaft. This task also will take four work-hours, so that labor costs will again total $340. Parts will cost $20,824 for a total per-helicopter cost of $21,164.

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):

2012-23-02 **AGUSTA S.p.A.:** Amendment 39-17258; Docket No. FAA-2012-0501; Directorate Identifier 2009-SW-083-AD.

(a) Applicability.

This AD applies to Model A109E helicopters, up to and including serial number (S/N) 11694, except 11633 and 11634; and Model A109S helicopters, up to and including S/N 22034, except S/N 22026 and 22033; with lower semichannel assemblies, part number (P/N) 109-0641-10-213 or 109-0642-01-171, installed; certificated in any category.

Note to paragraph (a) of this AD: The lower semichannel assemblies are sub-components of the forward firewall assembly.

(b) Unsafe Condition.

This AD defines the unsafe condition as missing spacer rivets, which could allow the metallic spacers to rotate and lead to damage and failure of the main drive shaft, and subsequent loss of control of the helicopter.

(c) Effective Date.

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(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.

Within 50 hours time-in-service:

(1) Inspect the left-side and right-side lower semichannel assemblies by referring to Figures 1 and 2, and in accordance with Paragraph 3. of the Compliance Instructions in the Agusta Bollettino Tecnico (BT) No. 109EP-79 for the Model A109E helicopter, or

BT No. 109S-15 for the Model A109S helicopter, both dated July 12, 2007, to determine if metallic spacers, P/N 109-0642-01-195, are installed. If metallic spacers are not installed, no further actions are required.

(2) For each semichannel assembly with a metallic spacer, remove the semichannel assembly from the helicopter firewall and note whether it is the left-side or right-side semichannel assembly.

(3) Inspect each removed semichannel assembly and determine whether there is a fixing rivet, P/N MS20427M3-5, MS20426T3-5, or A298A04TW02, installed that holds the spacer to the lower semichannel assembly and whether the gasket is properly seated.

(4) For each semichannel assembly without a fixing rivet on each side of the lower semichannel assembly or those where the gasket is improperly seated, separate the lower semichannel from the upper semichannel, noting the orientation of each spacer and gasket. Modify the lower semichannel assembly by installing a fixing rivet on each side of the lower semichannel assembly, and reattaching the lower and upper semichannel assemblies in accordance with paragraphs 4.2 through 4.7 of the appropriate BT for your model helicopter. Paragraph 4.2 of the BT states “remove the fixing rivets”; this AD changes that provision to “remove the screws, P/N MS27039-08-05.”

(5) Inspect each main drive shaft for a nick, a scratch, or other damage in the semichannel area. If a nick, a scratch, or other damage is found that exceeds those allowable damage tolerances in the maintenance manual, replace the main drive shaft with an airworthy main drive shaft.

(f) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Jim Grigg, Manager, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email jim.grigg@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.

The subject of this AD is addressed in the European Aviation Safety Agency Emergency AD No. 2007-0192-E, dated July 13, 2007

(h) Subject.

Joint Aircraft Service Component (JASC) Code: 7100, powerplant system.

(i) 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 the AD specifies otherwise.

(i) Agusta Bollettino Tecnico No. 109EP-79, dated July 12, 2007.

(ii) Agusta Bollettino Tecnico No. 109S-15, dated July 12, 2007.

(3) For Agusta S.p.A. 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.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on November 6, 2012.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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