[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0146; Directorate Identifier 2012-SW-060-AD;

Amendment 39-17559; AD 2013-16-21]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. (Type certificate currently held by

AgustaWestland S.p.A) (Agusta) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding an airworthiness directive (AD) for Agusta Model A109E helicopters that required reducing the tail rotor (T/R) blade life limit, modifying a T/R hub and grip assembly, re-identifying two T/R assemblies, clarifying the never-exceed speed (Vne) limitation, and reducing the inspection interval. Since we issued that AD, the manufacturer has redesigned a T/R grip bushing (bushing) that reduces the loads, which caused the T/R cracking, on the T/R blades. This action requires installing the new bushing and re-identifying the T/R hub-and-grip and hub-and-blade assemblies and requires a recurring inspection of each bushing. These actions are intended to prevent fatigue failure of a T/R blade and subsequent loss of control of the helicopter.

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 a certain document 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, the foreign authority's 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: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email sharon.y.miles@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On February 25, 2013, at 78 FR 12651, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to supersede AD 2002-25-51, Amendment 39-13060 (68 FR 9504, February 28, 2003), which required for Agusta Model A109E helicopters reducing the tail rotor (T/R) blade life limit, modifying a T/R hub and grip assembly, re-identifying two T/R assemblies, clarifying the never-exceed speed (Vne) limitation, and reducing the inspection interval.

The NPRM was prompted by AD No. 2007-0010, dated January 31, 2007, issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued EASA AD No. 2007-0010 to correct an unsafe condition for the Agusta Model A109E. EASA advises that Agusta has designed a new bushing that when installed on the T/R grip assembly reduces the loads acting upon the T/R blades. EASA further advises that following installation of the re-designed bushing, the inspection interval of the T/R blade bushing may be extended from 150 flight hours to 200 flight hours. Accordingly, the NPRM proposed to require:

- Before each start of the helicopter engines, visually checking both sides of each T/R blade for a crack. An owner/operator (pilot) may perform this check and must enter compliance into the aircraft records in accordance with 14 CFR §§ 43.9 (a)(1)-(4) and 14 CFR 91.417(a)(2)(v). A pilot may perform this check because it involves only a visual check for a crack and can be performed equally well by a pilot or a mechanic. This procedure is an exception to our standard maintenance regulations.
- For helicopters with T/R hub and blade assembly, part number (P/N) 109-8131-

02-151, before further flight, modifying each T/R hub and blade assembly by installing a new bushing in each grip assembly and two zero-hours time-in-service (TIS) T/R blades; and re-identifying the hub and grip assembly and the T/R hub and blade assembly with different P/Ns.

- For helicopters with T/R hub and blade assembly, P/N 109-8131-02-157, within 25 hours TIS and thereafter at intervals not to exceed 25 hours TIS, and before further flight any time there is an increase in vibration levels, using a 5x or higher power magnifying glass, visually inspecting each T/R blade for a crack.
- On or before accumulating 200 hours TIS on the T/R hub and grip assembly, and thereafter at intervals not to exceed 200 hours TIS, inspecting the linings and measuring the internal diameter of the bushings. If the internal diameter of the bushing exceeds 41.35 millimeters, replacing the bushing.
- If there is a crack, before further flight, replacing the T/R blade.
- Revising the Airworthiness Limitations section of the maintenance manual to reflect that a T/R blade, P/N 109-8132-01-111, which has not been operated as part of T/R hub and blade assembly, P/N 109-8131-02-151, has a retirement life of 1,000 hours TIS.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (78 FR 12651, February 25, 2013).

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

Related Service Information

We reviewed Alert Bollettino Tecnico No. 109EP-30, Revision C, dated September 29, 2006, which describes procedures for checking/inspecting for cracks on both the upper and lower surfaces of T/R blades, P/N 109-8132-01-111; replacing each bushing, P/N 109-0132-55 and spacer P/N 109-0132-13, with bushing, P/N 109-8131-30-109, and instituting a recurring inspection of each bushing; and cancelling the V_{NE} limitations when the newly-designed bushing is installed on each T/R grip assembly, P/N 109-8131-29-101, a "new" pair of T/R blades, P/N 109-8132-01-111, is installed, and the T/R hub-and-grip and hub-and-blade assemblies are re-identified.

Costs of Compliance

We estimate that this AD will affect 75 helicopters of U.S. Registry. Based on an average labor rate of $85 per hour, we estimate that operators will incur the following costs in order to comply with this AD:

- Visually inspecting the T/R blades requires about 0.5 work hours for a cost per helicopter of $43 and a total cost to U.S. operators of $3,225 per inspection cycle.
- Replacing a cracked T/R blade requires about 2 work hours, and required parts cost about $25,320, for a total cost per helicopter of $25,490.

- Modifying the hub assembly with new T/R blades and bushings requires about 16 work hours, and required parts would cost about $58,690, for a total cost per helicopter of $60,050.

- Inspecting the T/R bushings requires about 7 work hours, for a cost per helicopter of $595 and a total cost to U.S. operators of $44,625 per inspection cycle.

- Revising the Airworthiness Limitations section of the maintenance manual requires about .25 work hour, for a cost per helicopter of $22 and a total cost to U.S. operators of $1,650.

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 removing Airworthiness Directive (AD) 2002-25-51, Amendment 39-13060 (68 FR 9504, February 28, 2003), and adding the following

new AD:

2013-16-21 **AGUSTA S.p.A. (Agusta):** Amendment 39-17559; Docket No. FAA-2013-0146; Directorate Identifier 2012-SW-060-AD.

(a) Applicability

This AD applies to Agusta Model 109E helicopters with tail rotor (T/R) hub and blade assembly, part number (P/N) 109-8131-02-151 and P/N 109-8131-02-157, certificated in any category.

(b) Unsafe Condition

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

(c) Affected ADs

This AD supersedes AD 2002-25-51, Docket No. 2002-SW-55-AD, Amendment 39-13060 (68 FR 9504, February 28, 2003).

(d) Effective Date

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

(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

(1) Before each start of the helicopter engines, visually check both sides of each T/R blade for a crack in the inspection area depicted in Figure 1 to paragraph (f)(1) of

this AD. This action may be performed by the owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR §§ 43.9 (a)(1)-(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

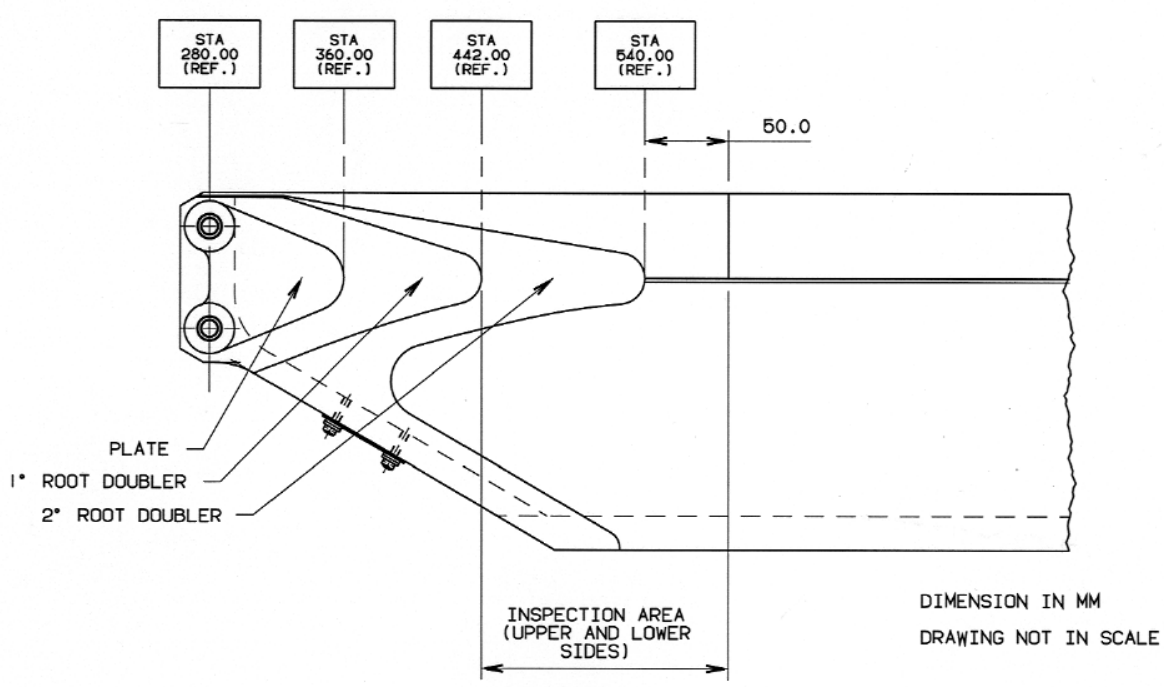

Figure 1 to Paragraph (f)(1), T/R Blade, P/N 109-8132-01-111

(2) For helicopters with T/R hub and blade assembly, P/N 109-8131-02-151 (consisting of two T/R blades, P/N 109-8132-01-111, and one T/R hub and grip assembly, P/N 109-8131-02-127), before further flight, modify each T/R hub and blade assembly by installing a new bushing, P/N 109-8131-30-109, in each grip assembly and two zero-hour time-in-service (TIS) T/R blades, P/N 109-8132-01-111; re-identifying the hub and grip assembly as P/N 109-8131-02-159; and re-identifying the T/R hub and blade assembly as P/N 109-8131-02-157 in accordance with the Compliance Instructions, Part V, paragraphs 2. through 13., of Agusta Bollettino Tecnico No. 109EP-30, Revision C, dated September 29, 2006 (BT). A T/R blade, P/N 109-8132-01-111, which has been operated as part of T/R hub and blade assembly, P/N 109-8131-02-151, must be retired regardless of TIS and may not be used as part of the T/R hub and blade assembly, P/N 109-8131-02-157. Returning the removed T/R blades, grips, or bushings to Agusta is not required.

(3) For helicopters with T/R hub and blade assembly, P/N 109-8131-02-157 (consisting of two T/R blades, P/N 109-8132-01-111, and one T/R hub and grip assembly, P/N 109-8131-02-159), within 25 hours TIS, and thereafter at intervals not to exceed 25 hours TIS, and before further flight any time there is an increase in vibration levels, using a 5x or higher power magnifying glass, visually inspect each T/R blade for a crack in accordance with the Compliance Instructions, Part III, paragraphs 1. through 5. of the BT. Reporting to Agusta is not required.

(4) On or before accumulating 200 hours TIS on the T/R hub and grip assembly, P/N 109-8131-02-159, and thereafter at intervals not to exceed 200 hours TIS, inspect the linings and measure the internal diameter of the bushings, P/N 109-8131-30-109, by

referring to Figure 2 of the BT. If the internal diameter of the bushing exceeds 41.35 millimeters, replace the bushing.

(5) If there is a crack in a T/R blade, before further flight, replace the cracked T/R blade.

(6) Revise the Airworthiness Limitations section of the maintenance manual to reflect that a T/R blade, P/N 109-8132-01-111, which has not been operated as part of T/R hub and blade assembly, P/N 109-8131-02-151, has retirement life of 1,000 hours TIS.

(g) Special Flight Permits

Special flight permits will not be issued.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas, 76137; telephone (817) 222-5110; email sharon.y.miles@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

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2007-0010, dated January 31, 2007. You may view a copy of the EASA AD on the Internet at http://www.regulations.gov in Docket No. FAA-2013-0146.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

(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 the AD specifies otherwise.

(i) Agusta Bollettino Tecnico No. 109EP-30, Revision C, dated September 29, 2006, excluding Figure 1.

(ii) Reserved.

(3) For Agusta 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 also 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 August 2, 2013.

Lance T. Gant,

Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

[FR Doc. 2013-23017 Filed 09/24/2013 at 8:45 am; Publication Date: 09/25/2013]