

[Federal Register: May 9, 2008 (Volume 73, Number 91)]
[Rules and Regulations]
[Page 26316-26318]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr09my08-3]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0524; Directorate Identifier 2007-SW-77-AD; Amendment 39-15519; AD 2007-26-52]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Model A109C, A109E, and A109K2 Helicopters

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

ACTION: Final rule; request for comments.

SUMMARY: This document supersedes Airworthiness Directive (AD) 2001-24-07 R1 and adopts AD 2007-26-52, which was sent previously to all known U.S. owners and operators of Agusta S.p.A. (Agusta) Model A109C, A109E, and A109K2 helicopters by individual letters. This AD requires inspections for swelling, deformation, bonding separation, or a crack on each main rotor blade (MRB) with a certain tip cap installed, and if any of these conditions are found that exceed the prescribed limits, replacing the MRB before further flight. This amendment is prompted by a report of the in-flight loss of part of a tip cap. The actions specified in this AD are intended to prevent an increase in vibration of the MRB and subsequent loss of control of the helicopter.

DATES: Effective May 27, 2008, to all persons except those persons to whom it was made immediately effective by Emergency AD 2007-26-52, issued on December 20, 2007, which contained the requirements of this amendment.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 27, 2008. The Director of the Federal Register approved the incorporation by reference of Agusta Alert Bollettino Tecnico No. 109-106, No. 109K-22, and No. 109EP-1, all Revision B and all dated December 19, 2000, listed in the AD as of January 7, 2002 (66 FR 60144, December 3, 2001).

Comments for inclusion in the Rules Docket must be received on or before July 8, 2008.

ADDRESSES: Use one of the following addresses to submit comments on this AD:

- 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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Agusta, 21017 Cascina Costa di Samarate (VA) Italy, Via Giovanni Agusta 520, telephone 39 (0331) 229111, fax 39 (0331) 229605-222595.

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information 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 Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sharon Miles, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Safety Management Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: On June 16, 2004, the FAA issued AD 2001-24-07 R1, Amendment 39-13687 (69 FR 35511, June 25, 2004). That AD required inspecting each MRB, part number (P/N) 709-0103-01, tip cap, for either bonding separation or a crack, and provided a terminating action for the requirements of the AD by replacing each tip cap with an airworthy tip cap, P/N 709-0103-29-109.

Since issuing that AD, there has been one report of in-flight loss of part of a tip cap, P/N 709-0103-29-109, resulting in an emergency landing due to an increase in vibrations. There has also been one report of cracking on the tip cap leading edge. Therefore, on December 20, 2007, we issued Emergency AD 2007-26-52, which superseded AD 2001-24-07 R1 (69 FR 35511, June 25, 2004), to remove the terminating action of replacing a tip cap with tip cap, P/N 709-0103-29-109, and to remove the serial number limitation of AD 2001-24-07 R1. The Emergency AD requires inspecting and replacing certain MRBs, if necessary.

The European Aviation Safety Agency (EASA), which is the Technical Agent for Italy, a Member State of the European Community, notified us that an unsafe condition may exist on Agusta Model A109C, A109E, and A109K2 helicopters. The EASA advises that an incident occurred in which a Model A109E helicopter lost part of the tip of the MRB due to fracture of the welded bead (joint line of shells). The manufacturer advises that the investigation relating to this tip cap failure is still ongoing.

Agusta has issued Alert Bollettino Tecnico No. 109-106 for the Model A109C, No. 109K-22 for the Model A109K2, and No. 109EP-1 for the Model A109E, all Revision B and all dated December 19, 2000, which describe inspecting the MRB tip cap for bonding separation and a crack; a tap inspection of the tip cap for bonding separation in the blade bond; and a dye-penetrant inspection of the tip cap leading edge along the welded joint line of the upper and lower tip cap skin shells for a crack. Since then, Agusta has issued Bollettino Tecnico No. 109-125 for the Model A109C, No. 109EP-85 for the Model A109E, and No. 109K-48 for the Model A109K2, all dated December 13, 2007, which describe procedures for inspecting the tip cap, P/N 709-0103-29-109, for cracks and for damage on the tip cap leading edge at the welded bead (joint line of shells). The EASA classified these bollettino tecnicos as mandatory and issued EASA Emergency AD No. 2007-0306-E, dated December 14, 2007, to ensure the continued airworthiness of these helicopters in Italy.

These helicopter models are manufactured in Italy and are type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, the EASA, the agent for Italy, has kept the FAA informed of the situation described above. The FAA has examined the findings of the EASA, reviewed all available information, and determined that AD action is necessary for products of these type designs that are certificated for operation in the United States.

Since the unsafe condition described is likely to exist or develop on other Agusta Model A109C, A109E, and A109K2 helicopters of the same type designs, the FAA issued Emergency AD 2007-26-52 to prevent an increase in vibration of the MRB and subsequent loss of control of the helicopter. The AD requires, for any MRB with a serial number with a prefix of either "EM-" or "A5-", except a MRB with a tip cap, P/N 709-0103-29-109, within 10 hours TIS and thereafter at intervals not to exceed 25 hours time-in-service (TIS):

- A tap inspection of the upper and lower sides of each tip cap for bonding separation and in the tip cap to blade bond area;
- A visual inspection of the upper and lower side of each blade tip cap for swelling or deformation; and
- A dye-penetrant inspection of the tip cap leading edge along the welded joint line of the upper and lower tip cap skin shells for a crack. The AD also requires visually inspecting each MRB with a tip cap, P/N 709-0103-29-109, for a crack on the leading edge at the welded bead (joint line of shells) using a 10x or higher power magnifying glass, and if there is damage other than a crack, inspecting the area using a dye-penetrant inspection method, within the following compliance times:
 - For a tip cap, P/N 709-0103-29-109, with 600 or more hours TIS, inspect within the next 5 hours TIS or 30 days, whichever occurs first, and thereafter at intervals not to exceed 50 hours TIS; or
 - For a tip cap with less than 600 hours TIS, inspect before reaching 600 hours TIS, and thereafter, at intervals not to exceed 50 hours TIS.

If dwelling, deformation, a crack, or bonding separation that exceeds the prescribed limits is found in a MRB with an affected prefix, except a MRB with a tip cap, P/N 709-0103-29-109, the MRB must be replaced with an airworthy MRB before further flight. If a crack is found in a MRB with tip cap, P/N 709-0103-29-109, then before further flight the MRB must be replaced with an airworthy MRB. The actions must be accomplished in accordance with the bollettino tecnicos described previously.

The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the structural integrity and controllability of the helicopter. Therefore, the applicable inspections of each affected MRB and replacing any unairworthy MRB are required before further flight, and this AD must be issued immediately.

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment thereon were impracticable and contrary to the public interest, and good cause existed to make the AD effective immediately by individual letters issued on December 20, 2007 to all known U.S. owners and operators of Model A109C, A109E, and A109K2 helicopters. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to 14 CFR 39.13 to make it effective to all persons.

The FAA estimates that this AD will affect 101 helicopters of U.S. registry (44 without a tip cap, P/N 709-0103-29-109, plus 57 with that tip cap), and will take, for MRBs with any tip cap, except tip cap, P/N 709-0103-29-109, approximately 6 work hours per helicopter to accomplish the initial and 24 25-hour TIS repetitive inspections (assuming they include dye-penetrant inspections), and for MRBs with tip cap, P/N 709-0103-29-109, installed, approximately 8 work hours per helicopter to accomplish the initial and 12 50-hour TIS repetitive inspections, assuming that these inspections require using a dye-penetrant method also, at an average labor rate of \$80 per work hour. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$495,360.

Comments Invited

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2008-0524; Directorate Identifier 2007-SW-77-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic,

environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light 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 with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78), or you may visit <http://docketsinfo.dot.gov>.

Regulatory Findings

We have 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 above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. 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. See the AD docket to examine the economic evaluation.

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 products identified in this rulemaking action.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:



2007-26-52 Agusta S.p.A.: Amendment 39-15519. Docket No. FAA-2008-0524; Directorate Identifier 2007-SW-77-AD. Supersedes AD 2001-24-07 R1, Amendment 39-13687, Docket No. 2001-SW-15-AD.

Applicability: Model A109C, A109E, and A109K2 helicopters, with a main rotor blade (MRB), Part Number (P/N) 709-0103-01-all dash numbers, certificated in any category.

Compliance: Required as indicated.

(a) For a MRB with a serial number that has a prefix of either "EM-" or "A5-", except a MRB with a tip cap, P/N 709-0103-29-109, installed, within 10 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 25 hours TIS:

(1) Tap inspect the upper and lower sides of each tip cap for bonding separation between the metal shells and the honeycomb core using a steel tap hammer, P/N 109-3101-58-1, or a coin (quarter) in the area indicated as honeycomb core on Figure 1 of Alert Bollettino Tecnico (BT) No. 109-106, No. 109K-22, or No. 109EP-1, all Revision B, and all dated December 19, 2000, as applicable to your model helicopter. Also, tap inspect for bonding separation in the tip cap to blade bond area (no bonding voids are permitted in this area).

(2) Visually inspect the upper and lower sides of each blade tip cap for swelling or deformation.

(3) Dye-penetrant inspect the tip cap leading edge along the welded joint line of the upper and lower tip cap skin shells for a crack in accordance with the Compliance Instructions, steps 3. through 3.2.6., of the applicable BT.

(4) If any swelling, deformation, crack, or bonding separation that exceeds the prescribed limits in the applicable maintenance manual is found, replace the blade with an airworthy blade before further flight.

(b) For a MRB with a tip cap, P/N 709-0103-29-109, installed, perform the following in accordance with Table 1:

Table 1

For each tip cap:	Comply:
With 600 or more hours TIS,	Within the next 5 hours TIS or 30 days, whichever occurs first, and thereafter at intervals not to exceed 50 hours TIS.
With less than 600 hours TIS,	Before reaching 600 hours TIS, and thereafter, at intervals not to exceed 50 hours TIS.

(1) Using a 10x or higher power magnifying glass, visually inspect the tip cap leading edge welded bead (joint line between the two metallic shells) for a crack in accordance with the Compliance Instructions, steps 1. through 2. of BT No. 109-125, No. 109EP-85, or No. 109K-48, all dated December 13, 2007, as applicable to your model helicopter.

(2) If there is damage other than a crack, inspect the tip cap leading edge along the welded joint line of the shells for a crack using a dye penetrant method in accordance with the Compliance

Instructions, steps 3. through 3.7. of BT No. 109-125, No. 109EP-85, or No. 109K-48, all dated December 13, 2007, as applicable to your model helicopter.

(3) If a crack is present, remove the blade and replace it with an airworthy blade before further flight.

(c) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Sharon Miles, Rotorcraft Directorate, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(d) The inspections shall be done in accordance with the specified portions of the service information described in paragraphs (d)(1) and (d)(2) of this AD.

(1) The Director of the Federal Register approved the incorporation by reference of Agusta Bollettino Tecnico No. 109-125, No. 109EP-85, and No. 109K-48, all dated December 13, 2007, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Agusta Alert Bollettino Tecnico No. 109-106, No. 109K-22, and No. 109EP-1, all Revision B and all dated December 19, 2000, on January 7, 2002 (66 FR 60144, December 3, 2001).

(3) Copies may be obtained from Agusta, 21017 Cascina Costa di Samarate (VA) Italy, Via Giovanni Agusta 520, telephone 39 (0331) 229111, fax 39 (0331) 229605-222595.

(4) Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas or 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/code_of_federal_regulations/ibr_locations.html.

Note: The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2007-0306-E, dated December 14, 2007.

(e) This amendment becomes effective on May 27, 2008, to all persons except those persons to whom it was made immediately effective by Emergency AD 2007-26-52, issued December 20, 2007, which contained the requirements of this amendment.

Issued in Fort Worth, Texas, on May 1, 2008.

Mark R. Schilling,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. E8-10054 Filed 5-8-08; 8:45 am]