



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: January 13, 2010

AD #: 2010-02-51

This Emergency Airworthiness Directive (AD) is prompted by a mandatory continuing airworthiness information (MCAI) AD issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community. The MCAI states that 2 of the 3 installed main rotor scissor fitting assembly fixing bolts (fixing bolts) on a Model A109K2 helicopter had cracked in flight. Investigation by the manufacturer revealed that the crack was caused by inadequate instructions for installing the bolts. Improper installation of the main rotor scissor fitting assembly, if not detected and corrected, could result in a crack in a fixing bolt, failure of the fixing bolt, and subsequent loss of control of the helicopter.

We have reviewed Agusta Alert Bollettino Tecnico (ABT) No. 109K-53 for Model A109K2 helicopters and ABT No. 109-131 for Model A109A, A109A II, and A109C helicopters, both dated December 18, 2009. The ABTs specify a one-time inspection to verify the correct installation of the main rotor scissor fitting assembly, part number (P/N) 109-0110-67 or P/N 109-0101-58, to determine if 2 washers are installed under the head of each fixing bolt. If 2 washers are not installed under the head of each fixing bolt, the ABTs specify replacing each fixing bolt with an airworthy fixing bolt, P/N 109-0101-78-5, and installing 2 washers under the head of each fixing bolt.

EASA has issued AD No. 2009-0274-E, dated December 18, 2009, to correct an unsafe condition for the specified Agusta model helicopters. EASA advises that failure of a fixing bolt could lead to loss of control of the helicopter.

These helicopter models 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, their technical agent, has notified us of the unsafe condition described in the MCAI 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. Therefore, this AD requires, within 5 hours time-in-service (TIS), inspecting the main rotor scissor fitting assembly to determine if there are 2 washers installed under the head of each fixing bolt. If there are 2 washers installed under the head of each fixing bolt, no further action is required. If there are not 2 washers installed under the head of each fixing bolt, this AD requires, within 25 hours TIS after complying with paragraph (a) of this AD, replacing each fixing bolt and installing 2 washers under the head of each fixing bolt.

This AD differs from the MCAI AD in that we refer to "flight hours" as "hours TIS". Also, we do not allow an optional date for replacing the fixing bolts.

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

2010-02-51 AGUSTA S.p.A: Directorate Identifier 2010-SW-05-AD.

Applicability: Model A109A, A109A II, A109C, and A109K2 helicopters, certificated in any category.

Compliance: Required as indicated, unless previously accomplished.

To prevent a crack in a main rotor scissor fitting assembly fixing bolt (fixing bolt), failure of a fixing bolt, and subsequent loss of control of the helicopter, do the following:

(a) Within 5 hours time-in-service (TIS), inspect the main rotor scissor fitting assembly, part number (P/N) 109-0110-67 and P/N 109-0110-58, to determine if there are 2 washers installed under the head of each fixing bolt, P/N 109-0101-78-5, as depicted in Figure 1 of Agusta Alert Bollettino Tecnico (ABT) No. 109K-53 for Model A109K2 helicopters, and ABT No. 109-131 for Model A109A, A109A II, and A109C helicopters, both dated December 18, 2009, as applicable.

(1) If there are 2 washers installed under the head of each fixing bolt, no further action is required.

(2) If there are not 2 washers installed under the head of each fixing bolt, within 25 hours TIS after complying with paragraph (a) of this AD, replace each fixing bolt, P/N 109-0101-78-5, and install 2 washers under the head of each fixing bolt as depicted in Figures 1 and 2 of the applicable ABT, by following the Compliance Instructions, Part II, paragraphs 1. through 3.5., of the applicable ABT.

(b) 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, ATTN: DOT/FAA Southwest Region, Sharon Miles, ASW-111, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5122, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) Joint Aircraft System/Component (JASC) Code 6220: Main Rotor Head.

(d) Copies of the applicable service information may be obtained from Agusta, Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA), Italy, telephone 39 0331-229111, fax 39 0331-229605/222595, or at http://customersupport.agusta.com/technical_advice.php.

(e) Emergency AD 2010-02-51, issued January 13, 2010, becomes effective upon receipt.

Note: The subject of this AD is addressed in European Aviation Safety Agency AD No. 2009-0274-E, dated December 18, 2009.

FOR FURTHER INFORMATION CONTACT: DOT/FAA Southwest Region, Sharon Miles, ASW-111, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5122, fax (817) 222-5961.

Issued in Fort Worth, Texas, on January 13, 2010.

Scott A. Horn,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.