



FAA
Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: June 1, 2010

AD #: 2010-12-51

This Emergency Airworthiness Directive (EAD) is prompted by a report of a missing control-rod bushing (bushing) from a 90-degree tail rotor gearbox (TGB) installed on a Model AW119 MKII helicopter. The Agusta Model 119 helicopters also have the affected TGB installed; therefore, they are also included in the applicability of this EAD. This condition, if not detected and corrected, could result in abnormal vibration and damage to the tail rotor system, loss of the yaw control function, and subsequent loss of control of the helicopter.

We have reviewed Agusta Alert Bollettino Tecnico No. 119-38, dated March 25, 2010 (ABT), which specifies inspecting the TGB, part number (P/N) 109-0440-06-103, to verify the presence of the bushing. If the bushing is not installed, the ABT specifies replacing the TGB and associated parts with a "new" TGB assembly, P/N 109-0440-06-105. Also, the ABT specifies if the bushing is installed, reidentifying the TGB "by installing an additional nameplate" with P/N 109-0440-06-105.

European Aviation Safety Agency (EASA), the airworthiness authority for Italy, notified the FAA that an unsafe condition may exist on these helicopter models. EASA advises of a missing bushing in the TGB of a Model AW119 MKII helicopter. EASA also advises that "this condition, if not detected and corrected, could cause abnormal vibration of the tail rotor controls possibly leading to their damage and consequent loss of the yaw control function." EASA classified the ABT as mandatory and issued EAD No. 2010-0059-E, dated March 26, 2010, to ensure the continued airworthiness of these helicopters.

This EAD differs from the EASA EAD in that we refer to flight hours as hours time-in-service (TIS). We also do not refer to a compliance date of June 30, 2010. We added the requirement of the thickness gauge being no wider than 10 mm. We added the determinate that if the depth between the tail rotor control rod (rod) and the hub-locking nut (nut) is between 4 mm and 6 mm, the bushing is installed. We do not require an additional nameplate but require reidentifying the TGB P/N with an etch pen by changing the last three digits of the P/N from -103 to -105.

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, EASA has kept the FAA informed of the situation described above. The FAA has examined the findings of 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.

This unsafe condition is likely to exist or develop on other helicopters of these same type designs. Therefore, this EAD requires, before further flight, removing the forward boot from the nut and inserting a 0.3 millimeter (mm) thickness gauge, not exceeding 10 mm in width, between the rod and nut until the gauge stops. This EAD requires, from the face of the nut, measuring the depth the gauge is inserted between the rod and the nut before it stops. If the depth measurement is between 4 mm and 6 mm, the bushing is installed, and this EAD requires reidentifying the TGB,

P/N 109-0440-06-103, by using an etch pen to change the last three digits of the P/N from -103 to -105. If the depth measurement is greater than 6 mm, this EAD requires, before further flight, replacing the TGB and the associated parts with airworthy parts.

The actions must be accomplished by following specified portions of the ABT described previously.

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.

2010-12-51 AGUSTA S.p.A.: Directorate Identifier 2010-SW-045-AD.

Applicability: Model A119 and AW119 MKII helicopters, with a 90-degree tail rotor gearbox (TGB), part number (P/N) 109-0440-06-103, installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent abnormal vibration and damage to the tail rotor system, loss of the yaw control function, and subsequent loss of control of the helicopter, do the following:

(a) Before further flight, remove the forward boot, P/N 109-0135-10, from the hub-locking nut (nut), P/N 109-0135-12, as shown in Figure 1 of Agusta Alert Bollettino Tecnico No. 119-38, dated March 25, 2010 (ABT).

(1) Insert a 0.3 millimeter (mm) thickness gauge, not exceeding 10 mm in width, between the tail rotor control rod (rod) and the nut as shown in Figure 2 of the ABT until the gauge stops.

(2) From the face of the nut, measure the depth the gauge is inserted between the rod and the nut before it stops:

(i) If the depth measurement is between 4 mm and 6 mm, the bushing, P/N 109-0135-14-101, is installed. Within 5 hours time-in service, reidentify the TGB, P/N 109-0440-06-103, by using an etch pen to change the last three digits of the P/N from -103 to -105.

Note 1: Installing a new nameplate by following the Compliance Instructions, Part II, of the ABT satisfies the reidentification requirements of the TGB P/N in paragraph (a)(2)(i) of this AD.

(ii) If the depth measurement is greater than 6 mm, before further flight, replace the TGB, P/N 109-0440-06-103, with TGB, P/N 109-0440-06-105, and replace the associated parts listed in the Accomplishment Instructions, Part I, paragraph 4, of the ABT with the associated parts listed in the Accomplishment Instructions, Part I, paragraph 5, of the 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, FAA, ATTN: Eric Haight, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5204, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6520: Tail Rotor Gearbox.

(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 No. 2010-12-51 issued June 1, 2010, becomes effective upon receipt.

Note 2: The subject of this AD is addressed in the European Aviation Safety Agency Emergency AD No. 2010-0059-E, dated March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Eric Haight, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5204, fax (817) 222-5961.

Issued in Fort Worth, Texas, on June 1, 2010.

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