

EMERGENCY AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

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DATE: July 9, 2002
AD #: 2002-14-51

Send to all U.S. owners and operators of Agusta S.p.A. Model A109E and A119 helicopters.

This Emergency Airworthiness Directive (AD) is prompted by the failure of a tail rotor blade resulting in a forced auto-rotative landing. The failure of the tail rotor blade was due to a fatigue crack. This condition, if not detected, could result in failure of the tail rotor blade and subsequent loss of control of the helicopter.

The FAA has reviewed Agusta Bollettino Tecnico (BT) Nos. 109EP-30 for Model A109E and 119-6 for Model A119, both dated June 21, 2002, which describe procedures for checking and inspecting both sides of tail rotor blades, Part Number (P/N) 109-8132-01-111, for a crack at specified intervals.

The Ente Nazionale per l'Aviazione Civile (ENAC), the airworthiness authority for Italy, notified the FAA that an unsafe condition may exist on these helicopter models. The ENAC advises inspecting the tail rotor blades, P/N 109-8132-01-111, in accordance with the Agusta BT's. ENAC classified the BT's as mandatory and issued AD Nos. 2002-340 and 2002-341, both dated June 28, 2002, to ensure the continued airworthiness of these helicopters.

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, ENAC has kept the FAA informed of the situation described above. The FAA has examined the findings of ENAC, 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 AD requires, before each flight, visually checking each tail rotor blade on both sides for a crack. Paint irregularities may be due to a crack. If irregularities are found, this AD requires that you consult with a mechanic. Also, this AD requires within 5 hours time-in-service (TIS) and thereafter at intervals not to exceed 5 hours TIS, inspecting each tail rotor blade for a crack with a 5X or higher magnifying glass. If you are unable to determine by the visual inspection whether there is a crack, this AD also requires conducting a dye-penetrant inspection. Also, this AD requires, replacing any cracked tail rotor blade with an airworthy blade before further flight. This AD requires you to accomplish these actions in accordance with the BT's described previously.

An owner/operator (pilot) may perform the visual check required by this AD. The pilot must enter compliance with paragraph (a) of this AD into the helicopter maintenance records in accordance with 14 CFR 43.11 and 91.417(a)(2)(v). A pilot may perform this check because it involves only a visual check for a crack in the tail rotor blade and can be performed equally well by a pilot or a mechanic.

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.

2002-14-51 AGUSTA S.p.A.: Docket No. 2002-SW-35-AD.

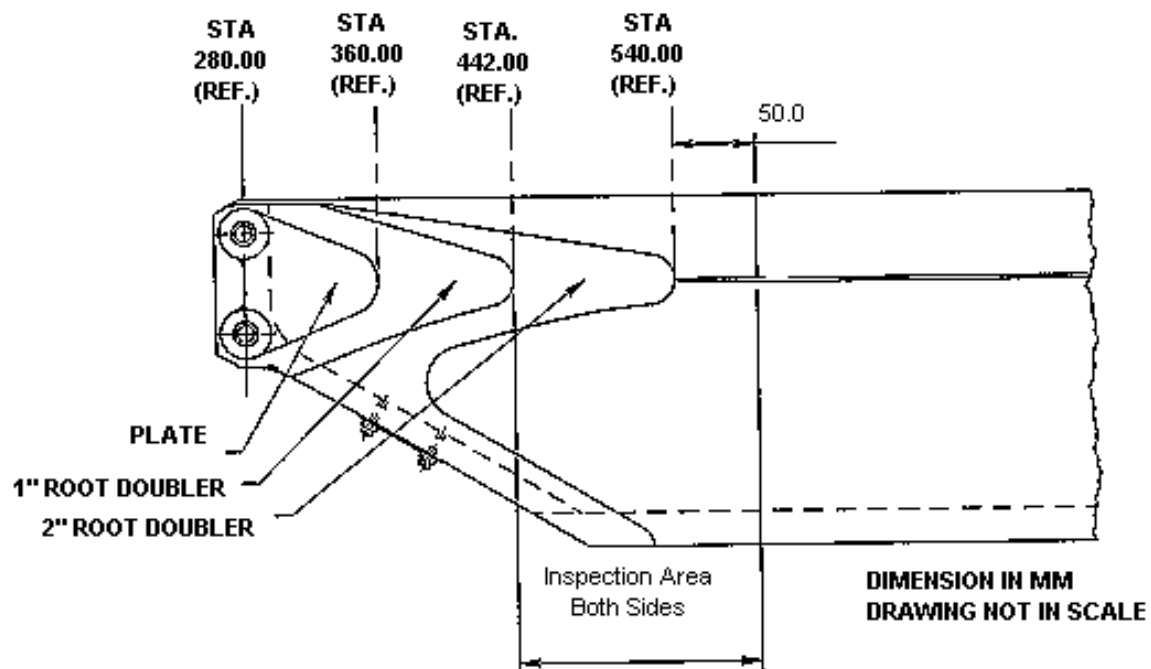
Applicability: Model A109E and A119 helicopters, with tail rotor blade, part number (P/N) 109-8132-01-111, installed, certificated in any category.

Note 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the tail rotor blade and subsequent loss of control of the helicopter, accomplish the following:

(a) Before each flight, visually check each tail rotor blade on both sides for a crack as shown in Figure 1 of this AD. Paint irregularities may be due to a crack. If irregularities are found, consult with a mechanic. The pilot must enter compliance with this paragraph in accordance with 14 CFR 43.11 and 91.417(a)(2)(v).



Part Number 109-8132-01-111 Tail Rotor Blade

FIGURE 1

(b) Within 5 hours time-in-service (TIS) and thereafter at intervals not to exceed 5 hours TIS, using a 5X or higher magnifying glass, visually inspect each tail rotor blade for a crack in accordance with the Compliance Instructions, Part II, paragraphs 1 through 5, of Agusta Bollettino Tecnico (BT) Nos. 109EP-30 for Model A109E or 119-6 for Model 119-6, both dated June 21, 2002.

(c) If you are unable to determine by the visual inspection whether there is a crack, dye penetrant inspect the tail rotor blade for a crack in accordance with the Compliance Instructions, Part II, paragraphs 6 through 7, of Agusta BT Nos. 109EP-30 for Model A109E or 119-6 for Model 119-6, both dated June 21, 2002.

(d) If a crack is found, before further flight, replace any cracked tail rotor blade with an airworthy tail rotor blade.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(f) Special flight permits will not be issued.

(g) Copies of the applicable service information 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

(h) Emergency AD 2002-14-51, issued July 9, 2002, becomes effective upon receipt.

Note 3: The subject of this AD is addressed in Ente Nazionale per l'Aviazione Civile AD Nos. 2002-340 and 2002-341, both dated June 28, 2002.

FOR FURTHER INFORMATION CONTACT: Jim Grigg, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5490, fax (817) 222-5961.

Issued in Fort Worth, Texas, on July 9, 2002.

David A. Downey
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