

**SUMMARY:** This document publishes in the **Federal Register** an amendment adopting Emergency Airworthiness Directive (EAD) 2002–25–51, sent previously to all known U.S. owners and operators of the specified Agusta S.p.A. (Agusta) helicopters by individual letters. This Airworthiness Directive (AD) requires reducing the tail rotor (T/R) blade life limit and modifying and re-identifying the T/R hub and grip assembly. It also clarifies the never-exceed speed (Vne) restrictions and modifies the T/R visual inspection intervals. The actions specified by this AD are intended to prevent fatigue failure of the T/R blade and subsequent loss of control of the helicopter.

**DATES:** Effective March 17, 2003, to all persons except those persons to whom it was made immediately effective by EAD 2002–25–51, issued on December 17, 2002, 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 March 17, 2003.

Comments for inclusion in the Rules Docket must be received on or before April 29, 2003.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2002–SW–55–AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: [9-asw-adcomments@faa.gov](mailto:9-asw-adcomments@faa.gov).

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. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**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.

**SUPPLEMENTARY INFORMATION:** On October 17, 2002, the FAA issued AD 2002–17–51 (67 FR 67510, November 6, 2002), that superseded Emergency AD 2002–14–51, issued on July 9, 2002. AD 2002–17–51 imposed a Vne of 140 KIAS. That AD also required visually

checking the T/R blades on both sides for a crack before each start of the helicopter engines; visually inspecting the T/R blades with a 5x or higher magnifying glass at 25 hour time-in-service (TIS) intervals and any time an increase in vibration occurs; and conducting a dye-penetrant inspection, if necessary; and replacing any cracked T/R blade with an airworthy T/R blade. Since issuing that AD, analysis and tests have shown that the fatigue failure of the T/R blades was caused by unanticipated loads on the T/R blades. The manufacturer has redesigned the T/R grip bushings to reduce these loads; therefore, on December 17, 2002, the FAA issued EAD 2002–25–51 to required modifying the T/R hub and grip assembly with the new bushings by May 31, 2003. Until the T/R grip assembly is modified, the life limit of the T/R blades is reduced to 200 hours TIS. That action was prompted by the failure of a T/R blade that resulted in a forced autorotative landing. The failure, which occurred on June 12, 2002, was determined to be caused by fatigue. This significant reduction in the service life of the T/R blades creates an unsafe condition. This condition, if not corrected, could result in fatigue failure of the T/R blade and subsequent loss of control of the helicopter.

The FAA has reviewed Agusta Alert Bollettino Tecnico 109EP–30, Revision B, dated November 27, 2002 (ABT), which maintains the visual check for cracks, the 5-hour TIS inspections with a magnifying glass, establishes a new life limit for the T/R blades, clarifies the Vne restrictions, modifies the T/R inspection intervals, and describes procedures for modifying and re-identifying the T/R hub and grip assembly by replacing T/R grip bushings (bushings), part number (P/N) 109–8131–29–101. Modifying and re-identifying the T/R hub and grip assembly restores the T/R blade life limits and cancels the Vne limitations.

Since the unsafe condition described is likely to exist or develop on other Agusta Model A109E helicopters of the same type design, the FAA issued EAD 2002–25–51 to prevent fatigue failure of the T/R blade and subsequent loss of control of the helicopter. The AD requires the following:

**Applicability A:** Agusta Model A109E helicopters with T/R hub and blade assembly, P/N 109–8131–02–151.

- Before further flight, placarding the helicopter and marking the airspeed indicator to reduce the helicopter Vne by 28 KIAS in addition to any reduction in Vne caused by optional equipment installation.

- Before each start of aircraft engines, visually checking each T/R blade for a crack.

- Within 5 hours TIS, and thereafter at intervals not to exceed 5 hours TIS, visually inspecting the T/R blade for a crack using a 5x or higher magnifying glass. If in doubt as to the existence of a crack, dye-penetrant inspect the T/R blades for a crack.

- Before further flight, replacing any unairworthy T/R blade with an airworthy T/R blade.

- Establishing a new life limit on the T/R blade, P/N 109–8132–01–111, of 200 hours TIS.

- Within 10 hours TIS, for helicopters having T/R blades with 190 hours TIS or more, replacing the blades.

- On or before May 31, 2003, modifying the T/R hub and grip assembly. Modifying and re-identifying the T/R hub assembly removes the Vne restrictions imposed, restores the T/R blades life limit to 1,000 hours TIS, and changes the AD requirements for the helicopter from Applicability A to Applicability B.

**Applicability B:** Agusta Model A109E helicopters, with T/R hub and blade assembly, P/N 109–8131–02–157.

- Before each start of the helicopter engines, visually checking the T/R blade for a crack.

- Within 25 hours TIS, and thereafter at intervals not to exceed 25 hours TIS, visually inspecting the T/R blade for a crack using a 5x or higher magnifying glass. If in doubt as to the existence of a crack, dye-penetrant inspect the T/R blades for a crack.

- Before further flight, replace any unairworthy T/R blade with an airworthy T/R blade.

- Before accumulating 150 hours TIS on the T/R hub assembly, P/N 109–8131–02–159, and thereafter at intervals not to exceed 150 hours TIS, inspect the bushings, P/N 109–8131–30–109. Replace any unairworthy bushing with an airworthy bushing.

The actions must be accomplished in accordance with the ABT described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability and structural integrity of the helicopter. Therefore, the previously stated actions are required before further flight and at the specified time intervals, 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