



FAA
Aviation Safety

**EMERGENCY AIRWORTHINESS
DIRECTIVE**

www.faa.gov/aircraft/safety/alerts/

DATE: June 3, 2016

AD #: 2016-12-51

This Emergency Airworthiness Directive (AD) 2016-12-51 is being sent to owners and operators of Airbus Helicopters Model AS332L2 and Model EC225LP helicopters.

Background

This Emergency AD was prompted by an accident involving an EC225LP helicopter in which the main rotor hub (MRH) detached from the main gearbox (MGB). An investigation is ongoing to determine the root cause of the accident. This Emergency AD immediately prohibits flight of all Model AS332L2 and EC225LP helicopters. The actions in this Emergency AD are intended to prevent failure of the main rotor system and subsequent loss of control of the helicopter.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, issued EASA Emergency AD 2016-0089-E, dated May 3, 2016, to correct an unsafe condition for Airbus Helicopters Models EC 225 LP helicopters. EASA issued Emergency AD 2016-0089-E following a fatal accident in Norway in which an in-flight detachment of the MRH from the MGB occurred; the Emergency AD required one-time inspections of the MGB and also required reporting findings to EASA and Airbus Helicopters. Review of the findings from the inspections prompted Airbus Helicopters to provide further inspections and replacement instructions for correctly installing the MGB suspension bars and attachment fittings. EASA subsequently issued Emergency AD 2016-0103-E, dated June 1, 2016, which superseded EAD 2016-0089-E, and required inspecting the MGB suspension bar fittings and related base plate assemblies, and also required replacing the attachment hardware. Soon after Emergency AD 2016-0103-E was issued, a preliminary report from the Accident Investigation Board Norway indicated metallurgical findings of fatigue and surface degradation in the outer race of a second stage planet gear of the MGB epi-cyclic module. EASA advises that it could not be determined if the fatigue and surface degradation is a contributing factor or if it resulted from another initiating factor. Therefore, pending further investigation to determine the root cause of the reported damage and pending development of mitigating measures by Airbus Helicopters, EASA decided to temporarily ground the fleet as a precautionary measure and issued Emergency AD 2016-0104-E on June 2, 2016. EASA included the Model AS 332 L2 helicopters to the applicability due to similarities in design that make it subject to the same unsafe condition.

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in the EASA Emergency AD. We are issuing this Emergency 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.

Emergency AD Requirements

This Emergency AD immediately prohibits flight of all Airbus Helicopters Model AS332L2 and EC225LP helicopters.

Interim Action

We consider this Emergency AD to be an interim action. Once the design approval holder develops a modification that addresses the unsafe condition identified in this AD, we might consider additional rulemaking.

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.

Adoption of the Emergency Airworthiness Directive (AD)

We are issuing this Emergency AD under 49 U.S.C. Sections 106(g), 40113, and 44701 according to the authority delegated to me by the Administrator.

2016-12-51 **Airbus Helicopters:** Directorate Identifier 2016-SW-037-AD.

(a) Applicability

This Emergency AD applies to Airbus Helicopters Model AS332L2 and Model EC225LP helicopters, certificated in any category.

(b) Unsafe Condition

This Emergency AD defines the unsafe condition as failure of the main rotor system, which will result in loss of control of the helicopter.

(c) Effective Date

This Emergency AD is effective upon receipt.

(d) Compliance

You are responsible for performing each action required by this Emergency AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Action

Further flight is prohibited.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this Emergency AD. Send your proposal to: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this Emergency AD through an AMOC.

(g) Additional Information

(1) For further information contact: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110, email gary.b.roach@faa.gov.

(2) The subject of this AD is addressed in European Aviation Safety Agency Emergency AD 2016-0104-E, dated June 2, 2016.

(h) Subject

Joint Aircraft Service Component (JASC) Code: Main Rotor Gearbox: 6320.

Issued in Fort Worth, Texas, on June 3, 2016.

Lance T. Gant
Manager, Rotorcraft Directorate,
Aircraft Certification Service.