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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2015-7095; Directorate Identifier 2015-SW-085-AD; Amendment 39-18848; AD 2017-07-09]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. This AD requires removing from service the tail gearbox center housing (housing) when it has 12,200 or more hours time-in-service (TIS). This AD was prompted by fatigue analysis conducted by Sikorsky that determined the housing required a retirement life. The actions are intended to prevent an unsafe condition on these products.

**DATES:** This AD is effective May 12, 2017.

**ADDRESSES:** For service information identified in this final rule, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email: wcs\_cust\_service\_eng.gr-sik@lmco.com. You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-7095; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Kristopher Greer, Aerospace Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email Kristopher.Greer@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On August 30, 2016, at 81 FR 59526, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Sikorsky Model S-92A helicopters with a housing part number (P/N) 92358-06107-043 installed. The NPRM proposed to require removing from service any housing with 12,200 or more hours TIS. The NPRM was prompted by fatigue analysis conducted by Sikorsky that determined the housing required a retirement life. The proposed actions were intended to prevent a crack in the housing, which could lead to loss of tail rotor drive and loss of helicopter control.

### **Comments**

After our NPRM was published, we received a comment from Sikorsky.

### **Request**

Sikorsky requested a minimum 45-day extension of the comment period. In support of this request, Sikorsky stated it is re-evaluating the housing's 12,200-hour life limit due to an error in the measured flight test loads used in the structural fatigue substantiation. When asked for additional information, Sikorsky advised that it had completed its re-evaluation and determined that the 12,200-hour life limit was, in fact, correct.

### **FAA's Determination**

We have reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Related Service Information**

We reviewed Sikorsky S-92 Maintenance Manual 4-00-00, Temporary Revision No. 4-49, dated April 10, 2015, which establishes a replacement interval of 12,200 hours for housing, P/N 92358-06107-043.

### **Costs of Compliance**

We estimate that this AD affects 80 helicopters of U.S. Registry and that labor costs average \$85 per work hour. Based on these estimates, we expect the following costs.

Replacing the housing requires 24 work-hours, and parts cost \$58,000 for a total cost of \$60,040 per helicopter.

### **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.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):



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**2017-07-09 Sikorsky Aircraft Corporation:** Amendment 39-18848; Docket No. FAA-2015-7095; Directorate Identifier 2015-SW-085-AD.

**(a) Applicability**

This AD applies to Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters, certificated in any category, with a tail gearbox center housing, part number (P/N) 92358-06107-043, installed.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in a tail gearbox center housing. This condition could result in failure of the tail rotor drive and consequently loss of helicopter control.

**(c) Effective Date**

This AD becomes effective May 12, 2017.

**(d) Compliance**

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

**(e) Required Actions**

Before further flight, remove from service any tail gearbox housing, P/N 92358-06107-043, that has 12,200 or more hours time-in-service.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Kristopher Greer, aerospace engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, FAA, 1200 District Avenue, Burlington, Massachusetts 01803; telephone 781-238-7799; email [Kristopher.Greer@faa.gov](mailto:Kristopher.Greer@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 AD through an AMOC.

**(g) Additional Information**

Sikorsky S-92 Maintenance Manual 4-00-00, Temporary Revision No. 4-49, dated April 10, 2015, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-

4299; email: wcs\_cust\_service\_eng.gr-sik@lmco.com. You may review a copy of this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

Issued in Fort Worth, Texas, on March 29, 2017.

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