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#### **DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2009-0351; Directorate Identifier 2009-SW-08-AD; Amendment 39-15886; AD 2009-07-53]

**RIN 2120-AA64** 

Airworthiness Directives; Sikorsky Aircraft Corporation Model S-92A Helicopters

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

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SUMMARY: This document publishes in the Federal Register an amendment adopting Airworthiness Directive (AD) 2009-07-53, which was sent previously to all known U.S. owners and operators of Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters by individual letters. This amendment is prompted by the failure of 2 main gearbox filter bowl assembly studs (studs) that were found broken during a fatal accident investigation in Canada. Prior to the accident, the manufacturer was investigating a July 2008 incident that also involved broken studs. In both cases, the broken studs resulted in rapid loss of oil. The failures have been tied to fretting and galling of the original titanium studs; therefore, this AD requires removing all titanium studs and replacing them with steel studs. The actions specified by this AD are intended to prevent failure of a stud, which could result in rapid loss of oil, failure of the main gearbox, and subsequent loss of control of the helicopter.

**DATES:** Effective April 27, 2009, to all persons except those persons to whom it was made immediately effective by Emergency AD 2009-07-53, issued on March 23, 2009, 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 April 27, 2009.

Comments for inclusion in the Rules Docket must be received on or before June 26, 2009.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

• Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, Mailstop s581a, 6900 Main Street, Stratford, CT, telephone (203) 383-4866, e-mail address tsslibrary@sikorsky.com, or at http://www.sikorsky.com.

Examining the Docket: You may examine the docket that contains the AD, any comments, and other information on the Internet at http://www.regulations.gov, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647-5527) is located in Room W12-140 on the ground floor of the West Building at the street address stated in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Kirk Gustafson, Aviation Safety Engineer, Boston Aircraft Certification Office, Engine and Propeller Directorate, FAA 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7190, fax (781) 238-7170

**SUPPLEMENTARY INFORMATION:** On March 23, 2009, we issued Emergency AD 2009-07-53 for Sikorsky Model S-92A helicopters, which requires, before further flight, removing all titanium studs that attach the main gearbox filter bowl assembly to the main gearbox and replacing them with steel studs. That action was prompted by the failure of 2 studs that were found broken during a fatal accident investigation in Canada. Prior to the accident, the manufacturer was investigating a July 2008 incident that also involved broken studs. In both cases, the broken studs resulted in rapid loss of oil. The failures have been tied to fretting and galling of the original titanium studs. This condition, if not corrected, could result in failure of a stud, which could result in rapid loss of oil, failure of the main gearbox, and subsequent loss of control of the helicopter.

We have reviewed Sikorsky Alert Service Bulletin No. 92-63-014A, Revision A, dated March 20, 2009 (ASB), which describes procedures for removing the main gearbox filter bowl assembly titanium mounting studs and replacing them with steel mounting studs.

Since the unsafe condition described is likely to exist or develop on other Sikorsky Model S-92A helicopters of the same type design, we issued Emergency AD 2009-07-53 to prevent failure of a stud, which could result in rapid loss of oil, failure of the main gearbox, and subsequent loss of control of the helicopter. The AD requires, before further flight, removing all titanium studs and replacing them with steel studs. The actions must be accomplished in accordance with specified portions of the ASB described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the structural integrity of the helicopter. Therefore, removing all titanium studs and replacing them with steel studs is required before further hight, 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 effective immediately by individual letters issued on March 23, 2009 to all known U.S. owners and operators of Sikorsky Model S-92A helicopters. These conditions still exist, and the AD is hereby published in the Federal Register as an amendment to 14 CFR 39.13 to make it effective to all persons.

We estimate that this AD will affect 32 helicopters of U.S. registry. Replacing the studs will take approximately 6 work hours per helicopter to accomplish at an average labor rate of \$80 per work hour. Per the ASB, required parts and tooling are available at no cost. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$15,360, assuming there are no parts and tooling costs.

#### **Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2009-0351; Directorate Identifier 2009-SW-08-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

## **Regulatory Findings**

We have determined that 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 the regulation:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- 3. 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. See the AD docket to examine the economic evaluation.

### 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.

### List of Subjects in 14 CFR Part 39

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

#### **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:





## AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/ www.gpoaccess.gov/fr/advanced.html

**2009-07-53 Sikorsky Aircraft Corporation:** Amendment 39-15886. Docket No. FAA-2009-0351; Directorate Identifier 2009-SW-08-AD.

**Applicability:** Model S-92A helicopters with a main gearbox housing assembly, part number (P/N) 92351-15110-042, -043, or -044, that is not marked with "TS-062-01" near the P/N, certificated in any category.

**Compliance:** Required before further flight, unless accomplished previously.

To prevent failure of a main gearbox filter bowl assembly mounting stud (stud), which could result in rapid loss of oil, failure of the main gearbox, and subsequent loss of control of the helicopter, accomplish the following:

(a) Remove the titanium studs by following the Accomplishment Instructions in Sikorsky Alert Service Bulletin No. 92-63-014, Rev. A, dated March 20, 2009 (ASB), paragraph 3.A.

Note: Figure 1 of the ASB contains guidance for removal and installation of the studs.

- (b) Visually inspect the tapped holes and the main gearbox housing lockring counterbore for damage. If you find damage in the tapped holes or in the main gearbox housing lockring counterbore, contact the Boston Aircraft Certification Office for an approved repair.
- (c) Install steel studs and mark the main gearbox housing as "TS-062-01" near the P/N by following the Accomplishment Instructions in the ASB, paragraph 3.C.
- (d) 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, Boston Aircraft Certification Office, Engine and Propeller Directorate, FAA, Attn: Kirk Gustafson, Aviation Safety Engineer, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7190, fax (781) 238-7170, for information about previously approved alternative methods of compliance.
  - (e) Special flight permits will not be issued.
- (f) Remove and replace the studs by following the specified portions of Sikorsky Alert Service Bulletin No. 92-63-014, Rev. A, dated March 20, 2009. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Sikorsky Aircraft Corporation, Attn: Manager, Commercial Technical Support, Mailstop s581a, 6900 Main Street, Stratford, CT, telephone (203) 383-4866, e-mail address tsslibrary@sikorsky.com, or at http://www.sikorsky.com. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal\_register/code\_of\_federal\_regulations/ibr\_locations.html.

(g) This amendment becomes effective on April 27, 2009, to all persons except those persons to whom it was made immediately effective by Emergency AD 2009-07-53, issued March 23, 2009, which contained the requirements of this amendment.

Issued in Fort Worth, Texas, on April 9, 2009. Mark R. Schilling, Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

