

EMERGENCY AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

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

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

DATE: October 29, 2009

AD #: 2009-23-51

This Emergency Airworthiness Directive (AD) is prompted by reports of cracks in the main gearbox (MGB) mounting foot pads and foot ribs. The manufacturer is investigating the root cause of these cracks. Contributing factors may include corrosion and the bushing press fit in the mounting foot bolt hole. This condition, if not detected, could result in loss of the MGB and subsequent loss of control of the helicopter.

We have reviewed Sikorsky Alert Service Bulletin No. 92-63-020, dated September 11, 2009 (ASB), which describes procedures for visually inspecting the MGB assembly mounting foot pads and foot ribs for a crack and corrosion. The ASB specifies a 10-hour recurring visual inspection. If you suspect a crack, the ASB specifies a fluorescent penetrant inspection (FPI) or a dye penetrant inspection (DPI). If you find a crack, the ASB specifies replacing the MGB before further flight. Also, the ASB specifies treating any corrosion.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD requires within 10 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 10 hours TIS, cleaning and inspecting each MGB assembly mounting foot pad and rib for a crack and corrosion. If no crack is found, the AD also requires applying a corrosion preventive compound. If you find a crack, the AD also requires replacing the MGB before further flight. If you find corrosion, bubbled paint, or paint discoloration, this AD also requires you to repair the MGB before further flight. The actions specified in this AD are interim actions.

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.

2009-23-51 SIKORSKY AIRCRAFT CORPORATION: Directorate Identifier 2009-SW-52-AD.

Applicability: Model S-92A helicopters, with main gearbox (MGB) assembly, part number (P/N) 92351-15000-042 or -043, with MGB housing, P/N 92351-15110-042, -043, -044, or -045, installed, certificated in any category.

Compliance: Required as indicated.

To prevent loss of an MGB and subsequent loss of control of the helicopter, do the following:

(a) Within 10 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 10 hours TIS, clean and inspect each MGB assembly mounting foot pad and rib for a crack and corrosion in the area depicted in Figure 1; as shown in the examples in Figures 2, 3, and 4; of Sikorsky Alert Service Bulletin No. 92-63-020, dated September 11, 2009 (ASB). If no crack is found, apply the corrosion preventive compound to each foot pad and rib area.

Note 1: When conducting a visual inspection, use a bright, non-LED light.

(1) If you find a crack, replace the MGB before further flight.

(2) If you find corrosion, bubbled paint, or paint discoloration, before further flight, repair the affected area.

Note 2: Following the ASB Accomplishment Instructions accomplishes the intent of this AD.

(b) 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, ATTN: Michael Schwetz, Aviation Safety Engineer, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7761, fax (781) 238-7170, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6320: Main Rotor Gearbox.

(d) Copies of the applicable service information 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>.

(e) Emergency AD 2009-23-51, issued October 29, 2009, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Michael Schwetz, Aviation Safety Engineer, Boston Aircraft Certification Office, 12 New England Executive Park, Burlington, MA 01803, telephone (781) 238-7761, fax (781) 238-7170.

Issued in Fort Worth, Texas, on October 29, 2009.

Mark R. Schilling,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.