FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE

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DATE: August 20, 2010
AD #: 2010-18-51

This Emergency Airworthiness Directive (AD) is prompted by two reports of cracks detected in the lower main rotor hub (hub) at the flex beam bolt hole locations during maintenance on two MDHI Model MD900 helicopters. This condition, if not detected, could result in a crack in the hub, failure of the hub, and subsequent loss of control of the helicopter.

We have reviewed two letters issued by MDHI, dated August 11 and August 16, 2010, recommending diligence in conducting preflight and maintenance inspections of the hub. MDHI has received two reports of a cracked hub. The hubs were returned to MDHI for evaluation. MDHI is analyzing the cracked hubs.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD requires, within 4 hours time-in-service, visually inspecting the hub for a crack, paying particular attention to the area of the 5 flex beam bolt hole locations. If you find a crack, this AD requires, before further flight, replacing the unairworthy hub with an airworthy hub. If you find a cracked hub, this AD also requires, within 10 days of finding the crack, contacting the Los Angeles Aircraft Certification Office. This AD is an interim action pending the results of an ongoing investigation to determine further corrective 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.

2010-18-51 MD HELICOPTERS, INC.: Directorate Identifier 2010-SW-076-AD.

Applicability: Model MD900 helicopters, with lower main rotor hub (hub), part number 900R2102008-103, -105, and -107, installed, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To detect a crack in the hub and prevent the failure of the hub and subsequent loss of control of the helicopter, do the following:

(a) Within 4 hours time-in-service, visually inspect the hub for a crack, paying particular attention to the area of the 5 flex beam bolt hole locations. If you find a crack, before further flight, replace the hub with an airworthy hub.

(b) If you find a crack, within 10 days, report the finding to Roger Durbin, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, e-mail Roger.Durbin@faa.gov or fax (562) 627-5210. Reporting requirements have been approved by the OMB and assigned OMB control number 2120-0056.

(c) 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, Los Angeles Aircraft Certification Office, FAA, ATTN: Roger Durbin, Aviation Safety Engineer, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone (562) 627-5233, fax (562) 627-5210, for information about previously approved alternative methods of compliance.

(d) The Joint Aircraft System/Component (JASC) Code is 6220: Main Rotor Head.

(e) Emergency AD 2010-18-51, issued August 19, 2010, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Roger Durbin, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone (562) 627-5233, fax (562) 627-5210.

Issued in Fort Worth, Texas, on August 19, 2010.

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