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Aviation Safety

EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: August 24, 2010

AD #: 2010-18-52

This superseding Emergency Airworthiness Directive (AD) is prompted by the discovery that Emergency AD 2010-18-51, issued August 18, 2010, contains a typographical error. The existing AD lists the part number (P/N) for the lower main rotor hub (hub) as P/N “900R2102008-103, -105, and -107;” the correct P/N is “900R2101008-103, -105, and -107.” The actions specified by this AD are intended to detect a crack in the hub and prevent failure of the hub and subsequent loss of control of the helicopter.

On August 18, 2010, we issued Emergency AD 2010-18-51. That Emergency AD was prompted by two reports of cracks detected in the hub in the area near the flex beam bolt hole locations during maintenance on two MDHI Model MD900 helicopters. That Emergency 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, the Emergency AD 2010-18-51 requires, before further flight, replacing the unairworthy hub with an airworthy hub. If you find a cracked hub, the Emergency AD also requires, within 10 days of finding the crack, reporting the finding to the Los Angeles Aircraft Certification Office. The Emergency AD is an interim action pending the results of an ongoing investigation to determine further corrective actions.

Since we issued Emergency AD 2010-18-51, we discovered that we used P/N 900R2102008-103, -105, and -107, in the “Applicability” section of the AD, which is incorrect. The correct P/N is 900R2101008-103, -105, and -107. This Emergency AD contains the same requirements as Emergency AD 2010-18-51 but corrects the P/N for the hub.

We have reviewed two letters issued by MDHI, dated August 11 and August 16, 2010, recommending visual inspections, feedback from operators, and diligence in conducting “preflight inspections” of the hub. MDHI has received reports of two cracked hubs. 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, reporting the finding to 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.

2010-18-52 MD HELICOPTERS, INC.: Directorate Identifier 2010-SW-078-AD. Supersedes AD 2010-18-51, Directorate Identifier 2010-SW-076-AD.

Applicability: Model MD900 helicopters, with lower main rotor hub (hub), part number 900R2101008-103, -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 2010-18-52, issued August 24, 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 24, 2010.

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