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2005-21-02 MD Helicopters, Inc.: Amendment 39-14340. Docket No. 2004-SW-13-AD. Supersedes AD 2003-24-01, Amendment 39-13770, Docket No. 2003-SW-16-AD.

Applicability: Models 369D, 369E, 369F, 369FF, 500N, or 600N with either an MD Helicopter, Inc. (MDHI) main rotor blade (blade) installed or modified with Helicopter Technology Company, LLC (HTC), Supplemental Type Certificate (STC) No. SR09172RC, SR09074RC, or SR01050LA with an HTC blade installed as listed in the following table, certificated in any category:

Helicopter model	MDHI blade part No. (P/N)	HTC blade P/N	HTC STC Nos.
369D	369D21100 Basic, –516, –517, –523	500P2100–BSC, –BSC–1	SR09172RC
369E	369D21120–501, –503	500P2100–101, –103	SR09074RC
369F, FF	369D21102 Basic, –503, –517, –523 369D21121–501, –503	500P2300–501, –503	SR01050LA
500N	369D21102–503, –517, –523 369D21121–501, –503	500P2300–501, –503	SR01050LA
600N	369D21102–517, –523 369D21121–501, –503	500P2300–501, –503	SR01050LA

Note 1: The terms "BSC" and "Basic" are interchangeable when identifying blades produced by MDHI and HTC.

Compliance: Required as indicated.

To detect fatigue cracking of the blade to prevent blade failure and subsequent loss of control of the helicopter, accomplish the following:

(a) On or before the next 50 hours time-in-service (TIS), unless accomplished previously:

(1) Determine and record the number of torque events accumulated on each blade. A torque event (TE) is the transition to a hover from forward flight or any external lift operation. Each transition to a hover from forward flight is recorded as a TE, and any external lift operation is recorded as two TEs. Forward flight is considered to be flight at any airspeed (or direction) after attaining translational lift. If you cannot determine the number of TEs, use 13,720 TEs.

(2) Continue to record the number of TEs accumulated (actual usage) throughout the life of the blades along with hours TIS. On or before accumulating an additional 200 TEs or at the end of each day's operations, whichever occurs first, record and update the accumulated TEs total.

(b) For each blade that has accumulated 13,720 or more TEs and 750 or more hours TIS, before further flight, unless accomplished previously, and thereafter at intervals not to exceed 200 TEs or 35 hours TIS, whichever occurs first, perform a main rotor blade torque event inspection.

Note 2: MD Helicopters, Inc. Maintenance Manual CSP-HMI-2, Revision 36, section 62-10-00, paragraph 8, Main Rotor Blade Torque Event Inspection, pertains to the subject of this AD.

(c) If a crack is found, replace the blade with an airworthy blade before further flight.

Note 3: MDHI Maintenance Manual CSP-HMI-2, Section 20-30-00 Main Rotor Blade Painting pertains to the subject of this AD. This section of the maintenance manual recommends painting the inboard 24 inches (not to be exceeded) of the blade gloss white to aid in detecting a crack; and if this is done, painting all blades alike and rebalancing them.

Note 4: TEs are used only to establish an additional inspection interval and not to establish an alternative retirement life.

(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 Los Angeles Aircraft Certification Office, Transport Airplane Directorate, for information about previously approved alternative methods of compliance.

Note 5: Complying with the inspection procedures in the Accomplishment Instructions, paragraphs 2.B.(2). and 2.B.(3)., of MD Helicopter Inc. Service Bulletin (SB) SB369H-245R2, SB369E-095R2,
SB500N-023R2, SB369D-201R2, SB369F-079R2, SB600N-031R2, dated February 4, 2004, constitutes an approved alternative method of conducting the inspection required by paragraph (b) of this AD.

Note 6: Complying with the Inspection Instructions procedures in paragraphs 2 and 3 of HTC Mandatory SB, Notice No. 2100-3R3, dated January 5, 2004, constitutes an approved alternative method of conducting the inspection required by paragraph (b) of this AD.

(e) This amendment becomes effective on November 1, 2005.

Issued in Fort Worth, Texas, on October 7, 2005.
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