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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003-SW-37-AD; Amendment 39-15101; AD 2007-12-23]

RIN 2120-AA64

Airworthiness Directives; MD Helicopters, Inc. Model 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HS, 369HM, 500N, and OH-6A Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for MD Helicopters, Inc. (MDHI) Model 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HS, 369HM, 500N, and OH-6A helicopters that requires inspecting each landing gear fairing support assembly (support assembly), replacing or reworking certain forward and aft landing gear assemblies, and creating an access hole to facilitate inspections and a recurring inspection. A terminating action for the requirements of this AD is also provided. This amendment is prompted by five reports of landing gear strut (strut) failures. The actions specified by this AD are intended to detect a crack that could result in the failure of a strut and subsequent loss of control of the helicopter during landing.

DATES: Effective July 19, 2007.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 19, 2007.

ADDRESSES: The service information referenced in this AD may be obtained from MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the Web at http://www.mdhelicopters.com. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas.

FOR FURTHER INFORMATION CONTACT: John Cecil, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5228, fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend 14 CFR part 39 to add an AD for the specified MDHI model helicopters was published as a Notice of Proposed Rulemaking (NPRM) in the Federal Register on August 4, 2004 (69 FR 47040). That NPRM would have required removing all landing gear fairings; determining the number and location of rivets that attach the landing gear fairing support assembly to the landing gear strut; and if three rivets (forward, aft and inboard) are present, replacing or reworking the landing gear assembly. If only the forward and aft rivets are present, no rework would be required by the proposed AD. That NPRM was prompted by five reports of strut failures. Operators of the helicopters with failed struts do not fall into any clear category of service. For example, one was a tour operator in Niagara Falls, New York, and another was a police department operator in Calgary, Canada. In its original design, the fairing support was attached to the strut with three rivets (forward, aft, and outboard). In 1994, the manufacturer released a design change to attach the fairing support assembly with only forward and aft rivets because of the possibility of reduced service life of the strut if the third rivet was located on the inboard side of the strut. Some landing gear struts entered service with an additional rivet hole drilled on the inboard side of the strut. This additional rivet hole results in decreased fatigue strength of the strut and subsequent cracking. That condition, if not corrected, could result in cracking of the forward and aft struts, failure of a strut, and subsequent loss of control of the helicopter during landing.

After issuing that NPRM, we received several comments from 2 commenters and we agreed that we should make some changes to the NPRM. Because some of those changes expanded the scope of the NPRM, we determined that it was necessary to reopen the comment period to provide additional opportunity for public comment. Therefore, a Supplemental NPRM (SNPRM) was published in the Federal Register on January 8, 2007 (72 FR 666). The SNPRM revised the NPRM by proposing to mandate both the creation of an access hole to facilitate inspections and a recurring inspection. The SNPRM also proposed excluding from the applicability certain helicopters modified with a certain Supplemental Type Certificate (STC) and provided a terminating action for the proposed requirements. The SNPRM also included clarifying changes.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the SNPRM or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed except we have expanded the contact address in paragraph (d) in the body of the AD to provide more information to the public and have made minor editorial changes. These changes will neither increase the economic burden on any operator nor increase the scope of this AD.

The FAA has reviewed MD Helicopters Service Bulletin SB369H-244, SB369E-094, SB500N-022, SB369D-200, and SB369F-078, dated April 7, 2000, which describes procedures for determining the number and location of rivets attaching the landing gear fairing support assembly to the landing gear strut. Where three rivets are present, instructions are provided to rework the landing gear assembly and replace any cracked strut assembly.

The FAA estimates that this AD will affect 651 helicopters of U.S. registry. Determining the number of rivets and initially inspecting each affected "3-hole" strut and fairing will take approximately 2 work hours, installing a new strut will take approximately 1.5 work hours, and reworking a strut will take 1 work hour. Each repetitive inspection will take 1/4 work hour per strut (1 hour per helicopter for each of 4 struts). The average labor rate is $80 per work hour. Required parts (new struts) will cost approximately $2,838 for each forward strut, $2,574 for each aft strut, and $97 for a modification kit to install an inspection hole. Assuming that each helicopter has an initial inspection, that all 651 helicopters are modified, that 325 helicopters have two struts reworked, that 5 helicopters require 2 new forward struts, and that 2 repetitive inspections are required per year, the total estimated cost of the AD on U.S. operators is about $353,047 ($248,887 for the initial inspections, modification, and parts, and $104,160 for the repetitive inspections).

Regulatory Findings

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

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:

2007-12-23 MD Helicopters, Inc.: Amendment 39-15101. Docket No. 2003-SW-37-AD.

Applicability

Model 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HS, 369HM, 500N, and OH-6A helicopters, with any of the components listed in the Applicability Table installed, excluding any helicopter with Aerometals strut (part number (P/N) 369XH6001-41, -42, -51, or -52) installed in accordance with Supplemental Type Certificate (STC) No. SR00981LA, certificated in any category:

Applicability Table

Component Name	Component Part Number (P/N)
Mid Aft Fairing Assembly	369H6200-61, -62, standard gear
Aft Support Assembly	369H6200-23, -24 (-23 to be reinstalled on the right-hand side and –24 to be reinstalled on the left-hand side, all configurations)
Aft Fairing Assembly	369H92113-91, -92, extended gear
Aft Filler Assembly	369H92113-131, -132, extended gear
Aft Fillet Assembly	369A6200-45, -46, standard gear
Aft Fillet Assembly	369H92113-111, -112, extended gear
Mid Fwd Fairing Assembly	369H6200-41, -42, standard gear
Fwd Fairing Assembly	369H92113-81, -82, extended gear
Fwd Support Assembly	369H6200-23, -24 (-23 becomes right-hand side and –24 becomes left-hand side)
Fwd Filler Assembly	369H92113-121, -122, extended gear
Fwd Fillet Assembly	369A6200-57, -58, standard gear
Fwd Fillet Assembly	369H92113-101, -102, extended gear

Compliance

Required as indicated.

To detect a crack that could result in the failure of a strut and subsequent loss of control of the helicopter during landing, accomplish the following:

(a) Within 4 months, unless accomplished previously, remove all landing gear fairings (fairings) and inspect each landing gear fairing support assembly (support assembly) to determine the number and location of the rivets attaching the support assembly to the landing gear strut assembly (strut assembly).

(1) If three rivets (forward, aft and inboard) are used to attach the support assembly to the strut assembly,

(i) For each FORWARD landing gear assembly, remove the landing gear fillet assembly (fillet assembly), the three rivets, and the support assembly, and clean and dye-penetrant inspect the area in and around the 0.125 (3.18mm) diameter hole in the inboard surface of the strut assembly.

(A) If the strut assembly is cracked, replace the cracked strut assembly with an airworthy strut assembly and install the other landing gear components in accordance with steps (6) through (11) of paragraph C of the Accomplishment Instructions of MD Helicopters Service Bulletin SB369H-244, SB369E-094, SB500N-022, SB369D-200, and SB369F-078, dated April 7, 2000 (SB).

(B) If the strut assembly is not cracked, rework the landing gear assembly and install the other landing gear components in accordance with steps (5) through (11) of paragraph C of the Accomplishment Instructions of the SB.

(ii) For each AFT landing gear assembly, remove the fillet assembly, the three rivets, and the support assembly, and clean and dye-penetrant inspect the area in and around the 0.125 (3.18mm) diameter hole in the inboard surface of the strut assembly.

(A) If the strut assembly is cracked, replace the cracked strut assembly with an airworthy strut assembly and install the other landing gear components in accordance with steps (6) through (13) of paragraph B of the Accomplishment Instructions of the SB.

(B) If the strut assembly is not cracked, rework the landing gear assembly and install the other landing gear components in accordance with steps (5) through (13) of Paragraph B of the Accomplishment Instructions of the SB.

(2) If only two rivets (forward and aft) are used to attach the support assembly to the strut assembly and a third rivet hole has not been drilled in the strut, neither the inspection of the strut assembly nor the rework of those landing gear assemblies is required by this AD.

(b) At intervals not to exceed 100 hours TIS or during each annual inspection, whichever occurs first, for any strut assembly that has a third rivet hole, remove the fairing inspection button plug and clean and inspect the area in and around the rivet hole for cracks using a bright light and a 10x or higher magnifying glass.

(1) If any FORWARD strut assembly is cracked, replace the cracked strut with an airworthy strut assembly.

(2) If any AFT strut assembly is cracked, replace the cracked strut with an airworthy strut assembly.

(c) Installing a strut assembly that has only 2 rivet holes is terminating action for the requirements of this AD.

Note 1: For the Model 369D, 369E, 369F, 369FF, and 500N helicopters, the Handbook of Maintenance Instruction, Servicing and Maintenance, HMI, CSP-HMI-2, Chapter 32, Section 32-10-00, "Landing Gear Strut Inspection" pertains to the subject of this AD.

Note 2: For the Model 369A (OH-6A), 369H, 369HE, 369HS, and 369HM helicopters, the Basic Handbook of Maintenance Instructions CSP-H-2, Section 6, "Landing Gear" pertains to the subject of this AD.

(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, Los Angeles Aircraft Certification Office, FAA, ATTN: John Cecil, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5228, fax (562) 627-5210 for information about previously approved alternative methods of compliance.

(e) The replacements and installations shall be done in accordance with the specified portions of MD Helicopters Service Bulletin SB369H-244, SB369E-094, SB500N-022, SB369D-200, and SB369F-078, dated April 7, 2000. 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 MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the Web at http://www.mdhelicopters.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.

(f) This amendment becomes effective on July 19, 2007.

Issued in Fort Worth, Texas, on June 5, 2007.
Mark R. Schilling,
Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.
[FR Doc. E7-11393 Filed 6-13-07; 8:45 am]