



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0342; Directorate Identifier 2011-SW-028-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; MD Helicopters, Inc.**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede an existing airworthiness directive (AD) for MD Helicopters, Inc. (MDHI) Model MD900 helicopters. The existing AD requires a visual inspection, and if necessary, an eddy current inspection of the main rotor lower hub assembly (lower hub) for a crack. If a crack exists, the AD requires replacing the lower hub with an airworthy lower hub before further flight. Because that AD was immediately effective, we did not include in its requirements certain long-term actions that did not necessitate adoption prior to public comment. This proposed AD would require those long-term actions. This proposed AD would require the same inspections as the existing AD but would also require recurring inspections and replacing the lower hub with an airworthy lower hub. We are proposing this AD to detect a crack in the lower hub and prevent failure of the lower hub and subsequent loss of control of the helicopter.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 days AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**EXAMINING THE AD DOCKET:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, AZ 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or at <http://www.mdhelicopters.com>. You may review copies of service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**FOR FURTHER INFORMATION CONTACT:** Eric Schrieber, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5348; email [eric.schrieber@faa.gov](mailto:eric.schrieber@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

**Discussion**

On June 21, 2011, we issued AD 2011-14-05, amendment 39-16740 (76 FR 41662, July 15, 2011) for MDHI Model MD900 helicopters with a lower hub, part

number 900R2101008-107, with serial numbers that begin with 5009. That AD requires, within 100 hours time-in-service (TIS) or during the next annual inspection, whichever occurs first, visually inspecting the sides and bottom of the area between the arms for the centering bearing and the areas adjacent to the bushings of the lower hub assembly for a crack. If a crack exists, before further flight, replace the lower hub with an airworthy lower hub. If there is no crack as a result of the visual inspection, eddy current inspect the lower hub for a crack. If a crack exists, before further flight, replace the lower hub with an airworthy hub. The AD requires an inspector qualified to ASNT Level II or equivalent to perform the nondestructive eddy current inspection of the lower hub. That AD was prompted by cracks found on four lower hubs. We issued that AD to detect a crack in the lower hub and prevent failure of the lower hub and subsequent loss of control of the helicopter.

#### **Actions Since Existing AD Was Issued**

When we issued AD 2011-14-05 (76 FR 41662, July 15, 2011), we intentionally did not include certain long-term actions (a 300-hour repetitive inspection of the lower hub and a requirement to replace the lower hub within three years). We are including these actions in this proposed AD to allow public comments before any adoption of the long-term proposals.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

### **Related Service Information**

We reviewed MDHI Service Bulletin SB900-117, dated January 14, 2011 (SB). The SB specifies an initial 100-hour and recurring 300-hour visual and eddy current inspections of the lower hub for a crack and, if a crack exists, replacement of the lower hub with an airworthy lower hub. The SB requires the inspections at the stated intervals or during the next annual inspection, whichever occurs first. The SB also specifies replacing the lower hub within three years.

### **Proposed AD Requirements**

This proposed AD would require the same inspections currently required by AD 2011-14-05 (76 FR 41662, July 15, 2011), but would require that those inspections also be performed at intervals not to exceed 300 hours TIS or during the next annual inspection, whichever occurs first. This proposed AD would also require, within three years, replacing the lower hub with an airworthy hub not included in the Applicability section of this AD. This replacement would provide terminating action for this AD's requirements.

### **Differences Between the Proposed AD and the Service Information**

This proposed AD would not require you to contact the manufacturer nor to return the lower hub assembly with a certain report.

### **Costs of Compliance**

We estimate that this proposed AD would affect 12 helicopters of U.S. registry.

We estimate the following costs to comply with this proposed AD:

- Visually inspecting the hub. We estimate that would take one work-hour at \$85 an hour, for a total cost per helicopter of \$85 and a total cost of \$1,020 for the fleet.

- Eddy current inspecting the lower hub. We estimate that would take one work-hour at \$85 an hour, for a total cost per helicopter of \$85 and a total cost of \$1,020 for the fleet.
- Replacing the lower hub. We estimate that would take 11 work-hours at \$85 an hour for a total labor cost of \$935, and that parts would cost \$12,480 per hub, for a total cost of \$13,415 per helicopter and a total cost of \$160,980 for the fleet.
- The total of all of the costs listed for U.S. operators would be \$163,020, assuming that the lower hubs for the entire fleet would get replaced.

### **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.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. 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.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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. The FAA amends § 39.13 by removing airworthiness directive (AD) 2011-14-05, Amendment 39-16740 (76 FR 41662, July 15, 2011), and adding the following new AD:

**MD HELICOPTERS, INC. (MDHI):** Docket No. FAA-2012-0342; Directorate Identifier 2011-SW-028-AD.

**(a) Applicability.**

This AD applies to MDHI Model MD900 helicopters with main rotor lower hub assembly (lower hub) part number 900R2101008-107, with serial numbers beginning with 5009, certificated in any category.

**(b) Unsafe Condition.**

This AD is prompted by the determination that a certain manufacturer had incorrectly inserted flanged bushings into the lower hub bore. This condition could result in failure of the lower hub and subsequent loss of control of the helicopter.

**(c) Other Affected ADs.**

This AD supersedes AD 2011-14-05, Amendment 39-16740 (76 FR 41662, July 15, 2011).

**(d) Compliance.**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions.**

(1) Within 100 hours time-in-service (TIS) or during the next annual inspection, whichever occurs first, unless done within the last 200 hours TIS, and thereafter at

intervals not to exceed 300 hours TIS or during the next annual inspection, whichever occurs first:

(i) Visually inspect the sides and bottom of the area between the arms for the centering bearing and the areas adjacent to the bushings of the lower hub assembly for a crack. If there is a crack, before further flight, replace the lower hub with an airworthy lower hub.

(ii) If the lower hub is not replaced as a result of the visual inspection required by paragraph (e)(1)(i) of this AD, eddy current inspect the lower hub for a crack by following the Accomplishment Instructions, paragraphs 2.A(2) through 2.A.(10)., of MD Helicopters Inc. Service Bulletin SB900-117, dated January 14, 2011 (SB). If there is a crack, before further flight, replace the lower hub with an airworthy hub.

(2) The eddy current inspection required by paragraph (e)(1)(ii) of this AD must be done by a Level II technician with ASNT-TC-1A, CEN EN 4179, MIL-STD-410, NAS410, or equivalent certification in eddy current inspections. The technician must have done an eddy current inspection in the last 12 months.

(3) Within 3 years, replace the lower hub with an airworthy lower hub not included in the Applicability section of this AD. This replacement is terminating action for the requirements of this AD.

**(f) Alternative Methods of Compliance (AMOCs).**

(1) The Manager, Los Angeles Aircraft Certification Office (LAACO), FAA, may approve AMOCs for this AD. Send your proposal to: Eric Schrieber, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate,

FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5348; email [eric.schrieber@faa.gov](mailto:eric.schrieber@faa.gov).

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information.**

For service information identified in this AD, contact MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, AZ 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or at <http://www.mdhelicopters.com>. You may review copies of this information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**(h) Subject.**

Joint Aircraft Service Component (JASC) Code: 6220, Main Rotor Head.

Issued in Fort Worth, Texas, on March 21, 2012.

Kim Smith,

Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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