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**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0380; Directorate Identifier 2012-SW-067-AD;  
Amendment 39-17588; AD 2013-19-06]**

**RIN 2120-AA64**

**Airworthiness Directives; Robinson Helicopter Company (Robinson)**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Robinson Model R22, R22 Alpha, R22 Beta, and R22 Mariner helicopters with certain fuel shut-off valves installed. This AD requires replacing the fuel shut-off valve with a newer design fuel shut-off valve. This AD is prompted by three accidents that occurred because the fuel shut-off valve was inadvertently moved to the “off” position. These actions are intended to prevent inadvertent closing of the fuel valve, which could result in engine power loss from which a safe landing may not be possible.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Robinson Helicopter Company, 2901 Airport Drive, Torrance, CA 90505; telephone (310) 539-0508; fax (310) 539-5198; or at <http://www.robinsonheli.com/servelib.htm>. You may review a copy of the referenced service information at the FAA, Office of the Regional

Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

### **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 AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Danny Nguyen, Aerospace Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5247; email [danny.nguyen@faa.gov](mailto:danny.nguyen@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On April 25, 2013, at 78 FR 24371, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Robinson Model R22, R22 Alpha, R22 Beta, and R22 Mariner helicopters, serial number 0002 through 4271, with a fuel shut-off valve part-number (P/N) A670-1 revision A through H installed. The NPRM proposed to require, within 3 years, removing the fuel shut-off valve, P/N A670-1 revision A through H, and replacing the valve with a newly designed fuel shut-off valve. Three accidents have occurred with R22 helicopters because the lever-handle fuel valve was inadvertently moved to the “off”

position before takeoff. Closing this valve will result in loss of power from the engine and subsequent loss of control of the helicopter. Robinson subsequently redesigned the fuel valve with a smaller actuating handle and with the valve spring loaded to the “on” position, to prevent inadvertent fuel shut-off. The proposed requirements were intended to prevent inadvertent closing of the fuel valve, which could result in engine power loss.

### **Comments**

After our NPRM (78 FR 24371, April 25, 2013) was published, we received comments from one commenter.

### **Request**

Robinson noted that the Summary and Discussion sections of the NPRM contained language stating that closing of the fuel valve could result in engine power loss and subsequent loss of control of the helicopter. Robinson commented that loss of engine power does not result in loss of control of the helicopter.

We agree, and have redefined the unsafe condition in the SUMMARY and SUPPLEMENTARY INFORMATION Discussion sections of the preamble of this final rule to state that inadvertent closing of the fuel valve could result in engine power loss from which a safe landing may not be possible.

### **FAA’s Determination**

We have reviewed the relevant information, considered the comment received, and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed with the change described previously. This

change is consistent with the intent of the proposals in the NPRM and will not increase the economic burden on any operator nor increase the scope of this AD.

### **Related Service Information**

Robinson has issued R22 Service Bulletin SB-105, dated September 7, 2011 (SB-105), which specifies procedures to replace the lever handle fuel shut-off valve part number (P/N) A670-1 revision A through H with a fuel shut-off valve P/N A670-1 revision I or later.

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

SB-105 specifies compliance within 500 flight-hours or by August 31, 2012. This AD requires compliance within 3 years.

### **Costs of Compliance**

We estimate that this AD will affect 1,282 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Replacing the fuel shut-off valve requires about 2 work-hours at an average labor rate of \$85 per hour, and required parts will cost about \$260, for a cost per helicopter of \$430, and a total cost to U.S. operators of \$551,260.

### **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**

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

- (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);
- (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 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.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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 adding the following new airworthiness directive (AD):

2013-19-06 **ROBINSON HELICOPTER COMPANY (ROBINSON)**: Amendment 39-17588; Docket No. FAA-2013-0380; Directorate Identifier 2012-SW-067-AD.

##### **(a) Applicability**

This AD applies to Model R22, R22 Alpha, R22 Beta, and R22 Mariner helicopters, serial number 0002 through 4271, with a fuel shut-off valve part-number (P/N) A670-1 revision A through H installed, certificated in any category.

##### **(b) Unsafe Condition**

This AD defines the unsafe condition as inadvertent closing of the fuel shut-off valve, which could result in loss of fuel to the engine and loss of engine power from which a safe landing may not be possible.

##### **(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

##### **(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 3 years, remove the fuel shut-off valve and replace with an airworthy fuel shut-off valve that has a P/N other than a P/N listed in paragraph (a) this AD.

(2) Do not install a fuel shut-off valve, P/N A670-1 revision A through H, on any helicopter.

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

(1) The Manager, Los Angeles Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Danny Nguyen, Aerospace Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5247; email [danny.nguyen@faa.gov](mailto:danny.nguyen@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR 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**

Robinson R22 Service Bulletin SB-105, dated September 7, 2011, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Robinson Helicopter Company,

2901 Airport Drive, Torrance, CA 90505; telephone (310) 539-0508; fax (310) 539-5198; or at <http://www.robinsonheli.com/servletlib.htm>. You may review a copy of 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: 2823: Fuel Selector/ Shut-Off Valve.

Issued in Fort Worth, Texas, on September 13, 2013.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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