



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0440; Product Identifier 2016-SW-077-AD]

RIN 2120-AA64

Airworthiness Directives; Scotts-Bell 47 Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Scotts-Bell 47 Inc. (Scotts-Bell) Model 47, 47B, 47B3, 47D, 47D1, 47E, 47G, 47G-2, 47G-2A, 47G-2A-1, 47G-3, 47G-3B, 47G-3B-1, 47G-3B-2, 47G-3B-2A, 47G-4, 47G-4A, 47G-5, 47G-5A, 47H-1, 47J, 47J-2, 47J-2A, and 47K helicopters. This proposed AD would require repetitively inspecting and adjusting the throttle linkage. This proposed AD is prompted by reports of the throttle linkage separating from the engine carburetor shaft, which could result in loss of throttle control. The actions in this proposed AD are intended to correct an unsafe condition on these products.

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> by searching for and locating Docket No. FAA-2018-0440; or in person at Docket Operations 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 Docket Operations (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 rule, contact Scott’s-Bell 47, Inc., 100 Minnesota Ave, Le Sueur, MN 56058; telephone (507) 665-0035; email info@scottsbell47.com. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: Shawn Malekpour, Aviation Safety Engineer, Chicago ACO Branch, Compliance & Airworthiness Division, FAA, 2300 East Devon Ave., Des Plaines, Illinois 60018; telephone (847) 294-7834; email shawn.malekpour@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

We propose to adopt a new AD for Scotts-Bell Model 47, 47B, 47B3, 47D, 47D1, 47E, 47G, 47G-2, 47G-2A, 47G-2A-1, 47G-3, 47G-3B, 47G-3B-1, 47G-3B-2, 47G-3B-2A, 47G-4, 47G-4A, 47G-5, 47G-5A, 47H-1, 47J, 47J-2, 47J-2A, and 47K helicopters with a Marvel Schebler Model MA-3, MA-3A, MA3-PA, MA-3SPA, MA4-SPA, MA4-5, MA4-5AA, MA-5, MA-5AA, MA 6AA, or HA-6 carburetor installed. This proposed AD would require an initial inspection and repetitive daily check of the throttle linkage-

carburetor attachment for broken or missing safety wire and for fracturing of the anti-sabotage lacquer. This proposed AD would also require adjusting and securing the throttle linkage within 100 hours time-in-service.

This proposed AD is prompted by several reports of the throttle linkage separating from the engine carburetor shaft, which resulted in loss of throttle control. An investigation determined that missing or improperly installed safety wire may fail to prevent an excessively worn splined carburetor shaft from separating from the throttle linkage. The investigation further determined that the unusual routing of the safety wire in this design along with a lack of clarity in the maintenance instructions may have contributed to nine other incidents. To address this unsafe condition, Scotts-Bell has developed an inspection to determine whether the safety wire is correctly applied and has revised the maintenance instructions with updated procedures for safety wire installation.

While our data indicates Model 47, 47B, 47B3, 47D, 47 E, and 47K helicopters are not likely to have the affected carburetors installed, we have included those models in this proposed AD to ensure we fully address the unsafe condition.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Related Service Information Under 1 CFR part 51

We reviewed Scott's-Bell 47, Inc. Alert Service Bulletin 47-15-27 R1, dated November 1, 2016 (ASB), for Model 47, 47B, 47B3, 47D, 47D1, 47E, 47G, 47G-2, 47G-2A, 47G-2A-1, 47G-3, 47G-3B, 47G-3B-1, 47G-3B-2, 47G-3B-2A, 47G-4, 47G-4A,

47G-5, 47G-5A, 47H-1, 47J, 47J-2, 47J-2A, and 47K helicopters. The ASB specifies, prior to the next flight, inspecting the engine throttle linkage and carburetor shaft to determine if the safety wire is correctly applied. The ASB also specifies adjusting and securing the throttle linkage at the next 100-hour or annual inspection, but no later than 90 days after release of the ASB, and then any time the throttle linkage connection is disassembled.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES.

Other Related Service Information

We also reviewed Scott's-Bell 47, Inc. Model 47D-1, 47G, & 47G-2 Maintenance and Overhaul Instructions Temporary Revision (M&O TR) 47-16-2, Models 47G-2A & 47G-2A-1 M&O TR 47-16-3, Model 47G-3 M&O TR 47-16-3, Models 47G-3B & 47G-3B-1 M&O TR 47-16-3, Model 47G-3B-2 M&O TR 47-16-3, Model 47G-3B-2A M&O TR 47-16-3, Models 47G-4 & 47G-4A M&O TR 47-16-3, Model 47G-5 M&O TR 47-16-3, Model 47G-5A M&O TR 47-16-3, Model 47H-1 M&O TR 47-16-2, Model 47J M&O TR 47-16-2, and Models 47J-2 & 47J-2A M&O TR 47-16-3, each dated November 1, 2016. Each M&O TR describes procedures for inspecting and safety wiring the throttle control linkage.

Scott's Bell did not issue temporary revisions to the M&O procedures for Model 47, 47B, 47B3, 47D, 47 E, and 47K helicopters, as there are limited manufacturing and maintenance records available for these models, and as it is unlikely these models have an affected model carburetor installed.

Proposed AD Requirements

This proposed AD would require the following:

- Before further flight, inspecting the throttle linkage connection at the engine carburetor for condition, security, and to determine if the safety wire is in place and captures the throttle linkage and the carburetor stop arm.
- Before the first flight of each day, visually checking the throttle-linkage to carburetor attachment for installed safety wire and for intact anti-sabotage lacquer. An owner/operator (pilot) may perform the visual check required by paragraph (e)(2)(i) of the proposed AD and must enter compliance with that paragraph into the helicopter maintenance records in accordance with 14 CFR §§ 43.9(a)(1) through (4) and 91.417(a)(2)(v). A pilot may perform this check because it involves only a visual check of the throttle-linkage to carburetor attachment and can be performed equally well by a pilot or a mechanic. This check is an exception to our standard maintenance regulations.
- Within 100 hours time-in-service or at the next annual or 100-hour inspection, whichever occurs first, and thereafter at each annual or 100-hour inspection, whichever occurs first, adjusting, safety wiring, and applying anti-sabotage lacquer to the throttle linkage. For Model 47, 47B, 47B3, 47D, 47 E, and 47K helicopters, adjusting and safety wiring the throttle linkage would be required to be done by using a method approved by the Manager, Chicago ACO Branch. For all other helicopters, these actions would be accomplished as specified in the applicable M&O TR.

Costs of Compliance

We estimate that this proposed AD would affect 698 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this proposed AD. Conducting a pre-flight check of the throttle linkage connection by the pilot would require about 5 minutes, therefore the cost per helicopter would be minimal. At an average labor rate of \$85, inspecting the engine throttle linkage would require about 0.5 work-hour, for a cost of \$43 per helicopter and \$30,014 for the U.S. fleet. Adjusting and securing the throttle linkage would require about 3 work-hours and required parts would be \$12 for a cost of \$267 per helicopter and \$186,366 for the U.S. fleet per occurrence.

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 adding the following new airworthiness directive (AD):

Scotts-Bell 47 Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.): Docket No. FAA-2018-0440; Product Identifier 2016-SW-077-AD.

(a) Applicability

This AD applies to Scotts-Bell 47 Inc. (Scotts-Bell) Model 47, 47B, 47B3, 47D, 47D1, 47E, 47G, 47G-2, 47G-2A, 47G-2A-1, 47G-3, 47G-3B, 47G-3B-1, 47G-3B-2, 47G-3B-2A, 47G-4, 47G-4A, 47G-5, 47G-5A, 47H-1, 47J, 47J-2, 47J-2A, and 47K helicopters, certificated in any category, with a Marvel Schebler Model MA-3, MA-3A, MA3-PA, MA-3SPA, MA4-SPA, MA4-5, MA4-5AA, MA-5, MA-5AA, MA-6AA, or HA-6 carburetor installed.

(b) Unsafe Condition

This AD defines the unsafe condition as separation of the throttle linkage from an engine carburetor shaft. This condition could result in loss of throttle control and subsequent forced landing of the helicopter.

(c) Comments Due Date

We must receive comments by [INSERT DATE 60 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) Before further flight, inspect the throttle linkage connection at the engine carburetor for security: Determine whether the throttle linkage is securely attached to the serrated shaft of the carburetor, inspect the throttle linkage clamp screw for broken or missing safety wire, and determine whether safety wire captures the throttle linkage and carburetor stop arm.

(i) If there is any looseness, axial movement, or movement between the serrated shaft and the throttle linkage; if a throttle linkage clamp screw is loose; if any safety wire is broken or missing; or if safety wire does not capture the throttle linkage and carburetor stop arm, before further flight, adjust and secure the throttle linkage as required by paragraph (e)(3)(i) and (e)(3)(ii) of this AD.

(ii) If there is no looseness, axial movement, or movement between the serrated shaft and the throttle linkage; no throttle linkage clamp screws are loose; no safety wire is broken or missing; and safety wire captures the throttle linkage and carburetor stop arm, before further flight, apply anti-sabotage lacquer (Torque-Seal or equivalent) between the throttle arm and the serrated shaft and between the self-locking nut and the throttle arm.

(2) Before the first flight of each day:

(i) Check the throttle linkage-carburetor attachment for broken or missing safety wire and for missing or fractured anti-sabotage lacquer. The actions required by this paragraph may be performed by the owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR §§ 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

(ii) If the safety wire is missing or broken or if the anti-sabotage lacquer is missing or fractured, before further flight, adjust and secure the throttle linkage as described in paragraph (e)(3)(i) and (e)(3)(ii) of this AD.

(3) Within 100 hours time-in-service or at the next annual or 100-hour inspection, whichever occurs first, and thereafter at each annual or 100-hour inspection, whichever occurs first:

(i) Adjust and secure the throttle linkage as specified in Appendix 1 of the Scotts-Bell Maintenance and Overhaul Instructions Temporary Revision that is applicable to your helicopter, as listed in Table 1 of Scotts-Bell Alert Service Bulletin 47-15-27 R1, dated November 1, 2016.

(ii) For Model 47, 47B, 47B3, 47D, 47 E, and 47K helicopters, adjust and secure the throttle linkage using a method approved by the Manager, Chicago ACO Branch. For a repair method to be approved as required by this AD, the Manager's approval letter must specifically refer to this AD.

(f) Special Flight Permits

Special flight permits are prohibited.

(g) Alternative Methods of Compliance

(1) The Manager, Chicago ACO Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Shawn Malekpour, Aviation Safety Engineer, Chicago ACO Branch, Compliance & Airworthiness Division, FAA, 2300 East Devon Ave., Des Plaines, Illinois 60018; telephone (847) 294-7834; email shawn.malekpour@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.

(h) Additional Information

For service information identified in this AD, contact Scott's-Bell 47, Inc., 100 Minnesota Ave, Le Sueur, MN 56058; telephone (507) 665-0035; email info@scottsbell47.com. You may review a copy of this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 7322 Engine Controls.

Issued in Fort Worth, Texas, on May 9, 2018.

Lance T. Gant,

Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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