DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0786; Project Identifier AD-2020-00914-R; Amendment 39-21229; AD 2020-18-08]

RIN 2120-AA64

Airworthiness Directives; Robinson Helicopter Company

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2019-12-18 for Robinson Helicopter Company (Robinson) Model R44 II helicopters. AD 2019-12-18 required inspecting certain engine air induction hoses (hoses) and replacing any hose that was not airworthy. AD 2019-12-18 also prohibited the installation of certain hoses. This AD continues to require inspecting those previously affected hoses and amends the applicability, clarifies an inspection requirement, adds a requirement to repeat the inspection, and expands the installation prohibition. This AD was prompted by an additional report of separation between the outer and inner hose layers. The FAA is issuing this AD to address the unsafe condition on these products.

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

The FAA must receive any comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].
** ADDRESSES: ** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Robinson Helicopter Company, 2901 Airport Drive, Torrance, CA 90505; telephone 310-539-0508; fax 310-539-5198; or at https://robinsonheli.com/. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

** Examining the AD Docket **

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0786; 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 final rule, any comments received, and other information.
The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Roger Gretler, Aerospace Engineer, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; phone 562-627-5251; email roger.gretler@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued AD 2019-12-18, Amendment 39-19673 (84 FR 32028, July 5, 2019) (“AD 2019-12-18”), for Robinson Model R44 II helicopters. AD 2019-12-18 required, for helicopter serial numbers (S/Ns) 14248 through 14268 and 14270 through 14286 and helicopters with a hose part number (P/N) A785-31 installed after April 30, 2018, inspecting the inside of the hose for separation between the outer and inner layers and flexing the hose in all directions while listening for a crinkling sound, which is an indication of separation. If there was any separation or a crinkling sound, AD 2019-12-18 required replacing the hose before further flight. If there was no separation and no crinkling sound, AD 2019-12-18 required replacing the hose within 50 hours time-in-service (TIS). Finally, AD 2019-12-18 prohibited installing hose P/N A785-31 marked with code 1Q18 on any helicopter.

AD 2019-12-18 resulted from 12 reports, including an accident on April 4, 2019, of separation between the outer and inner layers of the orange silicone hose out of a suspected population of 100 hoses traced to a specific manufacturing batch marked by code 1Q18 (1st quarter of 2018). The separation of the silicone layers, if not addressed,
could result in blockage of air flow to the engine, engine stoppage, and subsequent loss of control of the helicopter. Accordingly, the FAA issued AD 2019-12-18 to address the unsafe condition on these products.

**Actions Since AD 2019-12-18 was Issued**

Since the FAA issued AD 2019-12-18, an NTSB report of October 2019 concluded from the accident aircraft’s orange silicone hose marked by code 1Q18, that contamination was introduced during the manufacturing process between the silicone layers that prevented a satisfactory bond.

In addition, a helicopter accident occurred on April 6, 2020, and preliminary investigation indicated that separation between the outer and inner layers of the orange silicone hose P/N A785-31 occurred. This hose was traced to the manufacturing batch marked by code 3Q17 (3rd quarter of 2017).

Subsequently, the FAA determined that any helicopter with an improved black neoprene hose P/N A785-31 installed should not be affected by this AD. The FAA has also determined that, for helicopters with an orange silicone hose, repeating the inspection is necessary. Accordingly, the FAA is superseding AD 2019-12-18 to amend the applicability from all Robinson Model R44 II helicopters to Model R44 II helicopters with an orange silicone hose P/N A785-31 installed. This AD also clarifies that the hose must be removed to perform the inspection, adds a requirement to repeat the inspection, and expands the installation prohibition to include any orange silicone hose P/N A785-31 marked with code 3Q17 or with an illegible code marking.
Comments to AD 2019-12-18

After AD 2019-12-18 was published, the FAA received a comment from one commenter.

Request

An anonymous commenter requested the FAA clarify which hose P/N A785-31 must be replaced within 50 hours TIS. The commenter stated that, as written, AD 2019-12-18 requires that any hose P/N A785-31 installed after April 30, 2018, must be replaced within 50 hours TIS regardless of its code. The commenter asked whether this is correct, or if instead whether only P/N A785-31 hoses with code 1Q18 need to be replaced.

The commenter is correct that AD 2019-12-18 required replacement of any hose P/N A785-31 installed after April 30, 2018, regardless of its code. The FAA intended this requirement in the event the manufacturing code becomes illegible during service. However, the FAA agrees that instead only P/N A785-31 hoses marked with code 1Q18 (with no separation and no crinkling sound) must be replaced within 50 hours TIS. The FAA has changed this final rule accordingly.

Related Service Information

The FAA reviewed Robinson Helicopter Company R44 Service Bulletin SB-97, dated April 11, 2019 (SB-97). This service information applies to Robinson Model R44 II helicopters S/Ns 14248 through 14286, except 14269, and to any P/N A785-31 hoses shipped as spares from May through November 2018. This service information specifies, within 1 flight hour or prior to further flight if engine roughness or power loss is, or has been encountered, visually inspecting the hose for separation, flexing the hose to listen
for a crinkling sound, which is an indication of separation, and replacing any hose that shows indication of separation. This service information also specifies replacing or discarding all affected hoses by June 30, 2019.

The FAA also reviewed Robinson Helicopter Company R44 Service Bulletin SB-100, dated July 3, 2019 (SB-100). This service information applies to Robinson Model R44 II helicopters S/Ns 10001 through 14314, except 14269, 14287, 14299, and 14304, and to any P/N A785-31 hoses shipped as spares through March 2019. This service information specifies the same inspection procedures as SB-97, except with a compliance time of within 100 hours TIS or by August 31, 2019, whichever occurs first, and replacing the hose only if there is any indication of separation. This service information also specifies returning the hose to Robinson or discarding a hose with any indication of separation.

**FAA’s Determination**

The FAA is issuing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of the same type design.

**AD Requirements**

This AD requires:

- For Robinson Model R44 II helicopters with S/Ns 14168 through 14314 inclusive (except S/Ns 14269, 14287, 14299, and 14304), or with an orange silicone hose P/N A785-31 installed after October 1, 2017, and before the effective date of this AD, within 10 hours TIS after the effective date of this AD, inspecting the inside of the hose for separation between the outer and inner layers, and flexing the hose in all directions
while listening for a crinkling sound. This inspection must be done with the hose removed.

- If there is any separation or a crinkling sound, removing the hose from service before further flight.
- If there is no separation and no crinkling sound, and the hose is marked with code 3Q17 or 1Q18 or the code marking is illegible, removing the hose from service within 50 hours TIS.
- For all Robinson Model R44 II helicopters with an orange silicone hose P/N A785-31 installed, performing the inspection of the inside of the hose at intervals not to exceed 100 hours TIS or at each annual inspection after the effective date of this AD, whichever occurs first. If there is any separation or a crinkling sound, removing the hose from service before further flight.

This AD prohibits installing an orange silicone hose P/N A785-31 marked with code 1Q18 or 3Q17, or with an illegible code marking, on any helicopter.

Because this AD only applies to Model R44 II helicopters with an orange silicone hose P/N A785-31 installed, operators do not have to comply with this AD if they have replaced the orange silicone hose installed on their helicopter with a black neoprene hose P/N A785-31.

**Differences Between this AD and the Service Information**

SB-97 and SB-100 apply to Robinson Model R44 II helicopters with certain S/Ns and certain spare hoses. This AD applies to Robinson Model R44 II helicopters with an orange silicone hose P/N A785-31 installed instead. SB-97 specifies inspecting the hose within one flight hour or prior to further flight if engine roughness or power loss has been
encountered, and SB-100 specifies inspecting the hose within 100 hours TIS or by August 31, 2019, whichever occurs first. For certain helicopters, this AD requires inspecting the hose within 10 hours TIS, and for all other helicopters, within 100 hours TIS or at the next annual inspection, whichever occurs first. This AD requires repeating the inspection, whereas SB-97 and SB-100 do not. SB-97 specifies replacing all affected hoses, even if they pass the inspection, by June 30, 2019, and SB-100 specifies only replacing a hose if the hose has any indication of separation. This AD requires removing from service all hoses with any separation or a crinkling sound, as well as hoses marked with code 3Q17, 1Q18, or an illegible code, even if they pass the inspection.

**FAA’s Justification and Determination of the Effective Date**

Section 553(b)(3)(B) of the Administrative Procedure Act (5 U.S.C.) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without seeking comment prior to the rulemaking.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the corrective actions must be completed within 10 hours TIS and within 100 hours TIS, a time period of up to four months based on the average flight-hour utilization rates of these helicopters. Therefore, notice and opportunity for prior public comment are impracticable and contrary to public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, for the reasons stated above, the FAA finds that good
cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and the FAA did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, the FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The most helpful comments reference a specific portion of the AD, 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 them only one time.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will file in the docket all comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. The FAA will consider all the comments received and may conduct additional rulemaking based on those comments.

Confidential Business Information

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this final rule contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or
responsive to this final rule, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this final rule. Submissions containing CBI should be sent to Roger Gretler, Aerospace Engineer, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; phone 562-627-5251; email roger.gretler@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

**Regulatory Flexibility Act**

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

**Costs of Compliance**

The FAA estimates that this AD affects up to 187 helicopters of U.S. registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting a hose takes about 0.5 work-hour for an estimated cost of $43 per helicopter and $8,041 for the U.S. fleet per inspection cycle. Replacing a hose takes about 0.5 work-hour and parts cost about $151 for an estimated cost of $194 per helicopter.
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.

The FAA is 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, and

(2) Will not affect intrastate aviation in Alaska.

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 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. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2019-12-18, Amendment 39-19673 (84 FR 32028, July 5, 2019); and

b. Adding the following new AD:

2020-18-08 Robinson Helicopter Company: Amendment 39-21229; Docket No. FAA-2020-0786; Project Identifier AD-2020-00914-R.

(a) Effective Date

This AD is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2019-12-18, Amendment 39-19673 (84 FR 32028, July 5, 2019) (“AD 2019-12-18”).

(c) Applicability

This AD applies to Robinson Helicopter Company Model R44 II helicopters, certificated in any category, with an orange silicone engine air induction hose (hose) part
number (P/N) A785-31 installed. This AD does not apply to helicopters with a black neoprene hose P/N A785-31 installed.

(d) Subject


(e) Unsafe Condition

This AD was prompted by reports of separation between the outer and inner layers of a hose. The FAA is issuing this AD to prevent blockage of air flow to the engine, engine stoppage, and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) For helicopters with serial numbers (S/Ns) 14168 through 14314 inclusive (except S/Ns 14269, 14287, 14299, and 14304), or with an orange silicone hose P/N A785-31 installed after October 1, 2017, and before the effective date of this AD, within 10 hours time-in-service (TIS) after the effective date of this AD:

(i) With the hose removed, inspect the inside of the hose for separation between the outer and inner layers, and flex the hose in all directions while listening for a crinkling sound, which is an indication of separation.

(ii) If there is any separation or a crinkling sound, before further flight, remove the hose from service.

(iii) If there is no separation and no crinkling sound, and the hose is marked with code 3Q17 or 1Q18 or an illegible code, within 50 hours TIS, remove the hose from service.
(2) For all helicopters identified in paragraph (c) of this AD, accomplish the inspection required by paragraph (g)(1)(i) of this AD within 100 hours TIS after the effective date of this AD or at the next annual inspection after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 100 hours TIS or at each annual inspection, whichever occurs first. If there is any separation or a crinkling sound, before further flight, remove the hose from service.

(3) As of July 5, 2019 (the effective date of AD 2019-12-18), do not install on any helicopter an orange silicone hose P/N A785-31 marked with code 1Q18.

(4) As of the effective date of this AD, do not install on any helicopter an orange silicone hose P/N A785-31 marked with code 3Q17 or an illegible code.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-REQUESTS@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for AD 2019-12-18 are approved as AMOCs for the corresponding provisions of this AD.
(i) Related Information

For more information about this AD, contact Roger Gretler, Aerospace Engineer, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; phone 562-627-5251; email roger.gretler@faa.gov.

Issued on August 21, 2020.

Lance T. Gant, Director, Compliance & Airworthiness Division, Aircraft Certification Service.
[FR Doc. 2020-18829 Filed: 8/26/2020 8:45 am; Publication Date: 8/27/2020]