DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0910; Project Identifier 2018-CE-044-AD]

RIN 2120-AA64

Airworthiness Directives; M7 Aerospace LLC Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for M7 Aerospace LLC Model SA26-AT and SA26-T airplanes. This proposed AD was prompted by reports of the airplane power lever linkage detaching from the TPE331 engine propeller pitch control (PPC) shaft. This proposed AD would require repetitively inspecting the PPC for proper torque and making any necessary corrections until the replacement of the PPC assembly and the installation of a secondary retention feature (safety wire) are done. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed 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.
For service information identified in this NPRM, contact Honeywell International Inc., 111 S. 34th Street, Phoenix, Arizona 85034-2802; phone: 855-808-6500; email: AeroTechSupport@honeywell.com; internet: https://aerospace.honeywell.com/en/services/maintenance-and-monitoring. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

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-2020-0910; 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 NPRM, 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: Jonas Perez, Aerospace Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Parkway, Fort Worth, Texas 76177-1524; phone: 817-222-5145; fax: 817-222-5960; email: jonas.perez@faa.gov.
SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0910; Project Identifier 2018-CE-044-AD” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

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 post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this proposal.

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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Jonas Perez,
Discussion

The FAA has received reports of the airplane power lever linkage detaching from the TPE331 engine PPC shaft. In flight operations, detachment may result in fuel flow to the engine remaining constant regardless of the power lever movement by the pilot. The orientation of the engine on certain M7 Aerospace LLC airplanes increases the vulnerability of detachment. The PPC lever is an airplane part and its detachment from the TPE331 has been the subject of previous ADs on other airplane type designs. This condition, if not addressed, could result in uncommanded change to the engine power settings with consequent loss of control.

Related Service Information under 1 CFR Part 51

The FAA reviewed Honeywell International Inc. Service Bulletin TPE331-72-2190, dated December 21, 2011, which contains procedures for replacing or reworking the propeller pitch control assembly, incorporating a threaded hole in the splined end of the shouldered shaft, and reassembling the propeller pitch control assembly.

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 section.
Other Related Service Information

The FAA also reviewed paragraph j. of M7 Aerospace SA26 Series Maintenance Manual Temporary Revision 4-02, dated July 22, 2020, which contains information related to the installation of the secondary retention feature (safety wire) on the airplane PPC lever and the PPC assembly.

FAA’s Determination

The FAA is proposing this AD because the agency 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.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

The FAA estimates that this proposed AD would affect 55 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install secondary retention feature (safety wire)</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>$10</td>
<td>$95</td>
<td>$5,225</td>
</tr>
<tr>
<td>Inspect PPC lever</td>
<td>1 work-hour X $85 per hour = $85 per inspection cycle</td>
<td>$0</td>
<td>$85</td>
<td>$4,675 per inspection cycle</td>
</tr>
<tr>
<td>Repair, replace, and/or rework PPC lever input shaft</td>
<td>19 work-hours X $85 per hour = $1,615</td>
<td>$1,000</td>
<td>$2,615</td>
<td>$143,825</td>
</tr>
</tbody>
</table>
The FAA estimates the following costs to do any adjustment that would be required based on the results of the proposed inspection. The FAA has no way of determining the number of aircraft that might need the adjustment:

### On-condition costs

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct attachment of the PPC lever</td>
<td>1 work-hour (\times) $85 per hour = $85</td>
<td>$0</td>
<td>$85</td>
</tr>
</tbody>
</table>

**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**

The FAA 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 above, I certify this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, 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.

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):

   M7 Aerospace LLC: Docket No. FAA-2020-0910; Project Identifier 2018-CE-044-AD.

(a) Comments Due Date

   The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

   None.
(c) Applicability

This AD applies to M7 Aerospace LLC Model SA26-AT and SA26-T airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 61, Propellers/propulsors.

(e) Unsafe Condition

This AD was prompted by reports of the airplane power lever linkage detaching from the TPE331 engine propeller pitch control (PPC) shaft. The FAA is issuing this AD to address detachment of the power lever linkage to the TPE331 engine PPC shaft, which could result in uncommanded change to the engine power settings with consequent loss of control.

(f) Compliance

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

(g) PPC Lever Inspection

(1) Within 100 hours time-in-service (TIS) after the effective date of this AD and thereafter at intervals not to exceed 100 hours TIS, inspect the security of the PPC lever by pulling the PPC lever upward by hand to ensure it does not detach from the PPC input shaft. If the PPC lever detaches during any inspection, before further flight, comply with paragraphs (h) and (i) of this AD.

(2) The replacement/re-identification required by paragraph (h) of this AD and the installation of the secondary retention feature (safety wire) required by paragraph (i) of this AD terminate the repetitive inspections of the PPC lever attachment required by paragraph (g)(1) of this AD.
(h) Replace and Inspect the PPC Assembly

Within 600 hours TIS after the effective date of this AD or within 12 months after the effective date of this AD, whichever occurs first, unless required before further flight by paragraph (g)(1) of this AD, do the actions in either paragraph (h)(1) or (2) of this AD in accordance with the Accomplishment Instructions in Honeywell International Inc. Service Bulletin TPE331-72-2190, dated December 21, 2011, except you are not required to report information to the manufacturer.

(1) Replace the PPC assembly with the applicable new design PPC assembly.

(2) Inspect the splined end of the shouldered shaft for the presence and condition of a threaded hole and, before further flight, repair or replace the cam assembly or rework the PPC assembly, as necessary, and re-identify the shouldered shaft.

(i) Secondary Retention Feature (Safety Wire)

Before further flight after completing the actions required by paragraph (h) of this AD, install the secondary retention feature (safety wire) on the airplane PPC lever and the PPC assembly.

Note 1 to paragraph (i): Paragraph j. of M7 Aerospace SA26 Series Maintenance Manual Temporary Revision 4-02, dated July 22, 2020, contains information related to installation of the secondary retention feature (safety wire).

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Small Airplane Standards 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 (k)(1) of this AD.

(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.

(k) Related Information

(1) For more information about this AD, contact Jonas Perez, Aerospace Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Parkway, Fort Worth, Texas 76177-1524; phone: 817-222-5145; fax: 817-222-5960; email: jonas.perez@faa.gov.

(2) For Honeywell International Inc., service information identified in this AD, contact Honeywell International Inc., 111 S. 34th Street, Phoenix, Arizona 85034-2802; phone: 855-808-6500; email: AeroTechSupport@honeywell.com; internet: https://aerospace.honeywell.com/en/services/maintenance-and-monitoring.

(3) You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

Issued on October 2, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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