DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
14 CFR Part 39

[Docket No. FAA-2018-0223; Product Identifier 2018-CE-007-AD; Amendment 39-19230; AD 2018-06-10]

RIN 2120-AA64

Airworthiness Directives; Honda Aircraft Company LLC

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Honda Aircraft Company LLC Model HA-420 airplanes. This AD requires incorporating a temporary revision into the airplane flight manual and replacing faulty power brake valves upon condition. This AD was prompted by reports of unannunciated asymmetric braking during ground operations and landing deceleration. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive 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 http://www.regulations.gov. Follow the instructions for submitting comments.
- **Fax:** 202-493-2251.
- **Mail:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- **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 Honda Aircraft Company LLC, 6430 Ballinger Road, Greensboro, North Carolina 27410; telephone (336) 662-0246; Internet: http://www.hondajet.com. You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2018-0223.

**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-2018-0223; 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, the regulatory evaluation, any comments
received, and other information. The street address for the Docket Operations (phone: 800-647-5107) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Samuel Kovitch, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5570; fax: (404) 474-5605; email: samuel.kovitch@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We received reports of unannounced asymmetric braking during landing deceleration on several Honda Aircraft Company LLC Model HA-420 airplanes. Investigation revealed that the power brake valve (PBV) housing design drawing dimension for a bore diameter, which serves as an O-ring gland outer diameter, is oversized from Society of Automotive Engineers (SAE) specification guidelines for O-ring gland dimensions. The oversized bore allows back-up ring extrusion damage during normal operating hydraulic pressure in the valve, O-ring deformation/damage, and internal leakage of hydraulic pressure within the PBV from the master cylinder brake lines. The damage to the back-up ring and O-ring worsens during operation and causes the internal leakage rate of the PBV brake master cylinder lines to increase over time. This condition, if not addressed, could result in failure of the PBV, which could cause degraded braking performance and reduced directional control during ground operations and landing deceleration. We are issuing this AD to address the unsafe condition on these products.
Related Service Information under 1 CFR part 51

We reviewed Honda Aircraft Company Temporary Revision TR 01.1, dated February 16, 2018, to the Honda Aircraft Company HA-420 Airplane Flight Manual and Service Bulletin SB-420-32-001, dated January 8, 2018. Temporary Revision TR 01.1, dated February 16, 2018, to the HA-420 Airplane Flight Manual (AFM) describes procedures for performing pilot checks of the braking system during ground operations before every flight and before every landing and includes instructions for corrective actions if any indication of a leaking PBV is found. Service Bulletin SB-420-32-001, dated January 8, 2018, describes procedures for replacing a defective PBV with an improved design PBV. 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.

FAA’s Determination

We are issuing 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.

AD Requirements

This AD requires inserting a temporary revision into the AFM, which may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the airplane records showing compliance with this AD in accordance with 14 CFR 43.9 (a)(1)-(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. This AD also requires replacing the installed PBV, P/N HJ1-13243-101-005 or P/N HJ1-13243-101-007, with an improved PBV, P/N HJ1-13243-101-009, if a defective PBV is detected during the required pilot checks as specified in the temporary revision. In addition, this AD provides an optional
terminating action for the temporary revision into the AFM by replacing the installed PBV with the improved PBV, P/N HJ1-13243-101-009.

**Interim Action**

We consider this AD interim action. We are currently considering requiring replacement of the installed PBV, P/N HJ1-13243-101-005 or P/N HJ1-13243-101-007, with an improved part, which will constitute terminating action for the temporary revision to the AFM. However, the planned compliance time for the replacement of the PBV would allow enough time to provide notice and opportunity for prior comment on the merit of the replacement.

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

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 failure of the PBV could cause degraded braking performance and reduced directional control during ground operations and landing deceleration. Therefore, we find good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason stated above, we find that good cause exists 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 was not preceded by notice and an opportunity for public comment. However, we invite you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket number FAA-2018-0223 and Product Identifier 2018-CE-007-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic,
environmental, and energy aspects of this final rule. We will consider all comments received by the closing date and may amend this final rule because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this final rule.

**Costs of Compliance**

We estimate that this AD affects 72 airplanes of U.S. registry.

We estimate the following costs to comply with this 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>Insert temporary revision into the airplane flight manual</td>
<td>1 work-hour X $85 per hour = $85</td>
<td>Not applicable</td>
<td>$85</td>
<td>$6,120</td>
</tr>
</tbody>
</table>

We estimate the following costs to do any necessary replacements that would be required based on the results of the pilot check of the braking system during ground operations before every flight and before every landing. We have no way of determining the number of airplanes that might need these replacements:

<table>
<thead>
<tr>
<th>Action</th>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace the power brake valve</td>
<td>20 work-hours X $85 per hour = $1,700</td>
<td>$21,878</td>
<td>$23,578</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.

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

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, 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.

**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):

**2018-06-10 Honda Aircraft Company LLC**: Amendment 39-19230; Docket No. FAA-2018-0223; Product Identifier 2018-CE-007-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.
(c) Applicability

This AD applies to Honda Aircraft Company LLC Model HA-420 airplanes, serial numbers 42000011 through 4200089, that:

(1) have power brake valve, part number (P/N) HJ1-13243-101-005 or HJ1-13243-101-007, installed; and

(2) are certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Unsafe Condition

This AD was prompted by reports of unannounced asymmetric braking during ground operations and landing deceleration. We are issuing this AD to detect failure of the power brake valve. The unsafe condition, if not addressed, could result in degraded braking performance and reduced directional control during ground operations and landing deceleration.

(f) Compliance

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

(g) Insert Temporary Revision into the Airplane Flight Manual (AFM)

Before further flight after [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) insert Honda Aircraft Company Temporary Revision TR 01.1, dated February 16, 2018, into the Honda Aircraft Company (Honda) HA-420 Airplane Flight Manual (AFM) (the temporary revision). This insertion and the steps therein may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the airplane records showing compliance with this AD in accordance with 14 CFR 43.9
(a)(1)-(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.

(h) Replace the Power Brake Valve (PBV)

As of and any time after the effective date of this AD, if the PBV fails any of the pilot checks specified in the temporary revision, before further flight, replace the PBV, P/N HJ1-13243-101-005 or P/N HJ1-13243-101-007, with the improved design PBV, P/N HJ1-13243-101-009. Do the replacement using the Accomplishment Instructions in Honda Service Bulletin SB-420-32-001, dated January 8, 2018. Before further flight after installing P/N HJ1-13243-101-009, remove the temporary revision from the Honda HA-420 AFM.

(i) Optional Terminating Action for Inserting the AFM Temporary Revision/Pilot Checks

(1) Instead of inserting the temporary revision or at any time after inserting the temporary revision required by paragraph (g) of this AD, you may replace the installed PBV, P/N HJ1-13243-101-005 or P/N HJ1-13243-101-007, with the improved design PBV, P/N HJ1-13243-101-009. The replacement must be done using the Accomplishment Instructions in Honda Service Bulletin SB-420-32-001, dated January 8, 2018. Before further flight after installing P/N HJ1-13243-101-009, remove the temporary revision from the Honda HA-420 AFM.

(2) If you choose to follow the temporary revision required by paragraph (g) of this AD instead of the optional replacement in paragraph (i)(1) of this AD, the on-condition replacement required by paragraph (h) of this AD is still required before further flight.

(j) No Reporting Requirement
Although Honda Service Bulletin SB-420-32-001, dated January 8, 2018, specifies to submit certain information to the manufacturer, this AD does not require that action.

(k) Special Flight Permit

Special flight permits for this AD are prohibited.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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 (m) 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.

(3) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (h) and (i) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with this AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.
(m) Related Information

For more information about this AD, contact Samuel Kovitch, Aerospace Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5570; fax: (404) 474-5605; email: samuel.kovitch@faa.gov.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 510(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.


(3) For Honda Aircraft Company LLC service information identified in this AD, contact Honda Aircraft Company LLC, 6430 Ballinger Road, Greensboro, North Carolina 27410; telephone (336) 662-0246; Internet: http://www.hondajet.com.

(4) You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.
Issued in Kansas City, Missouri, on March 19, 2018.

Melvin J. Johnson,
Deputy Director, Policy & Innovation Division,
Aircraft Certification Service.

[FR Doc. 2018-06091 Filed: 3/28/2018 8:45 am; Publication Date: 3/29/2018]