Airworthiness Directives; BRP-Rotax GmbH & Co KG Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain BRP-Rotax GmbH & Co KG (Rotax) 914 F2, 914 F3, and 914 F4 model engines. This AD requires removal of a certain exhaust valve and its replacement with a part eligible for installation. This AD was prompted by a report of a broken exhaust valve installed on a Rotax 914 model engine. The FAA is 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 FAA 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 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 BRP-Rotax GmbH & Co KG, Rotaxstrasse 1, A-4623 Gunskirchen, Austria; phone: +43 7246 601 0; fax: +43 7246 601 9130; email: airworthiness@brp.com; internet: www.flyrotax.com. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0747.

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-2019-0747; 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 mandatory continuing airworthiness information (MCAI), the regulatory evaluation, 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: Wego Wang, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.
SUPPLEMENTARY INFORMATION:

Discussion

The European Union Aviation Safety Agency (EASA), which is the Technical
Agent for the Member States of the European Community, has issued EASA AD No.
2018-0265R1, dated January 9, 2019 (and corrected January 10, 2019) (referred to after
this as “the MCAI”), to address an unsafe condition for the specified products. The
MCAI states:

A broken exhaust valve has been reported on a non-certified Rotax
914 UL2-01 engine. Subsequent investigation identified deviation
in the manufacturing process of the affected exhaust valve.
This condition, if not corrected, could lead to in-flight shut down,
possibly resulting in a forced landing with consequent damage to
the aeroplane and injury to occupants.
Due to similarity of design, this condition may affect also Rotax
915 iSc3 A, 915 iSc3 B engines and Rotax 914 F2, 914 F3 and 914
F4 engines.

To address this potential unsafe condition, BRP-Rotax issued the
ASB, later revised, providing applicable instructions, and EASA
issued AD 2018-0265-E requiring replacement of affected exhaust
valves, and prohibiting installation thereof on an engine.
Since that [EASA] AD was issued, it has been determined that
only exhaust valve P/N 854113 of certain lot numbers are affected,
and BRP-Rotax revised the ASB accordingly (now at revision 2).

You may obtain further information by examining the MCAI in the AD docket on
the Internet at https://www.regulations.gov by searching for and locating Docket No.
Related Service Information


FAA’s Determination

This product has been approved by EASA, and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this AD because it evaluated all the relevant information provided by EASA 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, within 10 flight hours or 3 months after the effective date of this AD, whichever occurs first, removal from service of certain exhaust valves and replacement with a part eligible for installation.

FAA’s Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because no domestic operators use this product. It is unlikely that the FAA will receive any adverse comments or useful information about this AD from U.S. operators. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are unnecessary. In addition, for this same reason, the FAA finds 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, the FAA
invites 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-2019-0747 and Product Identifier 2019-NE-26-AD at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

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

**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 0 engines installed on airplanes of U.S. registry.

In the event an affected engine becomes installed on a U.S.-registered product, the FAA estimates 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>Replace exhaust valve</td>
<td>6 work-hours X $85 per hour = $510</td>
<td>$1,500</td>
<td>$2,010</td>
<td>$0</td>
</tr>
</tbody>
</table>

| Estimated costs          |
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.

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 engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, 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 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 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):


(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 BRP-Rotax GmbH & Co KG (Type certificate previously held by BRP-Powertrain GmbH & Co KG, Bombardier-Rotax GmbH) (Rotax) Model 914 F2, 914 F3, and 914 F4 engines, with an exhaust valve part number (P/N) 854113 that has a production lot number 0317 or 0517.
(d) Subject

Joint Aircraft System Component (JASC) Code 8530, Reciprocating Engine Cylinder Section.

(e) Unsafe Condition

This AD was prompted by a report of a broken exhaust valve installed on a Rotax 914 model engine. The FAA is issuing this AD to prevent failure of the exhaust valve. The unsafe condition, if not addressed, could result in loss of engine thrust control and reduced control of the airplane.

(f) Compliance

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

(g) Required Actions

Within 10 flight hours or 3 months after the effective date of this AD, whichever occurs first, remove from service each exhaust valve P/N 854113 that has a production lot number 0317 or 0517, and replace with a part eligible for installation.

Note 1 to paragraph (g): For guidance on replacing the exhaust valve, refer to the Accomplishment Instructions, paragraphs 3.1 through 3.6, of Rotax Alert Service Bulletin ASB-915 i A-003R2 / ASB-915 i B-003R2 / ASB-914-054R2 (single document), dated December 21, 2018.

(h) Installation Prohibition

After the effective date of this AD, do not install an exhaust valve P/N 854113 that has a production lot number 0317 or 0517 on any engine.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO 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 (j)(1) of this AD. You may email your request to: ANE-AD-AMOC@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.

(j) Related Information

(1) For more information about this AD, contact Wego Wang, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7134; fax: 781-238-7199; email: wego.wang@faa.gov.


(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts, on October 29, 2019.

Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.