

## SERVICE INFORMATION NO. SI 20-064

**NOTE:** SI's are used only:  
1) To distribute information from DAI to our customers.  
2) To distribute applicable information/documents from our suppliers to our customers with additional information.  
Typically there is no revision service for SI's. Each new information or change of that will be sent along with a new SI.

### I. TECHNICAL DETAILS

#### 1.1 Airplanes affected:

All DV 20 aircraft

#### 1.2 Subject:

FAA Airworthiness Directive 2013-07-12  
ATA-Code: 72-00

#### 1.3 Reason:

FAA has issued the Airworthiness Directive No. 2013-07-12 which mandates an Inspection respectively Replacement of the cylinder head assy (2/3) at certain engine serial numbers.

#### 1.4 Information:

For detailed technical information refer to FAA AD 2013-07-12 which is applicable without any further additions or restrictions.

### II. OTHERS

FAA AD 2013-07-12 is attached to this Service Information.

In case of doubt contact FAA or BRP-Powertrain GmbH & Co. KG.

[Federal Register Volume 78, Number 72 (Monday, April 15, 2013)]  
[Rules and Regulations]  
[Pages 22166-22168]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2013-08460]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2013-0263; Directorate Identifier 2013-NE-12-AD; Amendment 39-17416; AD 2013-07-12]**

**RIN 2120-AA64**

#### **Airworthiness Directives; BRP-Powertrain GmbH & Co KG Rotax Reciprocating Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain BRP-Powertrain GmbH & Co KG Rotax 912 F2; 912 F3; 912 F4; 912 S2; 912 S3; 912 S4; 914 F2; 914 F3; and 914 F4 reciprocating engines. This AD requires a one-time visual inspection for excessive oil deposits or carbon deposits on the No. 2 and No. 3 spark plug center and grounding electrodes, and if found, replacement of the cylinder head before further flight. This AD was prompted by a report of certain No. 2 and No. 3 cylinder heads not manufactured to proper specification. We are issuing this AD to prevent excessive oil consumption, which could result in an in-flight engine shutdown, forced landing, and damage to the airplane.

**DATES:** This AD becomes effective April 30, 2013.

We must receive comments on this AD by May 30, 2013.

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- Mail: U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: 202-493-2251.

For service information identified in this AD, contact BRP-Powertrain GmbH & Co KG, Welser Strasse 32, A-4623 Gunskirchen, Austria, or go to: <http://www.FLYROTAX.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park,

Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: [frederick.zink@faa.gov](mailto:frederick.zink@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Emergency Airworthiness Directive 2013-0055-E, dated March 6, 2013 (referred to hereinafter as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During a production test run, a non-compliance of the installed cylinder head assembly of cylinder No. 2 and 3 (2/3) was detected, which may result in a latent defect on a limited number of engines. The affected cylinder heads may not have been manufactured in accordance with the specification.

This condition, if not detected and corrected, could lead to an oil leak in the intake channel in the area of the valve guide. The affected non-conforming cylinder heads may have small machined through holes, which can increase the oil consumption and can lead to oil starvation, possibly resulting in engine stoppage or in-flight engine shutdown and forced landing, with consequent risk of damage to the aeroplane and injury to occupants.

You may obtain further information by examining the MCAI in the AD docket.

### **Relevant Service Information**

BRP-Powertrain GmbH & Co KG has issued Rotax Aircraft Engines ASB No. ASB-912-062, Revision 1 and ASB-914-044, Revision 1 (combined into one document), dated March 5, 2013. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

### **FAA's Determination and Requirements of This AD**

This product has been approved by the aviation authority of Austria, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by

EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require a one-time visual inspection for excessive oil deposits or carbon deposits on the No. 2 and No. 3 spark plug center and grounding electrodes, and if found, replacement of the cylinder head before further flight. Any excess indicates the cylinder head is not manufactured to proper specification and is leaking oil into the combustion chamber.

### **FAA's 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 of the short compliance time requirement. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2013-0263; Directorate Identifier 2013-NE-12-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD 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 with FAA personnel concerning this AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

### **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 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;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

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 a regulatory 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.

### **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 AD:



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**2013-07-12 BRP-Powertrain GmbH & Co. KG (formerly BRP-Rotax GmbH & Co KG, Bombardier-Rotax GmbH & Co. KG, and Bombardier-Rotax GmbH):** Amendment 39-17416; Docket No. FAA-2013-0263; Directorate Identifier 2013-NE-12-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective April 30, 2013.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the following BRP Powertrain GmbH & Co KG Rotax reciprocating engines:  
(1) Rotax 912 F2; 912 F3; and 912 F4, from serial number (S/N) 4,413,013 up to S/N 4,413,017 inclusive.

(2) Rotax 912 S2; 912 S3; and 912 S4, from S/N 4,924,468 up to S/N 4,924,491 inclusive.

(3) Rotax 914 F2; 914 F3; and 914 F4, from S/N 4,421,156 up to S/N 4,421,169 inclusive.

**(d) Reason**

This AD was prompted by a report of certain No. 2 and No. 3 cylinder heads not manufactured to proper specification. The cylinder heads may have an oil leak in the intake channel in the area of the valve guide. There is the possibility that the heads have small machined through holes, which can increase the oil consumption. We are issuing this AD to prevent excessive oil consumption, which could result in an in-flight engine shutdown, forced landing, and damage to the airplane.

**(e) Actions and Compliance**

Unless already done, do the following actions.

(1) Within 5 flight hours or 20 days after the effective date of this AD, whichever occurs first, perform a one-time visual inspection of the center and grounding electrodes of both top and bottom spark plugs on cylinder 2, and cylinder 3, for unusual deposits (excessive carbon or oil). Any excess indicates the cylinder head is not manufactured to proper specification and is leaking oil into the combustion chamber.

(2) Before further flight, replace cylinder heads found to be not manufactured to proper specification.

(3) From the effective date of this AD, do not install any engine listed in the applicability of this AD on an airplane, unless the engine has been inspected and, depending on the findings, affected cylinder heads have been replaced as required by this AD.

**(f) Definitions**

For the purpose of this AD, unusual deposits (excessive carbon or oil) is when:

(1) Carbon is a visual buildup of dark carbon deposits on the center and grounding electrodes as well as the immediate surrounding area, and

(2) Excessive oil is a visual buildup indicated by the presence of oil on the center and grounding electrodes as well as the immediate surrounding area, giving a wet appearance.

**(g) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(h) Related Information**

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) Refer to European Aviation Safety Agency Emergency Airworthiness Directive 2013-0055-E, dated March 6, 2013, and BRP-Powertrain GmbH & Co KG Rotax Aircraft Engines Alert Service Bulletin No. ASB-912-062, Revision 1 and ASB-914-044, Revision 1 (combined into one document), dated March 5, 2013, for related information.

(3) For service information identified in this AD, contact BRP-Powertrain GmbH & Co KG, Welser Strasse 32, A-4623 Gunskirchen, Austria, or go to: <http://www.FLYROTAX.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

**(i) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on April 4, 2013.

Colleen M. D'Alessandro,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.