

## TECHNISCHE INFORMATION NR. SI 36-092

**HINWES:** Technische Informationen werden **nur** verwendet um:  
1) Informationen von DAI an unsere Kunden weiterzugeben.  
2) Informationen / Dokumente von unseren Zulieferern mit zusätzlichen Informationen an unsere Kunden weiterzugeben.  
Typischerweise unterstehen Technische Informationen keinem Revisionsdienst. Neue Informationen oder Änderungen derer werden durch eine neue Technische Information weitergegeben.

## SERVICE INFORMATION NO. SI 36-092

**NOTE:** SIs 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 SIs. Each new information or change of that will be sent along with a new SI.

### I. TECHNISCHE ANGABEN

#### 1.1 Betroffene Flugzeuge:

Alle HK 36 TC mit Rotax 912 S3, TTS, TTC, TTC-ECO

#### 1.2 Gegenstand

ATA Code: 72-00

FAA Lufttüchtigkeitsanweisung Nr. 2013-15-19

#### 1.3 Anlass

FAA hat die Lufttüchtigkeitsanweisung (AD) Nr. 2013-15-19 herausgegeben, welches FAA AD Nr. 2013-07-12 ersetzt und eine Kontrolle bzw. Austausch der Zylinderköpfe kpl. (2/3) bei bestimmten Motor Seriennummern vorschreibt.

### I. TECHNICAL DETAILS

#### 1.1 Airplanes affected:

All HK 36 TC with Rotax 912 S3, TTS, TTC, TTC-ECO

#### 1.2 Subject

ATA Code: 72-00

FAA Airworthiness Directive No. 2013-15-19

#### 1.3 Reason

FAA has issued the Airworthiness Directive No. 2013-15-19 which supersedes FAA AD No. 2013-07-12 and mandates an inspection respectively Replacement of the cylinder head assy (2/3) at certain engine serial numbers.

#### **1.4 Information**

Weitere technische Informationen sind im FAA AD 2013-15-19 enthalten, welches ohne weitere Ergänzungen und Einschränkungen anwendbar ist.

#### **II. SONSTIGES**

Bei etwaigen Fragen kontaktieren Sie bitte FAA oder BRP-Powertrain GmbH & Co. KG.

FAA AD 2013-15-19 liegt dieser Technischen Information bei.

#### **1.4 Information**

For detailed technical information refer to FAA AD 2013-15-19 which is applicable without any further additions or restrictions.

#### **II. OTHER INFORMATION**

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

FAA AD 2013-15-19 is attached to this Service Information.

[Federal Register Volume 78, Number 155 (Monday, August 12, 2013)]  
[Rules and Regulations]  
[Pages 48795-48797]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2013-18528]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2013-0263; Directorate Identifier 2013-NE-12-AD; Amendment 39-17535; AD 2013-15-19]**

**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.

---

**SUMMARY:** We are superseding an existing airworthiness directive (AD) for all BRP-Powertrain GmbH & Co KG Rotax model 912 F2; 912 F3; 912 F4; 912 S2; 912 S3; 912 S4; 914 F2; 914 F3; and 914 F4 reciprocating engines. That AD required a one-time visual inspection for excessive oil or carbon deposits on the cylinder No. 2 and No. 3 (2/3) spark plug center and grounding electrodes, and if found, replacement of the cylinder head before further flight. This AD was prompted by a report that additional engine cylinder heads are likely to be affected. 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 is effective August 27, 2013.

We must receive any comments on this AD by September 26, 2013.

**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 AD, contact BRP-Powertrain GmbH & Co KG, Welser Strasse 32, A-4623 Gunskirchen, Austria; Internet: <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 Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the Mandatory Continuing Airworthiness Information, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is 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**

On April 4, 2013, we issued AD 2013-07-12, amendment 39-17416 (78 FR 22166, April 15, 2013), for certain BRP-Powertrain GmbH & Co KG Rotax model 912 F2; 912 F3; 912 F4; 912 S2; 912 S3; 912 S4; 914 F2; 914 F3; and 914 F4 reciprocating engines. That AD required a one-time visual inspection for excessive oil or carbon deposits on the 2/3 spark plug center and grounding electrodes, and if found, replacement of the cylinder head before further flight. That AD resulted from a report of certain cylinder heads not manufactured to proper specification. We issued that AD to prevent excessive oil consumption, which could result in an in-flight engine shutdown, forced landing, and damage to the airplane.

#### **Actions Since AD Was Issued**

Since we issued AD 2013-07-12 (78 FR 22166, April 15, 2013), we received a report that additional engine cylinder heads are likely to be affected. In addition, some affected cylinder head assemblies, part number (P/N) 623682 and P/N 623687, were supplied as spares between January 31, 2013 and May 28, 2013. Also, since we issued AD 2013-07-12, the European Aviation Safety Agency (EASA) has issued AD 2013-0117-E, dated May 30, 2013, which supersedes and retains the requirements of EASA AD 2013-0055-E and expands the applicability to include all model 912 and 914 engines.

#### **Relevant Service Information**

We reviewed BRP-Powertrain GmbH & Co KG Rotax Aircraft Engines Mandatory Alert Service Bulletin (MASB) No. ASB-912-062, Revision 2 and ASB-914-044, Revision 2 (provided as one document), dated May 29, 2013. The service information describes procedures for inspecting cylinder head assemblies for evidence of excessive oil consumption.

#### **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 a one-time visual inspection of the center and grounding electrodes of both top and bottom spark plugs on cylinder  $\frac{2}{3}$  for unusual deposits and to replace, before further flight, those cylinder heads not manufactured to proper specification.

## **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 of the short compliance time requirement. Therefore, we find that notice and opportunity for prior public comment are impracticable and 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 we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written 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 we receive about this AD.

## **Costs of Compliance**

We estimate that this AD affects about 197 engines installed on airplanes of U.S. registry. We also estimate that it would take about 2 hours per engine to inspect a cylinder head assembly. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$33,490.

## **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**

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 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.

### **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 removing airworthiness directive (AD) 2013-07-12, Amendment 39-17416 (78 FR 22166, April 15, 2013) and adding the following new AD:



---

**2013-15-19 BRP-Powertrain GmbH & Co. KG (formerly BRP-Rotax GmbH & Co KG, Bombardier-Rotax GmbH & Co. KG, and Bombardier-Rotax GmbH):** Amendment 39-17535; Docket No. FAA-2013-0263; Directorate Identifier 2013-NE-12-AD.

**(a) Effective Date**

This AD is effective August 27, 2013.

**(b) Affected ADs**

This AD supersedes AD 2013-07-12, Amendment 39-17416 (78 FR 22166, April 15, 2013)

**(c) Applicability**

This AD applies to the following BRP Powertrain GmbH & Co KG Rotax reciprocating engines:

- (1) Rotax 912F from serial number (S/N) 4,413.013 to S/N 4,413.019, inclusive.
- (2) Rotax 912S, from S/N 4,924.468 to S/N 4,924.543, inclusive.
- (3) Rotax 914F, from S/N 4,421.156 to S/N 4,421.177, inclusive.
- (4) All Rotax 912F, 912S, and 914F engines with cylinder head assembly, part number (P/N) 623682 or P/N 623687, supplied by BRP-Powertrain between January 31, 2013, and May 28, 2013, installed.

**(d) Unsafe Condition**

This AD was prompted by a report that additional engine cylinder heads are likely to be affected. 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) Compliance**

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

(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 of excessive oil or carbon deposits. Any excessive oil or carbon deposits indicate the cylinder head is not manufactured to proper specification and is leaking oil into the combustion chamber.

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

(3) From the effective date of this AD, installation on an engine of an affected spare cylinder head assembly part number (P/N) 623682 or P/N 623687, supplied by BRP-Powertrain between January 31, 2013, and May 28, 2013, is prohibited unless the engine, with the spare cylinder head installed, is test run for at least 20 minutes and the inspection called out in paragraph (e) (1) of this AD is accomplished. If the cylinder head fails the inspection required by paragraph (e) (1) of this AD, remove the cylinder head assembly before further flight.

**(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, may approve AMOCs for 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 2013-0117-E, dated May 30, 2013, and BRP-Powertrain GmbH & Co KG Rotax Aircraft Engines Mandatory Alert Service Bulletin (MASB) No. ASB-912-062, Revision 2 and ASB-914-044, Revision 2 (provided as one document), dated May 29, 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; Internet: <http://www.FLYROTAX.com>.

(4) 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 July 24, 2013.  
Thomas A. Boudreau,  
Acting Assistant Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.