

## Diamond Aircraft Industries GmbH N.A. Otto-Straße 5 A-2700 Wiener Neustadt Austria

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# **SERVICE INFORMATION NO. SI 20-053**

**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 equipped with Rotax 912 S engine

#### 1.2 Subject:

FAA Airworthiness Directive No. 2012-04-03 ATA-Code: 79-20

## 1.3 Reason:

FAA has issued the Airworthiness Directive No. 2012-04-03 mandating an one time inspection of the oil system for leaks and a torque check of the oil pump attachment bolts due to a deviation in the assembly process of the oil pump attachment bolts on certain serial numbers of engines. The AD was issued on basis of the Rotax ASB 912-060.

#### 1.4 Information:

For detailed technical information refer to FAA AD 2012-04-03 which is applicable without any further additions or restrictions.

## **II. OTHERS**

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

FAA AD 2012-04-03 is attached to this SI.

[Federal Register Volume 77, Number 41 (Thursday, March 1, 2012)]

[Rules and Regulations]

[Pages 12450-12452]

From the Federal Register Online via the Government Printing Office [www.gpo.gov]

[FR Doc No: 2012-4746]

#### **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

**14 CFR Part 39** 

[Docket No. FAA-2012-0126; Directorate Identifier 2012-NE-07-AD; Amendment 39-16959; AD 2012-04-03]

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 BRP-Powertrain GmbH & Co KG Rotax 912 S2, 912 S3, and 914 F2 reciprocating engines. This AD requires performing a one-time inspection of the oil system for leaks and a torque check of the oil pump attachment bolts, and if leaks are detected, performing a one-time inspection of the oil pump and engine valve train, on certain serial number (S/N) BRP-Powertrain GmbH & Co KG Rotax 912 S2, 912 S3, and 914 F2 reciprocating engines. This AD was prompted by the discovery that during engine production, some engines may not have had the oil pump attachment bolts torqued to specification. We are issuing this AD to prevent oil leaks, which could result in an in-flight engine shutdown and forced landing.

**DATES:** This AD becomes effective March 16, 2012.

We must receive comments on this AD by April 16, 2012.

The Director of the Federal Register approved the incorporation by reference of BRP-Powertrain GmbH & Co KG, Rotax Aircraft Engines Mandatory Alert Service Bulletins (ASBs) No. ASB-912-060 and ASB No. 914-043 (combined in one document), dated January 26, 2012 listed in the AD, as of March 16, 2012.

**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.rotax-aircraft-engines.com. You may review copies of the referenced 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:** Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: alan.strom@faa.gov; phone: 781-238-7143; fax: 781-238-7199.

# 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 AD 2012-0019-E, dated January 26, 2012 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During a production quality review, a deviation in the assembly process of the oil pump attachment bolts has been detected, which may have resulted in a latent defect on a limited number of engines. The affected bolts may not have been tightened to the correct torque value, i.e. not in accordance with the specification. This condition, if not corrected, could lead to oil leaks and irregularities in the oil supply, possibly resulting in uncommanded in-flight engine shutdown and forced landing, 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 Mandatory ASBs No. ASB-912-060 and No. ASB-914-043 (combined in one document), dated January 26, 2012. 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 issuing 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 AD requires performing a one-time inspection of the oil system for leaks and a torque check of the oil pump attachment bolts, and if leaks are detected, performing a one-time

inspection of the oil pump and engine valve train, on certain S/N BRP-Powertrain GmbH & Co KG Rotax 912 S2, 912 S3, and 914 F2 reciprocating engines.

#### 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 no domestic operators use these engines. Therefore, we determined that notice and opportunity for public comment before issuing this AD are unnecessary 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-2012-0126; Directorate Identifier 2012-NE-07-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 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 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:

## AIRWORTHINESS DIRECTIVE



www.faa.gov/aircraft/safety/alerts/ www.gpoaccess.gov/fr/advanced.html

**2012-04-03** BRP-Powertrain GmbH & Co. KG (formerly BRP-Rotax GmbH & Co KG, Bombardier-Rotax GmbH & Co. KG, and Bombardier-Rotax GmbH): Amendment 39-16959; Docket No. FAA-2012-0126; Directorate Identifier 2012-NE-07-AD.

## (a) Effective Date

This airworthiness directive (AD) becomes effective March 16, 2012.

## (b) Affected ADs

None.

## (c) Applicability

This AD applies to BRP-Powertrain GmbH & Co KG:

- (1) Rotax 912 S2 and 912 S3 reciprocating engines, serial numbers (S/Ns) 4,924.287 to 4,924.295 inclusive, 4,924.300 to 4,924.304 inclusive, 4,924.342 to 4,924.350 inclusive, 4,924.352, and 4,924.353.
  - (2) Rotax 914 F2 reciprocating engines, S/Ns 4,421.079, 4,421.080, and 4,421.081.

#### (d) Reason

This AD was prompted by the discovery that during engine production, some engines may not have had the oil pump attachment bolts torqued to specification. We are issuing this AD to prevent oil leaks, which could result in an in-flight engine shutdown and forced landing.

## (e) Actions and Compliance

Unless already done, do the following actions within four flight hours or 30 days after the effective date of this AD, whichever occurs first.

- (1) Inspect the oil pump and engine valve train for oil leaks in accordance with paragraph 3.1) step 1. of BRP-Powertrain GmbH & Co KG, Rotax Aircraft Engines Mandatory Alert Service Bulletins (ASBs) No. ASB-912-060 and No. ASB-914-043 (combined in one document), dated January 26, 2012.
- (2) If no leaks are found during the inspection, tighten the four oil pump attachment bolts with lock washers installed to 10 Nm (90 in. lb.).
- (3) If any leaks are found during the inspection specified in paragraph (e)(1) of this AD, do the following:
- (i) Remove the oil pump and inspect all surfaces for wear, cracks, or damage. If any measurable wear, cracking, or damage is found, reject the oil pump. If no measurable wear, cracking, or damage is found, replace the three o-rings and the four gasket rings and reinstall the oil pump.
- (ii) Inspect the engine valve train washers for increased wear, in accordance with paragraph 3.1.3) steps 19. through 21. of BRP-Powertrain GmbH & Co KG, Rotax Aircraft Engines Mandatory ASBs No. ASB-912-060 and No. ASB-914-043 (combined in one document), dated January 26, 2012.

## (f) 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.

## (g) Related Information

- (1) For more information about this AD, contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: alan.strom@faa.gov; phone: 781-238-7143; fax: 781-238-7199.
- (2) Refer to European Aviation Safety Agency Emergency AD 2012-0019-E, dated November 15, 2011, for related information.

# (h) Material Incorporated by Reference

- (1) You must use BRP-Powertrain GmbH & Co KG, Rotax Aircraft Engines, Mandatory Alert Service Bulletins Nos. ASB-912-060 and ASB-914-043 (combined in one document), dated January 26, 2012, to do the actions required by this AD, unless the AD specifies otherwise.
- (2) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.
- (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.rotax-aircraft-engines.com.
- (4) You may review copies of the service information at the FAA, New England Region, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.
- (5) You may also review copies of 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 an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on February 15, 2012. Peter A. White, Manager, Engine & Propeller Directorate, Aircraft Certification Service.