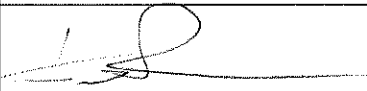




## SERVICE INFORMATION LETTER

<b>TO:</b> DA20 A-1 Operators	<b>FROM:</b> Certification	<b>CONTROL NO:</b> SIL20A1-002	<b>REVISION:</b> NC
<b>ATTN:</b> All DA20 A-1 Operators	<b>ORIGINATOR:</b> Kety Bussolo	<b>PAGE:</b> 1 of 1	
<b>PHONE NO:</b>	<b>PHONE NO:</b> 519-457-4000 Ext 3139	<b>A/C MODEL:</b> DA20 A-1	<b>A/C S/N:</b>
<b>FAX NO:</b>	<b>FAX NO:</b> 519-457-4031	<b>ATA NO:</b> 61	
<b>DATE OF REQUEST:</b> 31 January 2008	<b>PUBLICATION AFFECTED:</b> LOAP		
<b>TITLE:</b> Service Information Letter for the Mandatory Service Bulletin "Checking of magnetic plug on Rotax engine type 912/914 (series)"			
<b>REFERENCE:</b> SB-912-051/SB-914-034			
<b>ISSUE:</b> In some limited cases, the affected engines could suffer from increased wear of the camshaft and/or hydraulic valve tappets. Such a condition would lead to excessive wear material being captured by the engine magnetic plug, therefore affected engines must have a detailed magnetic plug inspection as per the instructions supplied in the SB.			
<b>RESOLUTION:</b>  Checking if your engine is affected; first, make sure your engine type is affected, then check your Engine serial number and compare to those listed in the applicable SB. For engines which have had the cam shaft and/or lifters previously replaced for maintenance or overhaul between January 1 2006 and December 1 2007, they must also have the magnetic plug checked in compliance to the SB and every mandatory oil change thereafter regardless of engine serial number.  <b>COMPLIANCE:</b> -Before the first initial start up of any new engine with affected serial number. -Within the next 5 hrs. (one time) for any engine overhauled or repaired where the cam shaft and/or lifters have been changed within the affected dates January 1, 2006 to December 1, 2007. -For affected engines within the next 5 hours of operation (one-time), but at the latest April 1, 2008 if compliance to the original Alert Service Bulletin has not yet been carried out. -For affected engines during each mandatory oil change thereafter in accordance with the current engine maintenance schedule/checklist.			
<b>PREPARED BY:</b>		<b>APPROVAL:</b>	
<b>Print name:</b> Kety Bussolo	<b>Print name:</b> Kevin Bruce	<b>SIL Issue date:</b>	
<b>Signature:</b>	<b>Signature of</b> 	<b>31 JAN 08</b>	
<b>Date:</b> 31 January 2008	<b>Manager</b>		

This document conveys information related to the concerned issue and the proposed resolution.

# **SERVICE BULLETIN**

## **CHECKING OF MAGNETIC PLUG**

### **ON ROTAX® ENGINE TYPE 912/914 (SERIES)**

**SB-912-051**  
**SB-914-034**

## **MANDATORY**

### **Repeating symbols:**

Please, pay attention to the following symbols throughout this document emphasizing particular information.

▲ **WARNING:** Identifies an instruction, which if not followed, may cause serious injury or even death.

■ **CAUTION:** Denotes an instruction which if not followed, may severely damage the engine or could lead to suspension of warranty.

◆ **NOTE:** Information useful for better handling.

### **1) Planning information**

#### **1.1) Engines affected**

All versions of the engine type:

- 912 A from S/N 4,410.681 to S/N 4,410.712
- 912 F from S/N 4,412.912 to S/N 4,412.921
- 912 S from S/N 4,923.263 to S/N 4,923.380
- 914 F from S/N 4,420.595 to S/N 4,420.637

Also affected are all engines on which the camshaft/hydraulic valve tappets have been exchanged at engine repair/general overhaul after January 1 and to December 1, 2007.

On engine with S/N higher than the one listed above, was the hydraulic valve tappets (part no. 881831) already fitted in serial production and is therefore not affected.

◆ **NOTE:** That certain engines

- 912 A from S/N 4,410.709 to S/N 4,410.712
- 912 F from S/N 4,412.920 to S/N 4,412.921
- 912 S from S/N 4,923.381
- 914 F from S/N 4,420.633 to S/N 4,420.637

have already had the magnetic plug inspected to comply with section 1.5 (a). The inspection "before first installation or first start up" is not necessary.

#### **1.2) Concurrent ASB/SB/SI and SL**

none

#### **1.3) Reason**

In limited cases increased wear of camshaft/hydraulic valve tappet can occur.

#### **1.4) Subject**

Checking of magnetic plug on ROTAX® engine type 912/914 (Series).

#### **1.5) Compliance**

(a) before the first installation or first engine start up

(b) within the next 5 hours of operation (one-time), but at the latest by April 1, 2008, if the Alert Service Bulletin has not been carried out yet.

◆ **NOTE:** Checking of magnetic plug must be done further at all mandatory oil change in accordance with the current maintenance schedule.

▲ **WARNING:** Non-compliance with these instructions could result in engine damage, personal injury, or death!

#### 1.6) Approval

The technical content is approved under the authority of DOA Nr. EASA.21J.048.

#### 1.7) Manpower

Estimated man-hours:

engine installed in the aircraft --- manpower time will depend on installation and therefore no estimate is available from the engine manufacturer.

#### 1.8) Mass data

change of weight --- none

moment of inertia --- unaffected

#### 1.9) Electrical load data

no change

#### 1.10) Software accomplishment summary

no change

#### 1.11) References

In addition to this technical information refer to current issue of

- Illustrated Parts Catalog (IPC)

- Maintenance Manual (MM)

◆ NOTE: The status of Manuals can be determined by checking the table of amendments of the Manual. The 1<sup>st</sup> column of this table is the revision status. Compare this number to that listed on the ROTAX WebSite: [www.rotax-aircraft-engines.com](http://www.rotax-aircraft-engines.com). Updates and current revisions can be downloaded for free.

#### 1.12) Other publications affected

none

#### 1.13) Interchangeability of parts

All used parts which cannot be used must be returned F.O.B. to a ROTAX<sup>®</sup> Authorized Distributor or Service Center.

### 2) Material Information

#### 2.1) Material - cost and availability

Price and availability will be supplied on request by ROTAX<sup>®</sup> Authorized Distributors or their Service Center.

#### 2.2) Company support information

none

#### 2.3) Material requirement per engine

Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with a new one.

#### 2.4) Material requirement per spare part

none

#### 2.5) Rework of parts

none

#### 2.6) Special tooling/lubricant-/adhesives-/sealing compound - Price and availability

Price and availability will be supplied on request by ROTAX<sup>®</sup> Authorized Distributors or their Service Centers.  
parts requirement:

Fig.no.	p/n	Qty/engine	Description	Old p/n	Application
	877890	1	Torx-Bit T40	-	magnetic drain plug

■ CAUTION: In using these special tools observe the manufacturer's specifications.

### 3) Accomplishment / Instructions

#### Accomplishment

All the measures must be taken and confirmed by the following persons or facilities:

- ROTAX®-Airworthiness representative
- ROTAX®-Distributors or their Service Centers
- Persons approved by the respective Aviation Authority

▲ **WARNING:** Proceed with this work only in a non-smoking area and not close to sparks or open flames. Switch off ignition and secure engine against unintentional operation. Secure aircraft against unauthorized operation. Disconnect negative terminal of aircraft battery.

▲ **WARNING:** Risk of scalds and burns! Allow engine to cool sufficiently and use appropriate safety gear while performing work.

▲ **WARNING:** Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with a new one.

#### 3.1) Instructions

■ **CAUTION:** All work has to be performed in accordance with the relevant Maintenance Manual.

##### 3.1.1) Checking of magnetic plug

See fig. 1 and fig. 2

1. Remove the magnetic plug according to relevant Maintenance Manual.

2. Inspect magnetic plug in accordance with procedure in relevant Maintenance Manual.

■ **CAUTION:** If a greater quantity of metal particles (more than 3 mm (1/8")) is detected, consultation of an authorized distributor regarding further action is necessary. The engine must not be taken into operation until the cause has been identified and eliminated.

- Restore aircraft to original operating configuration.
- Connect negative terminal of aircraft battery.

#### 3.2) Test run

Conduct test run including ignition check and inspect for fluid leaks in accordance with the current Maintenance Manual of the respective engine type.

#### 3.3) Summary

These instructions (section 3) have to be conducted in accordance with compliance in section 1.5.

The execution of the mandatory Service Bulletin must be confirmed in the logbook.

Approval of translation to best knowledge and judgement - in any case the original text in German language and the metric units (SI-system) are authoritative.

#### 4) Appendix

the following drawings should convey additional information:

acceptable



fig. 1

08313

not acceptable

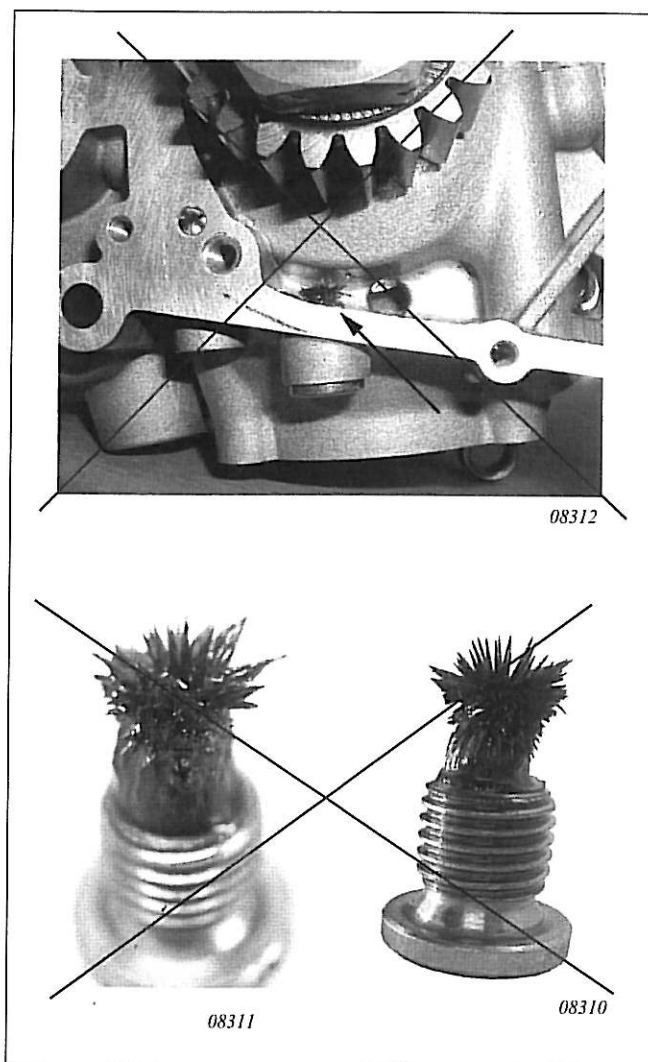


fig. 2

◆ NOTE: The illustrations in this document show the typical construction. They may not represent full detail or the exact shape of the parts which have the same or similar function.  
Exploded views are **no technical** drawings and are for reference only. For specific detail, refer to the current documents of the respective engine type.