



GFA AIRWORTHINESS DIRECTIVE

TYPE AFFECTED: ROTAX 912 Engines:-
Series A:- Serial No 4,410.681 up to & including 4,410.708
Series F:- Serial No 4,412.912 up to & including 4,412.919
Series S:- Serial No 4,923.263 up to & including 4,923.380
ROTAX 914 Engines:-
Series F:- Serial No 4,420,595 up to & including 4,420.632
These engines are known to be fitted to, but not limited to, the following aircraft types: AMT-200 & AMT- 200S Ximango, H-36 Dimona, HK-36 Super Dimona, Grob G-109, Scheibe SF-25C, Stemme S-10 VT, Pipistrel Sinus,

SUBJECT: Inspection of engine Magnetic Plug.

REASON: In a few cases, increased wear of camshaft / hydraulic tappets has occurred. This can lead to improper engine operation, power loss or in flight engine failure.

DOCUMENTATION: EASA has issued EAD 2006-0316-E, and Rotax has issued ASB 912-051/ASB 914-034 which is attached & forms part of this AD.

ACTION REQUIRED:

- 1:- Before the next engine start up from the issue date of this AD remove and inspect the magnetic plug in accordance with the above ASB.
- 2:- After a further 5 hours of engine operation, but not later than 31st August, and thereafter at every oil change, repeat the inspection required at 1.
- 3:- If during any of the inspections, more than 3 mm of metal build up on the magnet is detected the engine must not be used again until the cause has been identified and appropriate repairs carried out.
- 4:- After the issue date of this AD no person may fit one of the affected engines to an aircraft unless the magnetic plug has been inspected in accordance with the above requirements

WEIGHT AND BALANCE: Negligible.

SIGNED:

SENIOR TECHNICAL OFFICER AIRWORTHINESS


For and on behalf of:

© THE GLIDING FEDERATION
OF AUSTRALIA INC.

| | | | |
|-------------------|-----------------|--------------------|--------------------|
| GFA AD-643 | ISSUE: 1 | 08 May 2007 | Page 2 of 6 |
|-------------------|-----------------|--------------------|--------------------|

IMPLEMENTATION: **BEFORE FURTHER FLIGHT.** The actions may be performed by the holder of a GFA 1109 Maintenance Authority Section 2 endorsed for maintenance of four stroke or two stroke engines, or higher authorization.

COMPLIANCE: The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia Inc.

| | | | |
|--|-----------------|--|--------------------|
| SIGNED:  SENIOR TECHNICAL OFFICER AIRWORTHINESS | | For and on behalf of: © THE GLIDING FEDERATION OF AUSTRALIA INC. | |
| GFA AD-643 | ISSUE: 1 | 08 May 2007 | Page 2 of 6 |



ALERT SERVICE BULLETIN

CHECKING OF MAGNETIC PLUG ON ROTAX® ENGINE TYPE 912/914 (SERIES)

ASB-912-051
ASB-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
- 912 F from S/N 4,412.912
- 912 S from S/N 4,923.263
- 914 F from S/N 4,420.595

Also affected are all engines on which the camshaft/hydraulic valve tappets have been exchanged at engine repair/general overhaul after January 1, 2006.

That certain engines

- 912 A from S/N 4,410.709
- 912 F from S/N 4,412.920
- 912 S from S/N 4,923.381
- 914 F from S/N 4,420.633

have already had the magnetic plug inspected to comply with section 1.5 (a) "before first installation or first start up".

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 March 1, 2007
- (c) at every specified oil change

▲ **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.

d03986

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 1st column of this table is the revision status. Compare this number to that listed on the ROTAX WebSite: 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[®] Authorized Distributor or Service Center.

2) Material Information**2.1) Material - cost and availability**

Price and availability will be supplied on request by ROTAX[®] 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[®] 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

- Remove the magnetic plug according to relevant Maintenance Manual.
- 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 Alert 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

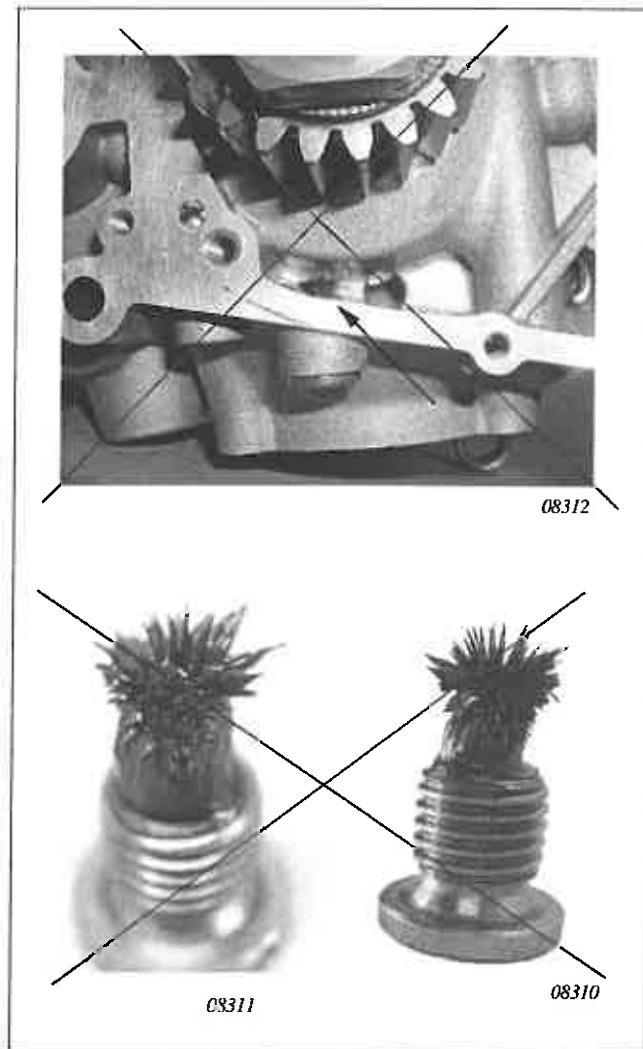


fig 2

◆ 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.