

SERVICE INSTRUCTION

OIL CHANGE

ON ROTAX® ENGINE TYPE 912 AND 914 (SERIES)

SI-912-010 R2

SI-914-011 R2

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 (Series) all serial numbers
- 914 (Series) all serial numbers

1.2) Concurrent ASB/SB/SI and SL

Further to this Service Instruction the following additional Service Instructions and Service Bulletins must be observed and complied with:

- SI-18-1997 Selection of motor oil and general operating tips, current issue
- SI-912-018 Purging of lubrication system, current issue
- SI-914-020 Purging of lubrication system, current issue

1.3) Reason

Field experience indicates that procedures in the current Operator's Manual and also in the Maintenance Manuals are not being followed. Therefore the manufacture wants to reiterate the important steps of oil changes provide some additional and helpful information regarding the oil change on ROTAX engine type 912 and 914 (Series).

1.4) Subject

Oil change on ROTAX® engine type 912 and 914 (Series).

1.5) Compliance

At the pre-flight check or the next maintenance event.

1.6) Approval

not required

1.7) Manpower

none

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

- Operator's Manual (OM)
- Installation Manual (IM) und Check List
- all relevant Service Instructions (SI)
- all relevant Service Bulletins (SB)
- 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

not affected

2) Material Information

none

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 (namely lock tabs, self-locking fasteners) be required when undergoing disassembly/assembly, always replace with a new one.

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

3.1) Instructions

◆ **NOTE:** It is advisable to check the oil level prior to an oil change as it gives information on oil consumption.

Crank the engine by hand in the normal engine operating direction of rotation to transfer the oil from the crankcase. See section on Oil level check in the relevant Maintenance Manual or Operator's Manual.

■ **CAUTION:** The engine shouldn't be turned reverse the normal direction of rotation, as this could cause air to enter into the hydraulic valve tappets.

▲ **WARNING:** Careless draining of hot engine oil may cause scalds. Dispose of used oil and filters respecting the environmental and safety regulations. Oil lines and further oil line connections do not have to be opened.

- Perform the oil change in accordance with the relevant Maintenance Manual.

■ **CAUTION:** Failure to follow instructions below could lead to air entering the oil system and defects on valve train:

- Do not drain the oil suction line, oil radiator and return line to avoid air entering the oil system.
- Carry out the oil and filter change quickly and without any interruption to avoid unintentional drainage of oil system and the hydraulic valve tappets.
- Turn the engine by hand in direction of normal rotation (approx. 20 turns) after finalization of the oil change to vent the lubrication system correctly.

■ **CAUTION:** Do not turn the engine if any part of the oil system is open. Observe this also during first installation of the engine (e.g. when mounting the propeller, after the oil system has already been correctly vented).

- Do not blow out oil circuit (including oil lines, oil pump housing, oil bores in crankcase) with compressed air.
- Restore aircraft to original operating configuration.
- Connect negative terminal of aircraft battery.

3.2) Test run

Conduct final test run including ignition inspection and leakage test.

3.3) Summary

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

◆ **NOTE:** Document the repair in engine log book.

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.