

SL-916 i-003R2 / SL-915 i-003R3 SL-912 i-011R3 / SL-912-022R3 SL-914-020R3 / SL-2ST-014R3

This SL revises SL-916 i-003R1, SL-915 i-003R2, SL-912 i-011R2, SL-912-022R2, SL-914-020R2, SL-2ST-014R2, dated 01 February 2022

# SERVICE LETTER

# Information about storage and storage conditions of ROTAX. genuine spare parts for ROTAX. Aircraft Engines

ATA System: 10-10-00 Storage and Installation

# 1) Planning information

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To obtain satisfactory results, procedures specified in this publication must be accomplished with accepted methods in accordance with prevailing legal regulations.

BRP-Rotax GmbH & Co KG cannot accept any responsibility for the quality of work performed in accomplishing the requirements of this publication.

# 1.1) Applicability

All versions of ROTAX <sub>®</sub> e	engine types:
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Engine type	Serial number
2-stroke engines	all
912 (Series with UL engines)	all
914 (Series with UL engines)	all
912 i Sport (Series)	all
915 i A/C24 (Series	all
916 i A/C24 (Series)	all
916 iSc B	all

# 1.2) Concurrent ASB/SB/SI and SL

In addition to this Service Letter the following documents must be observed and complied with:

- in general all relevant Alert Service Bulletins (ASB), Service Bulletins (SB), Service Instructions (SI), Service Letters (SL), Service Instruction Parts and Accessories (SI-PAC) with relevance to perform this maintenance, repair or overhaul task.
- SB-505-010/SB-535-009, title "New maintenance schedule, checklist and engine preservation", current issue.
- SI-11-1996, title "Engine preservation (2-stroke UL engines)", current issue.

# 1.3) Reason

- General information about storage and storage conditions of ROTAX  $_{\ensuremath{\scriptscriptstyle O}}$  genuine spare parts
- Information on the shelf life for genuine spare parts used on ROTAX® aircraft engine types
- For storage of the engine control unit (ECU) of ROTAX<sub>®</sub> aircraft engines, special storage conditions are required by the manufacturer of the ECU.
- NOTE: This Service Letter does not contain information on genuine spare parts made from silicone, Teflon, fluorocarbon or fluorosilicone which have a shelf life of more than 10 years.

#### 1.4) Subject

Information about storage and storage conditions of ROTAX genuine spare parts for ROTAX® Aircraft Engines.

#### 1.5) Compliance

- None for the implementation of this Service Letter
- For storage conditions/engine preservation/storage and storage period of the engine observe the requirements of the latest valid "Instructions for Continued Airworthiness" for ROTAX® aircraft engines and the special requirements for ROTAX® spare parts indicated in this Service Letter.

#### 1.6) Approval

The technical content of this document is approved under the authority of the DOA ref. EASA.21J.048.

#### 1.7) Labor time

None.

# 1.8) Mass data

Change of weight - - - none.

Moment of inertia - - - unaffected.

# 1.9) Electrical load data

No change.

#### 1.10) Software modifications

No change.

#### 1.11) References

In addition to this technical information refer to current issue of

- in general Illustrated Parts Catalog (IPC)
- in general Operators Manual (OM)
- in general Installation Manual (IM)
- in general Maintenance Manual Line (MML) and in particular: Chapter 05-00-00
- in general Maintenance Manual Heavy (MMH) and in particular: Chapter 71-00-00 and 72-10-00
- NOTE: The status of the Manuals can be determined by checking the table of amendments. The 1<sup>st</sup> column of this table shows the revision status. Compare this number to the one listed on the ROTAX website: www.flyrotax.com. Updates and current revisions can be downloaded for free.

1.12) Other Publications affected

None.

- 1.13) Interchangeability of parts
  - Not affected

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# SERVICE LETTER

#### 2) Material Information

#### 2.1) Material

Price and availability will be provided on request by  $ROTAX_{\ensuremath{\circledast}}$  Authorized Distributors or their independent Service Centers.

#### 2.2) Company support information

None.

#### 2.3) Material requirement per engine

None.

#### 2.4) Material requirement per spare part

None.

2.5) Rework of parts

None.

#### 2.6) Special tooling/lubricants- /adhesives- /sealing compounds

Price and availability will be supplied on request by ROTAX® Authorized Distributors or their independent Service Centers:

Description	Qty/engine	Part no.	Application
Service wiring harness	1	864280	Tool for reading the ECU

#### 3) Accomplishment/Instructions

- ROTAX<sub>®</sub> reserves the right to make any amendments to existing documents, which might become necessary due to this standardization, at the time of next revision or issue.

#### 3.1) Instructions

# Corrosion

Environmental corrosion (on the external surfaces) is a naturally occurring process which can inevitably affect the continued airworthiness of the engine, engine mounted components and accessories. Susceptibility to corrosion is influenced by a number of factors, including but not limited to, geographical location, season and usage.All general preventive (technical) measures, identification, control and treatment of corrosive attack on aircraft structures and engine materials has to be carried out in accordance with Advisory Circular AC 43-4B from FAA and also in accordance with the information of the aircraft manufacturers Instruction for Continued Airworthiness. Furthermore the preservation procedures for stored and inactive aircraft (engines) provides an effective means for combating and minimizing the corrosion condition and should be adhered to.

Advisory Circular AC 43-4B This advisory circular (AC) is a summary of the current available data regarding identification and treatment of corrosive attack on aircraft structures and engine materials. Corrosion inspection frequency, corrosion identification, and especially corrosion treatment continues to be the responsibility of the operator. These inspections should be accomplished per this AC, the manufacturer's recommendations, or the operator's own maintenance program. The procedures in this AC are an acceptable means, but not the only acceptable means, of corrosion treatment. The information in this AC is applicable to aircraft for which the manufacturer has not published corrosion control information.

#### 3.1.1) General recommendation for the storage of spare parts

- Ideal storage temperature: 15 25 °C (59 °F 77 °F)
- Dry storage (40 60% relative humidity)
- UV light-protected storage
- Ozone-free storage (no fluorescent light sources, mercury vapor lamps, printers etc.)
- Do not store directly on the floor, on walls, in front of radiators or other heat sources
- Dust-free storage (use the dust cover)
- Rust protection must not be removed (for example the oil film on untreated steel parts or the specially coated packaging materials)
- The storage facility will be protected from moisture, swelling agents such as fuels, oils or solvents and corrosive vapors.
- NOTE: The conservation requirements and time limits of engines and components have to be observed and followed according to the specifications by the "Instructions for Continued Airworthiness".

# 3.1.2) Shelf life

The shelf life is the length of time a part can be stored before being installed on an aircraft (Not to be confused with SERVICE LIFE).

SERVICE LIFE: Service life is that period from installation to retirement.

#### 3.1.3) ROTAX $_{\ensuremath{\mathbb{R}}}$ genuine spare parts

Shelf life on genuine spare parts does mainly affect parts made of rubber (like hoses, O-rings, oil seals,....). Rubber parts sent from BRP-Rotax GmbH & Co KG have a minimum of 48 months of shelf life beyond:

- the issue date of Form 1 for EASA certified ROTAX<sub>®</sub> aircraft engines
- the invoice date for ASTM compliant ROTAX® aircraft engines

For all other parts general storage requirements apply and also the relevant visual checks etc. apply when selling the parts and/or installing the part.

#### 3.1.4) Special procedures with storage of the Engine Control Units (ECU)

Part	Period of storage time	Procedure
ECU	Up to 2 years	Visual inspection of the ECU before installation for traces of humid- ity and corrosion. If humidity is observed, the unit should be dried for 24 hours at low humidity and temperatures from 70-80 °C (158 - 176 °F). At signs of corrosion (at the connector pins) these ECUs should be scrapped.
	At longer than 2 years	The ECU should be activated for approx. 30 min and be operated. At signs of corrosion (at the connector pins) these ECUs should be scrapped. Reference Maintenance Manual Heavy (MMH) Chapter 72-10-00.

There are three different scenarios where the ECU is stored or installed:

#### See Fig. 1.

- as a spare part ECU stored in a shelf (to be activated on engine test bench or via service harness)
- as an ECU provided together with an engine in the crate (to be activated on engine test bench or via service harness separate from the engine)
- as an ECU not operated installed in an aircraft for a certain time period.

#### 3.2) Test run

Not applicable.

#### 3.3) Summary

These instructions (section 3) have to be followed in accordance with the deadlines specified in section 1.5.

The execution of the Service Letter must be confirmed in the logbook.

- NOTE: Work on EASA certified parts might affect the EASA Form 1 and does require appropriate documentation by authorized persons. Repairs must be entered into the engine logbook and also do apply for the EASA Form 1.
  - A revision bar outside of the page margin indicates a change to text or graphic.

Translation into other languages might be performed in the course of language localization but does not lie within ROTAX® scope of responsibility.

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In any case the original text in English language and the metric units are authoritative.

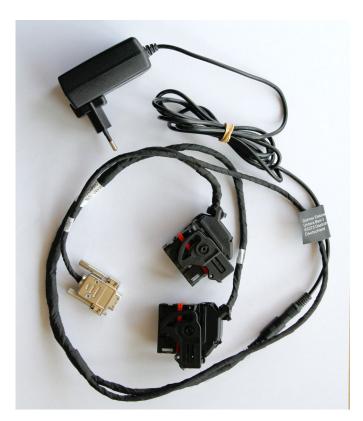
#### 3.4) Inquiries

Inquiries regarding this Service Letter should be sent to the ROTAX $_{\ensuremath{\circledast}}$  Authorized Distributor of your area.

A list of all ROTAX<sup>®</sup> Authorized Distributors or their independent Service Centers is provided on <u>https://dealerlocator.flyrotax.com</u>.

# 4) Appendix

The following drawings should convey additional information:



*Fig. 1* Service wiring harness part no. 864280

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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 not technical drawings and are for reference only. For specific detail, refer to the current documents of the respective engine type.

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