

## SERVICE INSTRUCTION

# Change of the gearbox configuration for ROTAX® Aircraft Engine Types 915 i A, 912 i, 912 and 914 (Series)

ATA System: 72-00-00 Engine

### 1) Planning information

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® engine types:

Engine type	Serial number
915 i A Series	all
912 i Series	all
912 Series	all
914 Series	all

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

In addition to this Service Instruction the following Service Bulletins must be observed and complied with:

Service Bulletin-SB-912 i-003iS, title "Installation instructions for upgrade kit", current issue.

Service Bulletin-SB-912-068/SB-914-049, title "Specification/change of engine configuration and/or type plate", current issue.

Service Bulletin-SB-912-068UL/SB-914-049UL, title "Specification/change of engine configuration and/or type plate", current issue.

#### 1.3) Reason

To clarify and offer guidance on the proper documentation, and marking, to be used when modifying the propeller gearbox. (example: configuration 2 to configuration 3 or vice versa). As per the instructions within the corresponding engine type Maintenance Manual Heavy (MMH) and further relevant Instructions for Continued Airworthiness.

NOTE: Configuration changes affect the TC (Type Certification) of EASA certified engines and ASTM compliant engines and require appropriate documentation by authorized persons. Configuration changes must be entered into the engine logbook.

#### 1.4) Subject

Change of the gearbox configuration for ROTAX® Aircraft Engine Type 915 i A, 912 i, 912 and 914 (Series).

Means e.g. from configuration 3 (prop shaft with flange for constant speed propeller and drive for hydraulic governor for constant speed propeller) to configuration 2 (prop shaft with flange for fixed prop), or from configuration 2 to configuration 3.

#### 1.5) Compliance

None - For information Only.

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## 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

Estimated labor hours:

Engine new in box - - - Approximately 4 hours.

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

## 1.8) Mass data

Change of configuration from configuration 2 to 3:

Change of weight - - - see current Installation Manual (IM) for the respective engine type.

Moment of inertia - - - see current Installation Manual (IM) for the respective engine type.

Change of configuration from configuration 3 to 2:

Change of weight - - - see current Installation Manual (IM) for the respective engine type.

Moment of inertia - - - see current Installation Manual (IM) for the respective engine type.

## 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

- Operators Manual (OM)
- Illustrated Parts Catalog (IPC)
- Maintenance Manual Line (MML)
- Maintenance Manual Heavy (MMH)

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](http://www.flyrotax.com). Updates and current revisions can be downloaded for free.

## 1.12) Other Publications affected

None.

## 1.13) Interchangeability of parts

All parts are interchangeable.

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## 2) Material Information

### 2.1) Material

Price and availability will be provided on request by ROTAX® 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

None.

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## 3) Accomplishment/Instructions

- ROTAX® 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

NOTE: Before accomplishment, review the entire documentation to make sure you have a complete understanding of the procedure and requirements.

### Accomplishment

All measures must be implemented and confirmed by at least one of the following persons or organizations:

- ROTAX® - Authorized Distributors or their independent Service Centers
- Persons with approved qualifications for the corresponding engine types. Only authorized persons (iRMT, Level Heavy Maintenance) are entitled to carry out this work

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

### General

All general inspection, maintenance and repair has to be carried out e.g. in accordance with relevant Advisory Circular AC 43.13 from FAA.

### Advisory Circular

This Manual "Advisory Circular" AC describes maintenance methods, techniques and practice. These are recognized and authorized for inspection and repairs in non-pressurized areas for which there are no separate maintenance and repair instructions.

### 3.1) Configuration change instructions

See the current Maintenance Manual Heavy (MMH) of the respective engine type Chapter 72-00-00 Propeller gearbox.

### 3.2) Work completion

See Fig. 1.

#### NOTICE

A gearbox that has been modified (e.g. change from configuration 3 to configuration 2 or vice-versa) must have its part number corrected. For correct gearbox assembly part number, refer to the current Illustrated Parts Catalog (IPC) of the respective engine type.

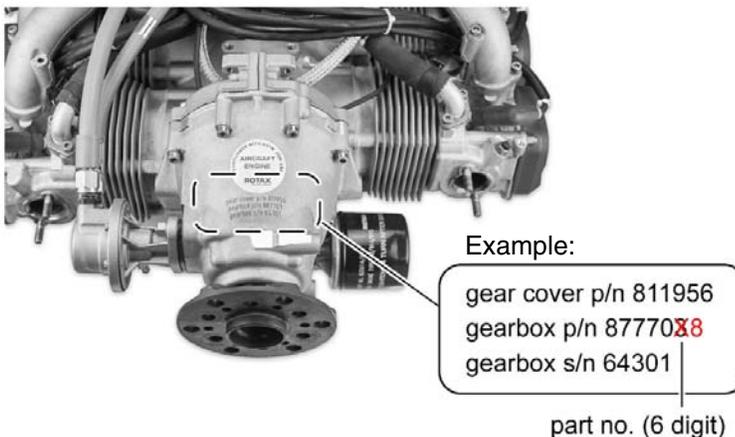
The gearbox must be marked to reflect the new configuration.

Step	Procedure
1	Using number and letter stamps, place an "X" through the original gearbox part number and clearly mark the new configuration assembly part number to its right.

NOTE: Do not completely obliterate the old number, it must remain legible/readable.

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Fig. 1. Gearbox marking example.



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See Fig. 2.

**NOTICE**

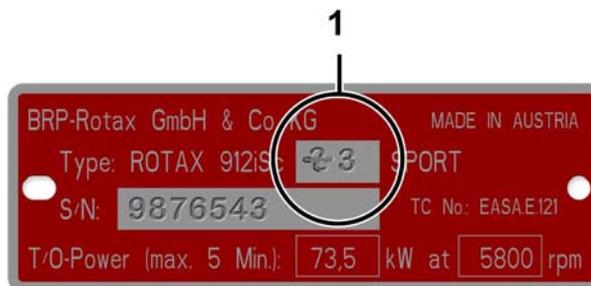
An engine that has been modified (e.g. change from configuration 3 to configuration 2 or vice-versa), must have its data plate corrected to reflect the new configuration.

**NOTE:** Do not change serial number!  
 Relevant authorities require that the old number must remain legible.  
 The engine data plate must be marked to reflect the new configuration.

Step	Procedure
2	Using number stamps, place an single “-” (strike-through or dash) on the original configuration number and clearly mark the new configuration to its right (1).
3	An engine log entry must now be made, indicating work performed, change in gearbox configuration and change to engine configuration. Log entry must include serial number of engine and gearbox.

**NOTE:** There is no need to contact BRP-Rotax for a duplicate, as it would be the same as the original data plate supplied in the original state of engine delivery and reflect the original as-built records.

Fig. 2. Engine data plate example (“912 iSc Sport” shown in this figure).



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### 3.3) Maintenance (Line) - related information

For further information see the current Maintenance Manual Line (MML) of the respective engine type.

### 3.4) Maintenance (Heavy) - related information

For further information see the current Maintenance Manual Heavy (MMH) of the respective engine type Chapter 72-00-00 Propeller gearbox.

### 3.5) Test run

Conduct test run including Lane and ignition check. See Chapter 12-20-00 of the latest Maintenance Manual Line (MML) for the respective engine type.

### 3.6) Summary

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

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



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.

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

### 3.7) Inquiries

Inquiries regarding this Service Instruction should be sent to the ROTAX® Authorized Distributor of your area.

A list of all ROTAX® Authorized Distributors or their independent Service Centers is provided on [www.flyrotax.com](http://www.flyrotax.com).

**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.