



## SERVICE BULLETIN

# Specification/change of engine configuration and/or type plate for ROTAX® Engine Type 912 and 914 (Series)

### MANDATORY

#### 1) Planning information

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

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

##### 1.1) Applicability

All engines of Series 912 A, 912 F, 912 S and 914 F are affected, if at least one of the following criteria applies:

##### Criterion A) Engine Serial number:

Engines with a serial number listed below, which have a new cylinder head installed at the measuring position of the temperature, are affected.

For part numbers of new cylinder heads see section 1.1.1).

| Engine type | Serial number                                    |
|-------------|--|
| 912 A       | from S/N 4 410 982 up to S/N 4 411 086 inclusive |
| 912 F       | from S/N 4 413 020 up to S/N 4 413 044 inclusive |
| 912 S       | from S/N 4 924 544 up to S/N 4 924 910 inclusive |
| 914 F       | from S/N 4 421 178 up to S/N 4 421 444 inclusive |

NOTE: Identifying of new cylinder heads (Suffix - 01): The electrical connection of the temperature sensor is pointing upwards.

##### Criterion B):

Further all engines which have been equipped with new cylinder heads at the measuring position of the temperature as spare part or during engine repair/general overhaul since March 1<sup>st</sup>, 2013 are also affected.

For part numbers of new cylinder heads see section 1.1.1).

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## 1.1.1) Additional support to criteria A and B:

Part no. of new cylinder heads:

| Engine type                        |                 | cylinder head position |
|------------------------------------|-----------------|------------------------|
| 912 A/F; 914 F                     | 912 S           |                        |
| part no. 413235<br>part no. 413236 | part no. 413185 | 2/3                    |
| part no. 413245<br>part no. 413246 | part no. 413195 | 1/4                    |

NOTE: The table shows the currently valid part numbers. For the latest valid part numbers, see the latest illustrated parts catalog.

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

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

Service Bulletin SB-912-066/SB-914-047, title "Change of measurement method from cylinder head temperature to coolant temperature" current issue.

## 1.3) Reason

- Due to the use of new cylinder heads the type plates of the engines specified in the subject must be labeled with the engine designation suffix -01.

## 1.4) Subject

Specification/change of engine configuration and/or type plate for ROTAX® engine type 912 and 914 (Series).

## 1.5) Compliance

- before the initial installation in an aircraft and/or first engine start up
- For already assembled engines at the next BRP maintenance event in consultation with the aircraft manufacturer
- In the course of a repair, if the engine has been modified and the engine configuration has consequently been changed, in consultation with the aircraft manufacturer

## 1.6) Approval

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

## 1.7) Labor time

Estimated labor hours:

engine installed in the aircraft - - - labor 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 modifications

no change

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## 1.11) References

In addition to this technical information refer to current issue of

- Installation Manual (IM)
- all relevant Service Bulletins (SB)

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 that 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

not affected

## 2) Material Information

### 2.1) Material- cost and availability

none

### 2.2) Company support information

- Shipping costs, downtime costs, loss of income, telephone costs etc. or costs of conversion to other engine versions or additional work, as for instance simultaneous engine overhauls are not covered in this scope and will not be borne or reimbursed by ROTAX®.

### 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/lubricant-/adhesives-/sealing compound/price and availability

none

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## 3) Accomplishment/Instructions

**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:

- Persons approved by the respective Aviation Authority

**NOTE:** All work on the type plate shall be carried out in consultation with the aircraft manufacturer.

### Safety notice



**Identifies an instruction which, if not followed, may cause serious injury or even fatal injury.**



**Identifies an instruction which, if not followed, may cause minor or moderate injury.**

**NOTICE**

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

### **ENVIRONMENTAL NOTE**

Environmental notes give you tips on environmental protection.

#### 3.1) Instructions

The following table defines the currently relevant engine configurations and reference numbers for suffixes:

| Suffix | Description  | Note   |
|--------|--|--|
| -01    | <p>New cylinder heads have been introduced for the ROTAX 912/914 engine Series in order to standardize the cylinder head raw part with the ROTAX 912 iSc Sport engine series. As a result the measurement position of the temperature sensor on the cylinder head has changed as well as the measurement medium (former aluminium, now coolant).</p> <p>As a consequence for all ROTAX 912/914 engines, the type designations of which are extended with suffix "-01", the engine temperature measurement methods have been amended from CHT (cylinder head temperature) and CT (coolant temperature) to only CT (coolant temperature). Therefore only the coolant temperature limit applies.</p> <p>Example for identification: "ROTAX 912 S3-01"</p> | <p>Engines from serial number<br/>912 A: 4 411 087<br/>912 F: 4 413 045<br/>912 S: 4 924 911<br/>914 F: 4 421 445<br/>are already equipped with a new type plate with suffix, which has been extended by some more information (see Fig. 1).</p> |

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## 3.1.1) Correction of the type plate

**NOTICE**

The following suffix may only be added to indicate configuration changes / modifications / overhauls. The remaining content of the type plate must not be changed.

**NOTICE**

Prior to any changes to the type plate, the relevant national regulations must be observed and carried out in consultation with the aircraft manufacturer in any case.

| Step | Procedure   |
|------|---|
| 1    | Apply suffix - 01 permanently (e.g. engraved, stamped or similar) to the type plate.<br>NOTE: Any changes regarding to this Service Bulletin must be confirmed in the engine logbook. |

Fig. 1

**Example:**

**OLD**



**OLD CHANGED**



**NEW**



10235,  
10236,10237

**3.2) Test run**

none.

**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 mandatory Service Bulletin must be confirmed in the logbook.

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### 3.4) Enquiries

Enquiries regarding this Service Bulletin should be sent to the ROTAX® authorized distributor of your area.

A list of all distributors 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.

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