

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 as spare part or during engine repair/general overhaul since March 1st, 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		
912 A/F; 914 F	912 S	cylinder head position
part no. 413235 part no. 413236	part no. 413185	2/3
part no. 413245 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 $ROTAX_{\mathbb{R}}$ 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 an engine modification was done, which changes, the engine configuration 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) and Check List
- all relevant Service Bulletins (SB)

NOTE:

The status of the Manuals can be determined by checking the table of amendments. The 1st column of this table shows the revision status. Compare this number to that listed on the ROTAX WebSite: <u>www.FLYROTAX.com</u>. 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

Price and availability will be provided on request by $\text{ROTAX}_{\textcircled{B}}$ Authorized Distributors or their Service Centers.

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

3) Accomplishment/Instructions		
	NOTE:	Before accomplishment, review the entire documentation to make sure you have a complete understanding of the procedure and requirements.
Accomplish- ment	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 in- jury 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 note gives you tips on environmental protection.

3.1) Instructions

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

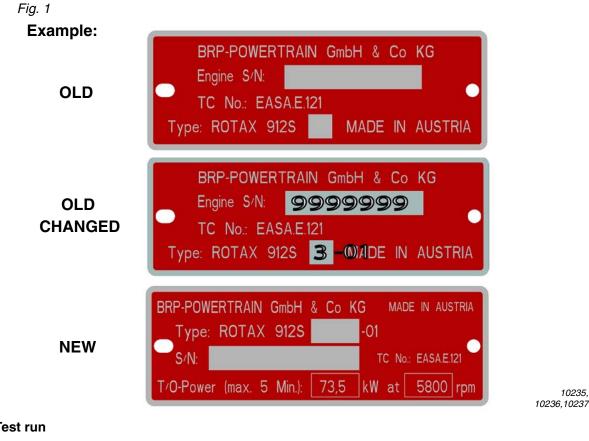
Suffix	Description	Note
-01	New cylinder heads have been introduced for the ROTAX 912/914 engine Series in order to standardize the cylinder head raw part with the ROTAX 912 iS Sport engine series. As a result the measurement position of the temperature sensor on the cylinder head has chan- ged as well as the measurement medium (former alumi- nium, now coolant). As a consequence for all ROTAX 912/914 engines which type designations are extended with suffix "-01" the engi-	new type plate with suffix, which has been extended to some more information (see
	ne 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. Example for identification: "ROTAX 912 ULS3 -01"	

3.1.1) Correction of the type plate

NOTICE	The following suffix has to be added to configuration changes / modificati- ons / overhauls only. The remaining content of the type plate must not be
	changed.
NOTICE	In each case, before any changes of the type plate, the relevant national regulations must be observed and carried out in consultation with the air-

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

craft manufacturer.



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 $\text{ROTAX}_{\textcircled{B}}$ authorized distributor of your area.

A list of all distributors is provided on <u>www.FLYROTAX.com</u>.

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.