

SERVICE BULLETIN

INSTALLATION/USE OF GOVERNORS FOR ROTAX® ENGINE TYPE 912 i, 912 AND 914 (SERIES)

SB-912 i-001 R1

SB-912-052 R4

SB-914-035 R4

|| This SB revises SB-912 i-001 Initial Issue, SB-912-052R3 and SB-914-035R3 dated 23. January 2013.

OPTIONAL

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.

|| | A revision bar outside the page margin indicates a change to text or graphic.

1) Planning information

1.1) Engines affected

|| All versions of the engine type:

- 912 iSc3 Sport
- 912 A3
- 912 F3
- 912 S3
- 914 F3

if they should get equipped with the governor. In case of doubt contact your aircraft manufacturer.

1.2) Concurrent ASB/SB/SI and SL

- SI-912 i-004, "Purging of lubrication system", current issue.
- SI-912-018, "Purging of lubrication system", current issue.
- SI-914-020, "Purging of lubrication system", current issue.

1.3) Reason

Replacement/Retrofitting under selection of different governors type and manufacturers.

1.4) Subject

Installation/Use of governors for ROTAX® engine type 912 i, 912 and 914 (Series).

1.5) Compliance

On customer request.

1.6) Approval

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

1.7) Labour

Estimated labour hours:

engine installed in the aircraft - - - manpower 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 accomplishment summary
no change

1.11) References
In addition to this technical information refer to current issue of

- Operators Manual (OM)
- Illustrated Parts Catalog (IPC)
- Installation Manual (IM)
- Maintenance Manual (MM)

◆ **NOTE:** The status of Manuals can be determined by checking the table of amendments of the Manual. The 1st column of the table is the revision status. Compare this number to that listed on the ROTAX WebSite: www.FLYROTAX.com. Updates and current revisions can be downloaded free of charge.

1.12) Other publications affected
none

1.13) Interchangeability of parts
not affected

2) Material Information

2.1) Material - cost and availability
The governors are not directly supplied by ROTAX® Authorized Distributors or their Service Centers. They can be obtained via the sales network of the respective manufacturer.

2.2) Company support information
none

2.3) Material requirement per engine
The amount of new parts required for installation of the respective governor type is indicated by the manufacturer of the governor.

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) Instructions / Accomplishment

Accomplishment

All the measures must be taken and confirmed by the following persons or organizations:

- 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 (e.g. lock tabs, self-locking fasteners, etc.) 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) Overview of approved governors

Governors are not part of the engine. Governors specifically developed for this engine can be ordered. Furnishing proof according to the latest manufacturing specifications such as FAR and EASA shall be made by the aircraft or airframe manufacturer or the governor manufacturer.

3.2) Governor flange

See fig. 1 and fig. 2.

governor flange: AND20010
governor drive: internal toothing 20/40 SMS 1834 NA 14x1.27x30x12
reduction ratio: 0,58 of the engine speed at gearbox with $i=2,27$
0,54 of the engine speed at gearbox with $i=2,43$

direction of rotation

of governor drive: clockwise rotation seen on the attachment flange

3.3) Support for governor operation

See fig. 3, 4 and fig. 5.

Depending on the design/construction of the governor, one of the flanges from intake manifold can be used (fig. 3) for the installation of a support. For details of both flanges see fig. 4 and fig. 5.

3.4) Removal of old governor

- Remove governor or cover plate (2) according to the current Maintenance Manual

3.5) Installation of the governor

governor flange (1): Thread length Min. 8 mm (0.31 in.) Max. 14 mm (0.55 in.)

Tightening torque of the attachment screws: 20 Nm (177 in.lb).

Refer to the information of the governor and aircraft manufacturer on installation, function, operation and maintenance of the governor.

- Restore aircraft to original operating configuration.
- Vent the lubrication system according to the current Maintenance Manual and Service Instruction SI-912-i-004/SI-912-018/SI-914-020, current issue (if the lubrication system was opened or drained during maintenance work).
- Connect negative terminal of aircraft battery.

3.6) Check of governor

Operational test of the governor as per specification of the Flight Manual and manufacturer.

3.7) Test run

Conduct test run including ignition check, leakage test and oil pressure check in accordance with the relevant Maintenance Manual.

3.8) Summary

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

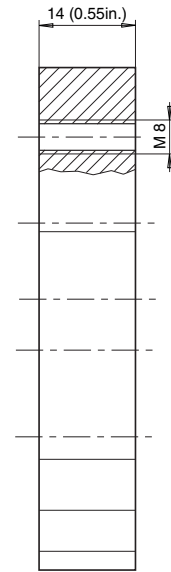
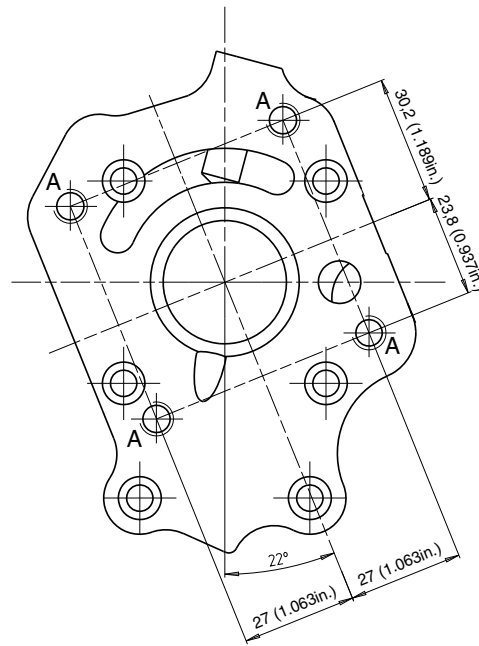
Confirm the implementation of the specified Service Bulletin in the Engine Log.

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.

4) Appendix

the following drawings should provide additional information:

A.....attachment points
of the governor



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fig. 1

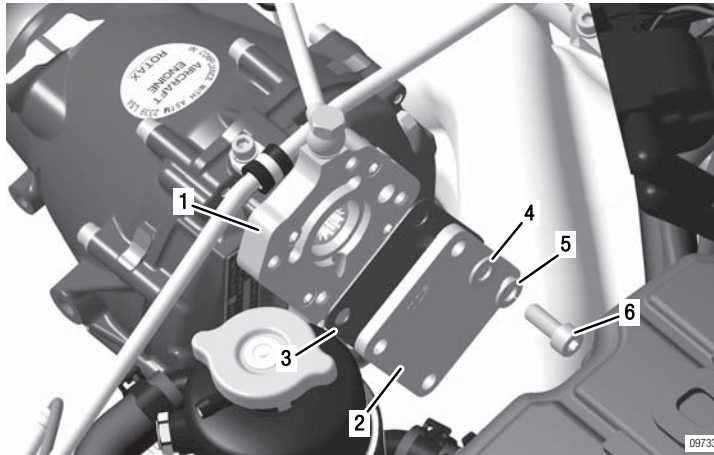
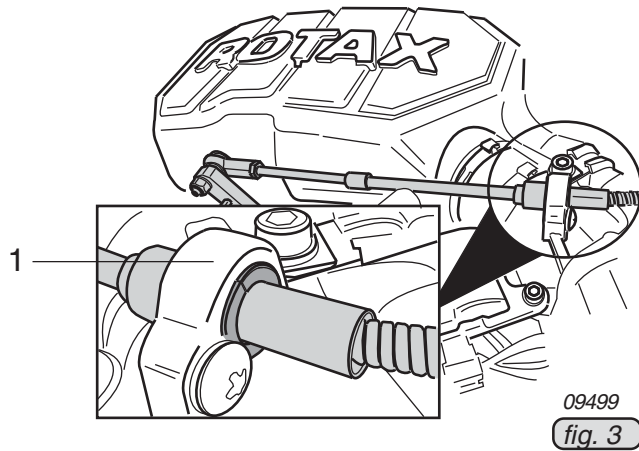


fig. 2

- 1 governor flange
- 2 cover plate
- 3 gasket
- 4 washer 8.4
- 5 lock washer A8
- 6 allen screw M8x20

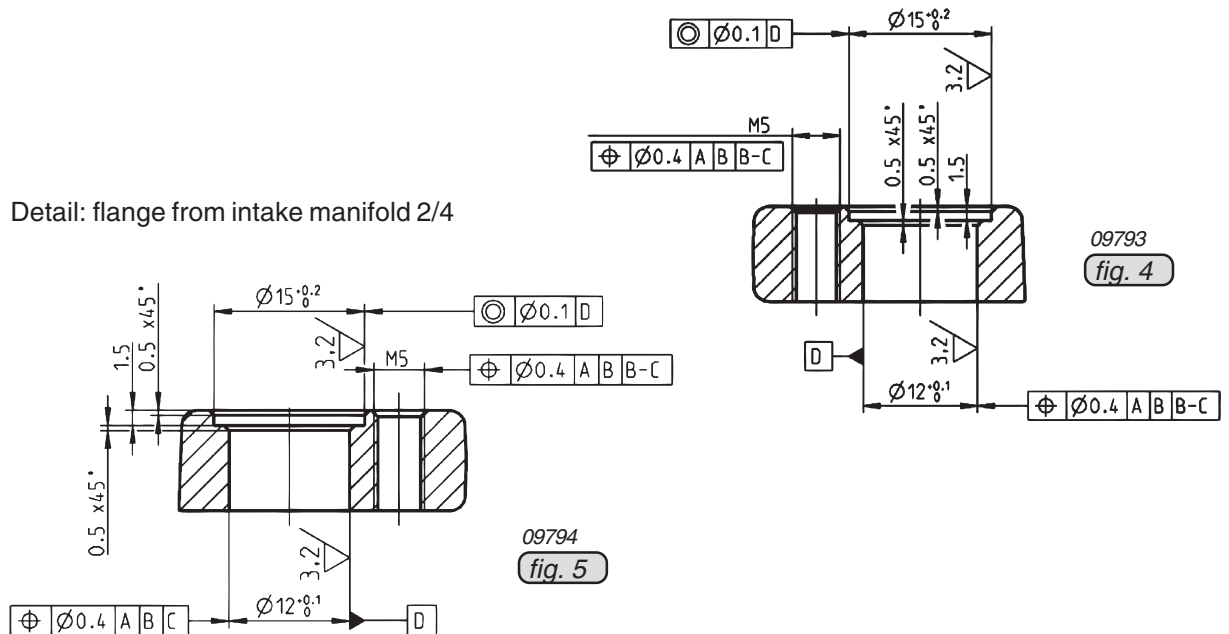
◆ NOTE: The illustration show a possible variant for governor operation.

1 flange from intake manifold 2/4



Detail: flange from intake manifold 1/3

Detail: flange from intake manifold 2/4



◆ 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 **no technical** drawings and are for reference only. For specific detail, refer to the current documents of the respective engine type.