



AIRCRAFT ENGINES

SERVICE INSTRUCTION

REPLACEMENT OF THE CIRCLIP IN THE SPRAG CLUTCH HOUSING ON ROTAX® ENGINE TYPE 912 AND 914 (SERIES)

SI-912-006 R1

SI-914-008 R1

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 of the page margin indicates a change to text or graphic.

1) Planning information

1.1) Engines affected

All versions of the engine type:

- 912 A up to and including engine s/n 4,410.429
- 912 F up to and including engine s/n 4,412.809
- 912 S up to and including engine s/n 4,922.660
- 914 F up to and including engine s/n 4,420.267
- 912 UL up to and including engine s/n 4,404.188
- 912 ULS up to and including engine s/n 4,426.723
- 912 ULSFR up to and including engine s/n 4,429.601
- 914 UL up to and including engine s/n 4,417.988

on all engines on which the circlip on the sprag clutch has yet not been replaced in the course of repair or overhaul. On engines with s/n higher than the listed ones the new circlip was already fitted in serial production.

1.2) Concurrent ASB/SB/SI and SL

none

1.3) Reason

Introduction of a new circlip in the sprag clutch housing.

1.4) Subject

Replacement of the circlip in the sprag clutch housing.

1.5) Compliance

On repair of the sprag clutch or at engine overhaul.

1.6) Approval

The technical content is approved under the authority of DOA Nr. EASA.21J.048.

1.7) Manpower

- estimated man-hours:

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

c04408

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

- Illustrated Parts Catalog (IPC)
- Maintenance Manual (MM)

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

1.12) Interchangeability of parts

- At exchange take care of the following:
As the new circlip is slightly bigger as the one fitted previously, the end gap on the new circlip is smaller.
- all used parts and spare parts are unserviceable and must be scrapped.

2) Material Information

2.1) Material - cost and availability

Price and availability will be supplied on request by ROTAX[®] Authorized Distributors or their Service Centers.

2.2) Material requirement per engine

For the replacement of the circlip the following parts are required:

item no.	New part no.	Qty.	Description	Old part no.	application
1	845425	1	circlip 70	845420	sprag clutch housing

2.3) Special tooling/lubricant-/adhesives-/sealing compound - Price and availability

Price and availability will be supplied on request by ROTAX[®] Authorized Distributors or their Service Centers.

3) Accomplishment / Instructions

Accomplishment

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

- ROTAX[®] -Airworthiness representative
- ROTAX[®] -Distributors or their Service Centers
- Persons approved by the respective Aviation Authority
- Persons with type-specific training (applicable only for non-certified engines)

▲ **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:** Carry out work on a cold engine only.

▲ **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.

3.1) Verification or replacement of the circlip (1):

see fig. 1 and 2

On repair work on sprag clutch (2) or at engine overhaul the circlip 68 part no. 845420 has to be replaced by the circlip 70 (1) part no. 845425. Verify by inspection if the new circlip 70 is already fitted. See fig. 1

■ **CAUTION:** Make sure that the new circlip will be fitted as depicted in fig. 2 Detail A. To warrant a tight fit pay attention to correct position of the circlip ends (3).

- Reconnect minus pole of battery.

3.2) Test run

Conduct test run including ignition check and leakage test in accordance with the current Maintenance Manual of the respective engine type.

3.3) Summary

▲ **WARNING:** Non-compliance with these instructions could result in engine damage, personal injury or death!

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 convey additional information:

The measurement of the circlip takes place in developed condition!

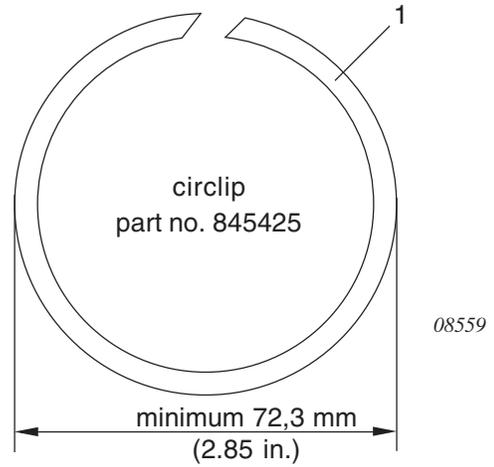
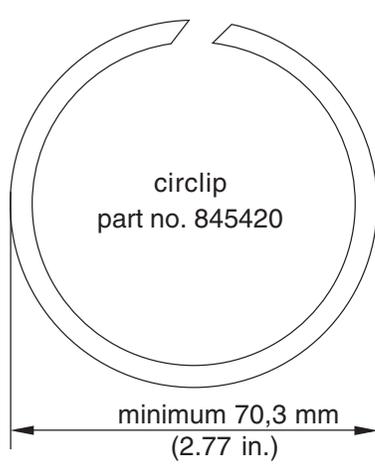


Fig. 1



DETAIL A: shows the correct position of the circlip

DETAIL B: shows the incorrect position of the circlip

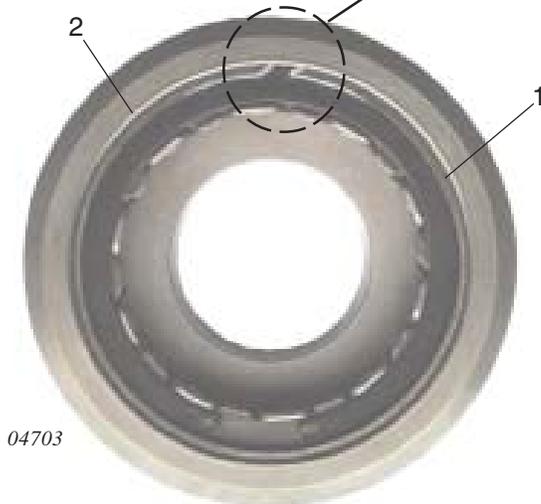


Fig. 2



◆ 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.