ROTAX
AIRCRAFT ENGINES

SERVICE INSTRUCTION

FUEL PRESSURE INDICATION PROBLEMS ON ROTAX® ENGINE TYPE 912 (SERIES)

SI-912-008

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.

1) Planning information

1.1) Engines affected

All versions of the engine type:

- 912 A to S/N 4,410.481
- 912 F to S/N 4,412.816
- 912 S to S/N 4,922.784
- 912 UL to S/N 4,404.688
- 912 ULS to S/N 4,427.563
- 912 ULSFR to S/N 4,429.730

From above stated engines the gasket rings PNo.950143 were introduced in series.

Affected are only engines of the following configuration:

- Usage of the genuine ROTAX® fuel line of steel with fittings and
- Usage of the genuine ROTAX® clamp block part no. 851325 and
- Usage of the connection (5) to supply the indicating instrument

1.2) Concurrent ASB/SB/SI and SL

none

1.3) Reason

Reduced tolerances between Banjo Bolts P/N 940872 and 941780 at clamp block P/N 851325 could result in intermittent or complete failure of the customer installed fuel pressure indication system.

Fuel supply to the engine is not affected in any way.

The following may lead to reduced tolerances between Banjo Bolts:

- over torquing of Banjo Bolts
- installation of stretched Banjo Bolts
- installation of used gasket rings
- crushed hose nipples
- any combination of the above

1.4) Subject

Fuel pressure indication problems on ROTAX® engine type 912 (Series).

This information is intended to assist the aircraft builder and operator in achieving the proper operating conditions, correct engine installation and consequently optimum performance and reliability.

1.5) Compliance

- on any maintenance work regarding fuel distribution
- at malfunction of fuel pressure indication

1.6) References

In addition to this technical information refer to current issue of

- Illustrated Parts Catalog (IPC)

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2) Material Information

2.1) Material - cost and availability

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

2.2) Material requirement per engine

Parts requirement:

item no.	New part no.	Qty.	Description	Old part no.	application
(1)	950143	5	gasket ring 8,2/13/1,4	950141	clamp block

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

▲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) General note

The fuel passes from the fuel pump (1) via the banjo bolt (2 & 4) to the carburetors. Fuel is allowed to enter the clamp block (3) through the gap (6) present between the two banjo bolts and pressurize the outlet port (5) for delivery to a customer supplied fuel pressure indication system. Reduced tolerances of the assembled components could result in the gap (6) becoming closed or too small to allow fuel pressure into the manifold block at port (5). This could result in intermittent or complete malfunction of the customer installed fuel pressure indication system.

◆ NOTE: The fuel pressure sensor is not in the scope of supply of the engine. The connection on the clamp block is either closed by a cheese hol. screw M10x1x8 or by a screw plug 1/8-27NPT.

By virtue of design, fuel would continue to pass from one banjo bolt (2) to the other banjo bolt (4) thereby having no affect on the supply of fuel to the carburetors.

In all cases a gap (6) of at least 0,5 mm (0,0197 in.) must remain between the banjo bolts.

3.2) Instructions

If inspection of the components to ensure conditions listed in section 1.3 do not exist and the gap is still below the minimum so all gasket rings (8/13/0,8) are to be renewed by the gasket rings PNo. 950143 (8,2/13/1,4).

■ CAUTION: Proceed with work in accordance with the relevant Maintenance Manual.

3.3) Test run

- Connect negative terminal of aircraft battery.

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

3.4) Summary

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

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:

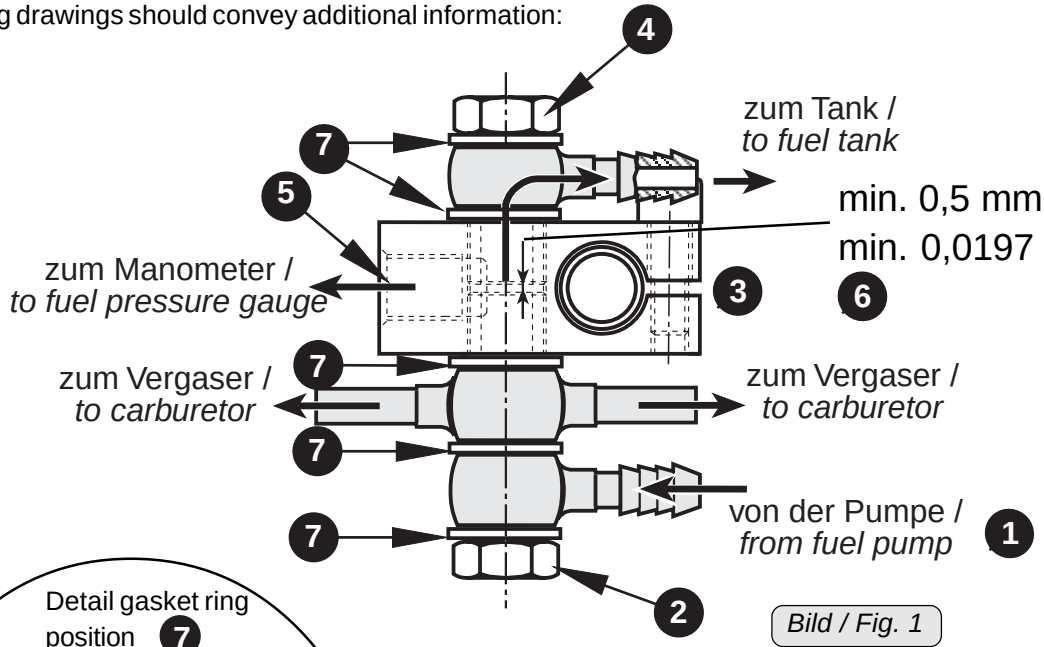

Bild / Fig. 1

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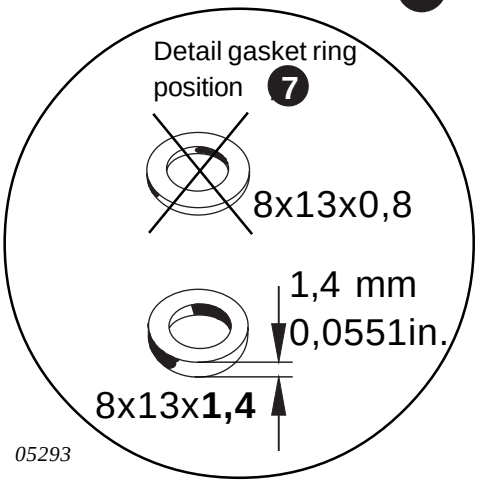

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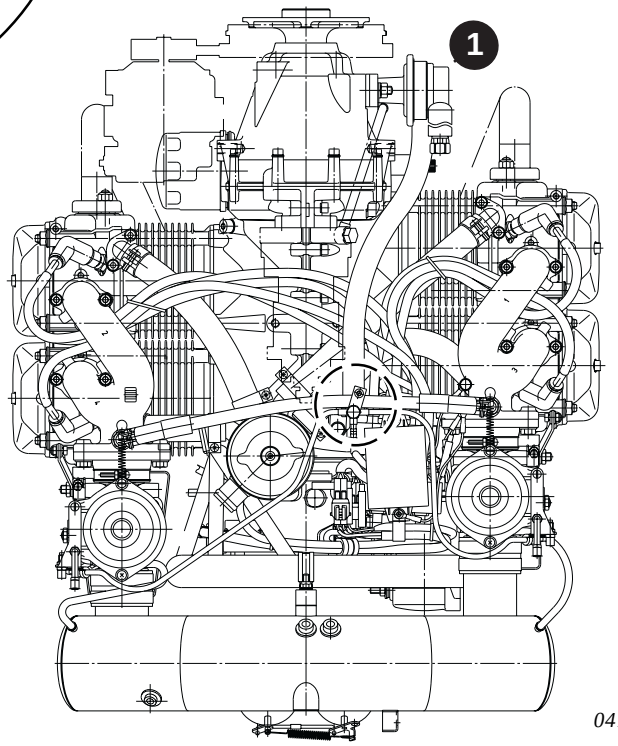

Bild / Fig. 2

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◆ 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.