

SERVICE INSTRUCTION

REPLACEMENT OF THE GASKET RINGS ON THE ADAPTOR OF THE OIL RADIATOR FOR ROTAX® ENGINE TYPE 912 AND 914 (SERIES)

SI-912-011

SI-914-012

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 4,410.569
- 912 F to S/N 4,412.832
- 912 S to S/N 4,922.895
- 912 UL to S/N 4,405.111
- 912 ULS to S/N 4,428.390
- 912 ULSFR to S/N 4,429.811
- 914 F to S/N 4,420.371
- 914 UL to S/N 4,418.268

if they have the genuine ROTAX® adaptor part no. 956575 (metric) or part no. 956640 (UNF) used on the oil radiator connections. In case of doubt contact your aircraft manufacturer.

Also affected as spare parts delivered to August 28th, 2002 are adaptors with gasket ring part no. 230385 that were replaced in the course of maintenance or repair work. These parts may also can be contained in the following kits:

- connection set part no: 956585, 956615 and 956645
- oil radiator set part no: 886032, 886033, 886034
- gasket ring sets part no: 996942 and 996943

1.2) Concurrent ASB/SB/SI and SL

Further to this Service Instruction the following additional Service Instructions must be observed and complied with:

- Service Instructions, SI-04-1997 "Venting of lubrication system", current issue.
- Service Instructions, SI-27-1997 "Oil level check", current issue.

1.3) Reason

To assure adequate seal and prevent oil leaks, a thicker gasket ring (part no. 230387) has been introduced. This new gasket ring better compensates for dimension abnormalities on the radiator adaptor.

1.4) Subject

Replacement of the gasket rings on the adaptor of the oil radiator.

1.5) Compliance

- At oil leakage from the adaptors on the oil radiator. Replace the gasket rings in accordance with section 3 of the following instructions.
- On any maintenance work regarding oil radiator. Replace the gasket rings in accordance with section 3 of the following instructions.

d01830

1.6) Approval

Not required

1.7) Manpower

Estimated man-hours:

engine installed in the aircraft - - - manpower time will depend on installation and thus, 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

- Illustrated Parts Catalog (IPC)

- Maintenance Manual (MM)

1.12) Other publications affected

none

1.13) Interchangeability of parts

- Further use of all old parts not permitted and they must be returned F.O.B. to authorized ROTAX[®] Authorized Distributors or their Service Center.

- Further sale, use or shipment of all old gasket rings part no. 230385 (included in screw connection set part no. 956585, part no. 956615 and part no. 956645, in the oil radiator set part no. 886032, 886033, 886034 as well as in the gasket sets part no. 996942 and 996943) in the replacement parts store are prohibited and must be returned F.O.B. to authorized ROTAX[®] Authorized Distributors or their Service Center.

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) Company support information

- The damages or costs incurred, namely with respect to shipping costs, down time, loss of income, telephone costs or cost of conversion to other engine versions or additional work, including simultaneous overhaul, are not covered and will not be borne or reimbursed by ROTAX[®].

2.3) Material requirement per engine

parts requirement:

Fig.no.	New p/n	Qty/engine	Description	Old p/n	Application
(1)	230387	2	gasket ring A14,2x18x2	230385	oil radiator

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

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

parts requirement:

Fig.no.	p/n	Qty/engine	Description	Old p/n	Application
	-	as required	LOCTITE [®] 243	897651	oil radiator

■ CAUTION: In using these special tools observe the manufacturer's specifications.

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:** Perform work on a cold engine only.

▲ **WARNING:** Should removal of a locking device (namely lock tabs, self-locking fasteners) 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) Removing of the gasket rings

(see fig. 1)

- Drain oil, when necessary.
- Remove oil lines from adaptors (1) as specified in the aircraft Manufacturer's Manual.
- Remove the adaptors (1) from the oil radiator.
- Clean all parts.
- Visually inspect all parts for damage or wear and tear.

3.2) Install of the new gasket rings part no. 230387

- Fit adaptor (1) part no. 956575 (metric) or part no. 956640 (UNF) with new gasket ring (2) secured with **LOCTITE[®] 243**. Tightening torque **35 Nm** (310 in.lb).

3.3) Install of the oil line

- Reinstall of oil lines as specified in the aircraft Manufacturer's Manual.

3.4) Fill up the oil and venting of the lubrication system.

- All work has to be done in accordance with section 1.2 and the relevant Maintenance Manual
- ▲ **WARNING:** Carefull venting of the lubrication system is necessary to avoid engine damage.
- Restore aircraft to original operating configuration.
- Connect negative terminal of aircraft battery.

3.5) Test run

Conduct test run including ignition check and leakage test.

3.6) Summary

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

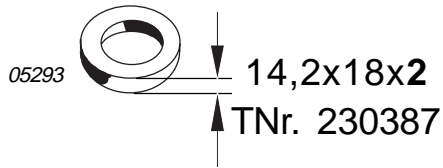
Approval of translation to best knowledge and judgment - in any case the original text in the German language and the metric units (SI-system) are authoritative.

4) Appendix

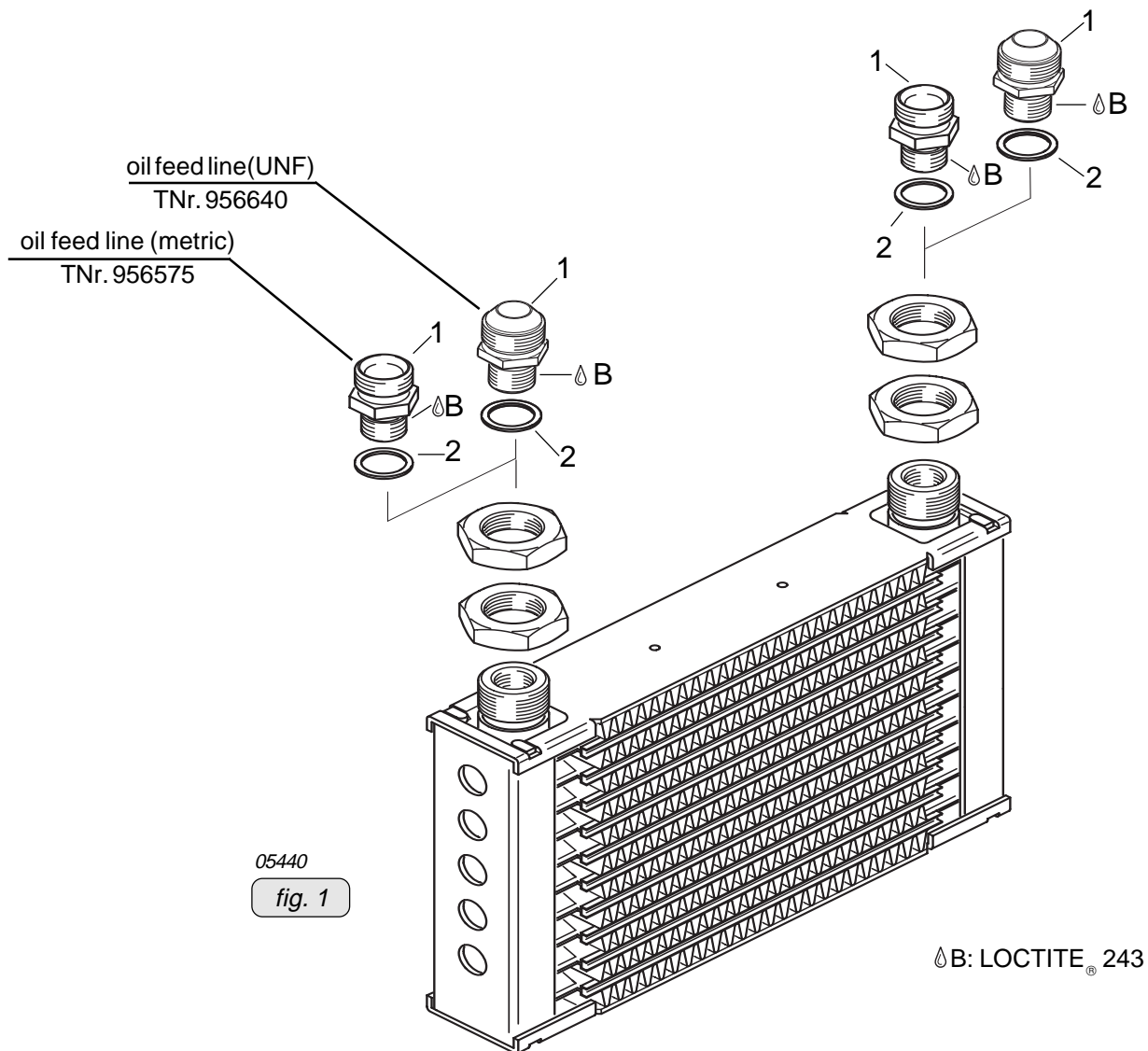
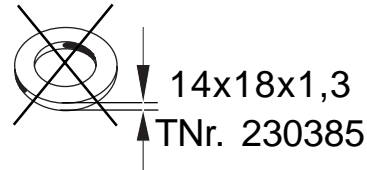
The following drawings should provide additional information:

Detail gasket ring new version

Position 2



Detail gasket ring old version



◆ 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.