SERVICE INSTRUCTION

Information about installation and maintenance of the fuel distribution block for ROTAX® 912 (Series) Aircraft Engines

ATA System: 73-10-00 Fuel system

1) Planning information

To obtain satisfactory results, procedures specified in this publication must be accomplished with accepted methods in accordance with prevailing legal regulations.

BRP-Rotax GmbH & Co KG cannot accept any responsibility for the quality of work performed in accomplishing the requirements of this publication.

1.1) Applicability

All versions of ROTAX® engine types:

Engine type	Serial number
912 A	all
912 F	all
912 UL	all
912 S	all
912 ULS	all

if they are equipped with the genuine ROTAX® fuel distribution block part no. 851328. In case of doubt, contact your aircraft manufacturer.

1.2) Concurrent ASB/SB/SI and SL

In addition to this Service Instruction the following documents must be observed:

- in general all relevant Alert Service Bulletins (ASB), Service Bulletins (SB), Service Instructions (SI), Service Letters (SL), Service Instruction - Parts and Accessories (SI-PAC) with relevance to perform this maintenance, repair or overhaul task.
- SB-912-079, “Essential information regarding engine installation, operation, and maintenance for ROTAX® 912 (Series) Aircraft Engines.”, current version.

1.3) Reason

Field observations revealed a number of incorrect installations or maintenance of fuel pressure sensors attached to the genuine ROTAX® fuel distribution block part no. 851328.

1.4) Subject

Information about installation and maintenance of the fuel distribution block for ROTAX® 912 (Series) Aircraft Engines.

1.5) Compliance

None - For Information Only

⚠WARNING Non-compliance with these instructions could result in engine damages, personal injuries or death.

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These maintenance instructions shall be considered at any maintenance events, retrofitting, repair and overhaul.

1.6) Approval

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

1.7) Labor time

Estimated labor hours:

Engine installed in the aircraft - - - labor time will depend on airframe 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.

1.11) References

In addition to this technical information refer to current issue of

- in general Illustrated Parts Catalog (IPC) and in particular:
  Chapter 73-10-00
- in general Operators Manual (OM)
- in general Installation Manual (IM) and in particular:
  Chapter 73-00-00
- in general Maintenance Manual Line (MML) and in particular:
  Chapter 05-20-00 and 12-20-00
- in general Maintenance Manual Heavy (MMH) and in particular:
  Chapter 73-10-00

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 the one listed on the ROTAX website:

www.flyrotax.com. Updates and current revisions can be downloaded for free.

None.

1.12) Other Publications affected

None.

1.13) Interchangeability of parts

Not affected

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2) Material Information

2.1) Material

Price and availability will be provided on request by ROTAX® Authorized Distributors or their independent Service Centers.

2.2) Material requirement per engine

Parts requirement:

Fig.no.	Part no.	Qty / engine	Description	Application
1-1	230150	(1)	SEALING RING A 10X14	Fuel distribution block
1-2	456180*	(1)	OIL PRESSURE SENSOR M10X1	Fuel pressure
1-3	881302*	(1)	CONNECTOR SET OPS AND MAPS	Fuel pressure
* or equivalent				

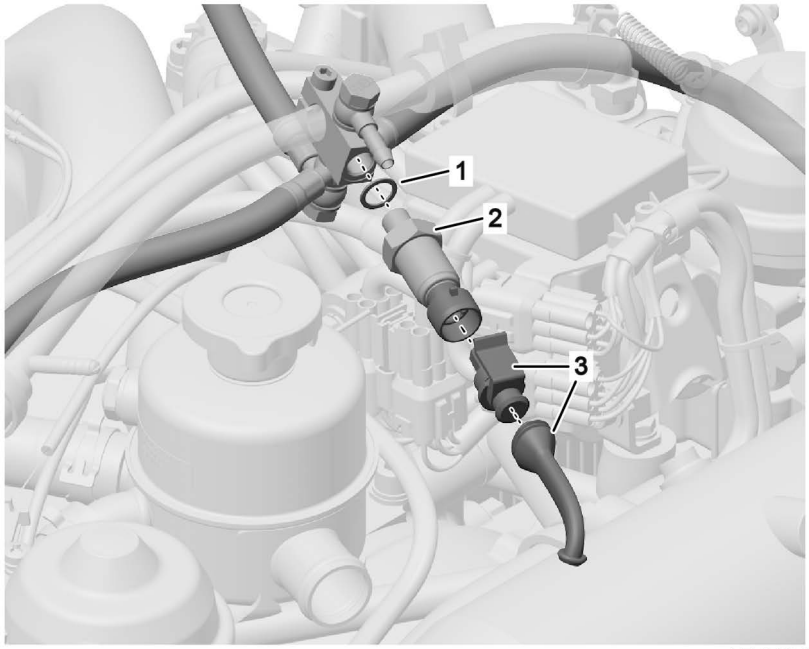

Fig. 1
Fuel distribution block 912 (Series)

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2.3) Material requirement per spare part

None.

2.4) Rework of parts

None.

2.5) Special tooling/lubricants- /adhesives- /sealing compounds

Price and availability will be supplied on request by ROTAX® Authorized Distributors or their independent Service Centers:

Description	Qty/engine	Part no.	Application
LOCTITE 243 10cc	1	897651	Plug screw or fuel pressure sensor

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3) Accomplishment/Instructions

- ROTAX® reserves the right to make any amendments to existing documents, which might become necessary due to this standardization, at the time of next revision or issue.

NOTE: Before maintenance, review the entire documentation to make sure you have a complete understanding of the procedure and requirements.

Accomplishment

All measures must be implemented and confirmed by at least one of the following persons or organizations:

- ROTAX® - Airworthiness representatives
- ROTAX® - Authorized Distributors or their independent Service Centers
- Persons approved by the respective Aviation Authorities
- Persons with approved qualifications for the corresponding engine types. Only authorized persons (iRMT, Level Heavy Maintenance) are entitled to carry out this work
- Persons with type-specific training

NOTE: Indicates supplementary information which may be needed to fully complete or understand an instruction.

All work has to be performed in accordance with the relevant ROTAX® Instructions for Continued Airworthiness (ICA) of the respective engine type.

General

Further material on general inspection, maintenance and repair can also be found in relevant Advisory Circular AC 43.13 from FAA.

Advisory Circular

The Advisory Circular (AC) contains maintenance methods, techniques and practices.

Procedure

3.1) Illustrated Parts Catalog - related information

See current Illustrated Parts Catalog (IPC) for the respective engine type, Chapter73-10-00.

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3.2) Installation - related information

3.2.1)General

The genuine ROTAX® fuel distribution block part no. 851328 is provided with an M10X1 connection point (1) for optional fuel pressure sensor.
See Fig. 2

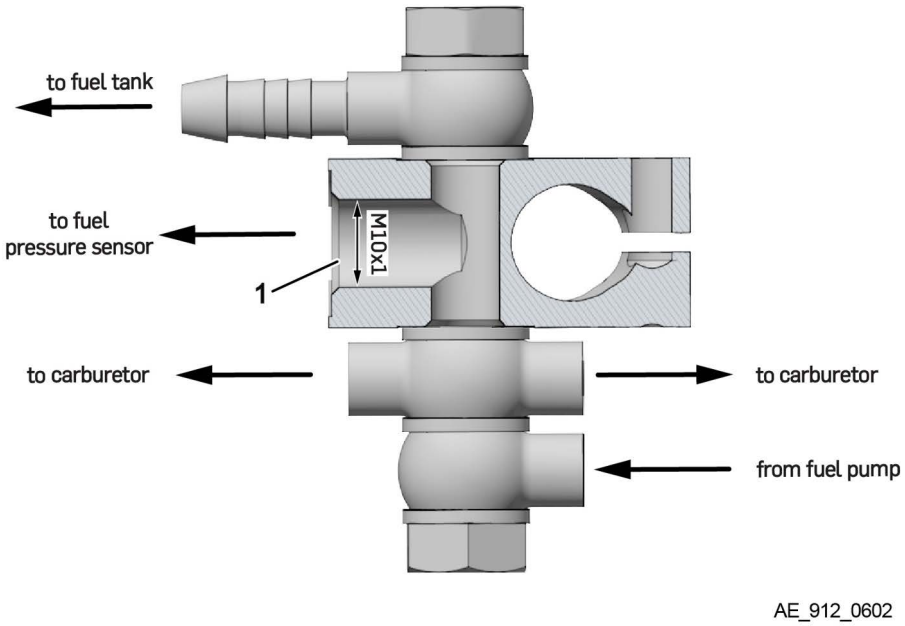

Fig. 2

NOTICE Do not use sensors with UNF or NPT threads. Metal chips generated by incompatible thread types may contaminate carburetors.

⚠WARNING Non-compliance with these instructions could result in engine damages, personal injuries or death.

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3.2.2)Sensor Installation

See Fig. 3

Step	Procedure
1	Remove the plug screw (2) and sealing ring (1) from the fuel distribution block.
2	Clean any residual LOCTITE from the threads. NOTE: Prevent any residue from entering the distribution block.

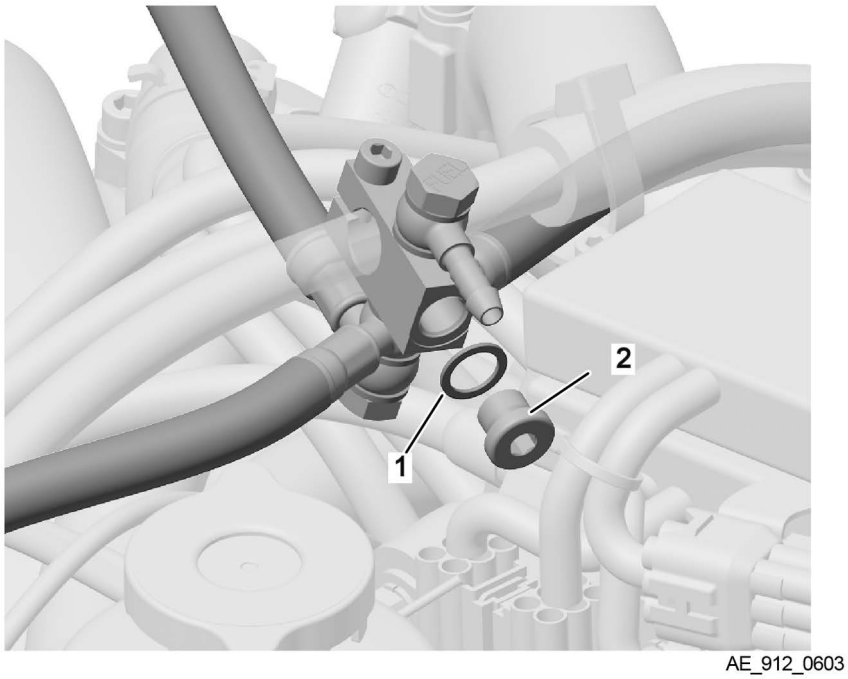

Fig. 3

NOTICE

Residues of adhesives may lead to contamination and/or clogging of the fuel system.
Pay attention during maintenance of connections within the fuel system, especially where initially thread locking compound was applied (e.g. LOCTITE), in doubt flush the fuel system according to the instructions of the aircraft manufacturer.

NOTICE

Ensure that no excess material may enter and/or clog the fuel system. Apply LOCTITE (or equivalent thread-locking compound) with care to avoid contamination of the fuel system.

See Fig. 4

Step	Procedure
3	Install optional pressure sensor M10X1 (1) with LOCTITE 243 (2), tightening torque 15 Nm (132 in. lb). NOTE: Some pressure sensors are not equipped with a sealing ring, in such a case, use sealing ring 10x14 part no. 230150.

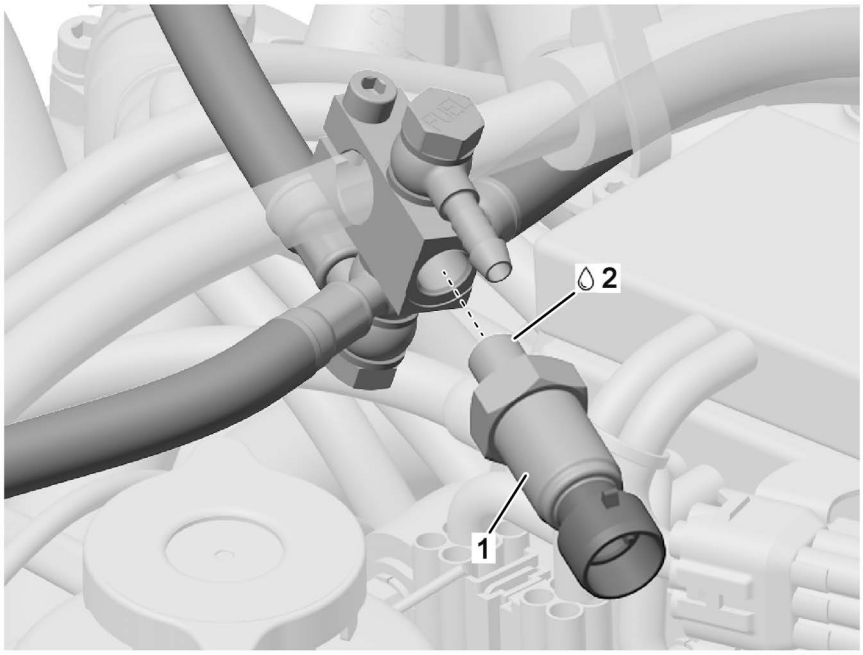

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Fig. 4

NOTICE Use only LOCTITE 243. Other thread lockers or sealants may not be appropriate in a fuel environment.

NOTICE Apply a small amount of LOCTITE to the pressure sensor threads. Particles generated by excessive amount, may contaminate the carburetors..

NOTICE Do not use sensors with UNF or NPT threads. Metal chips generated by incompatible thread types may contaminate carburetors.

⚠ WARNING Non-compliance with these instructions could result in engine damages, personal injuries or death.

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3.3) Operation - related information

See current Operator's Manual (OM) for the respective engine type.
See also Aircraft Flight Manual (AFM) / Pilot Operating Handbook (POH).

3.4) Maintenance (Line) - related information

See current Maintenance Manual Line (MML) for the respective engine type, Chapters 05-20-00 and 12-20-00.

Points of inspection	Interval Operating hours	Chapter Reference
	100 h	
Inspect the fuel system on the engine side for leakage and damages.	X	See current Maintenance Manual Line (MML) for the respective engine type and its periodical maintenance information.

3.5) Maintenance (Heavy) - related information

See current Maintenance Manual Heavy (MMH) for the respective engine type, Chapter 73-10-00

3.6) Test run

Conduct test run.

In case of uninstalled engines test run is accomplished with the mandatory test run after installation into aircraft.

See current Maintenance Manual Line (MML) for the respective engine type, Chapter 12-20-00

Perform a leakage check of the entire fuel system, see current Maintenance Manual Line (MML) for the respective engine type.

3.7) Summary

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

Translation into other languages might be performed in the course of language localization but does not lie within ROTAX® scope of responsibility.

In any case the original text in English language and the metric units are authoritative.

3.8) Inquiries

Inquiries regarding this Service Instruction should be sent to the ROTAX® Authorized Distributor of your area.

A list of all ROTAX® Authorized Distributors or their independent Service Centers is provided on https://dealerlocator.flyrotax.com.

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.

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