



ALERT SERVICE BULLETIN

Fuel pump assembly for ROTAX® Aircraft Engine Type 912 i (Series)

ATA System: 73-10-00 Fuel system

MANDATORY

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 915 i A and 912 i (Series) are affected, if being operated with genuine ROTAX® accessory fuel pump assy. part no. 889697 (UNF, packaged) or 889699 (METRIC, packed), which includes part no. 889696 (UNF) and 889698 (METRIC) with S/N listed below (whether the fuel pump assy. was delivered with the engine or as an accessory):

Fuel pump assy.	Description	Serial number
Part no. 889697	Fuel pump assy. UNF packaged (889696 + 3x 850620 + packaging)	from S/N 180500 up to S/N 192699 inclusive
Part no. 889699	Fuel pump assy. METRIC packaged (889698 + 3x 850620 + packaging)	from S/N 180500 up to S/N 192699 inclusive

See Fig. 1 for information on how to find the part no. and S/N on the fuel pump assy.

NOTE: Fuel pump assemblies with serial number lower or higher than the range listed above are not affected.

NOTE: The applicability is effective unless the affected fuel pump assemblies have been re-worked yet with retrofit kit - fuel pump part no. 481377 as per Chapter 3.3.

NOTICE

Please also contact the aircraft manufacturer for possible further aircraft related information and requirements related to this accessory part.

1.2) Concurrent ASB/SB/SI and SL

In addition to this Alert Service Bulletin the following Alert Service Bulletin and Service Instructions must be observed and complied with:

- Alert Service Bulletin - ASB-912 i-010/ASB-915 i-006, title "Inspection and/or replacement of fuel pump assy.", current issue.
- Service Instruction - SI-912 i-019/SI-915 i-005, title "Introduction of revised fuel pump assy.", current issue.
- Service Instruction - SI-912 i-025, title "Fuel pump assembly", current issue.

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1.3) Reason

Due to deviations in the manufacturing process of the electric fuel pump, a malfunction of fuel supply may occur. Possible effects might be rough engine running, unusual engine operating behavior and possible power reduction or engine stoppage.

NOTE: This revision does now provide 2 options to comply with this ASB by offering either the exchange of complete fuel pump assy. or by replacing the individual fuel pumps within the fuel pump assy.

1.4) Subject

Fuel pump assembly for ROTAX® Aircraft Engine Type 912 i (Series).

1.5) Compliance

- Fuel pump assy. installed in aircraft:

Carry out this replacement of the fuel pump assemblies listed in section 1.1., according to the instructions in Chapter 3 before next flight, but at the latest by October 31st, 2020

NOTE: Any further operation (such as ferry flight) is at the operator's and/or aircraft manufacturer's own discretion/risk.

- Fuel pump assy. not installed in aircraft / spare parts:

Before the initial installation of the fuel pump assy., but at the latest by October 31st, 2020



WARNING

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

1.6) Approval

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

1.7) Labor time and credit

A labor credit will be provided for work performed by a technician with current applicable iRMT rating.

Work performed	iRMT rating required	Labor credit
<u>Option 1:</u> Replacement of whole fuel pump assy. as per Chapter 3 on engine and already installed.	iRMT Maintenance Heavy	1.5 hours
<u>Option 2:</u> Replacement of both single fuel pumps in fuel pump assy. as per Chapter 3 on engine and already installed.	iRMT Maintenance Heavy	2.5 hours

To apply for labor credit, contact your ROTAX® Authorized Distributor or their independent Service Centers.

1.8) Mass data

Change of weight - - - none.

Moment of inertia - - - unaffected.

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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

- Illustrated Parts Catalog (IPC)
- Installation Manual (IM)
- Maintenance Manual Heavy (MMH)
- Maintenance Manual Line (MML)

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.

1.12) Other Publications affected

None.

1.13) Interchangeability of parts

- All affected and removed fuel pumps cannot further be used and must be marked unserviceable. These parts must be returned FCA (**F**ree **C**Arrier) to ROTAX® Authorized Distributors or their independent Service Centers

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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) Company support information

- Any possible support by BRP-Rotax will be provided on request by ROTAX® Authorized Distributors or their independent Service Centers
- Exchanged parts must be returned FCA (Free CArrier) to ROTAX® Authorized Distributors or their independent Service Centers
- This exchange program and cost sharing is valid until December 31st, 2020. Up to this date limited reimbursement of costs can be applied for
- Shipping costs, downtime costs, loss of income, telephone costs etc. or costs of conversion to other engine versions or additional work, as for instance simultaneous engine overhauls are not covered in this scope and will not be borne or reimbursed by ROTAX®

2.3) Material requirement and credit per engine

None.

2.4) Material requirement and credit per spare part

Parts requirement in case of replacement:

Option 1 (Replacement of whole fuel pump assy.)		
part no.		Description
889697		Fuel pump assy. UNF packaged
consists of:		
	889696	Fuel pump assy. UNF
	850620	Connector gasket (x3)
889699		Fuel pump assy. METRIC packaged
consists of:		
	889698	Fuel pump assy. METRIC
	850620	Connector gasket (x3)
Option 2 (Replacement of both single fuel pumps in fuel pump assy.)		
part no.		Description
481377		Fuel pump exchange kit
consists of:		
	201160	Rubber grommet (2x)
	951128	1-Ear-clamp 36.4-39.6 mm (2x)
	951773	1-Ear-clamp 14.6-17.8 mm (12x)

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	853313	1-Ear-clamp 17.8-21 mm (4x)
	974050	Fuel hose (6x))
	974060	Fuel hose (2x)
	889691	Fuel pump (2x)

2.5) Rework of parts

None.

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

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

Part no.	Description	Application
-	CRC Leak Detector (14503)*. Non-flammable water based formula. No oils, silicones or harmful solvents.	Crimp connection leak detection.
-	BERNER Leckfinder (148383)*. Water based formula, non-corrosive, silicone free.	Crimp connection leak detection.

*) or equivalent

NOTE: There are many third party commercial leak detection products available. Ensure that the leak detection solution used is non-corrosive and does not contain harmful solvents.

NOTICE

If using these special tools and adhesives, observe the manufacturer's directions.

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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 accomplishment, 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® - 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



All work must be performed in accordance with the relevant Maintenance Manual.

3.1) General

Step	Procedure
1	Check the engine logbook and maintenance documentation, if this ASB has already been accomplished.
2	Check the criteria given in section 1.1, if the aircraft/engine/fuel pump assy. is affected by this Alert Service Bulletin.

3.2) Replacement of whole affected fuel pump assy. (Option 1)

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

During work on the fuel distribution system/fuel pump there is a risk of injury due to pressure and fuel! Before starting repair work on the fuel system, ensure that it is no longer pressurized!

ENVIRONMENTAL NOTE

All the operating fluids and cleaning agents can damage the environment if not disposed of properly. Dispose of operating fluids in an eco-friendly manner!

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Preparation

- Drain fuel according to the relevant aircraft Maintenance Manual

Step	Procedure
1	Replace fuel pump assy. with a new one, which is not affected by this ASB as per S/N range.

NOTICE

Replacement must be carried out according to the relevant aircraft Maintenance Manual.

- Restore aircraft to original operating configuration
- Connect negative terminal of aircraft battery

3.3) Replacement of both individual affected fuel pumps (Option 2)



For removal, disassembly/assembly and installation see current Maintenance Manual Heavy for the respective engine type.
See also Service Instruction - SI-912 i-025, title "Fuel pump assembly", current issue.

ENVIRONMENTAL NOTE

Work with the utmost care to ensure that no water pollutants can penetrate into the soil, water or the sewerage system.
Dispose of fuel at the respective collecting point or hand it over to an approved disposal company.

3.3.1) Leakage check



See current Maintenance Manual Line for the respective engine type.
See also Service Instruction - SI-912 i-025, title "Fuel pump assembly", current issue.

3.4) Test run

In case of uninstalled fuel pump assemblies, test run can be skipped as this is covered by the mandatory test run after installation.



Conduct test run.
See current Maintenance Manual Line for the respective engine type.

3.5) Summary

These instructions (Chapter 3) have to be followed in accordance with the deadlines specified in section 1.5.

The execution of the mandatory Alert Service Bulletin must be confirmed in the logbook.

NOTE: Work on EASA certified parts might affect the EASA Form 1 and does require appropriate documentation by authorized persons. Repairs (like e.g. Option 2) must be entered into the engine logbook and also do apply for the EASA Form 1.

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

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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.

3.6) Inquiries

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

A list of all ROTAX® Authorized Distributors and their independent Service Centers is provided on www.flyrotax.com.

4) Appendix

The following illustrations shall provide additional information:

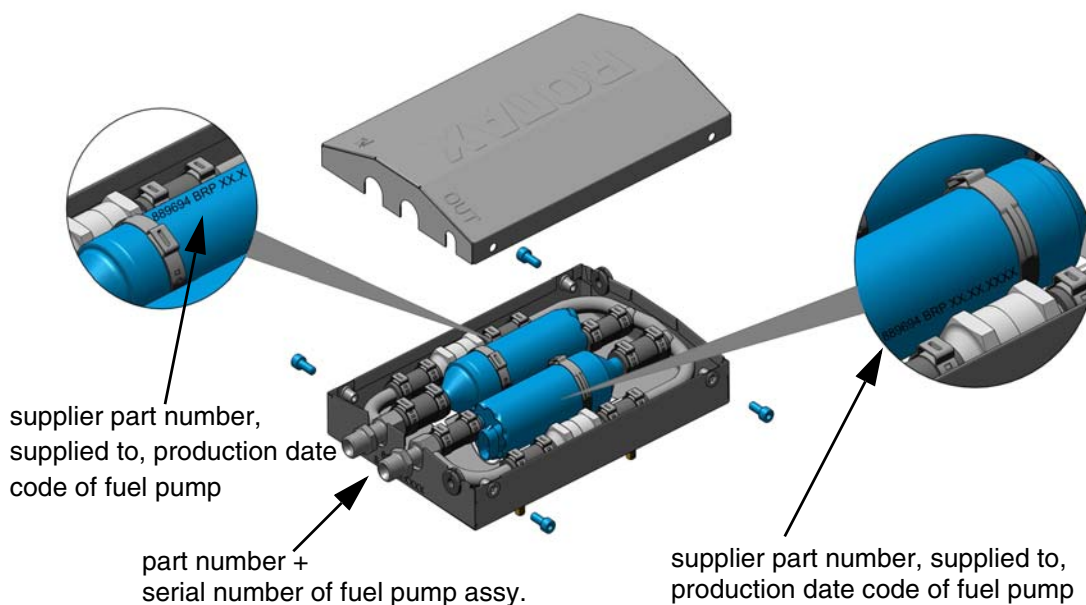


Fig. 1

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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 **not technical drawings** and are for reference only. For specific detail, refer to the current documents of the respective engine type.