

# Use of exhaust insulation materials for ROTAX<sub>®</sub> Engine Type 916 i (Series), 915 i (Series), 912 i (Series), 912 and 914 (Series)

ATA System: 78-10-00 Exhaust 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<sub>®</sub> engine types:

Engine type	Serial number
916 i (Series)	all
915 i (Series)	all
912 i (Series)	all
912 (Series)	all
914 (Series)	all

#### 1.2) Concurrent ASB/SB/SI and SL

In addition to this Service Letter the following documents must be observed and complied with:

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.

#### 1.3) Reason

Insulating the exhaust pipes (e.g. with exhaust wraps or ceramic coatings) leads to a significant increase in the component temperatures of all exhaust-relevant components. The significant additional thermal load generated inevitably reduces proven durability of exhaust components. Exhaust wrap may also hold moisture, promoting corrosion.

The use of any insulation material is not approved by ROTAX<sub>®</sub> and may result in exhaust component fatigue and damage.

#### 1.4) Subject

Use of exhaust insulation materials for ROTAX<sub>®</sub> Engine Type 916 i (Series), 915 i (Series), 912 i (Series), 912 and 914 (Series).

#### 1.5) Compliance

NONE - For Information Only.

#### 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 78-10-00
- in general Installation Manual (IM) and in particular: Chapter 78-00-00
- in general Maintenance Manual Line (MML) and in particular:
- in general Maintenance Manual Heavy (MMH) and in particular: Chapter 78-00-00

NOTE:

The status of the Manuals can be determined by checking the table of amendments. The 1<sup>st</sup> 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

- Not affected

#### 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

None.

#### 2.3) Material requirement per engine

Not affected.

#### 2.4) Material requirement per spare part

Not affected.

#### 2.5) Rework of parts

None.

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

None.

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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<sub>®</sub> 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



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.

#### Warranty

Any anomaly, failure or malfunction due to installation of such accessories, parts, components or other items does lead to exclusions in warranty conditions and are not warranted. See the current relevant Service Letter on Warranty conditions for your relevant ROTAX® Engine Type.

#### 3.1) Illustrated Parts Catalog - related information



See current Illustrated Parts Catalog (IPC) for the respective engine type.

#### 3.2) Installation - related information



See current Installation Manual (IM) for the respective engine type.

NOTE:

It is important to provide the parts to be protected with appropriate heat protection. Wrapping the exhaust and its pipes is not permitted.

#### 3.3) Operation - related information



See current Operators Manual (OM) for the respective engine type.

#### 3.4) Maintenance (Line) - related information



See current Maintenance Manual Line (MML) for the respective engine type.

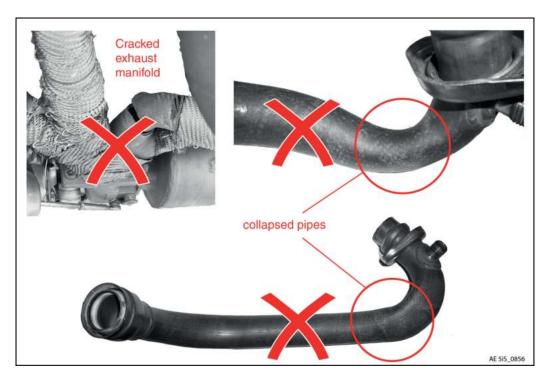


Fig. 1
Problems with wrapped exhaust system

#### 3.5) Maintenance (Heavy) - related information



See current Maintenance Manual Heavy (MMH) for the respective engine type.

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

#### 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 Chapter 12-20-00 of the latest Maintenance Manual Line (MML) for the respective engine type.

#### 3.7) Summary

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

The execution of the Service Letter 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 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.

Translation into other languages might be performed in the course of language localization but does not lie within  $ROTAX_{\tiny{\tiny R}}$  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 Letter should be sent to the ROTAX® Authorized Distributor of your area.

A list of all ROTAX<sub>®</sub> Authorized Distributors or their independent Service Centers is provided on <a href="https://dealerlocator.flyrotax.com">https://dealerlocator.flyrotax.com</a>