

ALERT SERVICE BULLETIN

Exchange of turbocharger/exhaust clamps on ROTAX® Engine Type 915 i (Series) and 916 i (Series)

ATA System: 78-10-00 Exhaust 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:

These engines have been originally delivered from the factory with the affected clamp(s) part no. 651873.

| Engine type | Serial number |
|-------------|---------------|
| 915 iSc A | S/N 10002148 |

NOTE: On engines with S/N higher than those listed above, clamp exchange has already been completed during serial production.

General

NOTICE

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

1.2) Concurrent ASB/SB/SI and SL

In addition to this Alert Service Bulletins 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

Due to a deviation in the machining process of the clamps, the affected batch may have developed cracks. This could lead to a clamp fracture or loosening, and subsequent exhaust gas leakage of turbocharger or exhaust muffler.

1.4) Subject

Exchange of turbocharger/exhaust clamps on ROTAX® Engine Type 915 i (Series) and 916 i (Series).

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1.5) Compliance

- Carry out this exchange before next flight on the engines listed in section 1.1, according to the instructions in section 3, but at the latest after 1 year (from the date of the initial issue of this Alert Service Bulletin)
- On undelivered engines, prior to delivery
- Before the initial installation in an aircraft and/or spare part



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 the DOA ref. EASA.21J.048.

1.7) Labor time

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

| Engine type | Work performed | iRMT rating required | Labor credit | |
|----------------|--|------------------------|------------------|-----------------|
| | | | engine installed | engine on stock |
| 915 i (Series) | Disassembly, exchange turbo-charger clamp, reassembly, engine test run and logbook entry as per Chapter 3 (per engine). | iRMT Maintenance Heavy | 1.5 hours | 1.00 hours |
| 916 i (Series) | Disassembly, exchange turbo-charger and exhaust below clamps, reassembly, engine test run and logbook entry as per Chapter 3 (per engine). | iRMT Maintenance Heavy | 1.75 hours | 1.25 hours |

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

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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:
Chapter 12-20-00
- in general Maintenance Manual Heavy (MMH) and in particular:
Chapter 78-10-00 and 78-20-00

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.

1.12) Other Publications affected

- None.

1.13) Interchangeability of parts

- All used parts are unserviceable and must be returned FCA (Free CArrier) 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
- 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 per engine

See [Fig. 1](#) and [Fig. 2](#).

Parts requirement in case of replacement:

| Part no. | Qty/ engine | Description | Application |
|----------|----------------|-------------------|-----------------------------------|
| 651873 | 1 | clamp assy. 83 mm | Turbocharger hot section |
| 651873 | 1 | clamp assy. 83 mm | Exhaust elbow (916 i Series only) |

1. Clamp assy.

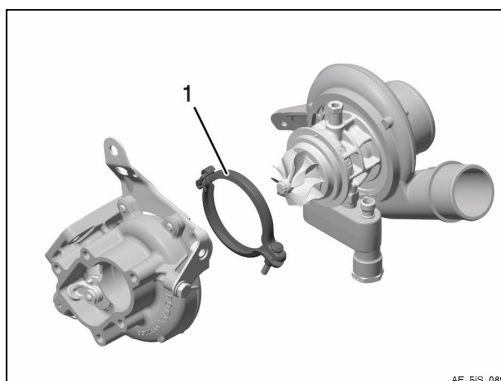


Fig. 1

Engine type 915 i (Series) and 916 i (Series)

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1. Clamp assy.

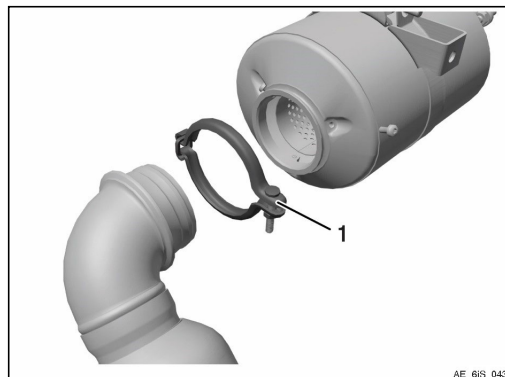


Fig. 2

Engine type 916 i (Series)

2.4) Material requirement per spare part

None.

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.

**Accomplish-
ment**

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

| Step | Procedure |
|------|--|
| 1 | Check the criteria given on page 1, section 1.1, if the aircraft engine is affected by this ASB. |
| 2 | Check the engine logbook and maintenance documentation, if this ASB has already been accomplished. |

3.1) Illustrated Parts Catalog - related information



See current Illustrated Parts Catalog (IPC) for the respective engine type, Chapter 78-10-00.

3.2) Installation - related information



See current Installation Manual (IM) for the respective engine type, Chapter 78-00-00.

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3.3) Operation - related information



See current Operators Manual (OM) for the respective engine type, Chapter 3.

3.4) Maintenance (Line) - related information



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

3.5) Maintenance (Heavy) - related information



For removal, disassembly/assembly and installation see current Maintenance Manual Heavy (MMH) for the respective engine type, Chapter 78-00-00, 78-10-00 and 78-20-00.

NOTE: Only authorized person (iRMT, Level Heavy Maintenance) are entitled to carry out this work.

3.5.1) Removal - turbocharger clamp assy. - 915 i (Series) and 916 i (Series)

See Fig. 3.



WARNING Danger of severe burns and scalds! Allow the engine and exhaust system to cool to ambient temperature before starting work.

| Step | Procedure |
|------|---|
| 1 | Loosen Hex. nut M8 (1) from turbocharger clamp. NOTE: Support the turbocharger center housing and cold section. |
| 2 | Remove the clamp. |

1. Hex. nut M8

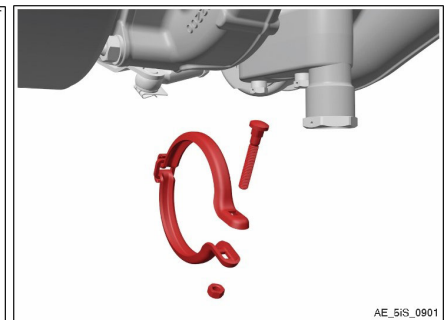
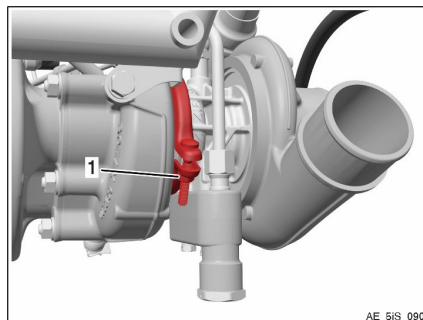


Fig. 3

Turbocharger clamp assy.

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3.5.2) Installation - turbocharger clamp assy. - 915 i (Series) and 916 i (Series)

See Fig. 4.

| Step | Procedure |
|------|--|
| 1 | Hold the turbocharger center housing and cold section in position on the hot section. |
| 2 | Place clamp into position between center housing and hot section, in the orientation depicted. |
| 3 | Hand tighten the clamp Hex. nut M8 (1). Check the alignment of center housing and hot section. Tighten clamp Hex. nut M8. Tightening torque 8 Nm (70 in. lb). |

1. Hex. nut M8

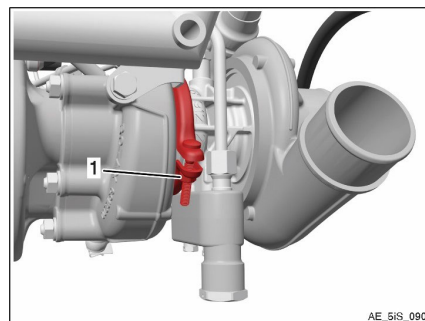


Fig. 4
Turbocharger clamp assy.

3.5.3) Removal - exhaust elbow clamp assy. - 916 i (Series)

See Fig. 5.



Danger of severe burns and scalds! Allow the engine and exhaust system to cool to ambient temperature before starting work.

916 i (Series) engines use the same clamp assy. part no. 651873 for the attachment of exhaust elbow.

| Step | Procedure |
|------|--|
| 1 | Loosen M8 Hex. nut (1) from exhaust elbow clamp. NOTE: The exhaust elbow is held in position by 3 screw M5x12 (2). See current Maintenance Manual Heavy (MMH) for the respective engine type, Chapters 78-00-00, 78-10-00 and Chapter 78-20-00. |
| 2 | Remove the clamp. |

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- 1. Hex. nut M8
- 2. Screw M5x12

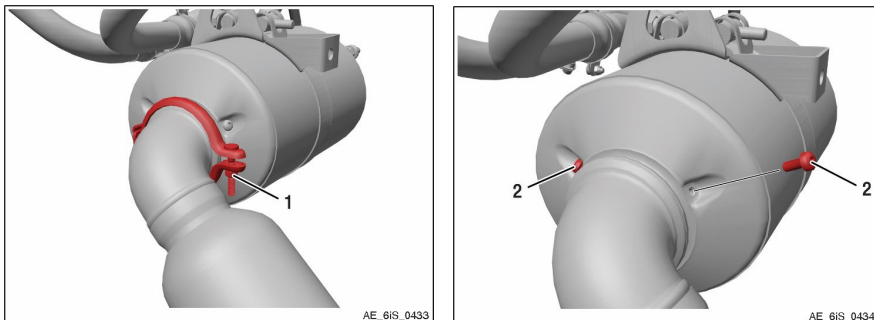


Fig. 5
Exhaust elbow

3.5.4) Installation - exhaust elbow clamp assy. - 916 i (Series)

See Fig. 6.

| Step | Procedure |
|------|---|
| 1 | Place clamp into position between the exhaust muffler and exhaust elbow, in the orientation depicted. |
| 2 | Tighten clamp Hex. nut M8. Tightening torque 8 Nm (70 in. lb). |

- 1. Hex. nut M8

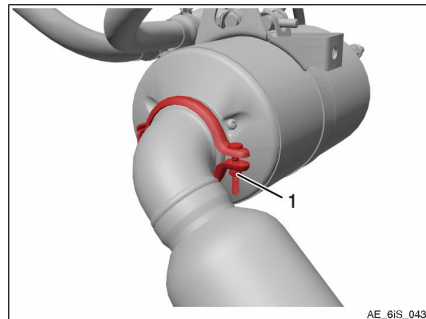


Fig. 6
Exhaust elbow clamp assy.

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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.

3.7) Engine log entry

| Step | Procedure |
|------|---|
| 1 | Make an entry in the engine logbook stating the corrective actions performed. |

NOTICE

If engine is still within its original packaging the (blue) plastic bag must carefully re-sealed after performing this inspection. The plastic bag contains a Volatile Corrosion Inhibitor (VCI) essential to maintain appropriate storage conditions.

3.8) Summary

These instructions (section 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 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® scope of responsibility.

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

3.9) 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 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.