

Lentokelpoisuusmääräyksen noudattaminen on ilma-aluksen jatkuvan lentokelpoisuuden edellytyksenä. Määräyksen mukaisen toimenpiteen saa tehdä ja kuitata, ellei määräyksessä toisin mainita, se jolla ilmailumääräyksen AIR M5-3, AIR M5-10, OPS M2-10, JAR-OPS 1 tai JAR OPS 3 mukaisesti on oikeus tehdä kyseisen ilma-aluksen tai -välineen määräaikaishuoltoja. Tehty toimenpide on merkittävä ilma-aluksen teknilliseen kirjanpitoon. Lentokelpoisuusmääräys on annettu ilmailulain (1194/2009) 22§:n perusteella.

BRP Rotax Aircraft Engines. Sulkutulpan tarkastus ja korjaus

Koskee: Kansallisiin ilma-aluksiin asennettuja moottoreita Rotax 912 iS/iS Sport Rotax BRP alert service bulletin ASB-912 i-007iS mukaisesti.

Voimaantulo: 26.6.2017

Viite: European Aviation Safety Agency AD2017-0101-E, Rotax BRP alert service bulletin ASB-912 i-007iS ja Rotax BRP alert service bulletin ASB-912 i-007

Voimassaoloaika: Tämä määräys on voimassa toistaiseksi.

Lentokelpoisuusmääräyksen vaatimat toimenpiteet:

Tee Rotax BRP alert service bulletin ASB-912 i-007iS edellyttämät toimenpiteet mikäli ne koskevat moottoria tai sen laitteita bulletiinin kohdan 1.1 perusteella.

Huomaa, että ASB-912 i-007iS on vain listaus niistä tyyppihyväksymättömistä moottoreista, joita SB koskee. Tehtävien toimenpiteiden osalta siinä viitataan Rotax BRP alert service bulletiniin ASB-912 i-007 kohdasta 1.2 eteenpäin.

HUOM. EASA AD No.: 2017-0101-E koskee suoraan tyyppihyväksyttyjä moottoreita vaikka ne olisivat asennettu liite 2 ilma-alukseen. Niitä varten ei julkaista kansallista lentokelpoisuusmääräystä.

Tehty toimenpide sekä tämän lentokelpoisuusmääräyksen ja Service Bulletinin numero on merkittävä ilma-aluksen teknilliseen kirjanpitoon.



Emergency Airworthiness Directive

AD No.: 2017-0101-E

Issued: 09 June 2017

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

BRP-ROTAX GmbH & Co. KG

Type/Model designation(s):

Rotax 912 engines

Effective Date: 13 June 2017

TCDS Number(s): EASA.E.121

Foreign AD: Not applicable

Supersedure: None

ATA 74 – Ignition – Ignition House Sealing Plug – Inspection

Manufacturer(s):

BRP-Rotax GmbH & Co. KG (formerly BRP-Powertrain GmbH & Co. KG; Bombardier-Rotax GmbH & Co. KG; Bombardier-Rotax GmbH)

Applicability:

Rotax 912 iSc2 Sport and Rotax 912 iSc3 Sport engines, all serial numbers.

These engines are known to be installed on, but not limited to, Aero-East-Europe Sila 450C, Diamond Aircraft Industries DV-20 E, Pipistrel Virus SW 121, Flight Design CTLS-ELA, Diamond Aircraft Industries Inc. DA 20 and Aero AT SP z.o.o. AT-3 R100 aeroplanes, and Grob Aircraft G109 powered sailplanes.

The installation of these engines was either done by the respective aeroplane manufacturer or through modification of the aircraft by Supplemental Type Certificate.

Reason:

Ignition house sealing plugs have been found improperly installed. BRP-Rotax has determined the population of stator assemblies and ignition housings that may be affected.



This condition, if not detected and corrected, may lead to oil leakage, with consequent loss of lubrication, in-flight engine shutdown and forced landing, possibly resulting in damage to the aircraft and injury to occupants.

To address this potential unsafe condition, BRP-Rotax issued Alert Service Bulletin (ASB) ASB-912 i-007, providing inspection instructions.

For the reason described above, this AD requires a one-time inspection and, depending on findings, reseating of the sealing plug. This AD also requires an inspection each time an affected stator assembly or ignition housing is installed on an engine.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Note 1: The sealing plug of the ignition housing is hereafter referred to as “sealing plug” in this AD.

Note 2: BRP-Rotax ASB-912 i-007 is hereafter referred to as “the ASB” in this AD.

Note 3: For the purpose of this AD, stator assemblies having Part Number (P/N) 685062, and having serial number (s/n) 16.0540 up to s/n 16.0543 inclusive, s/n 16.0548, s/n 16.0549 and s/n 16.0552 up to s/n 16.0555 inclusive; and ignition housings having P/N 611594 (all s/n), if initially installed in service before 01 June 2016, are collectively referred to as “affected part” in this AD.

Note 4: For the purpose of this AD, an affected engine is an engine having has s/n 4 417 413 up to 4 417 424 inclusive; or an engine, having any s/n, that on the effective date of this AD is equipped with an affected part (see Note 3 of this AD).

- (1) For affected engines (see Note 4 of this AD): Within 10 flight hours or 2 months, whichever occurs first after the effective date of this AD, inspect the sealing plug in accordance with the instructions of the ASB.
- (2) From the effective date of this AD, it is allowed to install an affected part on an engine, provided that, before next flight after installation, the sealing plug is inspected in accordance with the instructions of the ASB.
- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, incorrect installation of a sealing plug is detected, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the ASB.

Ref. Publications:

BRP Rotax ASB-912 i-007 original issue, dated 06 June 2017.

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.



Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: BRP-Rotax GmbH & Co. KG, Telephone: +43 7246 601 0, Fax: +43 7246 601 9130, E-mail: airworthiness@brp.com, Website www.flyrotax.com.



ALERT SERVICE BULLETIN

Checking of the correct positioning of sealing plug in ignition housing for ROTAX® Engine Type 912 i (Series)

ATA System: 24-20-00 Internal generator

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 912 iS/iS Sport are affected, if at least one of the following criteria applies:

Criterion A) Engine serial number:

All engines of type*:

Engine type	Serial number
912 iS/iS Sport	from S/N 4 417 001 up to S/N 4 417 400 inclusive from S/N 7 703 001 up to S/N 7 703 104 inclusive from S/N 7 703 106 up to S/N 7 703 112 inclusive from S/N 7 703 114 up to S/N 7 703 282 inclusive from S/N 7 703 285 up to S/N 7 703 399 inclusive from S/N 7 703 401 up to S/N 7 703 403 inclusive S/N 7 703 406/ from S/N 7 703 419 up to S/N 7 703 424 from S/N 7 703 445 up to S/N 7 703 481 inclusive from S/N 7 703 484 up to S/N 7 703 485 inclusive from S/N 7 703 487 up to S/N 7 703 491 inclusive S/N 7 703 493/S/N 7 703 514 from S/N 7 703 525 up to S/N 7 703 526 inclusive from S/N 7 703 537 up to S/N 7 703 547 inclusive from S/N 7 703 566 up to S/N 7 703 595 inclusive S/N 7 703 657/S/N 7 703 661 from S/N 7 703 672 up to S/N 7 703 690 inclusive

* The type designation refer to the delivery condition of the engine.

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Criterion B) Parts set stator 912 iS/iS Sport part no. 481370:

Stator assy.	Serial number
Part no. 685062	S/N 16.0015/S/N 16.0228/S/N 16.0229/S/N 16.0232 from S/N 16.0234 up to S/N 16.0236 inclusive S/N 16.0239/S/N 16.0255/S/N 16.0258 from S/N 16.0259 up to S/N 16.0261 inclusive from S/N 16.0266 up to S/N 16.0269 inclusive from S/N 16.0296 up to S/N 16.0299 inclusive S/N 16.0301/from S/N 16.0304 up to S/N 16.0331 S/N 16.0336/from S/N 16.0338 up to S/N 16.0343 from S/N 16.0353 up to S/N 16.0364 inclusive from S/N 16.0366 up to S/N 16.0372 inclusive from S/N 16.0378 up to S/N 16.0382 inclusive from S/N 16.0384 up to S/N 16.0389 inclusive from S/N 16.0391 up to S/N 16.0392 inclusive from S/N 16.0438 up to S/N 16.0479 inclusive from S/N 16.0496 up to S/N 16.0503 inclusive from S/N 16.0550 up to S/N 16.0551 inclusive

Criterion C) Spare parts:

Further all engines are affected, which have been equipped with ignition housing with the part no. 611594 during engine repair, maintenance, general overhaul or any other exchange action before June 01, 2016 (delivery note).

NOTE: The ignition housing assy. may have been removed from the initial engine and used on another one.

For relevant information, see maintenance records and/or the log book.

For complete instructions and compliance to this Alert Service Bulletin refer to Alert Service Bulletin-ASB-912i-007, latest edition section 1.2 onward.

NOTE: Section 1.6) Approval: Is not required for engines of the type iS (Series).
 Section 3) Accomplishment: In addition: persons with adequate type-specific training.

Symbols used - For meaning of the symbols used in here, see chapter >Safety< of the latest Operators Manual for the respective engine type.

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Checking of the correct positioning of sealing plug in ignition housing for ROTAX® Engine Type 912 i (Series)

ATA System: 24-20-00 Internal generator

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 912 iSc Sport are affected, if at least one of the following criteria applies:

Criterion A) Engine serial number:

All engines of type:

Engine type	Serial number
912 iSc Sport	from S/N 4 417 413 up to S/N 4 417 424 inclusive

Criterion B) Parts set stator 912 iSc Sport part no. 481370:

Stator assy.	Serial number
Part no. 685062	from S/N 16.0540 up to S/N 16.0543 inclusive from S/N 16.0548 up to S/N 16.0549 inclusive from S/N 16.0552 up to S/N 16.0555 inclusive

Criterion C) Spare parts:

Further all engines are affected, which have been equipped with ignition housing with the part no. 611594 during engine repair, maintenance, general overhaul or any other exchange action before June 01, 2016 (delivery note).

NOTE: The ignition housing assy. may have been removed from the initial engine and used on another one.

For relevant information, see maintenance records and/or the log book.

1.2) Concurrent ASB/SB/SI and SL

None.

1.3) Reason

Field observation has shown that in isolated cases the sealing plug (see Fig. 1) was not pressed to its correct seating position in the ignition housing. In rare cases this may lead to loss of oil and subsequently loss of lubrication which leads to engine stoppage.

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1.4) Subject

Checking of the correct positioning of sealing plug in ignition housing for ROTAX® engine type 912 i (Series).

1.5) Compliance

- Before the next flight
- Immediately, on undelivered engines / spare parts
- Before the initial installation of engine and/or spare part

but at the latest by 31. December 2017 the "Checking and if necessary re-setting of the sealing plug in ignition housing" must be conducted according to the following instructions in section 3.



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

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

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

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 that 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 parts are interchangeable

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2) Material Information

2.1) Material- cost and availability

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

None.

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 independent Service Centers:

Description	Qty/ engine	Part no.	Application
Insertion jig	1	676255	Sealing plug in ignition housing

NOTICE

If using these special tools observe the manufacturers specifications.

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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® - Authorized Distributors or their independent Service Centers
- Persons with approved qualifications for the corresponding engine types. Only authorized persons (relevant iRMT Level) are entitled to carry out this work.

NOTE: All work has to be performed in accordance with the relevant Maintenance Manual.

Safety notice



WARNING

Identifies an instruction which, if not followed, may cause serious injury or even fatal injury.



CAUTION

Identifies an instruction which, if not followed, may cause minor or moderate injury.

NOTICE

Identifies an instruction which, if not followed, may severely damage the engine or could void any warranty.

ENVIRONMENTAL NOTE

Environmental notes give you tips on environmental protection.

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

3.1) Check the specified position of sealing plug



CAUTION

Following steps are important, read them carefully!

See Fig. 2.

Step	Procedure
1	Check the position of sealing plug in the relevant area of ignition housing assy. See Fig. 2.
2	The sealing plug must show to have been pressed in until the top of the ball is below the edge of the sleeve. See position OK in Fig. 2.
3	If you notice sealing plug position is OK, then there is no need for further procedures. NOTE: If you notice sealing plug position is NOT OK, then see section 3.2.

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3.2) Correcting sealing plug position (required if position of sealing plug is incorrect, see Fig. 2)

Step	Procedure
1	<p>Correct the sealing plug position with a hammer (max. 300 g / 0.66 lbs) and the relevant insertion jig part no. 676255 as per section 2.6. Intuitively control your manual insertion force just to set the ball in correct position. See Fig. 3.</p> <p>NOTE: The bore must be free of oil, grease and chips.</p> <p>NOTE: Make sure to insert the insertion jig in correct alignment of the center bore / center line of the sealing plug.</p>

NOTICE

At application of the insertion jig make sure not to damage surface of the engine suspension frame etc.

ENVIRONMENTAL NOTE

All operating materials/fluids and cleaning products endanger the environment by improper disposal. Please observe the disposal regulations applicable in your country.

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

3.3) Test run

Conduct test run including leakage test. See chapter 12-20-00 of the latest Maintenance Manual Line for the respective engine type.

3.4) 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 log book.

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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.

3.5) Inquiries

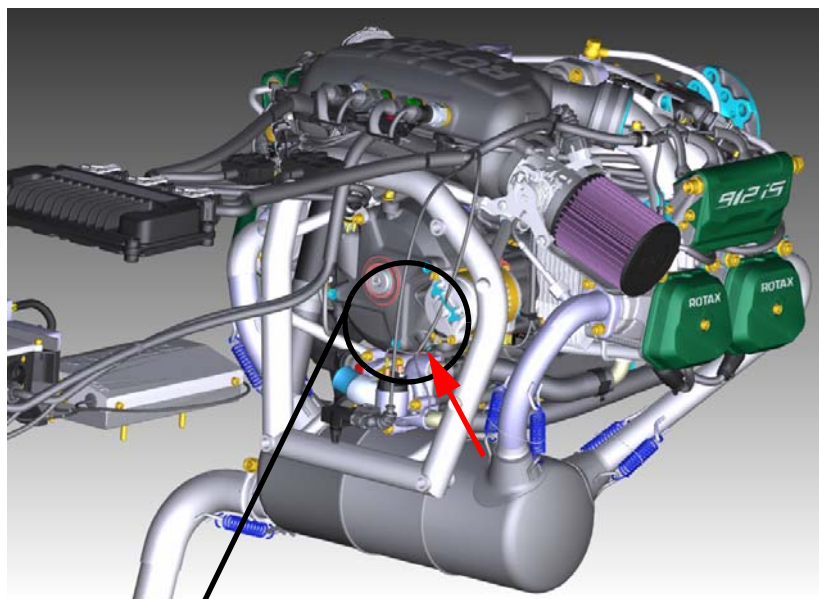
Inquiries regarding this Alert Service Bulletin should be sent to the ROTAX® Authorized Distributor of your area.

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

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4) Appendix

The following drawings should convey additional information:



Detail A

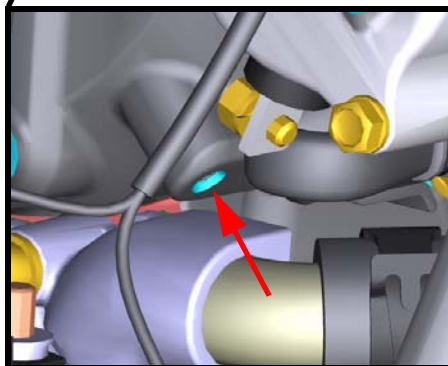
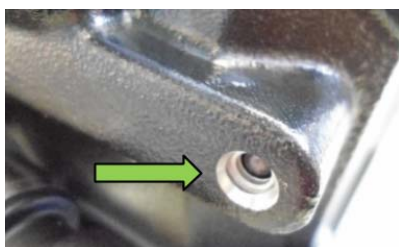


Fig. 1
Sealing plug in ignition housing

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Sealing plug position "OK"



Sealing plug position "NOT OK"

Fig. 2
Good/bad comparison of sealing plug position

10275, 10274

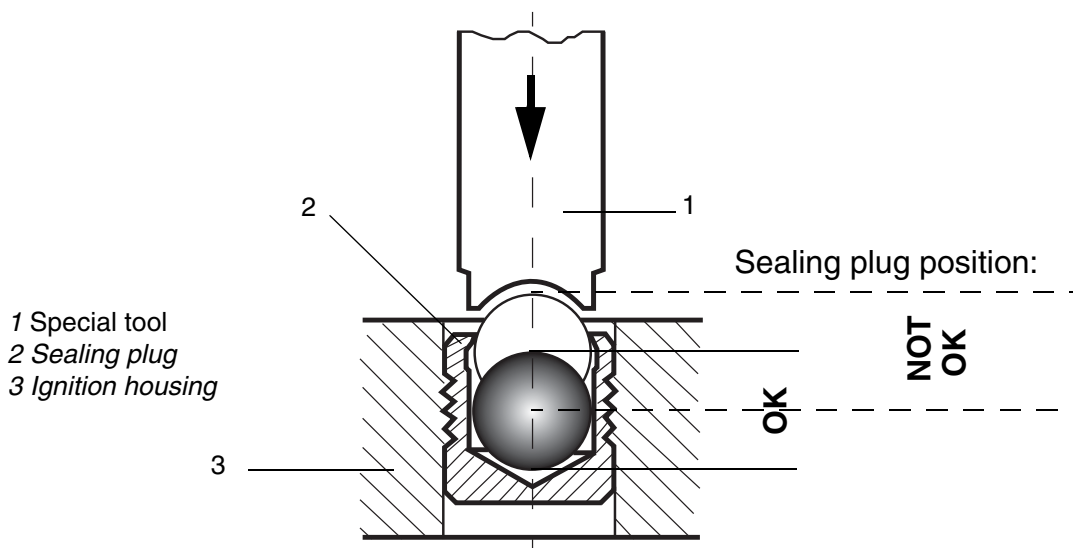


Fig. 3
Correcting the sealing plug position with special tool (insertion jig)

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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.

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