



Airworthiness Directive

AD No.: 2016-0144

Issued: 19 July 2016

Note: This 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-POWERTRAIN GmbH & Co. KG

Type/Model designation(s):

Rotax 912 and 914 engines

Effective Date: 26 July 2016

TCDS Number(s): EASA.E.121 and EASA.E.122

Foreign AD: Not applicable

Supersedure: None

ATA 73 – Engine Fuel and Control – Float – Inspection / Replacement

Manufacturer(s):

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

Applicability:

Rotax 912 A1, 912 A2, 912 A3 and 912 A4 engines, Rotax 912 F2, 912 F3 and 912 F4 engines, Rotax 912 S2, 912 S3 and 912 S4 engines, and Rotax 914 F2, 914 F3 and 914 F4 engines, all serial numbers.

These engines are known to be installed on, but not limited to, the types and models aeroplanes as listed in Appendix 1 of this AD. The installation of these engines was either done by the respective aeroplane manufacturer or through modification of the aircraft by Supplemental Type Certificate.

Reason:

Due to a quality escape in the manufacturing process of certain floats, Part Number (P/N) 861185, a partial separation of the float outer skin may occur during engine operation. Separated particles could lead to a restriction of the jets in the carburetor, possibly reducing or blocking the fuel supply to the affected cylinder.

This condition, if not detected and corrected, could lead to in-flight engine shutdown and forced landing, possibly resulting in damage to the aeroplane and injury to occupants.



To address this potential unsafe condition, BRP-Powertrain published Alert Service Bulletin (ASB) ASB-912-069/ASB-914-051 (single document, hereafter referred to as 'the ASB' in this AD), providing instructions for identification and replacement of the affected parts.

For the reasons stated above, this AD requires identification and replacement of the affected floats with serviceable parts.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, an affected engine is an engine having a serial number (S/N) as listed in Table 1 of Appendix 2 of this AD, or any other engine S/N, if equipped with a carburetor identified by P/N and S/N in Table 2 of Appendix 2 of this AD, or an engine that, after 08 May 2016, has had an affected float P/N 861185 installed in service.

Note 2: For the purpose of this AD, an affected float is float having P/N 861185, that has been initially delivered on a date between 09 May 2016 and 17 July 2016 (inclusive), and that does not have 3 dots. Certification documents (e.g., Form 1), delivery document or record of previous installation of the float are acceptable to determine an initial delivery on or before 08 May 2016. An example of a serviceable float having 3 dots is shown in Appendix 3 of this AD.

- (1) Within 25 flight hours (FH) or 30 days after the effective date of this AD, whichever occur first, inspect the engine to identify if it is affected (see Note 1 of this AD). A review of the engine maintenance records is acceptable in lieu of the inspection, provided that the engine configuration and maintenance history can be conclusively determined from that review.
- (2) For any affected engine, before next flight after the inspection as required by paragraph (1) of this AD, replace any affected float with a serviceable float (see Note 2 and Appendix 3 of this AD) in accordance with the instructions of the ASB.
- (3) From the effective date of this AD, do not install on any engine an affected float, as defined in Note 2 of this AD.
- (4) From the effective date of this AD, it is allowed to install on any engine a carburetor equipped with a float P/N 861185 provided that, before installation, it is determined that the float is a serviceable part, as defined in Note 2 of this AD. A review of the applicable maintenance records is acceptable to accomplish this determination, provided that the maintenance history of the carburetor can be conclusively determined from that review.
- (5) From the effective date of this AD, it is allowed to install on any aeroplane an affected engine (see Note 1 of this AD), provided that, prior to installation, engine has passed an inspection in accordance with the instructions of the ASB.

Ref. Publications:

BRP Powertrain ASB-912-069/ASB-914-051, original issue, dated 14 July 2016.



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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
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-Powertrain GmbH & Co. KG, Telephone +43 7246 601 0, Fax +43 7246 601 9130, E-mail: airworthiness@brp.com, Website www.rotax-aircraft-engines.com.



Appendix 1 – List of Aeroplanes known to have Rotax engine(s) installed,
either done by the respective aircraft manufacturer or through modification of the
aircraft by Supplemental Type Certificate

Type Certificate Holder	Type/model
Aero AT SP z.o.o.	AT-3R100
Aeromot-Indústria Mecânico-Metalúrgica	AMT-200 “Super Ximango” and AMT-300 “Turbo Super Ximango”
Aircraft Design and Certification Ltd.	D4 “Fascination”
Aquila Aviation GmbH	Aquila AT01
Textron Aviation (formerly Cessna Aircraft Company)	150 and A150 aeroplanes (and Reims F150 and FA150), modified by various STC
Costruzioni Aeronautiche TECNAM S.r.l.	P92, P2002, P2006T and P2008 JC
Czech Sport Aircraft A.S.	PS-28 “Cruiser”
Diamond Aircraft Industries GmbH	H 36 “Dimona”, HK 36 “Super Dimona” and DV 20 “Katana”
Diamond Aircraft Industries Inc.	DA20-A1 “Katana”
E.I.S. Aircraft GmbH	RF 5 “Sperber”
Evektor spol. s.r.o.	EV-97 VLA, SportStar RTC
Flight - Design	CTLS-ELA
Grob Aircraft AG	G109
Issoire Aviation	APM-20 “Lionceau”
M&D Flugzeugbau GmbH & Co. KG	AVO 68 aeroplanes “Samburo”
Magnaghi Aeronautica S.p.A.	Sky Arrow 650 TC, 650 TCN, 650 TCNS and 710 RG
Korff Luftfahrt	Taifun 17 E II
S.C. Constructii Aeronautice	IAR-46, IS-28M2/GR
Scheibe Aircraft GmbH	SF 25 C, SF 36 R
Skyfox Aviation	CA-25N
Sportavia Puetzer	RF-9 ABS
Stemme AG	S10-VT, ASP S15-1, TSA-M S6



Appendix 2

Table 1 – Affected Engines

Engine type	S/N
912 F	from S/N 4 413 066 up to 4 413 067 inclusive
912 S	S/N 9 563 830, 9 563 832 and 9 563 833
914 F	from S/N 4 421 572 up to 4 421 590 inclusive

Table 2 – Affected Carburetors

Engine Type	Cylinder position(s)	Carburetor P/N and S/N
912 A and 912 F	1/3	P/N 892500 - from S/N 161138 up to 161143 inclusive, from S/N 161483 up to 161490 inclusive, from S/N 161493 up to 161507 inclusive, from S/N 161516 up to 161518 inclusive, and S/N 161526
	2/4	P/N 892505 - S/N 162193 and 162194, from S/N 162196 up to 162199 inclusive, and S/N 162205.
912 S	1/3	P/N 892530 - from S/N 161528 up to 161531 inclusive, S/N 161534, 161535, 161537, 161542, 161558, 161560, 161567, 161568, 161570, 161937, 161938 and 161939, from S/N 161941 up to 161951 inclusive, from S/N 161953 up to 161980 inclusive, from S/N 161982 up to 161989 inclusive, from S/N 161992 up to 162042 inclusive, from S/N 162044 up to 162051 inclusive, S/N 162053, 162054 and 162055, from S/N 162235 up to 162050 inclusive, from S/N 162252 up to 162275 inclusive, from S/N 162277 up to 162282 inclusive, S/N 162294 and 162298.
	2/4	P/N 892535 - S/N 161583, 161585, 161586 and 161587, from S/N 161837 up to 161868 inclusive, from S/N 161870 up to 161873 inclusive, from S/N 161875 up to 161919 inclusive, from S/N 161921 up to 161936 inclusive, from S/N 162102 up to 162120 inclusive, from S/N 162122 up to 162143 inclusive, S/N 162145 and 162146, from S/N 162400 up to 162411 inclusive, from S/N 162413 up to 162430 inclusive, from S/N 162432 up to 162435 inclusive, from S/N 162437 up to 162440 inclusive, S/N 162442, 162444, 162445, 162449 and 162450.
914 F	1/3	P/N 892520 - from S/N 161412 up to 161426 inclusive, S/N 161428 and 161430, from S/N 161637 up to 161662 inclusive, from S/N 161664 up to 161680 inclusive, from S/N 161800 up to 161814 inclusive, from S/N 161816 up to 161819 inclusive, from S/N 161821 up to 161824 inclusive, from S/N 161826 up to 161829 inclusive, S/N 161834, 161835 and 161836.
	2/4	P/N 892525 - from S/N 161681 up to 161700 inclusive, from S/N 161702 up to 161706 inclusive, S/N 161708 and 161709, from S/N 161711 up to 161730 inclusive, from S/N 161733 up to S/N 161736 inclusive, from S/N 161739 up to S/N 161761 inclusive, S/N 161765, 161768, 161773, 161774, 161777 and 161779.



Appendix 3 – Float with 3 dots

