TECHNISCHE INFORMATION NR. SI36-043

HINWEIS: Technische Informationen werden **nur** verwendet um:
1) Informationen von DAI an unsere Kunden weiterzugeben.
2) Informationen / Dokumente von unseren Zulieferern mit zusätzlichen Informationen an unsere Kunden weiterzugeben.
Typischerweise unterstehen Technische Informationen keinem Revisionsdienst. Neue Informationen oder Änderungen derer werden durch eine neue Technische Information weitergegeben.

SERVICE INFORMATION NO. SI36-043

NOTE: SI´s are used **only**:
1) To distribute information from DAI to our customers.
2) To distribute applicable information / documents from our suppliers to our customers with additional information.
Typically there is no revision service for Si´s. Each new information or change of that will be send along with a new SI.

I. TECHNISCHE ANGABEN

1.1 Betroffene Flugzeuge:

Alle
HK 36
HK 36 R
HK 36 TS
HK 36 TC
HK 36 TTS
HK 36 TTC
HK 36 TTC-ECO

Flugzeuge, die mit BRP-Rotax 912 Serie und BRP-Rotax 914 F Serie Motoren ausgerüstet sind.

1.2 Gegenstand

ATA Code: 73
EASA AD No. 2007-0155

I. TECHNICAL DETAILS

1.1 Airplanes affected:

All
HK 36
HK 36 R
HK 36 TS
HK 36 TC
HK 36 TTS
HK 36 TTC
HK 36 TTC-ECO

aircraft equipped with BRP-Rotax 912 Series and BRP-Rotax 914 F Series engines

1.2 Subject

ATA Code: 73
EASA Ad No. 2007-0155

1.3 Anlaß

Die EASA hat die Lufttüchtigkeitsanweisung EASA AD No. 2007-0155 veröffentlicht, welches mögliche Motorschäden im Falle von kochender Kühlflüssigkeit beschreibt.

1.4 Information

Für detaillierte technische Informationen siehe das EASA AD 2007-0155 welches ohne weitere Ergänzungen und Einschränkungen anwendbar ist. Weitere Informationen zum genannten EASA AD sind im MSB 36-090 von Diamond enthalten.

II. SONSTIGES

Bei etwaigen Fragen kontaktieren Sie bitte BRP-Rotax GmbH & Co. KG oder Diamond Aircraft Industries GmbH.

Das EASA AD 2007-0155 liegt dieser TI bei.

1.3 Reason

EASA has issued the AD No. 2007-0155 which prescribes engine damages in case of boiling of conventional coolant.

1.4 Information

For detailed technical information see EASA AD 2007-0155 which is applicable without any further additions or restrictions. Compliance with the mentioned EASA AD is accomplished via Diamond MSB 36-090.

II. OTHER INFORMATION

In case of doubt contact BRP-Rotax GmbH & Co. KG or Diamond Aircraft Industries GmbH.

The EASA AD 2007-0155 is attached to this SI.

EASA	AIRWORTHINESS DIRECTIVE
	AD No : 2007- 0155 **Date: 29 May 2007**

No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.

Type Approval Holder's Name :	**Type/Model designation(s) :**
BRP-Rotax GmbH & Co. KG	Rotax 912 A series Rotax 912 F series Rotax 912 S series Rotax 914 F series

TCDS Number: EASA.E.121 and EASA.E.122

Foreign AD: N/A

Supersedure: Austrian AD A-2004-004R2, EASA Approval Number 2005-6413

ATA 73	**Engine Fuel and Control – Coolant Specification - Modification**
Manufacturer(s):	BRP-Rotax GmbH & Co. KG; Bombardier-Rotax GmbH & Co. KG; Bombardier-Rotax GmbH;
Applicability:	All versions of the engine type Rotax 912 A, 912 F, 912 S and 914 F These engines are known to be installed on, but not limited to, the following aircraft types: 3-i Sky Arrow 650 TC, 650 TCN, 650 TCNS and 710 RG; Aeromot AMT-200 Super Ximango and AMT-300 Turbo Super Ximango; Aircraft Philipp (formerly Alpla-Werke; Nitsche) AVO 68 series Samburo; Aquila AT01; Cessna 150 and A150 series; Diamond (formerly HOAC) H 36 Dimona, HK 36 series Super Dimona, DV 20 Katana and DA20-A1 Katana; Evektor-Aerotechnik EV-97 VLA; Grob G 109; Issoire APM-20 Lionceau; Reims Aviation F150 and FA150 series; Schelbe SF 36R and SF 25C; Stemme S10-VT; Tecnam P 92-J, P 92-JS and P2002-JF; W.D. Aircraft D4 Fascination

Reason:	Under certain powerplant installation and operating conditions, boiling of conventional coolant with a mixing ratio of 50% coolant and 50% water can occur before reaching maximum permissible cylinder head temperatures (CHT). This can lead to evaporation of the coolant and in consequences to loss of coolant in the coolant system, causing the engine to overheat. This condition, if not corrected could result in engine damage or an accident. Technical investigation shows the possibility to use the conventional 50% coolant and 50% water mixture on specified installations, where due to the installation conditions (radiator installation, radiator size e.g.) on the airframe confirms that the upper limit of 120°C for the coolant (50% coolant- 50% water) will not be exceeded and an evaporation will not occur in the specified limits of operation, these limits –efficiency of coolant system- on the airframe must be demonstrated by the airframe manufacturer due their certification process. This Airworthiness Directive is issued to extend the compliance time on the use of conventional glycol/water coolant in order to allow time for the airframe manufacturer to show compliance for their installation of the coolant system to proof and release the proper coolant. Limitation and restriction for use of glycol/water coolant to max. 120°C and the use of 18 psi (1,2 bar) pressure cap P/N: 922070 before determination of the achievable maximum coolant temperature and cylinder head temperature remain unchanged.
Effective Date:	12 June 2007
Compliance:	To insure safe operation, corrective actions have to be performed on aircrafts with affected engines installed until December 31, 2007: - Change of coolant specification: incorporate the mandatory use of waterless coolant into the relevant documentation of the aircraft. Alternatively the use of conventional coolant is possible. In such case the new operating limit (coolant temperature) has to be applied. The work/compliance has to be performed in accordance with the accomplishment instructions of BRP Rotax Service Bulletin SB-912-043 R2 / SB-914-029 R2: - Replacement of the radiator cap - Check cooling system - Efficiency of the cooling system - Determination of the achievable maximum coolant temperature and cylinder head temperature Effects of these measures on the powerplant installation and on compliance with aircraft related requirements, have to be reviewed by the affected aircraft manufacturers in accordance with aircraft related certification requirements, before these measures are being introduced.
Ref. Publications:	BRP Rotax Service Bulletin SB-912-043 R2 and SB-914-029 R2, dated 10 November 2006, or later approved revision

Remarks :	1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOC) for this AD. 2. This AD was posted as PAD 07-068 on 30 April 2007 for consultation until 28 May 2007. No comments were received during this period. 3. Enquiries regarding this Airworthiness Directive should be referred to the AD Focal Point - Certification Directorate, EASA. 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 Ph.: +43 7246 601 0; Fax: +43 7246 601 760 email: airworthiness@brp.com