EASA AD No: 2010-0137

## **EASA**

## **AIRWORTHINESS DIRECTIVE**



AD No.: 2010-0137

Date: 30 June 2010

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].			
Type Approval Holder's Name :		Type/Model designation(s):	
Thielert Aircraft Engines GmbH		TAE 125 series engines	
TCDS Number :	EASA E.055		
Foreign AD :	Not applicable		
Supersedure :	LBA AD D-2005-145 (EAS	A approval N°2 005-2921 dated 01 April 2005)	
ATA 72	Engine - FADEC Software - Modification		
Manufacturer(s):	Thielert Aircraft Engines (TAE) GmbH.		
	TAE125-01, TAE 125-02-99, TAE 125-02-114, all serial numbers		
Applicability:	These engines are known to be installed, but not limited to, Diamond DA 40, DA 42, DA 42M, Apex DR-400, Cessna C172 and Piper PA28.		
Reason:	Service experience has shown that a case of FADEC channel B manifold air pressure (MAP) sensor hose permeability is not always recognised as fault by the FADEC. The MAP value measured by the sensor may be lower than the actual pressure value in the engine manifold, and limits the amount of fuel injected into the combustion chamber and thus the available power of the engine. A change in FADEC software version 2.91 will change the logic in failure detection and in switching to channel B (no automatic switch to channel B if MAP difference between channel A and B is detected and lower MAP is at channel B).		
	In addition, previous software versions allow – under certain conditions and on DA42 aircraft only – the initiation of a FADEC self test during flight that causes an engine in-flight shutdown.		
	These conditions, if not corrected, could lead to in-flight cases of engine power loss or ultimately shutdown.		
	To address and correct version 2.91.	this situation, TAE has developed a new software	
	This AD requires the installation of software version 2.91.		

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Effective Date:	14 July 2010	
Required action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously:	
	Within 110 flight hours after the effective date of this AD, or during next maintenance, which ever occurs first, but not later than 6 months after the effective date of this AD, install software version 2.91:	
	<ul> <li>(for TAE 125-01 engines) in accordance with the instructions given in Annex 13 »FADEC Software Update« of the Operation &amp; Maintenance Manual OM-02-01 Issue 3 Revision 13;</li> </ul>	
	<ul> <li>(for TAE 125-02-99engines and TAE 125-02-114 engines) in accordance with Annex 17 »FADEC Software Update« of the Operation &amp; Maintenance Manual OM-02-02 Issue 1 Revision 10.</li> </ul>	
Ref. Publication:	Thielert Aircraft Engines SB TM TAE 000-0007 Rev 9 Engine Variants and Software Versions dated 05 March 2010.	
	Operation & Maintenance Manual OM-02-01 Issue 3 Revision 13 dated 30 March 2010.	
	Operation & Maintenance Manual OM-02-02 Issue 1 Revision 10 dated 07 April 2010.	
	The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.	
Remarks :	If requested and appropriately substantiated, EASA can approve     Alternative Methods of Compliance for this AD.	
	<ol> <li>This AD was posted on 23 April 2010 as PAD 10-038 for consultation until 21 May 2010. No comments were received during the consultation period.</li> </ol>	
	<ol> <li>Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management &amp; Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu.</li> </ol>	
	4. For any question concerning the technical content of the requirements in this AD, please contact: Thielert Aircraft Engines GmbH Platanenstraße 14 D-09350 Lichtenstein, Germany	
	Telephone +49-37204-696-0; Fax +49-37204-696-55; E-mail info@centurion-engines.com.	

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