EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2009-0224 **Date: 20 October 2009** 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 Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive 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].

Type Approval Holder's Name :	**Type/Model designation(s) :**
Thielert Aircraft Engines GmbH	TAE125-02-99 engines

TCDS Number :	EASA.E.055
Foreign AD :	Not applicable
Supersedure:	This AD supersedes EASA AD 2009-0151, dated 10 July 2009.

ATA 61	**Engine/Propeller – Constant Speed Unit – Propeller Control Valve – Vibration Isolator - Installation**
Manufacturer(s):	Thielert Aircraft Engines GmbH.
Applicability:	TAE125-02-99 engines, all serial numbers, if installed on Diamond Aircraft Industries Model DA 42 and DA 42 M aircraft.
Reason:	In-flight engine shutdown incidents have been reported on Diamond Aircraft Industries DA 42 aircraft equipped with TAE125 engines. The investigations showed that it was mainly the result of failure of the Proportional Pressure Reducing Valve (Propeller Control Valve) due to high vibration. This condition, if not corrected, could lead to further cases of engine in-flight shutdown, possibly resulting in reduced control of the aircraft. As this problem has only manifested itself on these engines installed on Diamond Aircraft Industries DA 42 aircraft, TAE125-02-99 engines installed on other aircraft are not affected. In addition to the information stated above, it has been found out that failure of the electrical connection to the Proportional Pressure Reducing Valve 24V (Propeller Control Valve) Part Numbers (P/N) NM-0000-0124501 and 05-7212-K021401 contributed to power loss events or IFSD. To address and correct this situation, Thielert Aircraft Engines GmbH has published TM TAE 125-1009 P1, providing instructions for installation of the Vibration Isolator P/N 05-7212-K022302 that reduces the vibration level on the Proportional Pressure Reducing Valve. For preventing failures

	of the valve's electrical connection, a new Proportional Pressure Reducing Valve 24V (Propeller Control Valve) Part Number (P/N) 05-7212-E002801 has been introduced by TM TAE 125-1007 P1 Revision 2. For the reasons described above, EASA AD 2009-0151 required the installation of the Vibration Isolator and the new Proportional Pressure Reducing Valve 24V (Propeller Control Valve). This AD supersedes AD 2009-0151, retaining the requirements and reducing the compliance time from 110 to 55 flight hours.
Effective Date:	03 November 2009
Required Action(s) and Compliance Time(s):	Required as indicated unless already accomplished: Within 55 flight hours from the effective date of this AD, at the next inspection or until 31 January 2010, whichever occurs first, install the Proportional Pressure Reducing Valve 24V (propeller control valve) Part Number (P/N) 05-7212-E002801 and the Vibration Isolator P/N 05-7212-K022302 in accordance with TM TAE 125-1007 P1 Rev. 2 and TM TAE 125-1009 P1 Revision 3. Installations done in accordance with previous issues of TM TAE 125-1009 P1 are acceptable for compliance with the requirements of this AD. Note: Vibration Isolator and Proportional Pressure Reducing Valve (Propeller Control Valve) are part of the Gearbox assembly. The Gearbox, and thus Vibration Isolator and Proportional Pressure Reducing Valve, has to be inspected regularly in accordance with OM-02-02 and RM-02-02.
Ref. Publications:	Thielert Service Bulletin TM TAE125-1009 P1 Rev. 3 dated 14 October 2009. Thielert Service Bulletin TM TAE125-1007 P1 Rev. 2 dated 29 April 2009. Thielert Service Bulletin TM TAE125-1009 P1 dated 07 July 2009. Engine Operation & Maintenance Manual OM-02-02 Issue 1 Rev. 7 dated 17 June 2009. Engine Repair Manual RM-02-02 Issue 1 Rev. 15 dated 29 April 2009. The use of later approved revisions of these documents 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 required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, 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: **Thielert Aircraft Engines** Platanenstraße 14 D-09350 Lichtenstein, Germany Telephone +49-37204-696-0; Fax +49-37204-696-55; E-mail info@centurion-engines.com