EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2009- 0193R1 **Date: 01 December 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	TAE125-01 piston engines

TCDS Number :	EASA E.055
Foreign AD :	Not applicable
Revision:	This AD revises AD 2009-0193 dated 27 August 2009

ATA 61	**Propellers/Propulsion - Vibration Isolator of the Propeller's Constant Speed Unit - Inspection/Replacement**
Manufacturer(s):	Thielert Aircraft Engines GmbH.
Applicability:	All TAE125-01 engines that are installed on Diamond Aircraft Industries DA 42 aeroplanes. Remark: TAE125-01 engines installed on other aeroplane types are not concerned by this AD.
Reason:	Engine In-Flight Shutdown (IFSD) incidents have been reported on Diamond Aircraft Industries DA 42 aeroplanes equipped with TAE125 engines. The investigations showed that it was mainly the result of failure of the Proportional Pressure Reducing Valve (also known as Propeller Control Valve) due to high vibrations. To address this subject, AD 2008-0145 was issued in July 2008 and amended by its revision 1 in July 2009 to mandate a life-limit for the Proportional Pressure Reducing Valve (PPRV). Since the release of AD 2008-0145, the engine gearbox has been identified as the primary source of vibrations for the PPRV, and it has also been determined that failure of the electrical connection to the Proportional Pressure Reducing Valve can have contributed to some power loss events or IFSD. For the reasons described above, AD 2009-0193, which superseded AD 2008-0145 & AD 2008-0145R1, mandated installation of a vibration isolator between the engine gearbox and the propeller Constant Speed Unit (CSU). In addition, it required an inspection of the electrical

	connectors of the PPRV. Installation of the vibration isolator entails the replacement of the de-icing nozzle support bracket and replacement of the CSU aluminium pipe with a flexible hose. This AD 2009-0193R1 specifies compliance time limit and refers to the latest revision of Thielert applicable Service Bulletin (SB). In addition to that, this AD gives credit for Inspection/Replacement done in accordance with the initial issue of the SB.
Effective Date:	15 December 2009
Required Action(s) and Compliance Time(s):	Required as indicated unless previously accomplished: 1. Within 55 Flight Hours after the effective date of this AD, at the next inspection but no later than 28 February 2010, inspect and/or replace the electrical connectors of the Proportional Pressure Reducing Valve and install a vibration isolator between the engine gearbox and the propeller's Constant Speed Unit as instructed in steps 1 to 27 of the Thielert Service Bulletin TM TAE 125-0020 Rev. 1. Note 1: If not already been done, step 22 of the Thielert Service Bulletin TM TAE 125-0020 calls for the initial replacement of the PPRV in accordance with Thielert Service Bulletin TM TAE 125-0018 revision 1. Note 2: The vibration isolator and the PPRV are part of the gearbox assembly. They must be inspected regularly in accordance with the Engine Operation & Maintenance Manual OM-02-01 and the Engine Repair Manual RM-02-01. 2. Inspection/Replacement done in accordance with TM TAE 125-0020 and annexes, initial issue dated 20 August 2009 are acceptable for compliance with the requirements of this AD.
Ref. Publications:	Thielert Service Bulletin TM TAE 125-0020 and annexes, Revision 1 dated 25 November 2009; Thielert Service Bulletin TM TAE 125-0018 revision 1 dated 12 November 2008; 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