



Airworthiness Directive

AD No.: 2010-0136R1

Issued: 16 August 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:

TECHNIFY MOTORS GmbH

Type/Model designation(s):

TAE 125-02 engines

Effective Date: Revision 1: 16 August 2016
Original issue: 14 July 2010

TCDS Number(s): EASA.E.055

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2010-0136 dated 30 June 2010.

ATA 72 – Engine – Timing Chain – Replacement

Manufacturer(s):

Technify Motors GmbH (TMG), formerly Thielert Aircraft Engines GmbH (TAE)

Applicability:

TAE 125-02-99-(XXXX)-(01) and TAE 125-02-114-(XXXX)-(01) engines, all serial numbers, where (XXXX) can be any combination of numbers.

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. The installation of these engines was either done by the respective aeroplane manufacturer or through modification of the aircraft by Supplemental Type Certificate.

Reason:

Occurrences were reported of fracturing of the timing chain, due to chain wear.

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



To address this potential unsafe condition, TAE developed reinforced timing chain, and issued Service Bulletin (SB) TM TAE 125-1010 P1 (later revised), providing instructions to replace the non-reinforced timing chain with a reinforced one.

Consequently, EASA issued AD 2010-0136, to require replacement of the timing chain and, for engines installed on single engine aeroplanes, subsequent periodic replacement of the timing chain.

Since that AD was issued, TMG designed new engine versions that are not affected by the potential unsafe condition addressed by the AD, and which engine model numbers include the suffix -(XXXX)-(02). TMG revised SB TM TAE 125-1010 P1 accordingly (now at Revision 3).

For the reason described above, this AD is revised to reduce the Applicability by explicitly listing only the affected engines. This revised AD also introduces some editorial changes to meet current AD writing standards, without affecting the requirements.

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

Required as indicated, unless accomplished previously:

- (1) For an engine with a serial number (s/n) as specified in Table 1 of this AD, within the compliance time as specified in Table 2 of this AD, as applicable, replace the timing chain in accordance with the instructions of TMG SB TM TAE 125-1010 P1.

Table 1 – Engine s/n

From 02-02-01510 to 02-02-01514 inclusive; from 02-02-01518 to 02-02-01520 inclusive; 02-02-01529, 02-02-01717, 02-02-01718, 02-02-01720, 02-02-01721, 02-02-01727 and 02-02-01728; from 02-02-01730 to 02-02-01733 inclusive; and from 02-02-01739 to 02-02-01752 inclusive

Table 2 – Initial replacement

Engine FH accumulated (see Note 1 of this AD)	Compliance Time
Less than 500	Before exceeding 610 FH
More than 500, and less than or equal to 600	Within 110 FH, or at the next maintenance, whichever occurs first after 14 July 2010
More than 600	Within 55 FH after 14 July 2010 but not later than during the next maintenance after 14 July 2010

Note 1: Unless specified otherwise, the FH in Table 2 of this AD are those accumulated by the engine, on 14 July 2010 [the effective date of the original issue of this AD], since first installation on an aeroplane.

- (2) For an engine with a serial number not included in Table 1 of this AD, before the engine exceeds 910 FH since first installation on an aeroplane, or within 55 FH after 14 July 2010 [the



effective date of the original issue of this AD], whichever occurs later, replace the timing chain in accordance with the instructions of TMG SB TM TAE 125-1010 P1.

- (3) For an engine installed on a single engine aeroplane, after the initial replacement as required by paragraph (1) or (2) of this AD, as applicable, at intervals not to exceed 910 FH, replace the timing chain in accordance with the instructions of TMG SB TM TAE 125-1010 P1.
- (4) Installation on an engine of a timing chain, having a P/N approved after the effective date of this AD, is equal to compliance with the requirements of paragraph (1), (2) and (3) of this AD for that engine, as applicable, provided the conditions as specified in paragraphs (4.1) and (4.2) of this AD are met.
 - (4.1) The P/N must be approved by EASA, or approved under TMG Design Organisation Approval (DOA); and
 - (4.2) The installation must be accomplished in accordance with engine modification instructions approved by EASA, or approved under TMG DOA.

Ref. Publications:

Thielert Aircraft Engines SB TM TAE 125-1010 P1 original issue dated 01 April 2010, or Revision 1 dated 26 April 2010, or Revision 2 dated 26 May 2010, or Technify Motors SB TM TAE 125-1010 P1 Revision 3 dated 27 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. The original issue of this AD was posted on 23 April 2010 as PAD 10-037 for consultation until 21 May 2010. The Comment Response Document can be found at <http://ad.easa.europa.eu/>.
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:
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