

SERVICE INFORMATION NO. SI 42-162

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 sent along with a new SI.

I. TECHNICAL DETAILS

1.1 Airplanes affected:

All DA 42 and DA 42 M airplanes

1.2 Subject:

FAA Airworthiness Directive No. 2011-23-01
ATA-Code: 72-10

1.3 Reason:

FAA has issued Airworthiness Directive No. 2011-23-01 which supersedes FAA Airworthiness Directive No. 2010-18-02 and prescribes replacement of certain part numbers and serial numbers of clutch assemblies in reference to TM TAE 125-0021, Rev 1 and TM TAE 125-1011 P1, Rev 2.

TAE has identified a batch of spring discs in clutch assemblies which received a non-conforming heat treatment process. This might result in an un-airworthy condition of the engine. TAE has now widened the range of affected clutch serial numbers. Depending on whether both engines are affected and the operation time of the clutches it may be necessary to replace the clutch assemblies immediately. Then only a ferry flight to the maintenance station is permitted.

1.4 Information:

For detailed technical information refer to FAA Airworthiness Directive No. 2011-23-01, which is applicable without any further additions or restrictions.

II. OTHERS

FAA Airworthiness Directive No. 2011-23-01 is attached to this Service Information.

In case of doubt contact Thielert Aircraft Engines GmbH or Diamond Aircraft Industries GmbH.

Airworthiness Directive 2011-23-01 Summary

Subject:	To address clutch assemblies with nonconforming disc springs		
Manufacturer:	Thielert Aircraft Engines GmbH (TAE)	Category:	Engine
Effective Date:	11/22/2011	Recurring:	No
Supersedes:	2010-18-02	Superseded By:	N/A

For complete information on this AD, please see:

[AD 2011-23-01 FAA Copy](#)
[AD 2011-23-01 Preamble](#)
[AD 2011-23-01 CFR Copy](#)

Model Applicability:

Thielert Aircraft Engines GmbH (TAE) Model TAE 125-01 and TAE 125-02-99 reciprocating engines

Applicable Manufacturers Service Information:

Thielert Aircraft Engines GmbH Service Bulletin No. TM TAE 125-0021, Revision 1, dated August 17, 2011
Thielert Aircraft Engines GmbH Service Bulletin No. TM TAE 125-1011 P1, Revision 2, dated August 31, 2011

Summary:

We are superseding an existing airworthiness directive (AD) for Thielert Aircraft Engines GmbH (TAE) Models TAE 125-01 and TAE 125-02-99 reciprocating engines. That AD currently requires replacement of certain part numbers (P/Ns) and serial numbers (S/Ns) of clutch assemblies due to clutch failure. The failures identified above could lead to engine in-flight shutdown and loss of control of the airplane. This AD requires the same actions, but applies the corrective action to an additional 244 affected clutch assemblies. This AD was prompted by TAE identifying additional clutch assemblies with nonconforming disc springs. We are issuing this AD to correct the unsafe condition on these products.

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2010-0683; Directorate Identifier 2010-NE-25-AD; Amendment 39-16852; AD 2011-23-01]

RIN 2120-AA64

Airworthiness Directives; Thielert Aircraft Engines GmbH (TAE) Reciprocating Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are superseding an existing airworthiness directive (AD) for Thielert Aircraft Engines GmbH (TAE) Models TAE 125-01 and TAE 125-02-99 reciprocating engines. That AD currently requires replacement of certain part numbers (P/Ns) and serial numbers (S/Ns) of clutch assemblies due to clutch failure. The failures identified above could lead to engine in-flight shutdown and loss of control of the airplane. This AD requires the same actions, but applies the corrective action to an additional 244 affected clutch assemblies. This AD was prompted by TAE identifying additional clutch assemblies with nonconforming disc springs. We are issuing this AD to correct the unsafe condition on these products.

DATES: This AD becomes effective November 22, 2011.

The Director of the Federal Register approved the incorporation by reference of Thielert Aircraft Engines GmbH Service Bulletin (SB) No. TM TAE 125-0021, Revision 1, dated August 17, 2011, and SB No. TM TAE 125-1011 P1, Revision 2, dated August 31, 2011, listed in the AD as of November 22, 2011.

We must receive comments on this AD by December 22, 2011.

ADDRESSES: You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- *Fax:* (202) 493-2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m.

and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: (800) 647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT:

Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; email: alan.strom@faa.gov; phone: (781) 238-7143; fax: (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Discussion

On August 16, 2010, we issued AD 2010-18-02, Amendment 39-16415 (75 FR 52240, August 25, 2010), for certain TAE models TAE 125-01 and TAE 125-02-99 reciprocating engines. That AD resulted from reports of engine in-flight shutdowns. Preliminary investigations by TAE showed that nonconforming disc springs (improper heat treatment) used in a certain production batch of the clutch caused the shutdowns. That AD requires replacement of certain clutch assemblies. We issued that AD to prevent in-flight shutdown leading to loss of control of the airplane.

Actions Since Existing AD Was Issued

Since we issued AD 2010-18-02 (75 FR 52240, August 25, 2010), TAE identified an additional 244 affected clutch assemblies with nonconforming disc springs. The European Aviation Safety Agency (EASA) has issued AD 2011-0152-E, dated August 18, 2011, which requires replacement of additional clutch assemblies.

Relevant Service Information

We reviewed TAE SB No. TM TAE 125-0021, Revision 1, dated August 17, 2011, and SB No. TM TAE 125-1011 P1 Revision 2, dated August 31, 2011. The SBs describe procedures for removing the affected clutch assemblies from service, and contain the expanded list of serial numbers of affected clutch assemblies.

FAA's Determination

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition

described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires, for engines with affected clutch assemblies that have accumulated 100 flight hours or more, replacement of affected clutch assemblies before further flight, and for engines with affected clutch assemblies that have accumulated less than 100 flight hours, replacement of affected clutch assemblies before accumulating 100 flight hours.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because of TAE identifying 244 additional clutch assemblies with nonconforming disc springs and the need for operators to comply with some of the AD actions before further flight. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the **ADDRESSES** section. Include the docket number FAA-2010-0683; and directorate identifier 2010-NE-25-AD at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Cost of Compliance

We estimate that this AD will affect about 104 engines installed on airplanes of U.S. registry. We also estimate that it will take about 16 work-hours per engine to perform the clutch assembly

replacement. The average labor rate is \$85 per work-hour. Required parts will cost about \$1,796. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$328,224.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2010–18–02, Amendment 39–16415 (75 FR 52240, August 25, 2010), and adding the following new AD:

2011–23–01 Thielert Aircraft Engines

GmbH: Amendment 39–16852; Docket No. FAA–2010–0683; Directorate Identifier 2010–NE–25–AD.

(a) Effective Date

This AD is effective November 22, 2011.

(b) Affected ADs

This AD supersedes AD 2010–18–02, Amendment 39–16415, (75 FR 52240, August 25, 2010).

(c) Applicability

This AD applies to Thielert Aircraft Engines GmbH (TAE):

(1) TAE 125–01 reciprocating engines (commercial designation Centurion 1.7), all serial numbers (S/Ns), if a clutch assembly part number (P/N) 02–7210–11001R13 is installed, and

(2) TAE 125–02–99 reciprocating engines (commercial designation Centurion 2.0), all S/Ns, if a clutch assembly P/N 05–7211–K006001 or P/N 05–7211–K006002 is installed.

(d) Unsafe Condition

This AD was prompted by TAE identifying additional clutch assemblies that could fail with nonconforming disc springs. These failures could lead to engine in-flight shutdown and loss of control of the airplane. We are issuing this AD to correct the unsafe condition on these products.

(e) Actions and Compliance

Unless already done, do the following actions.

(1) After the effective date of this AD, for clutch assembly P/N 02–7210–11001R13, P/N 05–7211–K006001 and P/N 05–7211–K006002, with an S/N listed in TAE Service Bulletin (SB) No. TM TAE 125–0021, Revision 1, dated August 17, 2011, or SB No. TM TAE 125–1011 P1, Revision 2, dated August 31, 2011, do the following:

(i) For engines with affected clutch assemblies that have accumulated 100 flight hours or more on the effective date of this AD, replace the clutch assembly before further flight.

(ii) For engines with affected clutch assemblies that have accumulated less than 100 flight hours on the effective date of this AD, replace the clutch assembly before accumulating 100 flight hours.

(2) After the effective date of this AD:

(i) Do not install an engine having a clutch assembly that is listed by S/N in TAE SB No. TM TAE 125–0021, Revision 1, dated August

17, 2011, or SB No. TM TAE 125–1011 P1, Revision 2, dated August 31, 2011, and

(ii) Do not install any clutch assembly listed by S/N in TAE SB No. TM TAE 125–0021, Revision 1, dated August 17, 2011, or SB No. TM TAE 125–1011 P1, Revision 2, dated August 31, 2011, into any engine.

(f) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(g) Related Information

(1) Refer to MCAI EASA AD 2011–0152–E, dated August 18, 2011, for related information.

(2) Contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; *email:* alan.strom@faa.gov; *phone:* (781) 238–7143; *fax:* (781) 238–7199, for more information about this AD.

(h) Material Incorporated by Reference

(1) You must use Thielert Aircraft Engines GmbH Service Bulletin No. TM TAE 125–0021, Revision 1, dated August 17, 2011, and Service Bulletin No. TM TAE 125–1011 P1, Revision 2, dated August 31, 2011, to identify the affected clutch assemblies requiring replacement by this AD.

(2) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(3) For service information identified in this AD, contact Thielert Aircraft Engines GmbH, Platanenstrasse 14 D–09350, Lichtenstein, Germany; *phone:* +49–37204–696–0; *fax:* +49–37204–696–55; *email:* info@centurion-engines.com.

(4) You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741–6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on October 19, 2011.

Peter A. White,

*Manager, Engine and Propeller Directorate,
Aircraft Certification Service.*

[FR Doc. 2011–28672 Filed 11–4–11; 8:45 am]

BILLING CODE 4910–13–P