

## SERVICE INFORMATION NO. SI 42-132

**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 equipped with TAE engines

#### 1.2 Subject:

FAA Airworthiness Directive No. 2010-06-12  
ATA-Code: 72-00

#### 1.3 Reason:

As a consequence of occurrences and service experience, TAE has introduced a new rail pressure control valve part number (P/N) 05-7320-E000702 and P/N 02-7320-04100R3 and has amended the Airworthiness Limitation Section (ALS) of the Operation & Maintenance Manual OM-02-02 to include a replacement of the rail pressure control valve. FAA issued AD 2010-06-12 to prevent engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

#### 1.4 Information:

For detailed technical information refer to FAA AD No. 2010-06-12, which is applicable without any further additions or restrictions.

### II. OTHERS

The FAA AD No. 2010-06-12 is attached to this SI.

In case of doubt contact Thielert Aircraft Engines GmbH.

## ***Airworthiness Directive 2010-06-12 Summary***

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Subject:	To prevent engine in-flight shutdown		
Manufacturer:	Thielert	Category:	Engine
Effective Date:	04/20/2010	Recurring:	Yes
Supersedes:	N/A	Superseded By:	N/A

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For complete information on this AD, please see:

[AD 2010-06-12 FAA Copy](#)

[AD 2010-06-12 Preamble](#)

[AD 2010-06-12 CFR Copy](#)

**Model Applicability:**

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

**Applicable Manufacturers Service Information:**

None

**Summary:**

We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as: As a consequence of occurrences and service experience, Thielert Aircraft Engines GmbH has introduced a new rail pressure control valve part number (P/N) 05-7320- E000702 and P/N 02-7320-04100R3 and has amended the Airworthiness Limitation Section (ALS) of the Operation & Maintenance Manual OM-02-02 to include a replacement of the rail pressure control valve. Failure of this part could result in in-flight shutdowns of the engine(s). We are issuing this AD to prevent engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA-2009-0948; Directorate Identifier 2009-NE-30-AD; Amendment 39-16236; AD 2010-06-12]

RIN 2120-AA64

**Airworthiness Directives; Thielert Aircraft Engines GmbH (TAE) Models TAE 125-02-99 and TAE 125-01 Reciprocating Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of

another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

As a consequence of occurrences and service experience, Thielert Aircraft Engines GmbH has introduced a new rail pressure control valve part number (P/N) 05-7320-E000702 and P/N 02-7320-04100R3 and has amended the Airworthiness Limitation Section (ALS) of the Operation & Maintenance Manual OM-02-02 to include a replacement of the rail pressure control valve. Failure of this part could result in in-flight shutdowns of the engine(s).

We are issuing this AD to prevent engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

**DATES:** This AD becomes effective April 20, 2010.

**ADDRESSES:** The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

**FOR FURTHER INFORMATION CONTACT:** Tara Chaidez, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: [tara.chaidez@faa.gov](mailto:tara.chaidez@faa.gov); telephone (781) 238-7773; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the **Federal Register** on October 19, 2009 (74 FR 53438). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

As a consequence of occurrences and service experience, Thielert Aircraft Engines GmbH has introduced a new rail pressure control valve P/N 05-7320-E000702 and 02-7320-04100R3 and has amended the ALS of the Operation & Maintenance Manual OM-02-02 to include a replacement of the rail pressure control valve. Failure of this part could result in in-flight shutdowns of the engine(s).

**Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

**Conclusion**

We reviewed the available data and determined that air safety and the

public interest require adopting the AD as proposed.

**Differences Between This AD and the MCAIs or Service Information**

We have reviewed the MCAIs and related service information and, in general, agree with their substance. But we have found it necessary to reduce the initial compliance time for TAE 125-02-99 engines from within 110 flight hours to within 100 flight hours, and for TAE 125-01 engines from within the next 3 months to within 100 flight hours. We also have found it necessary to specify the repetitive replacement compliance time for the rail pressure control valve of within every 600 flight hours. The MCAIs instruct the operators to follow Thielert Maintenance Manual, Chapter 5, Airworthiness Limitations, for the repetitive compliance time, which requires replacement of the rail pressure control valve within every 600 flight hours. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

**Costs of Compliance**

Based on the service information, we estimate that this AD will affect about 370 TAE 125-01 and TAE 125-02-99 reciprocating engines installed on products of U.S. registry. We also estimate that it will take about 1.5 work-hours per engine to comply with this AD. The average labor rate is \$80 per work-hour. Required parts will cost about \$500 per engine. Based on these figures, we estimate the cost of the AD for initial replacement, on U.S. operators to be \$229,400.

**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**

We determined that 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); and
3. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

**Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office 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 Operations office (telephone (800) 647-5527) is provided in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, 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 adding the following new AD:

**2010-06-12 Thielert Aircraft Engines GmbH:** Amendment 39-16236. Docket No. FAA-2009-0948; Directorate Identifier 2009-NE-30-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective April 20, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Thielert Aircraft Engines GmbH (TAE) models TAE 125-01 and TAE 125-02-99 reciprocating engines installed in, but not limited to, Cessna 172 and (Reims-built) F172 series (EASA STC No. EASA.A.S.01527); Piper PA-28 series (EASA STC No. EASA.A.S. 01632); APEX (Robin) DR 400 series (EASA STC No. A.S.01380); and Diamond Aircraft Industries Models DA40 and DA42 airplanes.

**Reason**

(d) As a consequence of occurrences and service experience, Thielert Aircraft Engines GmbH has introduced a new rail pressure control valve part number (P/N) 05-7320-E000702 and P/N 02-7320-04100R3 and has amended the Airworthiness Limitation Section (ALS) of the Operation & Maintenance Manual OM-02-02 to include a replacement of the rail pressure control valve. Failure of this part could result in in-flight shutdowns of the engine(s).

This AD results from mandatory continuing airworthiness information (MCAIs) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. We are issuing this AD to prevent engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

**Actions and Compliance**

(e) Unless already done, do the following actions.

**TAE 125-02-99 Reciprocating Engines**

(1) For TAE 125-02-99 reciprocating engines, within 100 flight hours after the effective date of this AD, replace the existing rail pressure control valve with a rail pressure control valve P/N 05-7320-E000702, and modify the Vrail plug to make it compatible with the replacement rail pressure control valve.

(2) Guidance on the valve replacement and rail modification specified in paragraph (e)(1) of this AD can be found in Thielert Repair Manual RM-02-02, Chapter 73-10.08, and Chapter 39-40.08, respectively.

**TAE 125-01 Reciprocating Engines**

(3) For TAE 125-01 reciprocating engines, within 100 flight hours after the effective date of this AD, replace the existing rail pressure control valve with a rail pressure control valve, P/N 02-7320-04100R3.

(4) Guidance on the valve replacement specified in paragraph (e)(3) of this AD can be found in Thielert Repair Manual RM-02-01, Chapter 29.0.

**TAE 125-02-99 and TAE 125-01 Engines, Repetitive Replacements of Rail Pressure Control Valves**

(5) Thereafter, for affected TAE 125-02-99 and TAE 125-01 engines, replace the rail pressure control valve with the same P/N valve within every 600 flight hours.

**FAA AD Differences**

(f) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) and/or service information as follows:

(1) For the TAE 125-02-99 reciprocating engines, we reduced the initial compliance time from within 110 flight hours to within 100 flight hours after the effective date of this AD.

(2) For the TAE 125-01 reciprocating engines, we changed initial compliance time from within the next 3 months to within 100 flight hours after the effective date of this AD.

(3) The MCAIs instruct the operators to follow Thielert Maintenance Manual, Chapter 5, Airworthiness Limitations, for the repetitive replacement compliance time for the rail pressure control valve, which, in the manual, is 600 flight hours. We found it necessary to specify the repetitive replacement compliance time in this AD, of within every 600 flight hours.

**Alternative Methods of Compliance (AMOCs)**

(g) The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

**Related Information**

(h) Refer to MCAI European Aviation Safety Agency (EASA) AD 2008-0128, dated July 9, 2008, EASA AD 2008-0215, dated December 5, 2008, Thielert Service Bulletin No. TAE 125-1008 P1, Revision 1, dated September 29, 2008, and Thielert Repair Manual RM-02-02, for related information. 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](mailto:info@centurion-engines.com), for a copy of this service information.

(i) Contact Tara Chaidez, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: [tara.chaidez@faa.gov](mailto:tara.chaidez@faa.gov); telephone (781) 238-7773; fax (781) 238-7199, for more information about this AD.

Issued in Burlington, Massachusetts, on March 8, 2010.

**Peter A. White,**

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

[FR Doc. 2010-5548 Filed 3-15-10; 8:45 am]

**BILLING CODE 4910-13-P**