

# EMERGENCY AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

---

We post Emergency ADs on the internet at [www.faa.gov/aircraft/safety/alerts](http://www.faa.gov/aircraft/safety/alerts).

**DATE: MARCH 12, 2008**

**AD #: 2008-06-52**

This emergency airworthiness directive (AD) 2008-06-52 is sent to all owners and operators of Thielert Aircraft Engines GmbH (TAE) Model TAE 125-02-99 engines.

## **Background**

This emergency AD results from reports of in-flight engine shutdown incidents on aircraft equipped with a TAE 125-02-99 engine. This was found to be the result of a cracked high-pressure fuel line between the high-pressure pump and fuel rail. These cracks were caused by excessive vibration of the fuel line. This condition, if not corrected, could result in an in-flight engine shutdown or engine fire.

## **Explanation of Relevant Service Information**

We have reviewed TAE Service Bulletin (SB) No. TM TAE 125-1005 P1, Revision 1, dated February 11, 2008, and TAE SB No. TM TAE 125-1005 P1, Revision 2, dated March 6, 2008. The SBs describe procedures for installing a new high-pressure fuel line and a high-pressure fuel line bracket.

## **FAA's Determination and Requirements of the Rule**

We have identified an unsafe condition that is likely to exist or develop on other TAE engines of this same type design. This AD requires installing a new high-pressure fuel line and a high-pressure fuel line bracket. You must use the service information described previously to perform these actions.

## **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.

## **Determination of Rule's Effective Date**

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator, and it is effective immediately upon receipt.

**2008-06-52 Thielert Aircraft Engines GmbH:** Directorate Identifier 2008-NE-08-AD.

## **Effective Date**

(a) Emergency AD 2008-06-52, issued on March 12, 2008, is effective upon receipt.

## **Affected ADs**

(b) None.

## **Applicability**

(c) This AD applies to Thielert Aircraft Engines GmbH (TAE) model TAE 125-02-99 engines with a serial number (SN) from 02-02-1500 through 02-02-2279. These engines are installed on, but not limited to, Cessna 172 and (Reims-built) F172 series (STC No. SA01303WI); and Diamond DA42 airplanes.

## **Unsafe Condition**

(d) This AD results from reports of in-flight engine shutdown incidents on aircraft equipped with a TAE 125-02-99 engine. This was found to be the result of a cracked high-pressure fuel line between the high-pressure pump and fuel rail. These cracks were caused by excessive vibration of the fuel line. We are issuing this AD to prevent an in-flight engine shutdown or engine fire due to a cracked fuel line.

## **Compliance**

(e) You are responsible for having the actions required by this AD performed before the next flight after the effective date of this AD, unless the actions have already been done.

## **Corrective Action**

(f) Before the next flight, install a new high-pressure fuel line and a high-pressure fuel line bracket using TAE Service Bulletin (SB) No. TM TAE 125-1005 P1, Revision 2, dated March 6, 2008, or TAE SB No. TM TAE 125-1005 P1, Revision 1, dated February 11, 2008.

## **Alternative Methods of Compliance**

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

## **Special Flight Permits**

(h) We are limiting special flight permits to relocating the airplane to the next maintenance station, to a maximum flight duration of 2 hours, and to VFR.

**Related Information**

(i) EASA Emergency Airworthiness Directive (EAD) No. 2008-0056-E, dated March 7, 2008, EASA EAD No. 2008-0056R1-E, dated March 11, 2008, and EASA EAD No. 2008-0027-E, dated February 13, 2008, also address the subject of this AD.

**Contact Information**

(j) For further information, contact: Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: [jason.yang@faa.gov](mailto:jason.yang@faa.gov); telephone: (781) 238-7747; fax: (781) 238-7199.

Issued in Burlington, Massachusetts, on March 12, 2008.

Robert J. Ganley,  
Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.