

**2010-18-02 Thielert Aircraft Engines GmbH:** Amendment 39-16415.; Docket No. FAA-2010-0683; Directorate Identifier 2010-NE-25-AD.

### **Effective Date**

(a) This airworthiness directive (AD) becomes effective September 9, 2010.

### **Affected ADs**

(b) None.

### **Applicability**

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

(1) TAE 125-01 reciprocating engines (commercial designation Centurion 1.7), all serial numbers, 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 serial numbers, if a clutch assembly P/N 05- 7211-K006001 or P/N 05-7211-K006002 is installed.

(3) These engines are installed on, but not limited to, Cessna 172 and (Reims-built) F172 series (European Aviation Safety Agency (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) In-flight shutdown incidents have been reported on airplanes equipped with TAE 125 engines. Preliminary investigations showed that it was mainly the result of nonconforming disc springs (improper heat treatment) used in a certain production batch of the clutch.

We are issuing this AD to prevent engine in-flight shutdown leading to loss of control of the airplane.

### **Actions and Compliance**

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

(1) Before next flight after the effective date of this AD, identify the serial number (S/N) of each P/N 02-7210-11001R13, P/N 05-7211-K006001, and P/N 05-7211-K006002 clutch assembly installed on the airplane. If the S/N matches one of those listed in Thielert Aircraft Engines GmbH Service Bulletin (SB) No. TM TAE 125-0021, dated June 9, 2010, or SB No. TM TAE 125-1011 P1, dated June 9, 2010, as applicable to engine model, replace the clutch assembly within the following compliance times:

(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.

### **Clutch Assembly Prohibition**

(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 Thielert Aircraft Engines GmbH Service Bulletin (SB) No. TM TAE 125-0021, dated June 9, 2010, or SB No. TM TAE 125-1011 P1, dated June 9, 2010; and

(ii) Do not install any clutch assembly listed by S/N in Thielert Aircraft Engines GmbH Service Bulletin (SB) No. TM TAE 125-0021, dated June 9, 2010, or SB No. TM TAE 125-1011 P1, dated June 9, 2010, into any engine.

### **FAA AD Differences**

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

(1) EASA AD 2010-0111-E, dated June 10, 2010 (corrected June 11, 2010) has separate compliance times for engines installed on twin-engine airplanes. This AD does not.

(2) EASA AD 2010-0111-E, dated June 10, 2010 (corrected June 11, 2010) allows a single ferry flight with conditions. This AD does not.

### **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 EASA AD 2010-0111-E, dated June 10, 2010 (corrected June 11, 2010), for related information.

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

### **Material Incorporated by Reference**

(j) You must use Thielert Aircraft Engines GmbH Service Bulletin No. TM TAE 125-0021, dated June 9, 2010, or SB No. TM TAE 125-1011 P1, also dated June 9, 2010, to identify the affected clutch assemblies requiring replacement by this AD.

(1) 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.

(2) For service information identified in this AD, 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).

(3) 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>.