

SERVICE INFORMATION NO. SI D4-147

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 40 D airplanes equipped with TAE 125-02-99 engine

1.2 Subject:

TM TAE 125-1013 P1, Initial Issue – Friction Disc
EASA AD 2011-0087-E
ATA-Code: 72-10

1.3 Reason:

Thielert Aircraft Engines have issued Service Bulletin TM TAE 125-1013 P1, Initial Issue prescribing replacement of a certain part number of the clutch friction disc due to possible misalignment.

Depending on the time since new of the friction disc replacement may be necessary within the next 10 flight hours.

EASA has issued Emergency Airworthiness Directive 2011-0087-E covering TM TAE 125-1013 P1, Initial Issue.

1.4 Information:

For detailed technical information refer to Thielert Aircraft Engines Service Bulletin TM TAE 125-1013 P1, Initial Issue and EASA Emergency Airworthiness Directive 2011-0087-E which are applicable without any further additions or restrictions.

II. OTHERS

Thielert Aircraft Engines Service Bulletin TM TAE 125-1013 P1, Initial Issue and EASA Emergency Airworthiness Directive 2011-0087-E are attached to this Service Information.

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



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TM TAE 125-1013 P1; Initial Issue

Technische Mitteilung / Service Bulletin

PRIORITY 1 – Safety

**Technische Mitteilung
Nr. / Datum:** TM TAE 125-1013 P1, Initial Issue / 10.05.2011

**Service Bulletin No. /
Date:** TM TAE 125-1013 P1, Initial Issue / May 10, 2011

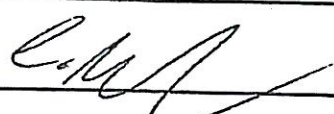
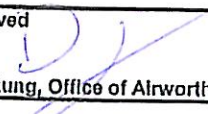
**Betrifft:
Subject:** Reibscheibe
Friction Disk

**Betroffenes
Luftfahrtgerät:
Type affected:** TAE 125-02-99 (CENTURION 2.0), TAE 125-02-114 (CENTURION 2.0S)
TAE 125-02-99 (CENTURION 2.0), TAE 125-02-114 (CENTURION 2.0S)

Betroffene Geräte-Nr.: ZSB Kupplung P/N 05-7211-K009404 und P/N 05-7211-K009405 mit
Reibscheibe P/N 05-7211-K010201 installiert.

Models affected: Clutch assy P/N 05-7211-K009404 and P/N 05-7211-K009405 with friction
disk P/N 05-7211-K010201 installed

**Einstufung:
Classification:** Kategorie P1 – Sicherheit
Category P1 – Safety

Checked C. Rudolph, CVE 	Approved D. Hartung, Office of Airworthiness 
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Ausführung bis:**Einmotorige Installationen**

TSN Reibscheibe bis 100 Std.:
Mit der nächsten Wartung durchzuführen.

TSN Reibscheibe über 100 Std.:
Innerhalb der nächsten 10 Flugstunden oder mit der nächsten Wartung,
maßgebend ist das ersteintreffende Ereignis.

Zweimotorige Installationen

Wenn eine Reibscheibe der Installation betroffen ist: -
Mit der nächsten 300 Std. Wartung durchzuführen.

Wenn beide Reibscheiben der Installation betroffen sind:

TSN Reibscheibe bis 100 Std.:
Bei einem der Triebwerke mit der nächsten Wartung durchzuführen.
Beim zweiten Triebwerk mit der nächsten 300 Std. Wartung.

TSN Reibscheibe über 100 Std.:
Bei einem der Triebwerke innerhalb der nächsten 10 Flugstunden oder mit
der nächsten Wartung, maßgebend ist das ersteintreffende Ereignis.
Beim zweiten Triebwerk mit der nächsten 300 Std. Wartung.

Time of Compliance:**Single engine installation:**

*TSN Friction Disk up to 100 hrs:
With the next maintenance.*

*TSN Friction Disk above 100 hrs:
Within the next 10 flight hours or with the next maintenance, whichever
occurs first.*

Twin engine installation:

*If one friction disk of the installation is affected:
With the next 300 hrs maintenance event.*

If both friction disks of the installation are affected:

*TSN Friction Disk up to 100 hrs:
At one engine with the next maintenance event.
At the second engine with the next 300 hrs maintenance event.*

*TSN Friction Disk above 100 hrs:
At one engine within the next 10 flight hours or with the next maintenance
event, whichever occurs first.
At the second engine with the next 300 hrs maintenance event.*

Grund:

Mögliches Versagen der Kupplung aufgrund von möglicher Dezentrierung.

Reason:

Potential clutch failure, due to potential misalignment.

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Maßnahmen:

1. Die Reibscheibe gemäß dem aktuellen Reparaturhandbuch RM-02-02, Kapitel 72-10.14 austauschen.

Correction:

1. *Replace the friction disk in accordance with the current Repair Manual RM-02-02, Chapter 72-10.14.*

Bemerkungen:**Arbeitsaufwand:**

Gemäß der aktuellen labor allowance list.

Gutschreibung:

Auf Grundlage der aktuellen veröffentlichten Laufzeit des betroffenen Bauteils (gemäß OM-02-02, Kapitel 5 und 6) werden die Bauteilkosten und der Arbeitsaufwand für die nicht genutzte Laufzeit gutgeschrieben.

Remarks:**Labor Effort:**

In accordance with the current labor allowance list

Credit:

Based on the current published service time of the affected part(s) (refer to OM-02-02, Chapter 5 and 6) the remaining useful service time will be credited for part(s) and labor effort.

Teile:**Parts:**

Teile Nummer / Part Number	Beschreibung / Description	Menge / Quantity
05-7211-K012301	Reibscheibe / Friction Disk	1

Zulassung:

Die technischen Informationen, die in diesem Dokument enthalten sind, wurden im Rahmen der Befugnisse der EASA- Genehmigung als Entwicklungsbetrieb Nr. EASA.21J.010 genehmigt.

Approval:


The technical information contained in this document has been approved under the authority of EASA design Organisation Approval No. EASA.21J.010.

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EASA	EMERGENCY AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2011-0087-E</p> <p>Date: 12 May 2011</p> <p>Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation</p>	
<p>This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>		
<p>Type Approval Holder's Name : Thielert Aircraft Engines GmbH</p>	<p>Type/Model designation(s) : TAE 125 engines</p>	
<p>TCDS Number : EASA.E.055</p>		
<p>Foreign AD : Not applicable</p>		
<p>Supersedure : None</p>		
<p>ATA 72</p>	<p>Engine – Friction Disk – Replacement</p>	
<p>Manufacturer(s):</p>	<p>Thielert Aircraft Engines GmbH</p>	
<p>Applicability:</p>	<p>TAE 125-02-99 (commercial designation Centurion 2.0) and TAE 125-02-114 (commercial designation Centurion 2.0S), all serial numbers.</p> <p>These engines are known to be installed on, but not limited to, the following aeroplane types, mostly through application of a Supplemental Type Certificate (STC):</p> <ul style="list-style-type: none"> - Cessna 172 and (Reims-built) F172 series (STC EASA.A.S.01527), - Piper PA-28 series (STC EASA.A.S.01632), - CEAPR (APEX, Robin) DR 400 series (STC EASA.A.S.01380), and - Diamond DA 40 and DA 42 series. 	
<p>Reason:</p>	<p>In-flight engine shutdown incidents have been reported on aeroplanes equipped with TAE 125 engines.</p> <p>Preliminary investigations showed that it was mainly the result of the sensitivity of friction disk Part Number (P/N) 05-7211-K010201 against possible misalignment of gearbox and core engine during assembly.</p> <p>This condition, if not corrected, could result in further cases of engine in-flight shutdown and consequent loss of control of the aeroplane.</p> <p>To address this unsafe condition, Thielert Aircraft Engines GmbH have developed a new friction disk.</p> <p>For the reasons described above, this AD requires replacement of affected friction disk(s) by new friction disk P/N 05-7211-K012301.</p>	
<p>Effective Date:</p>	<p>16 May 2011</p>	

<p>Required Action(s) and Compliance Time(s):</p>	<p>Required as indicated, unless accomplished previously:</p> <p>(1) Within the compliance time(s) indicated in table 1 and 2 of this AD, depending on aeroplane and clutch installed on engine(s) configuration, as applicable, replace the friction disk(s) P/N 05-7211-K010201 with P/N 05-7211-K012301 in accordance with the instructions of Thielert Aircraft Engines (TAE) Service Bulletin (SB) TM TAE 125-0013 P1.</p> <p style="text-align: center;">Table 1 – Single engine aeroplanes</p> <table border="1" data-bbox="558 481 1455 824"> <thead> <tr> <th data-bbox="558 481 973 600">Flight Hours (FH) accumulated by the clutch at the effective date of this AD</th> <th data-bbox="976 481 1455 600">Compliance time for friction disk replacement</th> </tr> </thead> <tbody> <tr> <td data-bbox="558 604 973 694">100 FH or more</td> <td data-bbox="976 604 1455 694">Within 10 FH after the effective date of this AD</td> </tr> <tr> <td data-bbox="558 698 973 824">Less than 100 FH</td> <td data-bbox="976 698 1455 824">Upon accumulating 100 FH or within 10 FH after the effective date of this AD, whichever occurs later</td> </tr> </tbody> </table> <p style="text-align: center;">Table 2 – Twin engine aeroplanes</p> <table border="1" data-bbox="558 929 1455 1585"> <thead> <tr> <th data-bbox="558 929 973 1048">Engines configuration and FH accumulated by the clutches at the effective date of this AD</th> <th data-bbox="976 929 1455 1048">Compliance time for friction disk(s) replacement</th> </tr> </thead> <tbody> <tr> <td data-bbox="558 1052 973 1182">Only one of the 2 clutches affected, irrespective of FH accumulated</td> <td data-bbox="976 1052 1455 1182">Upon accumulating 300 FH by the clutch</td> </tr> <tr> <td data-bbox="558 1187 973 1366">2 clutches are affected and both clutches have accumulated more than 100 FH</td> <td data-bbox="976 1187 1455 1366">Within 10 FH after the effective date of this AD for the clutch that has accumulated more FH, and upon accumulating 300 FH for the other clutch</td> </tr> <tr> <td data-bbox="558 1370 973 1585">2 clutches are affected and one of the two clutches has accumulated less than 100 FH</td> <td data-bbox="976 1370 1455 1585">Upon accumulating 100 FH or within the next 10 FH after the effective date of this AD, whichever occurs later, for the clutch that has accumulated more FH, and upon accumulating 300 FH for the other clutch</td> </tr> </tbody> </table> <p>(2) After modification of an engine as required by paragraph (1) of this AD, do not install a friction disk P/N 05-7211-K010201 on that engine.</p> <p>(3) From the effective date of this AD, do not install a TAE 125-02-99 or TAE 125-02-114 engine equipped with a friction disk P/N 05-7211-K010201 on an aeroplane.</p>	Flight Hours (FH) accumulated by the clutch at the effective date of this AD	Compliance time for friction disk replacement	100 FH or more	Within 10 FH after the effective date of this AD	Less than 100 FH	Upon accumulating 100 FH or within 10 FH after the effective date of this AD, whichever occurs later	Engines configuration and FH accumulated by the clutches at the effective date of this AD	Compliance time for friction disk(s) replacement	Only one of the 2 clutches affected, irrespective of FH accumulated	Upon accumulating 300 FH by the clutch	2 clutches are affected and both clutches have accumulated more than 100 FH	Within 10 FH after the effective date of this AD for the clutch that has accumulated more FH, and upon accumulating 300 FH for the other clutch	2 clutches are affected and one of the two clutches has accumulated less than 100 FH	Upon accumulating 100 FH or within the next 10 FH after the effective date of this AD, whichever occurs later, for the clutch that has accumulated more FH, and upon accumulating 300 FH for the other clutch
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<p>Ref. Publications:</p>	<p>Thielert Aircraft Engines GmbH Service Bulletin TM TAE 125-1013 P1 dated 10 May 2011.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>														
<p>Remarks :</p>	<p>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</p>														

	<ol style="list-style-type: none">2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification.3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.4. For any question concerning the technical content of the requirements in this AD, please contact: Thielert Aircraft Engines, Platanenstraße 14, D-09350 Lichtenstein, Federal Republic Germany; telephone +49-37204-696-0; fax +49-37204-696- 2912; E-mail info@centurion-engines.com
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