



**Airworthiness
Directive**
D-2004-457R2

Luffahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
G E R M A N Y

This Airworthiness Directive supersedes the Airworthiness Directives 2004-457R1 of 31 January 2005

Thielert Aircraft Engines

Effective Date: 31 March 2005

Affected:

Kind of aeronautical product:	Aircraft Engine
Manufacturer:	Thielert Aircraft Engines GmbH, Platanenstrasse, Lichtenstein, Germany
Type:	TAE125
Models affected:	TAE125-01
Serial Numbers affected:	All
German Type Certificate No.:	4631

Subject:

In-flight engine failure in case of a failure of the electrical aircraft power supply.

Reason:

In the scope of tests of the electrical system conducted by the engine manufacturer it was found that in case of a failure of the battery line, of the battery relay or of the battery the engine may fail. It has been established that the reason for this failure was an electrical malfunction of the alternator.

The actions specified in this Airworthiness Directive are intended to prevent an in-flight engine failure in case of a failure of the electrical aircraft power supply, which could result in an emergency landing or loss of power of the aircraft.

Action:

The following actions are required by this airworthiness directive:

1. One of the following modifications of the electrical power supply has to be performed:
 - a) The alternator 02-7150-55002R2 has to be replaced by alternator 02-7150-55002R3. Refer to the appropriate instructions of the aircraft manufacturer or holder of the supplemental type certificate respectively or
 - b) In existing installations the alternator 02-7150-55002R2 has to be replaced by alternator set 02-7150-55008R1 "Set Alternator 14V DAI with ALTREG FF" for Diamond installations and by alternator set 02-7150-55016R1 "Set Alternator 14V with ALTREG FFL" for all other installations.
For new aircrafts the following alternator sets must be used:
02-7150-55800R1 "Set Alternator 14V DAI with ALTREG" for new Diamond installations and 02-7150-55018R1 "Set Alternator 14V with ALTREG" for all other installations.
Refer to the appropriate instructions of the aircraft manufacturer or holder of the supplemental type certificate respectively.
or
 - c) A stabilising capacitor has to be installed. Refer to the appropriate instructions of the aircraft manufacturer or holder of the supplemental type certificate respectively.
2. The actual capacity of the aircraft battery has to be checked according to Gill manual „Aircraft battery service manual“ (Gill Document Number: Q01-1120) Chapter 7.7 continued airworthiness determination for GILL aircraft batteries.

All mentioned actions must be accomplished in accordance with the referenced manufacturer service bulletin.

Compliance:

All compliance times of the mentioned actions have to be in compliance with the referenced manufacturer service bulletin.

Technical publication of the manufacturer:

Thielert Service Bulletin No. TM TAE 125-0008, Revision 2, of 04 February 2005. This Service Bulletin becomes herewith part of this AD and may be obtained from:

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EASA-Approval

Approved by EASA under Approval-No. 2005-1968 on 24 February 2005