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# TYPE-CERTIFICATE DATA SHEET

No. E.019

**for**

TAE 110 series engines

**Type Certificate Holder**

Continental Aerospace Technologies GmbH  
Platanenstr. 14  
D-09356 Sankt Egidien  
Germany

For Models:

TAE 110-01



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## **I. General**

### **1. Type/ Model/ Variants**

TAE 110 / TAE 110-01

### **2. Type Certificate Holder**

Continental Aerospace Technologies GmbH  
Platanenstr. 14  
D-09356 Sankt Egidien  
Germany

DOA EASA.21J.010

### **3. Manufacturer**

Continental Aerospace Technologies GmbH

POA DE.21G.0269

Previous Manufacturers:  
Technify Motors GmbH (19 August 2013 to 31 July 2019)  
Thielert Aircraft Engines GmbH (before 19 August 2013)

### **4. Date of Application**

TAE 110-01			
13 Sept. 1999			

Note: Application for TAE 110-01 had been made to JAA before EASA was established.

### **5. EASA Type Certification Date**

TAE 110-01			
08 March 2001			

Note: TAE 110-01 had been certified by LBA Germany (TC/TCDS 4628) prior to EASA existence.  
This TCDS replaces LBA TCDS No 4628.  
Transfer date to EASA Type Certificate: 19 August 2013

## **II. Certification Basis**

### **1. EASA Certification Basis**

#### **1.1. Airworthiness Standards**

JAR-22, Change 5, Subpart H



## 1.2. Special Conditions (SC)

SC1 Electronic Engine Control System  
SC2 Equipment with High Energy Rotors

## 1.3. Equivalent Safety Findings

none

## 1.4. Deviations

none

## 1.5. Environmental Protection

none (not required for piston engines)

## III. Technical Characteristics

### 1. Type Design Definition

TDD 01-01, issue 2 dated 06 December 2000 or later approved revision

### 2. Description

The TAE 110 engine is a 4-cylinder, four stroke Diesel piston engine with an displacement of 1689 cm<sup>3</sup>, equipped with common rail high pressure direct injection, turbocharger, gearbox with reduction ratio of 1:1.4138, and FADEC.

### 3. Equipment

See Installation Manual.

### 4. Dimensions

Overall Length:	650 mm
Overall Height:	580 mm
Width:	740 mm

### 5. Dry Weight

141 kg

### 6. Ratings

Max. Takeoff (5 min.):	81 kW at 3675 rpm
Maximum Continuous:	66 kW at 3400 rpm

Note : The performance values specified above correspond to minimum values defined under the conditions of ICAO or ARDC standard atmosphere.



## 7. Control System

The engine is equipped with a Full Authority Digital Engine Control (FADEC).  
EEC P/N 01-7610-5500102 or later approved standard.

Software: TAE-110 ECU v.3.00 or later approved standard  
Software verified to level C according to RTCA Document DO-178B.

## 8. Fluids (Fuel, Oil, Coolant, Additives)

See Operation & Maintenance Manual for approved fluids.

## 9. Aircraft Accessory Drives

There are no provisions for customer/aircraft furnished equipment.

## IV. Operating Limitations

### 1. Temperature Limits

Max. Oil Temperature:	140°C
Max. EGT:	790°C
Max. Intake Air Temperature (after the turbocharger):	100°C
Max. Cooling Fluid Temperature:	105°C
Min. opening up Fuel Temperature:	-5°C (see OM 01-01)

### 2. Speed Limits

Maximum Engine Overspeed (Crankshaft Speed):	3675 rpm
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### 3. Pressure Limits

Minimum Fuel Pressure (at inlet of LP engine pump):	400 mbar
Minimum Oil Pressure:	1.0 bar
Oil Pressure (normal operation):	1.2 ... 5.0 bar
Maximum Oil Pressure (for cold start, max. up to 20 sec):	6.5 bar

### 4. Time Limited Dispatch (TLD)

The engine is not approved for Time Limited Dispatch.



## **V. Operating and Service Instructions**

- |   |   |
|---|---|
| 1. Installation Manual:                   | IM 01-01                                |
| 2. Maintenance Manual:                    | Operation & Maintenance Manual OM 01-01 |
| 3. Service Bulletins and Service Letters: | As Required                             |

## **VI. Notes**

- Note 1: The Engine/Propeller combination must be approved as part of the aircraft type certification upon compliance with the applicable airworthiness requirements.  
The TAE 110-01 engine is approved for installation in VLA and powered gliders only.
- Note 2: For the TAE 110 engine a recommended engine life has been established. The Time Between Replacement (TBR) is published in chapter 7 of the Operation & Maintenance Manual.
- Note 3: The engine control system has been tested according to DO-160D for lightning protection and magnetic interference. The demonstrated levels are declared in the Installation Manual.
- Note 4: Overhaul is not permitted.
- Note 5: Installation Assumptions: See Installation Manual
- Note 6: The engine is approved for Diesel fuel according to EN590.  
However, the cloud point (CFPP) of this type of fuel is regulated by national appendixes to the EN590 standard and varies between the countries and the time of the year. Therefore, the installation of a fuel tank thermometer is required as well as a minimum engine starting temperature is defined (refer to Installation Manual IM 01-01, Chapter 4.6).
- Note 7: The EEC must not be installed in a dedicated fire zone. The installation conditions are defined in the Installation Manual.



## **SECTION: ADMINISTRATIVE**

### **I. Acronyms and Abbreviations**

n/a

### **II. Type Certificate Holder Record**

Continental Aerospace Technologies GmbH  
Platanenstr. 14  
D-09356 Sankt Egidien  
Germany

DOA EASA.21J.010

Previous TC Holders:

19 August 2019 to 31 July 2019:  
Technify Motors GmbH  
Platanenstr. 14  
D-09356 Sankt Egidien  
Germany

before 19 August 2013:  
Thielert Aircraft Engines GmbH  
Platanenstr. 14  
D-09350 Lichtenstein  
Germany

### **III. Change Record**

<b>Issue</b>	<b>Date</b>	<b>Changes</b>	<b>TC issue</b>
Issue 1	19 August 2013	Initial version	19 August 2013
Issue 2	02 December 2019	Name Change of TC Holder /Manufacturer	02 December 2019

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