



SUPPLEMENTAL TYPE CERTIFICATE

10014287, REV. 6

This Supplemental Type Certificate 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 and in accordance with Commission Regulation (EC) No. 1702/2003 to

**Thielert Aircraft Engines GmbH
Platanenstrasse 14
09530 LICHTENSTEIN
GERMANY**

and certifies that the change in the type design for the product listed below with the limitations and conditions specified meets the applicable Type Certification Basis and environmental protection requirements when operated within the conditions and limitations specified below:

Original Product TC Number: FAA TC 3A12 AND A4EU
TC Holder: CESSNA AIRCRAFT COMPANY
Model: 172F, 172G, 172H, 172I, 172K,
Model: 172L, 172M, 172N, 172P, 172R
Model: 172S
Model: F 172F, F 172G, F 172H
Model: F 172K, F 172L, F 172M, F 172N
Model: F 172P
Original STC Number: LBA EMZ SA1295

EASA Certification Basis:

The Certification Basis for the original product and the following additional or alternative airworthiness requirements are applicable to this certificate/ approval.

JAR 23, Amendment 1 (not required by 21A.101, elected to comply by applicant).

This certificate/ approval involves a change to the certificated noise and/ or emissions levels.

Description of Design Change:

Major Change to STC EASA.A.S.01527, Revision 5:

1. Installation of engine TAE 125-01 in accordance with Installation Manual IM-20-01 and Type Design Definition Doc. No: TDD-20-01;
2. Installation of engine TAE 125-02-99 in accordance with Installation Manual IM-20-02 and Type Design Definition Doc. No: TDD-20-02

See Continuation Sheet(s)

For the European Aviation Safety Agency,

Date of issue: 21.05.2010

**Paul HATTON
Project Certification Manager
General Aviation**

Note:

The following numbers are listed on the certificate:
EASA old Project Number: EASA.A.S.01527, REV. 6

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3. Installation of engine TAE 125-02-114 incl. installation of FADEC Backup Battery and withdrawal of MTOW reduction for C172S in accordance with Installation Manual IM-20-02 and Type Design Definition Document No: TDD-20-02
4. Installation of a FADEC Backup Battery for aircraft equipped with TAE 125-01 or TAE 125-02-99 engine installation.
5. Definition Document No: TDD-20-02
Configuration update TAE 125 02 114 engine installation including the following modifications:
TAE design change 20-0227 (exhaust system)
TAE design change 20-0241 (FADEC Mapping)
TAE design change 20-0242 (air inlet fuel cooler)

Associated Technical Documentation:

Instructions for operation:

Cessna (F) 172-N, -P with TAE 125-01 installation:

- Anhang Flughandbuch für (Reims) Cessna (F) 172 N & P mit TAE 125 Installation, TAENr: 20-0310-20011, Ausgabe 1, LBA anerkannt am 31.10.2002 oder jede spätere LBA/EASA-anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F) 172 N & P equipped with TAE 125 installation, TAE-No: 20-0310-20021, Issue 1, LBA approved on October 31, 2002 or later LBA/EASA-approved issue.

Cessna (F) 172-N, -P with TAE 125-01 or TAE 125-02-99 installation:

- Anhang Flughandbuch für (Reims) Cessna (F) 172 N & P mit TAE 125 Installation, TAENr: 20-0310-20012 Ausgabe 2, Änderung 1, LBA anerkannt am 21.08.2006 oder jede spätere LBA/EASA-anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F) 172 N & P equipped with TAE 125 installation, TAE-No: 20-0310-20022 Issue 2, Revision 1, LBA approved on August 21, 2006 or later LBA/EASA-approved issue.

Cessna 172-R, -S with TAE 125-01 installation:

- Anhang Flughandbuch für Cessna 172 R&S mit TAE 125 Installation, TAE-Nr. 20-0310-22011 Ausgabe 1, LBA anerkannt am 18.12.2003 oder jede spätere LBA/EASA-anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the Cessna 172 R&S equipped with TAE 125 Installation, TAE-No. 20-0310-22021 Issue 1, LBA approved on December 18, 2003 or later LBA/EASA-approved issue.

Cessna 172-R, -S with TAE 125-01 or TAE 125-02-99 installation:

- Anhang Flughandbuch für Cessna 172 R&S mit TAE 125 Installation, TAE-Nr. 20-0310-22012, Ausgabe 2, LBA anerkannt am 21.08.2006 oder jede spätere LBA/EASA-anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the Cessna 172 R&S equipped with TAE 125 installation, TAE-No: 20-0310-22022, Issue 2, LBA approved on August 21, 2006 or later LBA/EASA-approved issue.

Cessna 172-F, -G, -H, -I, -K, -L, -M with TAE 125-01 installation;

Cessna F 172-F, -G, -H, -K, -L, -M with TAE 125-01 installation:

- Anhang Flughandbuch für (Reims) Cessna (F)172F, G, H, I, K, L, M mit TAE 125 Installation; TAE-Nr: 20-0310-21012, Ausgabe 2 oder jede spätere LBA/EASA-anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F)172F, G, H, I, K, L, M equipped with TAE 125 installation; TAE-No: 20-0310-21022, Issue 2 or later LBA/EASA-approved issue.

Cessna 172-F, -G, -H, -I, -K, -L, -M with TAE 125-01 or TAE 125-02-99 installation;

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Cessna F 172-F, -G, -H, -K, -L, -M with TAE 125-01 or TAE 125-02-99 installation:

- Anhang Flughandbuch für (Reims) Cessna (F)172F, G, H, I, K, L, M mit TAE 125 Installation; TAE-Nr: 20-0310-21012, Ausgabe 2, Änderung 2, LBA anerkannt am 21.08.2006 oder jede spätere LBA/EASA-anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F)172F, G, H, I, K, L, M equipped with TAE 125 installation; TAE-No: 20-0310-21022, Issue 2, Revision 2, LBA approved on August 21, 2006 or later LBA/EASA-approved issue.

Cessna 172-F, -G, -H, -I, -K, -L, -M with TAE 125-02-114 installation; Cessna F 172-F, -G, -H, -K, -L, -M with TAE 125-02-114 installation:

- Anhang Flughandbuch für (Reims) Cessna (F)172F, G, H, I, K, L, M mit TAE 125-02-114 Installation; TAE-Nr: 20-0310-21112, Ausgabe 2 oder jede spätere anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F)172F, G, H, I, K, L, M equipped with TAE 125-02-114 installation; TAE-No: 20-0310-21122, Issue 2, or later approved issue.

Cessna (F)172-N, -P with TAE 125-02-114 installation;

- Anhang Flughandbuch für (Reims) Cessna (F)172N & P mit TAE 125-02-114 Installation; TAE-Nr: 20-0310-20112, Ausgabe 2 oder jede spätere anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F)172N & P equipped with TAE 125-02-114 installation; TAE-No: 20-0310-20122, Issue 2, or later approved issue.

Cessna 172-R, -S with TAE 125-02-114 installation;

- Anhang Flughandbuch für Cessna 172R & S mit TAE 125-02-114 Installation; TAE-Nr: 20-0310-22112, Ausgabe 2 oder jede spätere anerkannte Ausgabe.

- Supplement Pilot's Operating Handbook for the Cessna 172R & S equipped with TAE 125-02-114 installation; TAE-No: 20-0310-22122, Issue 2, or later approved issue.

Cessna 172-F, -G, -H, -I, -K, -L, -M with TAE 125-01 or TAE 125-02-99 installation with FADEC backup battery installed; Cessna F 172-F, -G, -H, -K, -L, -M with TAE 125-01 or TAE 125-02-99 installation with FADEC backup battery installed:

- Anhang Flughandbuch für (Reims) Cessna (F)172F, G, H, I, K, L, M mit TAE 125 Installation; TAE-Nr: 20-0310-21012, Ausgabe 2, Änderung 3 or later approved issue.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F)172F, G, H, I, K, L, M equipped with TAE 125 installation; TAE-No: 20-0310-21022, Issue 2, Revision 3, or later approved issue.

Cessna (F) 172-N, -P with TAE 125-01 or TAE 125-02-99 installation with FADEC backup battery installed:

- Anhang Flughandbuch für (Reims) Cessna (F) 172 N & P mit TAE 125 Installation, TAENr: 20-0310-20012 Ausgabe 2, Änderung 2, or later approved issue.

- Supplement Pilot's Operating Handbook for the (Reims) Cessna (F) 172 N & P equipped with TAE 125 installation, TAE-No: 20-0310-20022 Issue 2, Revision 2, or later approved issue.

Cessna 172-R, -S with TAE 125-01 or TAE 125-02-99 installation with FADEC backup battery installed:

- Anhang Flughandbuch für Cessna 172 R&S mit TAE 125 Installation, TAE-Nr. 20-0310-22012, Ausgabe 2, Änderung 1, or later approved issue.

- Supplement Pilot's Operating Handbook for the Cessna 172 R&S equipped with TAE 125 installation, TAE-No: 20-0310-22022, Issue 2, Revision 1, or later approved issue.

Instructions for maintenance and inspection:

If engine TAE 125-01 is installed:

- Supplement Aircraft Maintenance Manual AMM-20-01

- Installation Manual IM 20-01

- Operation & Maintenance Manual TAE 125-01, OM-02-01

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If engine TAE 125-02-99 is installed:

- Supplement Aircraft Maintenance Manual AMM-20-02
- Installation Manual IM-20-02
- Operation & Maintenance Manual TAE 125-02 OM-02-02

If engine TAE 125-02-114 is installed:

- Supplement Aircraft Maintenance Manual AMM-20-02 Issue 2 or later approved issue
- Installation Manual IM-20-02 Issue 2 or later approved issue
- Operation & Maintenance Manual TAE 125-02 OM-02-02 in connection with instructions for the unchanged type.

To reference see Service Bulletin TM TAE 000-0004 latest issue.

or later revisions of the above listed documents approved by EASA

Limitations:

This STC supersedes LBA-EMZ SA 1295

Power/Rotational speed TAE 125-01 & TAE 125-02-99:

Take off power: 99 kw at 2300 min⁻¹ (Propellerspeed)

Max. continuous power: 99 kw at 2300 min⁻¹ (Propellerspeed)

Fuel: Service Bulletin TM TAE 601-0005

MTOW: Model Cessna 172S reduced to 1111 kg

Power/Rotational speed TAE 125-02-114:

Take off power: 114 kw at 2300 min⁻¹ (Propellerspeed)

Max. continuous power: 114 kw at 2300 min⁻¹ (Propellerspeed)

Fuel: Service Bulletin TM TAE 601-0005

This STC is approved only for the product configuration as defined in the approved design data referred to in the paragraph "Description". Compatibility with other aircraft/engine configurations shall be determined by the installer.

Conditions:

Prior to installation of this modification the installer must determine that the interrelationship between this modification and any other previously installed modification will introduce no adverse effect upon the airworthiness of the product.

This Certificate shall remain valid unless otherwise surrendered or revoked.

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