

Airworthiness Directive Schedule

Engines

Continental Aerospace Technologies TAE 125-01 and TAE 125-02 Series

28 January 2021

- Notes:**
1. This AD schedule is applicable to Continental Aerospace Technologies GmbH TAE 125-01 engines and TAE 125-02 series engines (previously Technify Motors GmbH (TMG) Aircraft Engines and Thielert Aircraft Engines - TAE) manufactured under the following EASA Type Certificate Numbers:

Engines Model:	Type Certificate Number:
TAE 125-01	EASA Type Certificate No. E.055
TAE 125-02-99	EASA Type Certificate No. E.055
TAE 125-02-114	EASA Type Certificate No. E.055
TAE 125-02-114P	EASA Type Certificate No. E.055
TAE 125-02-125	EASA Type Certificate No. E.055

2. The European Aviation Safety Agency (EASA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these engines. State of Design ADs can be obtained directly from the EASA website at <http://ad.easa.europa.eu/>
3. The date above indicates the amendment date of this schedule.
4. New or amended ADs are shown with an asterisk *

Contents

DCA/THIE/1	High Pressure Fuel Pump – Modification and Replacement.....	3
DCA/THIE/2	Aircraft Electrical System – Inspection and Modification.....	3
DCA/THIE/3	Cancelled – DCA/THIE/26 refers	4
DCA/THIE/4	Cancelled – DCA/THIE/9 refers	4
DCA/THIE/5	Clutch Assembly and Friction Plate – Replacement.....	4
DCA/THIE/6	Engine Installation – Inspection and Rework	4
DCA/THIE/7	Catchtank (Sump) Filter Adaptor - Installation	5
DCA/THIE/8	Piston Cooling Nozzles – Inspection	5
DCA/THIE/9	Cancelled – DCA/THIE/12 refers	5
DCA/THIE/10	High Pressure Fuel Line – Replacement and Rework.....	5
DCA/THIE/11	Clutch Assembly – Replacement	6
DCA/THIE/12	Maintenance Tasks – Airworthiness Limitations	6
DCA/THIE/13	Cancelled – DCA/THIE/14 refers	7
DCA/THIE/14A	Cancelled – DCA/THIE/17 refers	7
DCA/THIE/15	Rail Pressure Control Valve – Modification & Limitation	7
DCA/THIE/16	Cancelled – DCA/THIE/18 refers	7
DCA/THIE/17A	Propeller CSU Installation – Inspection and Modification.....	7
DCA/THIE/18	Propeller Control Valve – Rework	8
DCA/THIE/19	Blow-by Oil Separator – Replacement	8
DCA/THIE/20A	Cancelled – DCA/THIE/24 refers	9
DCA/THIE/21	Cancelled – DCA/THIE/26 refers	9
DCA/THIE/22	Cancelled – EASA AD 2010-0136R1 refers.....	9
DCA/THIE/23	Friction Disk – Replacement	9
DCA/THIE/24	Cancelled – EASA AD 2014-0232 refers	10
DCA/THIE/25	Gearbox Oil Filling Plug – Inspection	10
DCA/THIE/26	FADEC Software – Modification.....	10

The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at <http://www.caa.govt.nz/airworthiness-directives/states-of-design/> If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

2013-0109	Crankcase Assembly Opening – Inspection.....	11
2013-0279	High Pressure Fuel Pump – Inspection.....	11
2014-0232 (Correction)	Clutch Assembly – Inspection.....	11
2015-0055	Start Phase Monitoring System Software – Installation.....	12
2015-0189	Airworthiness Limitation – Amendment.....	12
2010-0136R1	Engine Timing Chain – Inspection.....	12
2017-0034R1	Gearbox – Inspection.....	13
2020-0228 (Correction)	Turbocharger Hoses – Inspection.....	13
* 2021-0022	Main Bearing / Studs – Inspection.....	13

DCA/THIE/1 High Pressure Fuel Pump – Modification and Replacement

- Applicability:** All model TAE125-01 engines fitted with high pressure fuel pumps:
- P/Ns 02-7310-04005R3 or 02-7310-04005R4 with S/N's listed on page 3 of Thielert Service Bulletin No. TM TAE 125-0009, revision 1, or
 - P/N 02-7310-04005R2, or
 - all high pressure pumps with a P/N beginning with "A".
- Requirement:** To prevent loosening of the fuel pump mounting bolts, which could result in fuel leakage, engine fire and loss of engine power, accomplish the following:
1. Secure the mounting bolts of high pressure pumps P/N 02-7310-04005R3 and P/N 02-7310-04005R4, with Loctite 243 blue threadlocker, per SB No. TM TAE 125-0009.
 2. Replace all high pressure pumps P/N 02-7310-04005R2 and P/Ns beginning with "A", per SB No. TM TAE 125-0009.
(LBA AD D-2004-473 refers)
- Compliance:** 1. & 2. Within the next 20 hours TIS or by 30 April 2006, whichever occurs first, unless already accomplished.
- Effective Date:** 30 March 2006

DCA/THIE/2 Aircraft Electrical System – Inspection and Modification

- Applicability:** All model TAE125-01 engines.
- Requirement:** To prevent an in-flight engine shutdown due to the failure of the aircraft electrical power supply, which could result in an emergency landing, accomplish the following:
1. Confirm the actual capacity of the aircraft battery, per chapter 7.7 'continued airworthiness determination for GILL aircraft batteries' of Gill Aircraft Battery Service Manual, document number: Q01-1120 and SB No. TM TAE 125-0008.
 2. Modify the aircraft electrical power supply with one of the following modifications:
 - a) Replace alternator P/N 02-7150-55002R2 with P/N 02-7150-55002R3, per the instructions of the holder of the supplemental type certificate and Thielert Service Bulletin No. TM TAE 125-0008, revision 2, dated 4 February 2005, or
 - b) In existing Diamond aircraft installations replace alternator P/N 02-7150-55002R2 with alternator set P/N 02-7150-55008R1 "Set Alternator 14V DAI with ALTREG FF", and for all other existing aircraft installations replace with an alternator set P/N 02-7150-55016R1 "Set Alternator 14V with ALTREG FFL", per the instructions of the holder of the supplemental type certificate and SB No. TM TAE 125-0008.
For new Diamond aircraft installations use P/N 02-7150-55800R1 "Set Alternator 14V DAI with ALTREG" and for all other new aircraft installations use P/N 02-7150-55018R1 "Set Alternator 14V with ALTREG", per the instructions of the holder of the supplemental type certificate and SB No. TM TAE 125-0008, or
 - c) Install a stabilising capacitor, per the instructions of the holder of the supplemental type certificate and SB No. TM TAE 125-0008.
(LBA AD D-2004-457R2 refers)
- Compliance:** 1. Within the next 100 hours TIS and thereafter at intervals not to exceed 100 hours TIS, until the accomplishment of requirement 2.
2. At the next 300 hour maintenance inspection or by 30 April 2005, whichever is the sooner.
- Effective Date:** 30 March 2006

DCA/THIE/3 Cancelled – DCA/THIE/26 refers

Effective Date: 29 October 2020

DCA/THIE/4 Cancelled – DCA/THIE/9 refers

Effective Date: 24 April 2008

DCA/THIE/5 Clutch Assembly and Friction Plate – Replacement

Applicability: All model TAE125-01 engines fitted with a clutch assembly which have been delivered with a “Form One” number as listed in Thielert Service Bulletin No. TM TAE 125-0011, revision 3, dated 13 June 2005.

Requirement: To prevent loss of engine power in flight due to failure of the clutch friction plate, which could result in reduced controllability of the aircraft and possible forced landing, replace the clutch assembly per chapter 5 of the manufacturer repair manual RM-02-01 and SB No. TM TAE 125-0011, or

Replace the clutch friction plate per chapter 56 of the manufacturer repair manual RM-02-01 and SB No. TM TAE 125-0011.

(LBA AD D-2005-229R1 refers)

Compliance: Before further flight, or by 5 April 2006, whichever occurs sooner.

Effective Date: 30 March 2006

DCA/THIE/6 Engine Installation – Inspection and Rework

Applicability: Model TAE125-01 and TAE125-02-99 engines, all S/N installed on Diamond Aircraft Industries DA42 aircraft.

Requirement: To prevent an in-flight engine shutdown due to the possibility of a battery voltage drop causing the FADEC to feather the propellers, accomplish the following:

Inspect the engine installation to verify that the electrical system conforms to the instructions in chapter 13 (02-IM-13-01) of TAE125-01 Installation Manual IM-02-01 issue 4, revision 1, or the instruction in chapter 13 (02-IM-13-02) of TAE125-02 Installation Manual IM-02-02 issue 1, revision 3, as applicable.

For non-conforming engine installations rework according to approved manufacturer instructions.

(EASA AD 2007-0182R1 refers)

Note 1: The unsafe condition can be rectified by the accomplishment of Diamond Aircraft Industries (DAI) Mandatory Service Bulletin (MSB) 42-042.

Note 2: Accomplishment of DCA/DA42/4 (EASA AD 2007-0183 refers) is an alternative method of compliance to the requirements of this AD for the TAE 125 installation on Diamond DA42 aircraft.

Compliance: By 31 October 2007

Effective Date: 26 July 2007

DCA/THIE/7 Catchtank (Sump) Filter Adaptor - Installation

- Applicability:** Model TAE125-01 engines, all S/N all through 02-01-1018.
 These engines are known to be installed on, but not limited to, Cessna 172 and (Reims-built) F172 series aircraft, Piper PA-28 series aircraft, APEX (Robin) DR 400 series aircraft and Diamond DA40 and DA42 series aircraft.
- Requirement:** To prevent foreign objects entering the engine oil scavenge pump which could result in an in-flight engine shutdown, modify the engine oil system per the instructions in Thielert Aircraft Engines TM/SB TAE 125-0016.
 (EASA AD 2007-0232 refers)
- Compliance:** Within the next 50 hours TIS, or by 27 November 2007, whichever occurs sooner.
- Effective Date:** 27 September 2007

DCA/THIE/8 Piston Cooling Nozzles – Inspection

- Applicability:** Model TAE125-01 engines, all S/N except those engines embodied with Thielert Aircraft Engines (TAE) Design Modification No. 2007-001.
 These engines are installed on, but not limited to, Cessna 172 and (Reims-built) F172 series aircraft (EASA STC Nr. EASA.A.S.01527), Piper PA-28 series aircraft (EASA STC Nr. EASA.A.S.01632), APEX (Robin) DR 400 series aircraft (EASA STC Nr. EASA.A.S.01380) and Diamond DA40 and DA42 aircraft.
- Requirement:** To prevent broken piston cooling oil nozzles possibly resulting in thermal overload of the pistons in extended engine operations, inspect the piston cooling nozzles per the instructions in Thielert Aircraft Engines (TAE) Service Bulletin No. TM TAE125-0017. When a broken piston cooling nozzle is found, contact Thielert Aircraft Engines for further instruction.
- Note:** An alternate inspection method is approved with the release of TAE SB No. TM TAE125-0017 revision 2.
 (EASA AD 2008-0016 R1 refers)
- Compliance:** Within the next 100 hours TIS, or by 29 August 2008, or at the next scheduled maintenance inspection, whichever occurs sooner, and thereafter at intervals not to exceed 100 hours TIS.
- Effective Date:** 28 February 2008.

DCA/THIE/9 Cancelled – DCA/THIE/12 refers

- Effective Date:** 31 July 2008

DCA/THIE/10 High Pressure Fuel Line – Replacement and Rework

- Applicability:** All model TAE125-02-99 (Centurion 2.0) engines, S/N 02-02-1500 through to 02-02-2279.
 These engines are known to be installed on, but not limited to, Cessna 172 and (Reims-built) F172 series aircraft (EASA STC No. EASA.A.S.01527), Piper PA-28 series aircraft (EASA STC No. EASA.A.S.01632), Apex (Robin) DR 400 series aircraft (EASA STC No. EASA.A.S.01380) and Diamond DA40 and DA42 aircraft.
- Requirement:** To prevent failure of the high pressure fuel line between the high-pressure pump and the fuel rail due to the possibility that vibration could cause the fuel line to crack which could result in leaks, accomplish the following:
 Replace the high pressure fuel line and install a fuel line support bracket per the instructions in Thielert Aircraft Engines Service Bulletin (SB) No. TM TAE 125-1005 P1, revision 2, or later approved revision.
- Note:** Compliance with the instructions in SB No. TM TAE 125-1005 P1, revision 1 prior to the effective date of this AD, meets the requirements of this AD.
 (EASA AD 2008-0056R1 refers)
- Compliance:** Before further flight
- Effective Date:** 24 April 2008

DCA/THIE/11 Clutch Assembly – Replacement

Applicability: Model TAE125-02-99 (Centurion 2.0) engines fitted with clutch assembly P/N 05-7211-K000304.

These engines are known to be installed on, but not limited to, Cessna 172 and (Reims-built) F172 series aircraft (EASA STC Nr. EASA.A.S.01527), Piper PA-28 series aircraft (EASA STC Nr. EASA.A.S.01632), APEX (Robin) DR 400 series aircraft (EASA STC Nr. EASA.A.S.01380) and Diamond DA40 and DA42 aircraft.

Requirement: To prevent failure of the clutch assembly due to the possibility of cracked disc springs in the clutch, which could result in an inflight engine shutdown and loss of aircraft control, accomplish the following:

Replace the clutch in accordance with the instructions in Thielert Aircraft Engines GmbH Service Bulletin TM TAE 125-1006 P1 revision 1 or later approved revisions. (EASA AD 2008-0106-E refers)

Compliance: For engines that have accumulated less than 50 hours TIS since the last clutch inspection:

Before 50 hours TIS since last clutch inspection.

For engines that have accumulated between 50 and 300 hours TIS since the last clutch inspection:

Before further flight.

Effective Date: 31 July 2008

DCA/THIE/12 Maintenance Tasks – Airworthiness Limitations

Applicability: Model TAE 125-01 engines, all S/N.

These engines are known to be installed on, but not limited to, Cessna 172 and (Reims-built) F172 series aircraft (EASA STC Nr. EASA.A.S.01527), Piper PA-28 series aircraft (EASA STC Nr. EASA.A.S.01632), APEX (Robin) DR 400 series aircraft (EASA STC Nr. EASA.A.S.01380), and Diamond DA40 and DA42 aircraft.

Note 1: This AD supersedes DCA/THIE/9 and includes an inspection of the alternator 14V P/N 02-7150-5502R3 and replacement of the rail pressure valve. The airworthiness limitations section in chapter 5 of Thielert TAE125-01 Operation & Maintenance Manual No. OM 02-01 issue 3 revision 5 refers.

Requirement: To prevent in-flight engine shut-down due to non-compliance with the manufacturer prescribed maintenance actions, accomplish the following:

1. Amend the engine maintenance schedule by incorporating the instructions in the airworthiness limitations section in chapter 5 of Thielert TAE125-01 Operation & Maintenance Manual No. OM 02-01 issue 3 revision 5.
2. Accomplish the specified maintenance tasks in accordance with the instructions in the airworthiness limitations section in chapter 5 of Thielert TAE125-01 Operation & Maintenance Manual No. OM 02-01 issue 3 revision 5.

Note 2: Thielert Aircraft Engines GmbH Operation & Maintenance Manual TAE 125-01 OM-02-01, Chapter 5 at Issue 3 Revision 5, dated 09 May 2008 or later approved revisions relates to the requirements of this AD. (EASA AD 2008-0128 refers)

Compliance:

1. By 31 October 2008.
2. Within the thresholds and intervals defined in the instructions in the airworthiness limitations section in chapter 5 of Thielert TAE125-01 Operation & Maintenance Manual No. OM 02-01 issue 3 revision 5.

Effective Date: 31 July 2008

DCA/THIE/13 Cancelled – DCA/THIE/14 refers

Effective Date: 28 August 2008

DCA/THIE/14A Cancelled – DCA/THIE/17 refers

Effective Date: 24 September 2009

DCA/THIE/15 Rail Pressure Control Valve – Modification & Limitation

Applicability: Model TAE 125-02-99 (Centurion 2.0) engines, all S/N.

These engines are known to be installed on, but not limited to, Cessna 172 and (Reims-built) F172 series aircraft (EASA STC Nr. EASA.A.S.01527), Piper PA-28 series aircraft (EASA STC Nr. EASA.A.S.01632), APEX (Robin) DR 400 series aircraft (EASA STC Nr. EASA.A.S.01380) and Diamond DA 40 D, DA 42 and DA 42 M aircraft.

Requirement: To prevent failure of the rail pressure control valve which could result in an inflight engine shutdown, accomplish the following:

1. Replace rail pressure control valve P/N 05-3940-K001501 and modify the VRail plug per the instructions in Thielert Aircraft Engine (TAE) SB TM 125-1008 P1 R1, dated 29 September 2008 or later approved revisions.
2. Amend the engine maintenance schedule to include the instructions in the “Airworthiness Limitations” in chapter 5 of TAE Operation & Maintenance Manual TAE 125-02-99 OM-02-02, issue 1, revision 2 dated 24 September 2008, and accomplish the requirements within the specified thresholds and intervals.

Note: Engines with a S/N listed in SB No. TM 125-1008 P1 R1 are already embodied with the modifications per requirement 1 of this AD. (EASA AD 2008-0215 refers)

Compliance:

1. Within the next 100 hours TIS.
2. By 18 March 2009.

Effective Date: 18 December 2008

DCA/THIE/16 Cancelled – DCA/THIE/18 refers

Effective Date: 26 November 2009

DCA/THIE/17A Propeller CSU Installation – Inspection and Modification

Applicability: Model TAE125-01 engines, all S/N fitted to Diamond Aircraft Industries (DAI) DA 42 aircraft.

Note 1: Revision A of this AD revised to introduce Thielert SB No. 125-0020 revision 1, dated 25 November 2009 and introduce a calendar compliance time limit. No action required if already in compliance with DCA/THIE/17 and SB No. TM TAE 125-0020 initial issue, dated 20 August 2009.

Note 2: Model TAE125-01 engines installed on other aircraft type are not affected by this AD.

Requirement: To prevent failure of the propeller control valve which could result in an inflight engine shutdown and reduced aircraft control, accomplish the following:

Inspect and/or replace the electrical connectors of the Proportional Pressure Reducing Valve (PPRV) and install a vibration isolator between the engine gearbox and the propeller Constant Speed Unit (CSU) per the instructions in steps 1 through to 27 of Thielert SB No. 125-0020 and annexes at revision 1, dated 25 November 2009 or later EASA approved revisions.

Note 3: Step 22 in SB No. TM TAE 125-0020 requires the initial replacement of the PPRV per Thielert SB No. TM TAE 125-0018 revision 1, dated 12 November 2008, or later EASA approved revisions.

Note 4: The vibration isolator and the PPRV which is part of the gearbox assembly must be inspected regularly in accordance with the Engine Operation & Maintenance Manual OM-02-01 and the Engine Repair Manual RM-02-01.
(EASA AD 2009-0193R1 refers)

Compliance: Within the next 50 hours TIS, or the next maintenance inspection, or by 28 February 2010 whichever occurs sooner.

Effective Date: DCA/THIE/17 - 24 September 2009
DCA/THIE/17A - 17 December 2009

DCA/THIE/18 Propeller Control Valve – Rework

Note 1: This AD retains the requirements of superseded DCA/THIE/16 and reduces the compliance time.

Applicability: Model TAE125-02-99 engines, all S/N fitted to Diamond DA 42 and DA 42 M aircraft.

Requirement: To prevent failure of the propeller control valve due to possible high vibration which can result in inflight engine shutdown, install a Proportional Pressure Reducing Valve 24V (propeller control valve) P/N 05-7212-E002801 and a Vibration Isolator P/N 05-7212-K022302 per the instructions in TM TAE 125-1007 P1 revision 2 and TM TAE 125-1009 P1 revision 3.

Note 2: Previous issues of TM TAE 125-1009 P1 are acceptable for compliance with the requirements of this AD.

Note 3: Thielert SB TM TAE125-1009 P1 revision 3 dated 14 October 2009, SB TM TAE125-1007 P1 revision 2 dated 29 April 2009, SB TM TAE125-1009 P1 dated 07 July 2009, the Engine Operation & Maintenance Manual OM-02-02 issue 1 revision 7 dated 17 June 2009, and the Engine Repair Manual RM-02-02 issue 1 revision 15 dated 29 April 2009 and later EASA approved revisions are acceptable for compliance with the requirements of this AD.
(EASA AD 2009-0224 refers)

Compliance: Within the next 50 hours TIS, or at the next maintenance inspection, or 26 January 2010, whichever occurs sooner.

Note 4: The gearbox, including the vibration isolator and the proportional pressure reducing valve must be regularly inspected in accordance with OM-02-02 and RM-02-02.

Effective Date: 26 November 2009

DCA/THIE/19 Blow-by Oil Separator – Replacement

Applicability: Model TAE125-01 engines, all S/N not fitted with a blow-by oil separator P/N 02-7250-18310R1, 02-7250-18310R2, 02-7250-18100R6 or 02-7250-18100R7.

These engines are known to be installed on, but not limited to, Diamond DA 40 aircraft, Cessna C172 aircraft and Piper PA28 aircraft.

Note: Engines installed on Diamond Aircraft Industries DA 42 and DA 42M aircraft are not affected by this AD.

Requirement: To prevent the crankcase pressure exceeding the oil seal design pressure limits due to the small outlet of the oil blowby separator which could result in an engine oil leak affecting the gearbox clutch or the engine lubrication system, and result in loss of engine power or engine shutdown, replace the blow-by oil separator per the instructions in Thielert Aircraft Engines SB TM TAE125-0019 initial issue, dated 12 November 2008 or later EASA approved revisions.
(EASA AD 2010-0020 refers)

Compliance: Within the next 100 hours TIS.

Effective Date: 25 February 2010

DCA/THIE/20A Cancelled – DCA/THIE/24 refers

Effective Date: 22 August 2011

DCA/THIE/21 Cancelled – DCA/THIE/26 refers

Effective Date: 26 July 2012

DCA/THIE/22 Cancelled – EASA AD 2010-0136R1 refers

Effective Date: 16 August 2016

DCA/THIE/23 Friction Disk – Replacement

Applicability: Model TAE 125-02-99 (Centurion 2.0) and TAE 125-02-114 (Centurion 2.0S) engines, all S/N.

These engines are known to be installed on, but not limited to the following aircraft mostly through the embodiment of an STC: Cessna 172 and (Reims-built) F172 series aircraft (STC EASA.A.S.01527), Piper PA-28 series aircraft (STC EASA.A.S.01632), CEAPR (APEX, Robin) DR 400 series aircraft (STC EASA.A.S.01380), and Diamond DA 40 and DA 42 series aircraft.

Requirement: To prevent loss of engine power and aircraft control due to the sensitivity of the friction disk P/N 05-7211-K010201 to engine/gearbox misalignment, accomplish the following:

1. Replace the friction disk(s) P/N 05-7211-K010201 with P/N 05-7211-K012301 per the instructions in Thielert Aircraft Engines GmbH SB TM TAE 125-1013 P1 dated 10 May 2011 or later approved revisions. Once an engine has been modified per requirement 1 of this AD, do not install a friction disk P/N 05-7211-K010201 on that engine.
2. A model TAE 125-02-99 or TAE 125-02-114 engine with a friction disk P/N 05-7211-K010201 shall not be installed on any aircraft. (EASA AD 2011-0087-E refers)

Compliance: 1. Compliance for Single Engine Aircraft:

Clutch hours TIS at the effective date of this AD:	Replace friction disk:
100 or more hours TIS	Within the next 10 hours TIS
Less than 100 hours TIS	Upon accumulating 100 hours TIS or within the next 10 hours TIS, whichever occurs later.

Compliance for Twin Engine Aircraft:

Engine configuration and clutch hours TIS at the effective date of this AD:	Replace friction disk(s):
Only one clutch affected, irrespective of hours TIS accumulated.	Upon accumulating 300 hours TIS on the clutch.
Both clutches affected and both clutches have accumulated more than 100 hours TIS.	Within the next 10 hours TIS for a clutch that has accumulated the most hours TIS, and for the other clutch upon accumulating 300 hours TIS.
Both clutches affected and one of the two clutches has accumulated less than 100 hours TIS.	Upon accumulating 100 hours TIS or within the next 10 hours TIS whichever occurs later for the clutch that has accumulated the most hours TIS, and for the other clutch upon accumulating 300 hours TIS.

2. From 16 May 2011.

Effective Date: 16 May 2011

DCA/THIE/24 Cancelled – EASA AD 2014-0232 refers**Effective Date:** 5 November 2014**DCA/THIE/25 Gearbox Oil Filling Plug – Inspection****Applicability:** Model TAE 125-02-99 (commercial designation Centurion 2.0) and TAE 125-02-114 (commercial designation Centurion 2.0S) engines, all S/N.

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): 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.

Requirement: To prevent in-flight loss of engine power due to a blocked oil filling plug vent hole, accomplish the requirements in EASA AD 2012-0112.**Note 1:** A copy of EASA AD 2012-0112 can be obtained from the EASA AD website at <http://www.easa.eu.int/certification/airworthiness-directives.php>**Note 2:** Thielert Aircraft Engines (TAE) SB TM TAE 125-1015 P1 dated 27 April 2012, or later approved revisions of this document are acceptable to comply with the requirements of this AD.
(EASA AD 2012-0112 refers)**Compliance:** Within the next 100 hours TIS or at the next maintenance inspection whichever occurs sooner, unless previously accomplished.**Effective Date:** 26 July 2012**DCA/THIE/26 FADEC Software – Modification****Applicability:** Model TAE 125-01 (commercial designation Centurion 1.7), TAE 125-02-99 (commercial designation Centurion 2.0) and TAE 125-02-114 (commercial designation Centurion 2.0S) engines, all serial numbers.

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): 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.

Note 1: This AD supersedes DCA/THIE/21 to introduce FADEC software versions 292 for TAE 125-01 engines, version 301 for TAE 125-02-99 engines and version 302 for TAE 125-02-114 engines.**Requirement:** To detect overspeed events and trigger the indication of a permanent electronic control unit (ECU) caution at an earlier stage when significant engine power is still available, accomplish the requirements in EASA AD 2012-0116.**Note 2:** A copy of EASA AD 2012-0116 can be obtained from the EASA AD website at <http://www.easa.eu.int/certification/airworthiness-directives.php>**Note 3:** Thielert Aircraft Engines (TAE) SB TM TAE 000-0007 revision 18, dated 18 June 2012, the Operation & Maintenance Manual OM-02-01 issue 3, revision 16 dated 05 May 2012, and the Operation & Maintenance Manual OM-02-02 issue 2, revision 8 dated 04 May 2012, or later approved revisions of these documents are acceptable to comply with the requirements of this AD.
(EASA AD 2012-0116 refers)**Compliance:** Within the next 50 hours TIS or by 26 October 2012 whichever occurs sooner, unless previously accomplished.**Effective Date:** 26 July 2012

The State of Design ADs listed below are available directly from the National Airworthiness Authority (NAA) websites. Links to NAA websites are available on the CAA website at <http://www.caa.govt.nz/airworthiness-directives/states-of-design/>

If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

2013-0109 Crankcase Assembly Opening – Inspection

Applicability: TAE 125-01 (commercial designation Centurion 1.7) engines, all serial numbers.

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):

- 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.

Effective Date: 5 June 2013

2013-0279 High Pressure Fuel Pump – Inspection

Applicability: TAE 125-02-99 (commercial designation Centurion 2.0) and TAE 125-02-114 (commercial designation Centurion 2.0S) engines, all serial numbers.

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):

- Cessna 172 and (Reims-built) F172 series (STC EASA.10014287);
- Piper PA-28 series (STC EASA.10014364);
- CEAPR (APEX, Robin) DR 400 series (STC EASA.10014219); and
- Diamond DA 40 and DA 42 series.

Effective Date: 10 December 2013

2014-0232 (Correction)Clutch Assembly – Inspection

Applicability: TAE 125-01 (commercial designation Centurion 1.7), all serial numbers, if a clutch assembly with Part Number (P/N) 02-7210-11001R11 or P/N 02-7210-11001R11-AT or P/N 02-7210-11001R13 is installed, and

TAE 125-02-99 (commercial designation CD-135, formerly Centurion 2.0), all serial numbers, if a clutch assembly with P/N 05-7211-K006001 or P/N 05-7211-K006002 is installed.

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):

- 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.

Effective Date: EASA AD 2014-0232 - 5 November 2014
EASA AD 2014-0232 (Correction dated 4 Nov 2014) - 5 November 2014

2015-0055 Start Phase Monitoring System Software – Installation

Applicability: TAE 125-02-99 (commercial designation CD-135, formerly Centurion 2.0) and TAE 125-02-114 (commercial designation CD-155, formerly Centurion 2.0S) engines, all serial numbers (S/N), if a Dual Mass Flywheel is installed, and if the engine is installed on one of the following aeroplane types:

- Cessna 172 and (Reims-built) F172 series with engine installed through Supplemental Type Certificate (STC) EASA 10014287.
- Piper PA-28 series with engine installed through STC EASA 10014364.
- CEAPR (APEX, Robin) DR 400 series with engine installed through STC EASA.A.S.01380 or STC EASA 10014219, all aeroplane S/N up to 2674 (included), with STC installed before December 2014.
- Diamond (DAI) DA 40 D model, S/N D4.001 through D4.399 and S/N 40.DS001 through 40.DS135 (engine installed during aeroplane manufacture), or any other S/N with engine installed through STC EASA 10036328.
- DAI DA 42 and DA42 M models, S/N 42.004 through 42.427, S/N 42.AC001 through 42.AC151 and S/N 42.M001 through 42.M027 (engine installed during aeroplane manufacture), or any other S/N with engine installed through STC EASA 10048730.

Engines having a Dual Mass Flywheel installed can be identified by marking on the fuel rail (sticker “Dual Mass Flywheel installed”), or record in the engine log book (“Dual Mass Flywheel” listed as engine component on page 4 “Main Engine Components”).

Effective Date: 14 April 2015

2015-0189 Airworthiness Limitation – Amendment

Applicability: TAE 125-02-99 (commercial designation CD-135, formerly Centurion 2.0) and TAE 125-02-114 (commercial designation CD-155, formerly Centurion 2.0S) engines, all serial numbers.

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):

- Cessna 172 and (Reims-built) F172 series (STC EASA.A.S.01527 or EASA 10014287).
- Piper PA-28 series (STC EASA.A.S.01632 or STC EASA 10014364).
- CEAPR (APEX, Robin) DR 400 series (STC EASA.A.S.01380 or STC EASA 10014219).
- Diamond DA 40 and DA 42 series.

Effective Date: 5 October 2015

2010-0136R1 Engine Timing Chain – Inspection

Applicability: TAE 125-02-99-(XXXX)-(01) and TAE 125-02-114-(XXXX)-(01) engines, all serial numbers, where (XXXX) can be any combination of numbers.

These engines are known to be installed, but not limited to, Diamond DA 40, DA 42, DA 42M, Apex DR-400, Cessna C172 and Piper PA28.

The installation of these engines was either done by the respective aeroplane manufacturer or through modification of the aircraft by Supplemental Type Certificate.

Effective Date: 16 August 2016

2017-0034R1 Gearbox – Inspection

Applicability: TAE 125-02-99 and TAE 125-02-114, all S/N.

These engines are known to be installed, but not limited to, Diamond DA 40, DA 42, DA 42M, CEAPR DR 400, Cessna 172 and Piper PA-28 aeroplanes.

The installation of these engines was either done by the respective aeroplane manufacturer or through modification of the aeroplane by Supplemental Type Certificate.

Effective Date: EASA AD 2017-0034 - 6 March 2017
EASA AD 2017-0034R1 - 25 January 2018

2020-0228 (Correction) Turbocharger Hoses – Inspection

Applicability: Refer to EASA AD 2020-0228 (Correction dated: 03 December 2020).

Note 1: Affected TAE 125-02-99 and TAE 125-02-114 engines are installed in Cessna F172F, F172G, F172H, F172K, F172L, F172M, F172N, F172P, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172N, 172P, 172R and 172S aircraft, all S/N, embodied with EASA STC 10014287.

Note 2: Affected TAE-02-114 engines are also installed in Piper PA-28-140 (Cherokee Cruiser), PA-28-150 (Cherokee), PA-28-151 (Cherokee Warrior), PA-28-160 (Cherokee), PA-28-161 (Cadet), PA-28-161 (Warrior II), PA-28-161 (Warrior III), PA-28-180 (Archer), PA-28-180 (Cherokee) and PA-28-181 (Archer III) aircraft, all S/N, embodied with EASA STC 10014364.

Compliance: At the next maintenance inspection, or Review of Airworthiness (RA), or 30 days, or 50 hours TIS, whichever is the sooner.

Effective Date: EASA AD 2020-0228 - 29 October 2020
EASA AD 2020-0228 (Correction) - 17 December 2020

*** 2021-0022 Main Bearing / Studs – Inspection**

Applicability: TAE 125-02-99 and TAE 125-02-114 engines, all S/N listed in Continental Aerospace Technologies SB CG 125-1027 P1 original issue, dated 18 December 2020, or later approved revision.

Note 1: Affected main bearing studs have P/N 05-7211-K009801 and are identified by batch number B180703/1, B184216/1, B184216/2 or B191277/1 (installed on engines with a S/N as listed in the SB).

Note 2: These engines are known to be installed, but not limited to, Diamond DA 40, DA 42, DA 42M, CEAPR (formerly Robin) DR 400 series, Textron Aviation (formerly Cessna) 172 series and Piper PA-28 series aeroplanes. The installation of these engines was carried out by the respective aircraft manufacturer, or through embodiment of a STC.

Effective Date: 1 February 2021