
SERVICE INFORMATION LETTER NO. SID4-197

NOTE: Service information letters (SILs) are used only:

1. To distribute information from Diamond Aircraft Industries Inc. to our customers.
2. To distribute applicable information/documents from our suppliers to our customers with additional information.

NOTE: Typically there is no revision service for SILs. Each new information or change will be sent along with a new SIL.

1. TECHNICAL DETAILS

1.1 Aircraft Affected

All DA 40 D aircraft equipped with engines having the serial numbers indicated in Continental Aerospace Technologies GmbH SB CG 125-1028 P1 (attached to this SIL).

1.2 Subject

Continental Aerospace Technologies SB CG 125-1028 P1 - Inspection/sealing of the cylinder head side cover.

ATA-Code: 72-00

1.3 Reason

Continental Aerospace Technologies (CAT) has issued Priority 1 Safety Service Bulletin No. CAT SB CG 125-1028 P1 regarding the inspection of the cylinder head cover sealing on specified TAE engines. If left uncorrected, oil loss may result, possibly leading to a damaged v-ribbed belt, and may lead to a total loss of power and subsequent forced landing.

1.4 Information

For detailed technical information, refer to CAT SB CG 125-1028 P1, which is applicable without any further additions or restrictions.

CAT SB CG 125-1028 P1 is attached to this SIL.

2. OTHER DETAILS

To obtain satisfactory results, procedures specified in this service information letter must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service information letter. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service information letter if it is not incorporated. If you no longer own the aircraft to which this service information letter applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries Inc. at the address below.

Diamond Aircraft Industries Inc.
1560 Crumlin Sideroad, London, Ontario, Canada
N5V 1S2

Customer Support
Phone: (519) 457-4041, Fax: (519) 457-4045
Email: support-canada@diamondaircraft.com

Technical Publications
Email: Techpubs@diamondaircraft.com



Continental Aerospace
Technologies GmbH
Platanenstrasse 14
09356 Sankt Egidien, Germany

Tel: +49 37204 696 0
Fax: +49 37204 696 2912
www.continentaldiesel.com
support@continentaldiesel.com

SB CG 125-1028 P1

SERVICE BULLETIN

PRIORITY 1 – SAFETY

Service Bulletin No. / Date: SB CG 125-1028 P1, Initial Issue / September 22, 2021

Subject: Inspection / sealing of the cylinder head side cover

Type affected: TAE 125-02-99, TAE 125-02-114 and TAE 125-02-125

Models affected: The following engine S/N are affected:

TAE 125-02-99 / S /N 02-02-xxxx:

06024	06025	06026	60027	06028	06029	06035	06040	06041	06087
06088	06090	60092	06093	06094	06095	06096	06097	06098	

TAE 125-02-114 / S/N 02-02-xxxx:

12011	12012	12013	12014	12015	12016	12021	12022	12023	12024
12025	12026	12027	12028	12038	12045	12048	12049	12055	12060

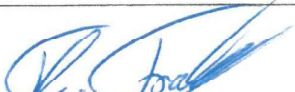

Classification: Category P1 – SAFETY

Time of Compliance: If the engine is installed:
Inspection must be performed in accordance with the following engine operating hours:

- Within 3 – 6 h after the effective date of this Service Bulletin
- 50 h and
- 100 h, afterwards no further actions are required or resealing has already been performed.

If the engine is not installed:
Resealing before installation of the engine

Reason: Possible oil leakage due to an improper sealing of the cylinder head side cover. The oil leak, if not corrected, can result in a damaged v-ribbed belt and possibly an engine shut down.

Checked T. Franke, CVE 	Approved D. Hartung, Office of Airworthiness 
---	--

Replaces Service Bulletin No. / Date: -

Page 1 / 6

Correction:

**Inspection of the cylinder head side cover.
To be performed only if the engine is installed:**

1. Check the side cover for oil leaks at the marked points. See Figure 1 and Figure 2.



Figure 1

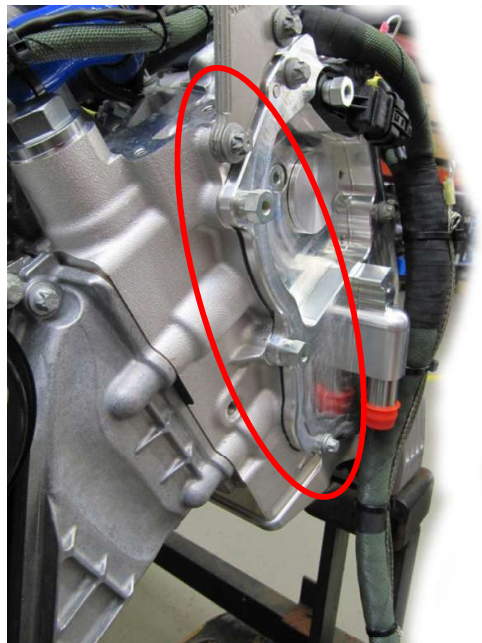


Figure 2

**Sealing of the cylinder head side cover.
To be performed only in the case of an oil leak or the engine is not installed:**

■ CAUTION: Protect all openings against contamination.

1. Remove the wiring harness and camshaft sensor from the side cover in accordance with RM-02-02 section 71-50.
2. If necessary remove hoses and pipes in accordance with the appropriate AMM.
3. If installed:
Remove the vacuum pump in accordance with RM-02-02, chapter 72-30.04.
4. Loosen the screws and tapped bolts at the side cover. See figure 3.

◆ Note: Depending on the engine version, the camshaft sensor may have a different orientation.

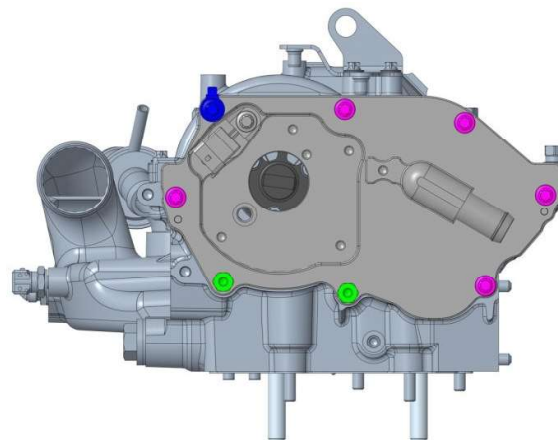
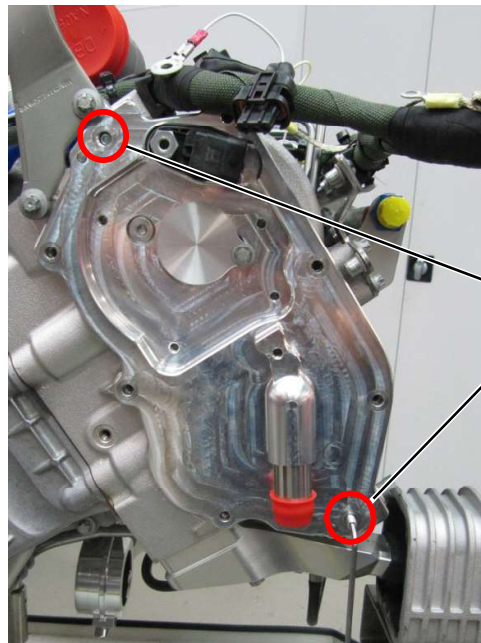


Figure 3 (without vacuum pump)

5. Install two hexagon socket set screw P/N NM-0000-0178101.
See figure 4.

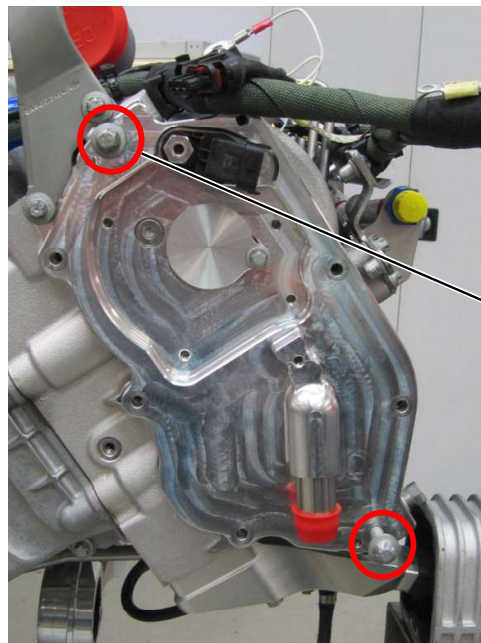
◆ Note: Screw in the set screw until the base.

6. Install two screws with external torx P/N NM-0000-0048501 over the set screw and turn them in alternately until the side cover loosens from the cylinder head. See figure 5.



hexagon socket set screw
P/N NM-0000-0178101

Figure 4 Loosen the side cover



screws with external torx
P/N NM-0000-0048501

Figure 5 Loosen the side cover

7. Remove the side cover.
8. Remove the hexagon socket set screw from the cylinder head and screws with external torx from the side cover.
9. Inspect the rotary shaft lip type seal, replace if necessary. See figure 6.

◆ Note: Contact Continental Aerospace Technologies GmbH if the rotary shaft lip type seal must be replaced.

10. Replace the o-ring P/N NM-0000-0142401 at the nozzle.

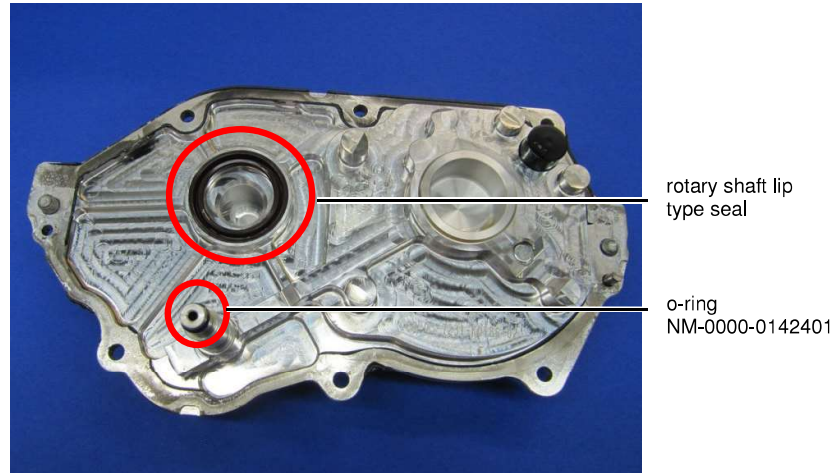


Figure 6

11. Clean and degrease the surface of the side cover and cylinder head.
12. Apply sealing compound P/N 02-7250-03144R1 / NV-0000-0222701 to the sealing surface of the side cover. See figure 7.

◆ **Note:** The sealant should then have a diameter of approx. 2 mm and be applied as shown in Figure 7.
Further information can be found in RM-02-02, chapter 72-30.03.

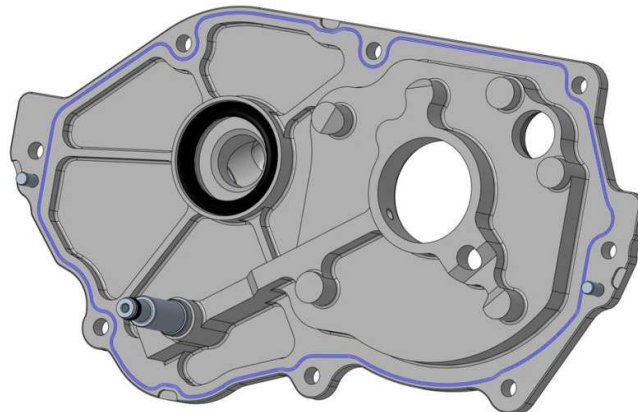


Figure 7 sealant

13. Install the side cover with the original screws and bolts.
Tightening torque:
12Nm

14. Install the vacuum pump (if it was installed) in accordance with RM-02-02, chapter 72-30.04 / 72-30.05. Replace the three o-rings P/N NM-0000-020601 / NM-0000-0215901.



Figure 8 installation vacuum pump

15. Replace the v-ribbed belt P/N 05-7223-K000302 in accordance with RM-02-02, chapter 72-20.01.
16. Attach the wiring harness and camshaft sensor to the side cover in accordance with RM-02-02, section 71-50.
17. Attach the removed hoses and pipes in accordance with the appropriate AMM.

Remarks:

Labor Effort:
1.5 h plus ground run

Tools:

Item	Part Number	Description	Quantity
1	NM-0000-0178101	Hexagon socket set screw ISO 4026 - M6x20 - 45H - A2E	2
2	NM-0000-0048501	Screw with external torx DIN 34801 - B M8x25 - 8.8 - A2E	2

Parts:

Item	Part Number	Description	Quantity
1	NM-0000-0142401	O-ring DIN 3771 - 6x2 - 80FPM610	1
2	NM-0000-0206001	O-ring DIN 3771 - 35x2 - 80FKM610	2
3	NM-0000-0215901	O-ring DIN 3771-64x2-80FKM610	1
4	05-7223-k000302	V-ribbed belt	1
5	02-7250-03144R1	LOCTITE SI 5970	as req.
	NV-0000-0222701	LOCTITE SI 5900	

Approval:

The technical content of this document is approved under the authority of the
DOA ref. EASA.21J.010