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CONTINENTAL AEROSPACE TECHNOLOGIES

SI CG 601-1002

Service Instruction

Issue / Date:	SI CG 601-1002, Rev. 1 / December 10, 2025
Subject:	Cooling system modification for use of coolant type G40
Type affected:	Cessna (F) 172 with TAE 125-02 engine
Models affected:	All
Classification:	Category SI – SERVICE INSTRUCTION
Time of Compliance:	At next scheduled or unscheduled coolant exchange respectively engine replacement
Reason:	Modification of the cooling system due to better availability of the coolant type G40 as well as discontinuation of the currently required silicate pouch. Note: Using coolant type G40 the silicate pouch is no longer required.

Checked	Approved
11. DEZ. 2025 S. Reckziegel, CVE	M. Heinich, Office of Airworthiness 12. DEZ. 2025

Replaces Service Instruction No. / Date:
SI CG 601-1002, Initial Issue / November 26, 2025

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Correction:

1. Preparation

Carry out the following steps in accordance with the original AMM respectively AMM Supplement (AMMS) for the TAE 125-02 installation.

- Disconnect all batteries
- Remove the cowling
- Drain the coolant

2. Removal of the cooling system components

2.1. TAE 125-02-114 installation

a) Disconnect the sensor wire from the expansion tank.

b) Remove the vent lines as well as the attaching parts depending on the installation, refer to figure 1. The vent lines marked red indicates the TAE 125-02-114 basic installation and the vent lines marked green indicates the modified installation with additional T-fitting.

c) In case of the modified cooling system remove the coolant hose between the thermostat and main radiator (incl. T-fitting) also.

d) Disconnect the bleeder hose from the filler neck and the lower coolant hose from the expansion tank.

e) Remove the expansion tank.

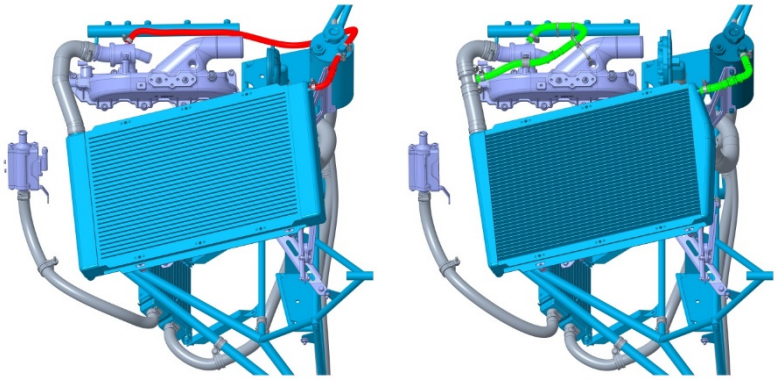

Figure 1: Current TAE 125-02-114 installation
[basic piping (left) vs. already modified piping (right)]

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2.2. TAE 125-02-99 installation

a) Disconnect the sensor wire from the expansion tank.

b) Remove the vent line between the thermostat and the expansion tank and disconnect the bleeder hose from the filler neck as well as the lower coolant hose from the expansion tank.

c) Remove the expansion tank.

d) Remove the plugged hose from the vent connection of the main radiator.

3. Installation of the G40 cooling system components

3.1. TAE 125-02-114 installation

Item		Part Number	Description 1	Description 2	Qty.
---		20-7520-S0014 02	conversion set	expansion tank G40	1
1		40-7520-H0185 01	hose	thermostat	1
2		20-7520-H0434 02	expansion tank		1
3		20-7520-H0172 02	coolant hose	Ø30 – Ø35	1
4		40-7520-H0191 01	hose	vent coolant cooler	1
5		NK-0000-00414 01	hose clamp	ABA 11-17x9 – W1	4
6		NM-0000-01507 01	hose clamp	ABA 32-44x12 – W1	2
7		NK-0000-00184 01	fixing tie with coupler	200x4.6, black	3
8		NK-0000-00185 01	clip with cable tie	15x13.4, s= 1 ... 3, sidewise, Pa/St	1

Table 1: Parts list for TAE 125-02-114

a) Install the expansion tank (item 2), reuse the attaching parts. Refer to figure 2 for detailed information.

b) If necessary, install the coolant hose (item 3) between the thermostat and the radiator using two hose clamps (item 6).

c) Install the radiator vent line (item 4) between the main radiator and the expansion tank using two clamps (item 5). Attach the vent line to the banjo-bolt connector of the expansion tank. Ensure that the arrow labelled on the vent line points towards the expansion tank.

d) Attach the vent line (item 1) to the thermostat using a clamp (item 5). The throttle, integrated in the vent line, must be located on thermostat side and the arrow labelled on the vent line must point towards the expansion tank. Refer to figure 3.

e) Route the thermostat vent line towards the expansion tank while ensuring a U-shaped layout (*lowest point below the expansion tank bottom*). Refer to figure 3.

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f) Additionally secure the vent line with three fixing ties with coupler (item 7) and one clip with cable tie (item 8). Refer to figure 4 and 5.

g) Finally, attach the thermostat vent line to the expansion tank using a clamp (item 5) as well as reconnect the bleeder hose, the lower coolant hose and the sensor wire.

Note: Secure the hoses adequately using cable ties.

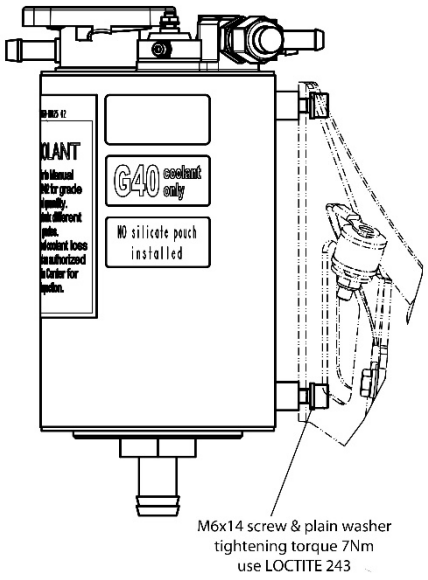

Figure 2: Expansion tank installation

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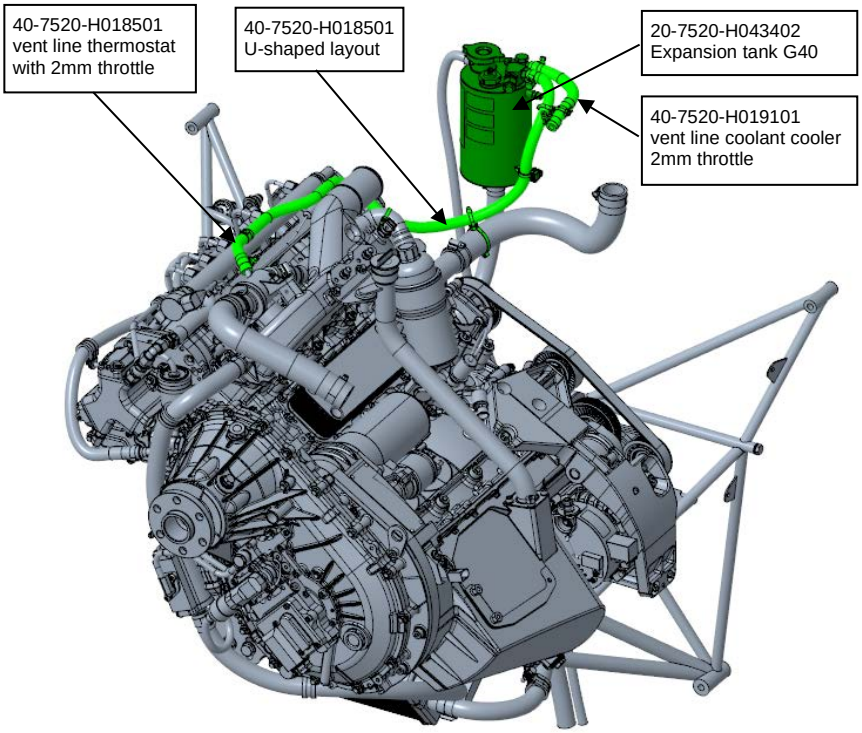

Figure 3: Overview TAE 125-02-114 installation

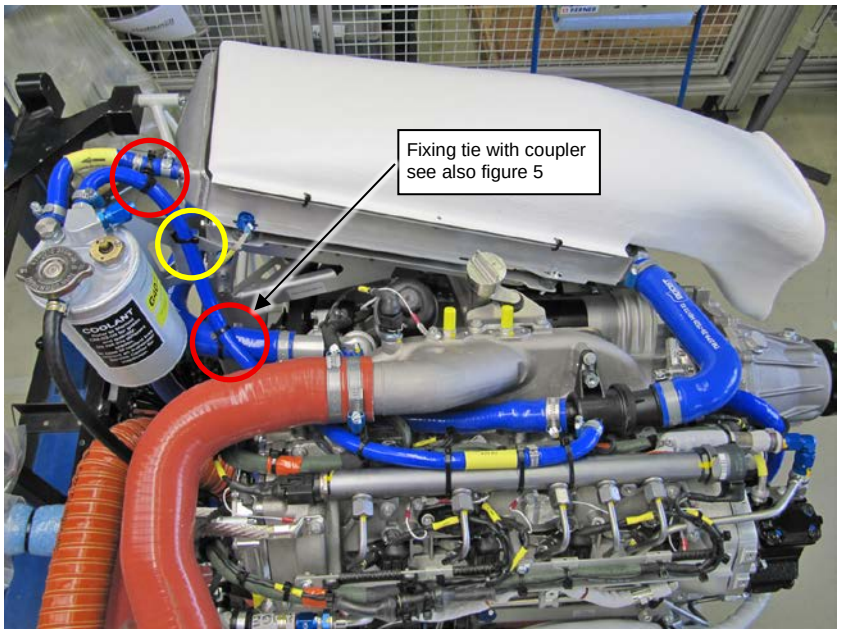

Figure 4: Attaching points fixing ties with coupler (red) and clip with cable tie (yellow)

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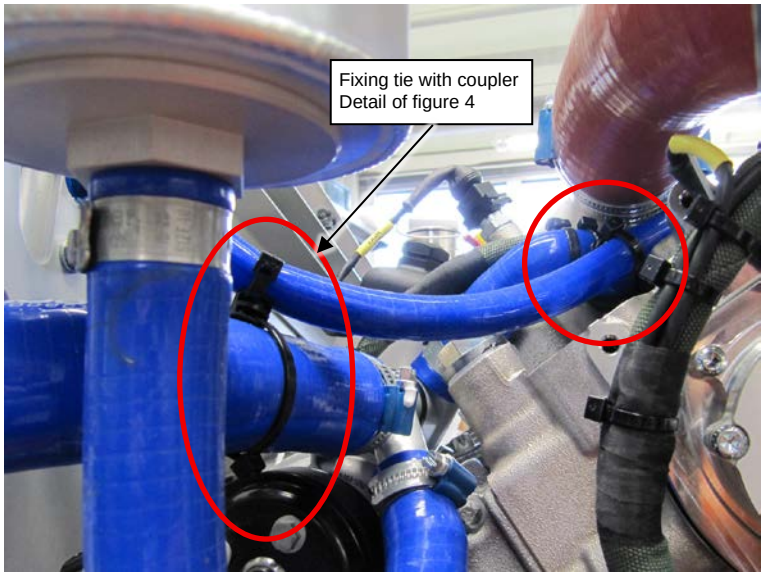

Figure 5: Attaching points fixing ties with coupler (red)

3.2. TAE 125-02-99 installation

Item		Part Number	Description 1	Description 2	Qty.
1		40-7520-H0185 01	hose	thermostat	1
2		20-7520-H0463 01	expansion tank	installation set	1
	2.1	20-7520-H0006 01	support		
	2.2	20-7520-H0462 01	expansion tank		1
	2.3	40-7520-H0025 02	label	coolant	1
	2.4	NM-0000-00038 01	plain washer	ISO 7089 – 6 – 200 HV – A2E	2
	2.5	NM-0000-00046 01	plain washer	ISO 7092 – 6 – 200 HV – A2J	2
	2.6	NM-0000-00181 01	hexagon nut	ISO 10511 – M6 – 04 – A2E	1
	2.7	NM-0000-00196 01	hexagon head screw	ISO 4017 – M6x16 – 8.8 – A2E	1
	2.8	NM-0000-00360 01	hexagon socket head cap screw	ISO 4762 – M6x12 – 8.8 – A2J	2
	2.9	NV-0000-01892 01	acrylic protective laquer		as req.
	2.10	NV-0000-01905 01	LOCTITE 243		as req.
3		NK-0000-00414 01	hose clamp	ABA 11-17x9 – W1	3
4		NK-0000-00438 01	cap	Ø 8x38, black	1
5		NM-0000-00169 01	hose clamp	ABA 19-28x12 – W1	1

Table 2: Parts list for TAE 125-02-99

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a) Install the expansion tank (item 2.2) using the installation set (item 2). Refer to figure 6 for detailed information.

b) Attach the vent line (item 1) to the thermostat using a clamp (item 3). The throttle, integrated in the vent line, must be located on thermostat side and the arrow labelled on the vent line must point towards the expansion tank. Refer to figure 7.

c) Route the thermostat vent line towards the expansion tank while ensuring a U-shaped layout (*lowest point below the expansion tank bottom*). Refer to figure 7. Attach the thermostat vent line to the angled connection of the expansion tank using a clamp (item 3).

d) Close the vent line connection of the main radiator using the cap (item 4) and a clamp (item 3).

e) Finally, reconnect the lower coolant hose using a clamp (item 5) as well as the bleeder hose and the sensor wire.

Note: Secure the hoses adequately using cable ties.

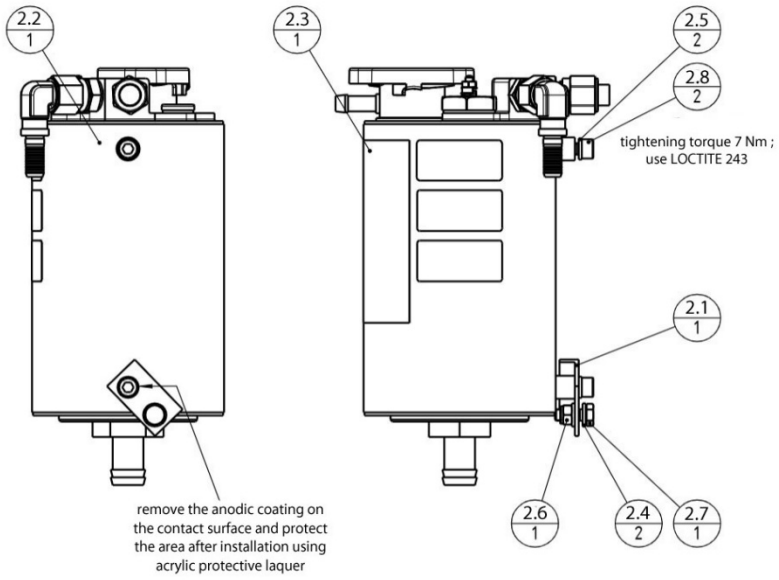

Figure 6: Expansion tank installation

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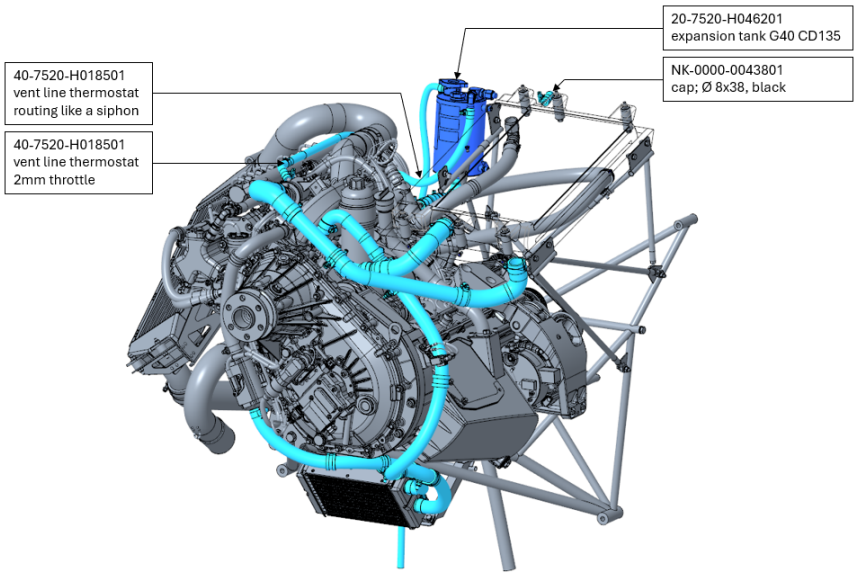

Figure 7: Overview TAE 125-02-99 installation

4. System refilling and check

a) Perform the following steps acc. to AMMS chapter 12.10
- Flush the cooling system
- Refill the cooling system
- Check proper function of coolant level warning
- Perform an engine ground run to bleed the system

b) Check the system for leakage.

c) Perform a coolant system pressure test acc. to AMMS chapter 75.00.

Remarks: ---

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