Service Bulletin

smc-11-69
cmd-11-09

TDI 3.0L V6 Incorrect Thermostat

Affected Engines:
TDI 3.0L V6 – See included engine serial number listing

CEZ 001 072	CEZ 001 097	CEZ 001 141	CEZ 001 162
CEZ 001 073	CEZ 001 098	CEZ 001 142	CEZ 001 163
CEZ 001 074	CEZ 001 101	CEZ 001 143	CEZ 001 164
CEZ 001 075	CEZ 001 102	CEZ 001 144	CEZ 001 165
CEZ 001 076	CEZ 001 103	CEZ 001 145	CEZ 001 166
CEZ 001 077	CEZ 001 104	CEZ 001 146	CEZ 001 167
CEZ 001 078	CEZ 001 105	CEZ 001 147	CEZ 001 168
CEZ 001 079	CEZ 001 106	CEZ 001 148	CEZ 001 169
CEZ 001 080	CEZ 001 107	CEZ 001 149	CEZ 001 170
CEZ 001 081	CEZ 001 108	CEZ 001 150	CEZ 001 171
CEZ 001 082	CEZ 001 109	CEZ 001 151	CEZ 001 172
CEZ 001 083	CEZ 001 110	CEZ 001 152	CEZ 001 173
CEZ 001 084	CEZ 001 111	CEZ 001 153	CEZ 001 174
CEZ 001 085	CEZ 001 112	CEZ 001 154	CEZ 001 178
CEZ 001 086	CEZ 001 113	CEZ 001 155	CEZ 001 212
CEZ 001 087	CEZ 001 114	CEZ 001 156	CEZ 001 213
CEZ 001 088	CEZ 001 115	CEZ 001 157	CEZ 001 214
CEZ 001 089	CEZ 001 116	CEZ 001 158	CEZ 001 215
CEZ 001 093	CEZ 001 117	CEZ 001 159	CEZ 001 216
CEZ 001 096	CEZ 001 118	CEZ 001 161	CEZ 001 218

Problem Description:
TDI 3.0L V6 engines in the identified range may have an incorrect thermostat installed causing elevated operating temperatures that may cause damage to the engine over extended periods of operation.

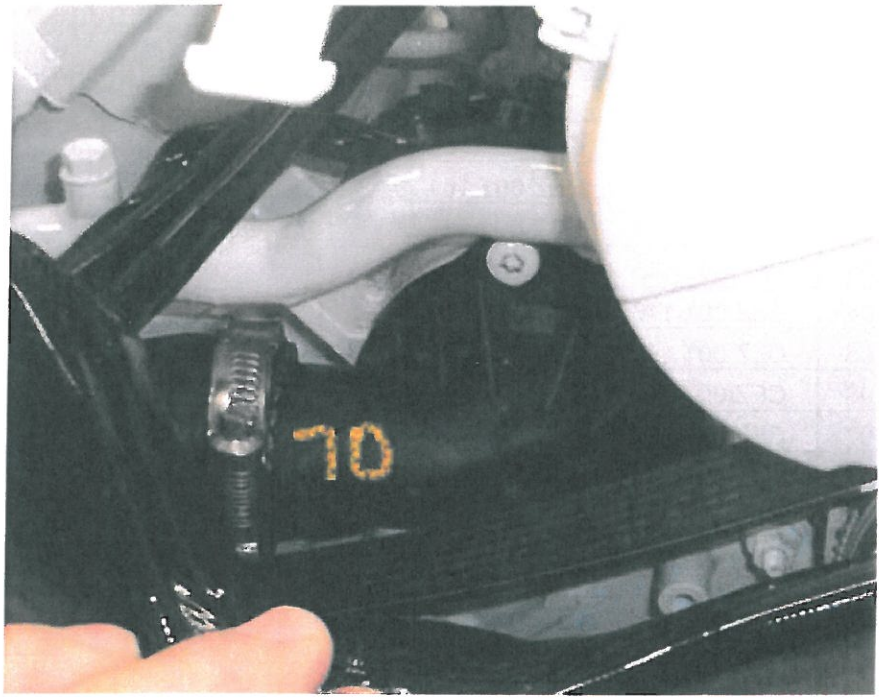
Background Information:
TDI 3.0L V6 engines utilize a 70°C thermostat in marine applications. The thermostat is part of a thermostat assembly, P/N 06V 121 111. Due to a supplier issue, some of the thermostat assemblies had an automotive thermostat with a rating of 87°C installed instead of the correct 70°C thermostat. The

incorrect thermostat will allow the engine to operate at a higher temperature and may cause damage to the engine over extended periods of operation. Cummins MerCruiser Diesel requests that engines within the specified range are inspected to determine if the incorrect thermostat is installed.

Engines can be inspected based on the following:

- If the engine is installed in a vessel and it is available for sea trial, see procedure 1.
- If the engine has not yet been installed, or it is installed in a vessel that is not available to sea trial, the thermostat assembly will need to be removed and inspected. See procedure 2.

To aid the field in determining if an engine has been inspected, the following procedures require the thermostat assembly to be marked with "70" (as shown below) if this service bulletin has been completed.



Filing a Claim:

Inspection of the thermostat assembly is reimbursable with claim submitted via the normal warranty process set up for the VW Marine Legacy engines on www.cmdmarine.com. The following repair times are to be used depending on the inspection procedure(s) performed.

- Sea Trial – **.5 hour**
- Removal, inspection, and reinstallation of the thermostat assembly - **1 hour**

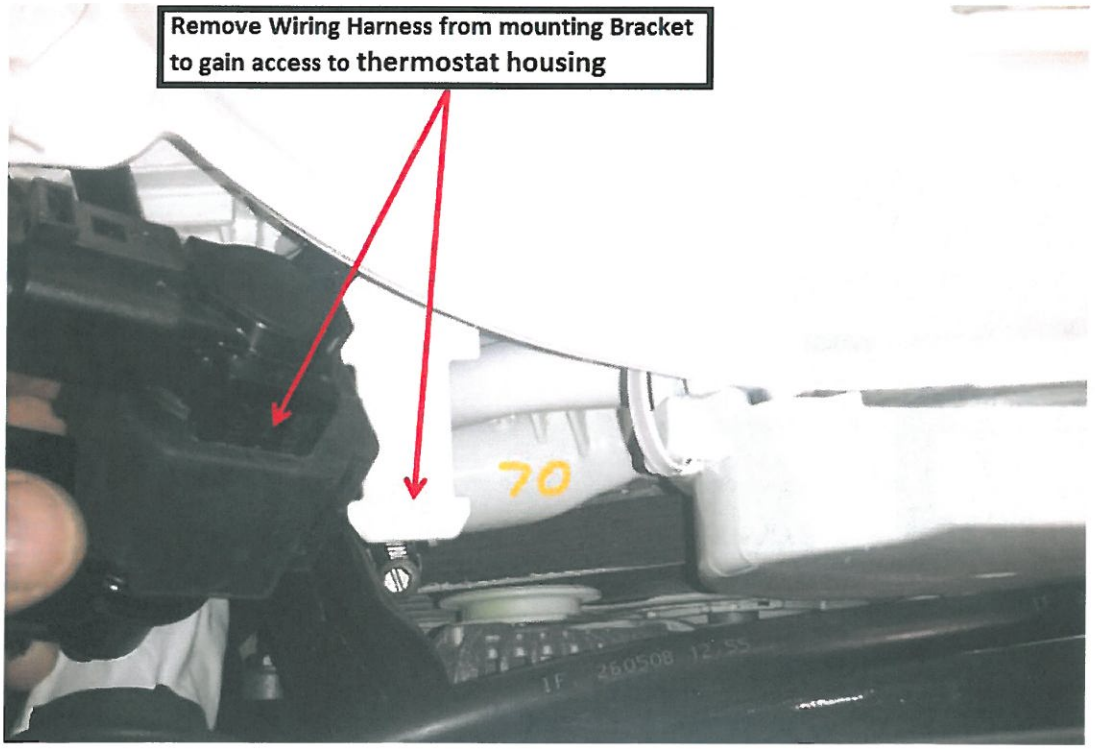
Procedure 1 - For engines that are installed and the vessel is available for sea trial.

Step 1- operate engine until it is at full temperature and stabilized

Step 2 – Observe coolant temperature on the tachometer digital display or Scan Di tool for best accuracy.

- If the correct 70°C thermostat is installed, the observed temperature should be 75-80°C at idle and 80-85°C at full load.
- If the incorrect 87°C thermostat is installed, the observed temperature should be 90-95°C at idle and 95-100°C at full load.

Step 3 - If the temperatures ranges for the correct 70°C thermostat are observed, mark thermostat assembly with paint pen or other suitable marking implement with "70". Access is tight behind the electrical box. Removal of the wiring harness from the hanger will provide enough room to access the thermostat housing.



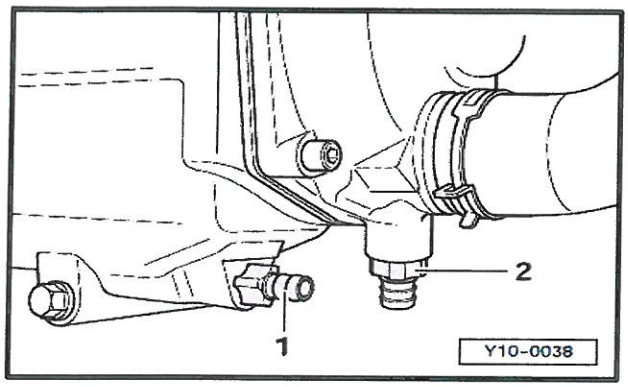
Step 4 - If the temperatures ranges for the incorrect 87°C thermostat are observed, go to Procedure 2 to replace the thermostat assembly.

Procedure 2 - For engines that are not installed or installed, but the vessel is not available for sea trial.

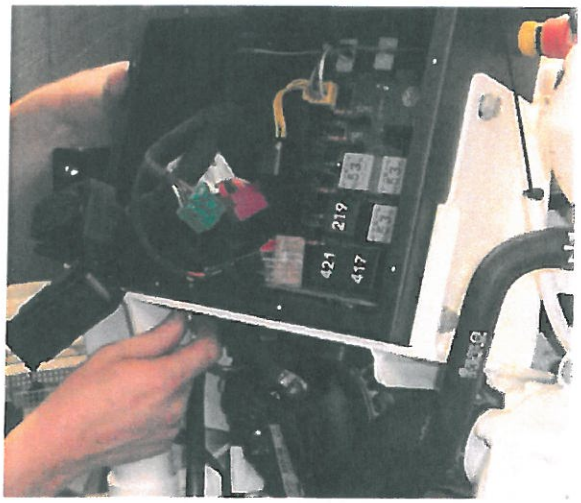
Step 1 – Draining the coolant

Important! When opening the expansion tank, hot steam may escape; cover the sealing cap with a cloth and open carefully.

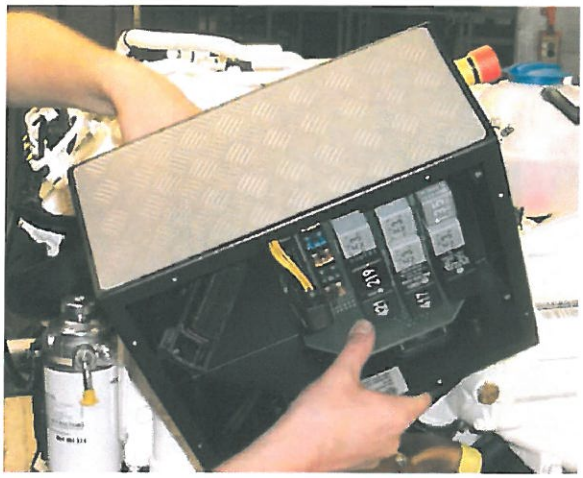
Open the drain screw (location 1) 1 to 2 turns on the heat exchanger to drain the engine coolant into a suitable container. Drain screw (location 2) is for sea water – do not use



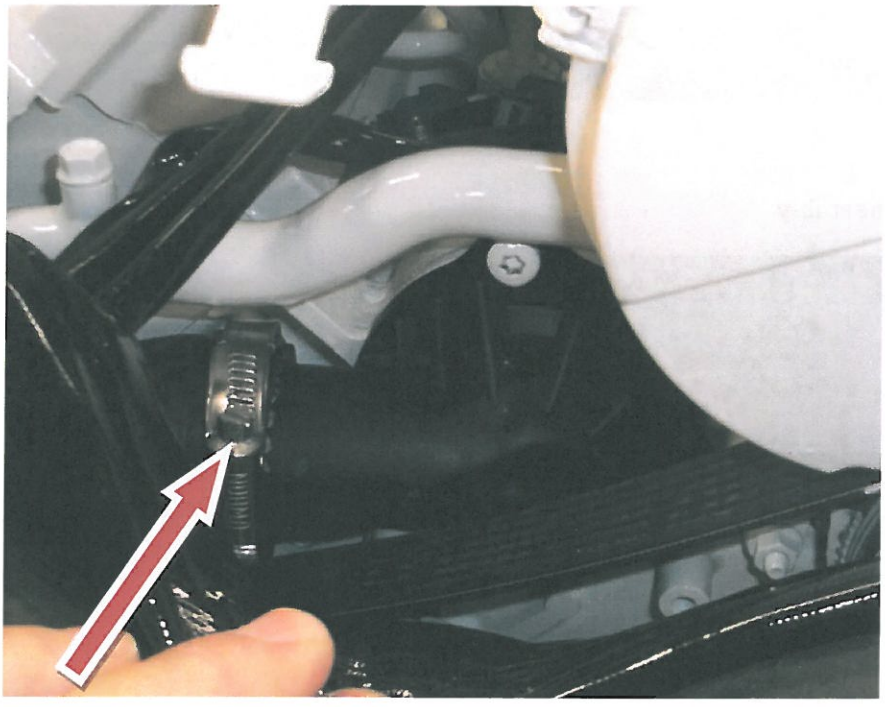
Step 2 – Remove the electrical box from the engine.



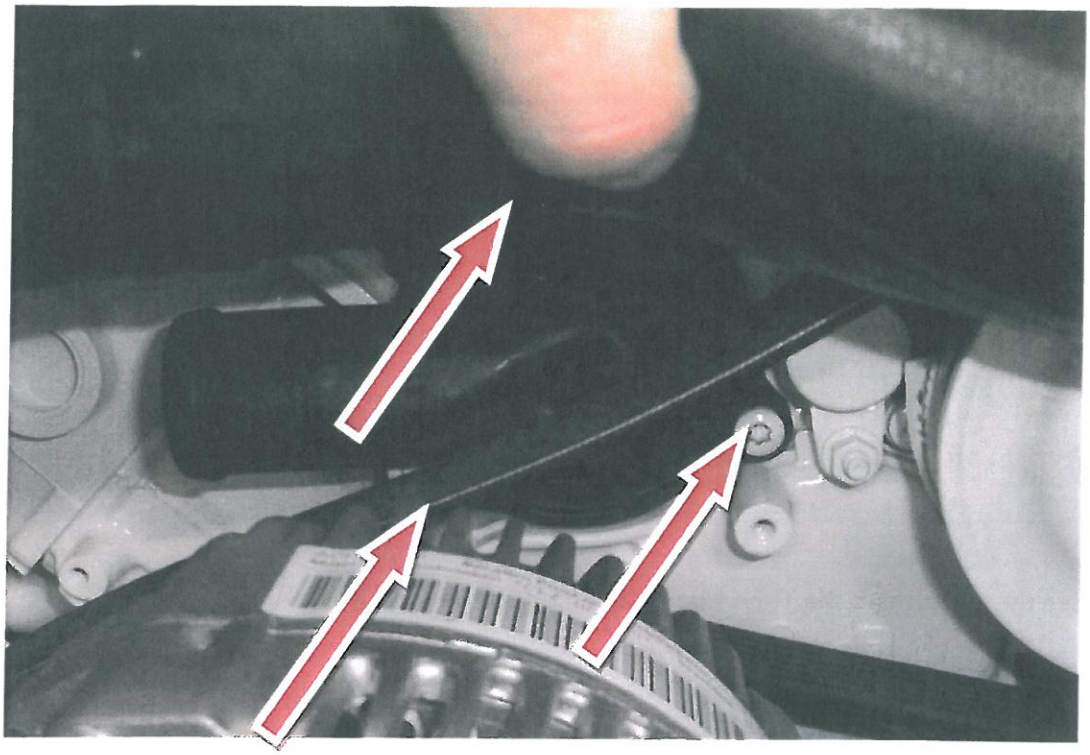
Step 3 – Disconnect the harnessing from the electrical box



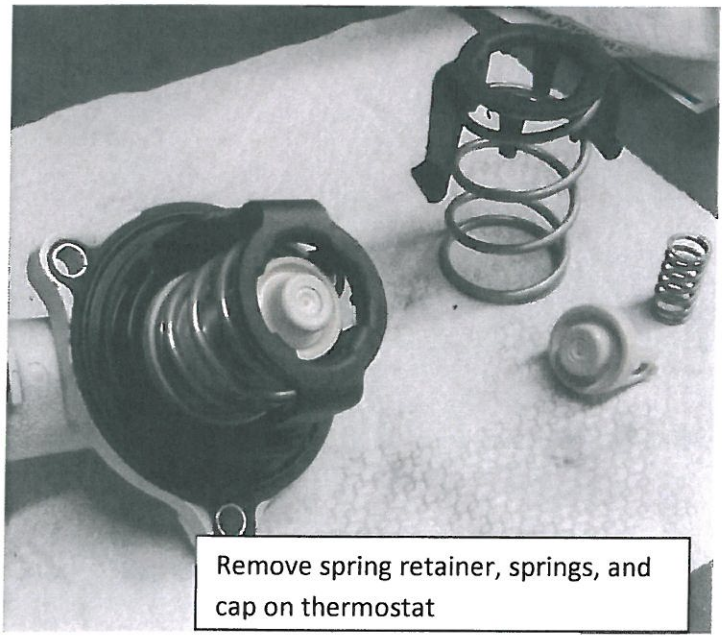
Step 4 - Remove the Clamp and the Tube from the thermostat assembly.

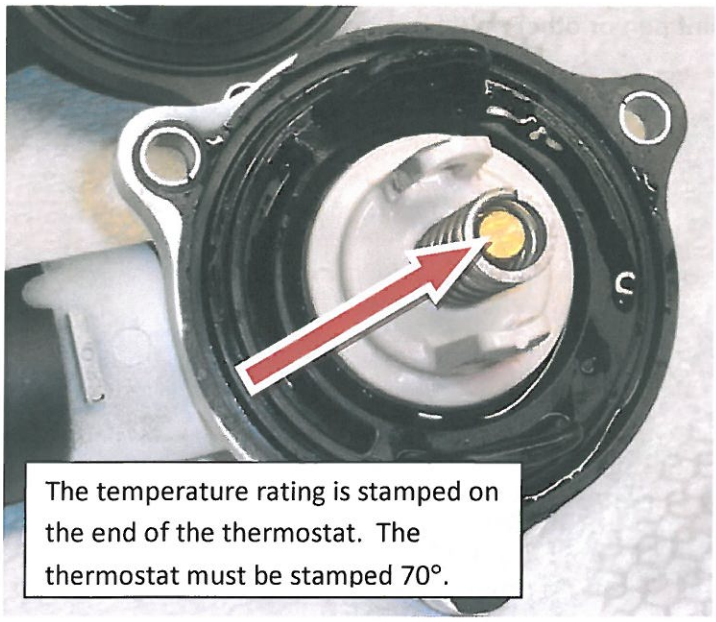


Step 5 – Remove the 3 screws attaching the thermostat housing to the engine block.

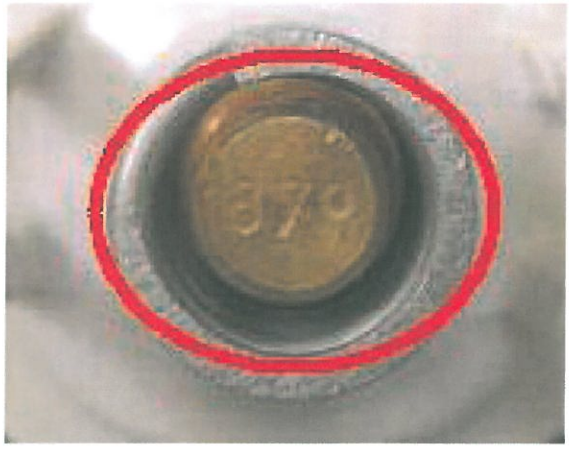


Step 6 – Inspect thermostat assembly





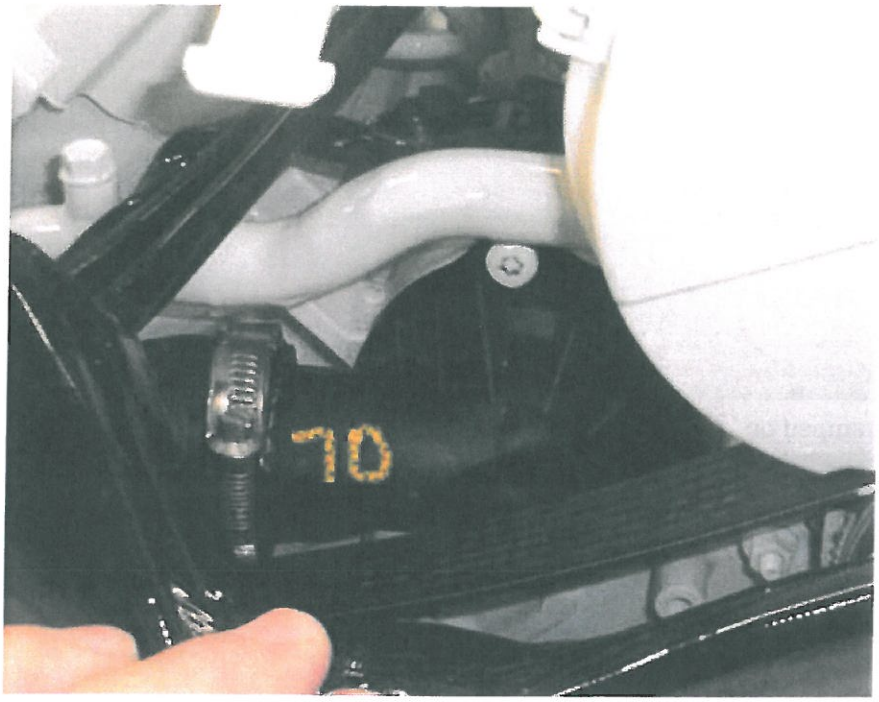
If the thermostat is stamped 87°, then the thermostat assembly must be replaced, P/N 06V 121 111.



Step 7 - Reinstall thermostat and tighten screws to 10 Nm.

Step 8 - Connect the tube and tighten clamp.

Step 9 – Mark thermostat assembly with paint pen or other suitable marking implement with "70".



Step 10 - Install the electrical box and tighten fasteners to 20 Nm.

Step 11 - Fill with coolant and test run if possible.

Step 12 - Check for leaks