P1354

Fault code description

VTG turbo charger actuator - Voltage too low or short circuit to ground

Possible cause

1. Faulty wiring
2. Faulty connector
3. Faulty actuator

Additional information

Supply voltage below critical operating range

Set condition of fault code

The PMCI-2 detects supply voltage is too low (below 10 V) while the engine speed is 0 rpm or above 650 rpm.

Reset condition of fault code

This fault code will change to inactive immediately after the diagnostic runs and passes.

M028586 - 07/22/2015 18:13:38

P1354, Diagnostic information

Technical data

"Rotary speed actuator (L037)"

Location of component(s)

"Location information, PMCI-2"

Electrical diagram(s)

"PMCI-2"

Description of component(s)

"Rotary speed actuator (L037)"

Block diagram

"PMCI-2"

Step by step troubleshooting

Please perform the troubleshooting steps below using the breakout harness if necessary to check electrical components such as sensors, electrical control units or harnesses. Back probing is not recommended as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components to reduce the likelihood of damage to electrical components.

- This troubleshooting tree is based on the assumption that supply power and earth to the PMCI are functioning properly.
- Disconnecting the PMCI connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data in Rapido.
- It is necessary to exit the 'active errors' screen in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive codes. Refer to the 'possible causes' section in Rapido.

Step 1

With key ON, gently bend, twist and pull the connections, and in between connections in the harness to the actuator (L037), in an attempt to replicate the fault and/or change the fault status.

- If the actuator power resets (audible clicks) – An intermittent open circuit is detected. Repair or replace the wiring. Proceed to the verification procedure listed at the end of this document.
- If the actuator power does not reset – Proceed to step 2

Step 2

With key OFF, disconnect the actuator (L037) from the harness and inspect the connectors and harness for:

1. Corroded or dirty pins
2. Damaged pins
3. Pushed back or expanded pins
4. Loose connector
5. Moisture in or on the connector
6. Connector shell damaged
7. Missing or damaged connector seals
8. Wire insulation damage

Dirty or damaged pins/connector?

- Yes – A dirty or damaged connection has been detected. Clean, repair or replace the damaged connection or harness if possible - Proceed to the verification procedure listed at the end of this document.
- No – Proceed to step 3

Step 3

With the connector disconnected. Turn the key ON. Check the voltage between the earth terminal and the supply terminal circuit at the connector harness. (Refer to the OEM manual for the system voltage)

- If the voltage found is within the specifications – Proceed to step 5.
- If the voltage found is NOT within the specifications – Proceed to Step 4.

Step 4

With key OFF, check the actuator earth by measuring the resistance between the earth terminal of the actuator connector and the earth terminal of the engine battery:

- If the measured resistance is greater than 10 ohms – Repair or replace earth wiring. Proceed to the verification procedure listed at the end of this document.
- If the measured resistance is less than 10 ohms – Proceed to step 5

Step 5

Check the resistance between the power pin and the earth pin of the actuator.

- If the measured resistance is less than 100 ohms – Proceed to step 7
- If the measured resistance is greater than 100 ohms – Proceed to step 6

Step 6

Check the system voltage during cranking. (Refer to the OEM manual for the system voltage)

- If the voltage is within the specifications – Proceed to step 7
- If the voltage is NOT within the specifications – Check the battery

Step 7

Possible actuator failure - Replace the actuator. Refer to Rapido for replacement instructions.

Verification procedure

With DAVIE connected and key ON, clear the errors. Start the engine and let it idle to verify with DAVIE that the errors do not re-occur.

M046486 - 07/22/2015 15:16:44

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