P1341

Fault code description

Camshaft speed - Data erratic, intermittent or incorrect

Possible cause

1. Possible long cranking period
2. Faulty wiring
3. Faulty connector
4. Faulty sensor
5. Too large an air gap between the camshaft sensor and the pulse wheel
6. External influences

Additional information

Monitoring the time period between camshaft sensor events

Set condition of fault code

This diagnostic runs if the engine speed is below 400 rpm.

Reset condition of fault code

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

M028083 - 07/22/2015 15:04:08

P1341, Diagnostic information

Technical data

"Sensor, camshaft (F558)"

Location of component(s)

"Location information, PMCI-2"

Electrical diagram(s)

"PMCI-2"

Description of component(s)

"Camshaft sensor (F558)"

Block diagram

"PMCI-2"

Step by step troubleshooting

Please perform the troubleshooting steps below by utilising 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 is 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 any 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

Visual inspection- Visually inspect all applicable connectors and harnesses for corrosion, damage and rubbing during each step of the diagnostic procedure. Proceed to step 2.

Step 2

With key OFF, disconnect the crankshaft sensor from the engine harness and start the engine

- If the engine starts – Proceed to step 3.
- If the engine does NOT start – Proceed to step by step diagnostic for code P0017.

Step 3

With key OFF, disconnect the crankshaft sensor. Measure the resistance between the signal and ground pins of the crankshaft sensor

Resistance values change with temperature

- If the resistance is acceptable – Proceed to step 4
- If the resistance is NOT acceptable – Replace the sensor and reconnect the harness, then proceed to the verification procedure listed at the end of this document.

Step 4

With key OFF, disconnect the engine harness from PMCI. Perform a continuity test on all wires associated with the sensor:

- If the continuity is acceptable – Proceed to step 5.
- If the continuity is NOT acceptable – Replace engine harness. Reconnect the harness then proceed to the verification procedure listed at the end of this document

Step 5

Inspect connection pins of engine harness, crankshaft sensor and PMCI:

- If the pins are acceptable – Proceed to

step 6.

- If pins are NOT acceptable – Replace the engine harness. Reconnect the harness then proceed to the verification procedure listed at the end of this document

Step 6

With key OFF, reconnect all the harnesses. Turn the key on and reprogram the PMCI:

- If code is still active– Proceed to step 7
- If no code is present – Proceed to the verification procedure listed at the end of this document.

Step 7

With key OFF, disconnect the crankshaft sensor from the engine harness. Crank the engine and use an AC voltmeter to check the voltage between the signal and earth pins of the crankshaft sensor:

- If the voltage is acceptable – Proceed to step 9.
- If the voltage is NOT acceptable – Proceed to step 8.

Step 8

With key OFF, remove the sensor and check for debris or damage:

- If Debris is found – Clean the sensor, reinstall and repeat step 8.
- If Damage is found – Replace the sensor and repeat step 8.
- If No Debris or Damage is found – Proceed to step 9.

Step 9

Inspect the Flywheel for damage through sensor pass-through:

- If No damage is found – Proceed to step 10.
- If Damage is found – Replace the Flywheel (see Engine Rapido for information on Flywheel replacement) then proceed to the verification procedure listed at the end of this document.

Step 10

Verify correct timing of Crankshaft and Camshaft Gears:

- If correct – Proceed to step 11.
- If not correct – Check engine timing (see engine Rapido for instructions on timing the engine). Proceed to the verification procedure listed at the end of this document. If P1341 is still active- Proceed to step 11.

Step 11

Possible PMCI failure – Contact the Engine Support Center for further instructions on replacement of the PMCI.

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

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