DI31N–15

PROBLEM SYMPTOMS TABLE

When the malfunction code is not confirmed the DTC check and the problem still can not be confirmed in the basic inspection, then proceed to this step and perform troubleshooting according to the numbered order given in the table below.

Symptom	Suspect Area	See page
Does not crank (Difficult to start)	1. Starter 2. Starter relay	★ ST–3
Cold engine (Difficult to start)	1. Intake heater control circuit 2. STA signal circuit 3. Injection nozzle 4. Fuel filter 5. Engine ECU 6. Injection pump	DI–72 DI–88 ★ ★ ED–31 ★
Hot engine (Difficult to start)	1. STA signal circuit 2. Injection nozzle 3. Fuel filter 4. Compression 5. Engine ECU 6. Injection pump	DI–88 ★ ★ EM–1 ED–31 ★
Soon after starting (Engine stall)	1. Fuel filter 2. ECU power source circuit 3. Engine ECU 4. Injection pump	★ DI–96 ED–31 ★
Others (Engine stall)	1. ECU power source circuit 2. Spill control valve relay circuit 3. Engine ECU 4. Injection pump	DI–96 DI–94 ED–31 ★
Incorrect first idle (Poor idling)	1. Fuel filter 2. Engine ECU 3. Injection pump	★ ED–31 ★
High engine idle speed (Poor idling)	1. STA signal circuit 2. Engine ECU 3. Injection pump	ED–15 ED–31 ★
Lower engine idle speed (Poor idling)	1. Injection nozzle 2. EGR control circuit 3. Compression 4. Valve clearance 5. Fuel line (Air blend) 6. Engine ECU 7. Injection pump	★ DI–77 EM–1 ★ – ED–31 ★
Rough idling (Poor idling)	1. Injection nozzle 2. Fuel line (Air blend) 3. Intake heater control circuit 4. EGR control circuit 5. Compression 6. Valve clearance 7. Engine ECU 8. Injection pump	★ – DI–72 DI–77 EM–1 ★ ED–31 ★

Hunting at hot engine (Poor idling)	1. Injection nozzle 2. ECU power source circuit 3. Compression 4. Fuel line (Air blend) 5. Valve clearance 6. Engine ECU 7. Injection pump	★ DI–96 EM–1 – ★ ED–31 ★
Hunting at cold engine (Poor idling)	1. Injection nozzle 2. ECU power source circuit 3. Intake heater control circuit 4. Compression 5. Fuel line (Air blend) 6. Valve clearance 7. Engine ECU 8. Injection pump	★ DI–96 DI–72 EM–1 – ★ ED–31 ★
Hesitation/ Poor acceleration (Poor driveability)	1. Injection nozzle 2. Fuel filter 3. EGR control circuit 4. Compression 5. Engine ECU 6. Injection pump	★ ★ DI–77 EM–1 ED–31 ★
Knocking (Poor driveability)	1. Injection nozzle 2. EGR control circuit 3. Engine ECU	★ DI–77 ED–31
Black smoke (Poor driveability)	1. Injection nozzle 2. EGR control circuit 3. Engine ECU 4. Injection pump	★ DI–77 ED–31 ★
White smoke (Poor driveability)	1. EGR control circuit 2. Intake heater control circuit 3. Injection nozzle 4. Fuel filter 5. Engine ECU 6. Injection pump	DI–77 DI–72 ★ ★ ED–31 ★
Surging/ Hunting (Poor driveability)	1. Injection nozzle 2. Engine ECU 3. Injection pump	★ ED–31 ★

★: See Pub. No. RM464E