DI064–21

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 and starter relay	★
No initial combustion (Difficult to start)	1. ECU power source circuit	DI–82
	2. Pre–heating system	DI–88
	3. Compression	★
	4. Engine ECU	ED–25
	5. Injection pump	FU–7
Cold engine (Difficult to start)	1. Pre–heating system	DI–88
	2. STA signal circuit	DI–101
	3. Water temperature sensor	ED–12
	4. Injection nozzle	★
	5. Fuel filter	★
	6. Diesel throttle body	★
	7. Engine ECU	ED–25
	8. Injection pump	FU–7
Hot engine (Difficult to start)	1. STA signal circuit	DI–101
	2. Injection nozzle	★
	3. Fuel filter	★
	4. Diesel throttle body	★
	5. Engine ECU	ED–25
	6. Injection pump	FU–7
Soon after starting (Engine stall)	1. Fuel filter	★
	2. Diesel throttle body	★
	3. Engine ECU	ED–25
	4. Injection pump	FU–7
Others (Engine stall)	1. ECU power source circuit	DI–82
	2. Diesel throttle body	★
	3. Engine ECU	ED–25
	4. Injection pump	FU–7
Incorrect first idle (Poor idling)	1. Water temperature sensor	ED–12
	2. Fuel filter	★
	3. Engine ECU	ED–25
	4. Injection pump	FU–7
High engine idle speed (Poor idling)	1. A/C signal circuit	DI–106
	2. Water temperature sensor	ED–12
	3. Engine ECU	ED–25
	4. Injection pump	FU–7
Lower engine idle speed (Poor idling)	1. A/C signal circuit	DI–106
	2. Injection nozzle	★
	3. EGR system	DI–96
	4. Water temperature sensor	ED–12
	5. Diesel throttle body	★
	6. Compression	★
	7. Valve clearance	★
	8. Fuel line (Air beed)	–
	9. Engine ECU	ED–25
	10. Injection pump	FU–7

★: See Pub. No. RM520E and RM582E

Symptom	Suspect Area	See page
Rough idling (Poor idling)	1. Injection nozzle	★
	2. Fuel line (Air beed)	–
	3. Pre–heating system	DI–88
	4. EGR system	DI–96
	5. Diesel throttle body	ED–12
	6. Compression	★
	7. Valve clearance	★
	8. Engine ECU	ED–25
	9. Injection pump	FU–7
Hunting at hot engine (Poor idling)	1. Injection nozzle	★
	2. ECU power source circuit	DI–82
	3. Compression	★
	4. Fuel line (Air beed)	–
	5. Valve clearance	ED–25
	6. Engine ECU	ED–25
	7. Injection pump	FU–7
Hunting at cold engine (Poor idling)	1. Pre–heating system	DI–88
	2. Injection nozzle	★
	3. ECU power source circuit	DI–82
	4. Water temperature sensor	ED–12
	5. Compression	★
	6. Fuel line (Air beed)	–
	7. Valve clearance	ED–25
	8. Engine ECU	ED–25
	9. Injection pump	FU–7
Hesitation/ Poor acceleration (Poor driveability)	1. Injection nozzle	★
	2. Fuel filter	★
	3. EGR system	DI–96
	4. Compression	★
	5. Engine ECU	ED–25
	6. Injection pump	FU–7
Knocking (Poor driveability)	1. Injection nozzle	★
	2. EGR system	DI–96
	3. Water temperature sensor	ED–12
	4. Engine ECU	ED–25
Black smoke (Poor driveability)	1. Injection nozzle	★
	2. EGR system	DI–96
	3. Diesel throttle body	ED–12
	4. Intake air temperature sensor	ED–14
	5. Engine ECU	ED–12
	6. Injection pump	ED–25
White smoke (Poor driveability)	1. EGR system	DI–96
	2. Pre–heating system	DI–88
	3. Injection nozzle	★
	4. Fuel filter	★
	5. Diesel throttle body	ED–12
	6. Water temperature sensor	ED–12
	7. Intake air temperature sensor	ED–14
	8. Engine ECU	ED–12
	9. Injection pump	ED–25
Surging/ Hunting (Poor driveability)	1. Injection nozzle	★
	2. Engine ECU	ED–12
	3. Injection pump	ED–25

★: See Pub. No. RM520E and RM582E