

1. Engine Trouble in General

Numbers shown in the chart refer to the possibility of reason for the trouble in order (“Very often” to “Rarely”)

- 1 — Very often
- 2 — Sometimes
- 3 — Rarely

TROUBLE													
Engine will not start.				Rough idle and engine stall	Low output, hesitation and poor acceleration	Surging	Engine does not return to idle.	Dieseling (Run-on)	After burning in exhaust system	Knocking	Excessive engine oil consumption		Excessive fuel consumption
Starter does not turn.	Initial combustion does not occur.	Initial combustion occurs.	Engine stalls after initial combustion.										
													POSSIBLE CAUSE
													STARTER
													● Defective battery-to-starter harness
													● Defective starter switch
													● Defective inhibitor switch
													● Defective starter
													BATTERY
													● Poor terminal connection
													● Run-down battery
													● Defective charging system
	1	1	1	1	1	1	1	1	1	1		1	Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System.>

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														INTAKE SYSTEM
			2	1	1	1			3					● Loosened or cracked intake air pipe
			3	1	1	1			3		1			● Loosened or cracked blow-by hose
			3	1	2	1	1		2					● Loosened or cracked vacuum hose
		2	2	2	2	2								● Defective intake manifold gasket
		2	2	2	2	2								● Defective throttle body gasket
				3	2	2			2		2			● Defective PCV valve
				2	2	2			3	2	3			● Loosened oil filler cap
			3	3	1	2						1		● Dirty air cleaner element
														FUEL LINE
	1	3		3	2	2								● Defective fuel pump and relay
		3	3	3	2	2								● Clogged fuel line
	2	2	2	2	3	3								● Lack of or insufficient fuel
														BELT
	2	2	2											● Defective
	2	2	2	3	2	2			2	2		2		● Defective timing
														FRICITION
3														● Seizure of crankshaft and connecting rod bearing
3														● Seized camshaft
3														● Seized or stuck piston and cylinder
														COMPRESSION
	3	3	3	2	2	2			2	3		2		● Defective hydraulic lash adjuster
	3	3	3	2	2	3			3			3		● Loosened spark plugs or defective gasket
	3	3	3	2	2	3			3			3		● Loosened cylinder head bolts or defective gasket
	3	3	3	2	2	3			2			2		● Improper valve seating
	3	3	3	3	3	3			3		1	3		● Defective valve stem
	2	2	2	2	2	3			3			3		● Worn or broken valve spring
	3	3	3	2	3	3			3		1	2		● Worn or stuck piston rings, cylinder and piston
	2	2	2	1	1	1			1	2		2		● Incorrect valve timing
	2	2	2	2	2	2								● Improper engine oil (low viscosity)

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Starter does not turn.	Initial combustion does not occur.	Initial combustion occurs.	Engine stalls after initial combustion.										
													LUBRICATION SYSTEM
				2	2				3			3	● Incorrect oil pressure
											2		● Loosened oil pump attaching bolts and defective gasket
											2		● Defective oil filter seal
											2		● Defective crankshaft oil seal
				3							2		● Defective rocker cover gasket
											2		● Loosened oil drain plug or defective gasket
											2		● Loosened oil pan fitting bolts or defective oil pan
													COOLING SYSTEM
				3	3	2		2		1			● Overheating
					3				3			3	● Over cooling
													OTHERS
				1	1	3			3				● Malfunction of Evaporative Emission Control System
				2			1						● Stuck or damaged throttle valve
				3			2	2				2	● Accelerator cable out of adjustment