

## 1. Engine Trouble in General

A : Very often  
 B : Sometimes  
 C : Rarely

**NOTE:**

A, B and C shown in the RANK of table refer to the possibility of reason for the trouble in order ("Very often" to "Rarely").

TROUBLE	PROBLEM PARTS, ETC.	POSSIBLE CAUSE	RANK
1. Engine will not start.			
1) Starter does not turn.	● Starter	● Defective battery-to-starter harness	B
		● Defective starter switch	C
		● Defective inhibitor switch or neutral switch	C
		● Defective starter	B
	● Battery	● Poor terminal connection	A
		● Run-down battery	A
		● Defective charging system	B
	● Friction	● Seizure of crankshaft and connecting rod bearing	C
		● Seized camshaft	C
		● Seized or stuck piston and cylinder	C
2) Initial combustion does not occur.	● Starter	● Defective starter	C
	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Fuel line	● Defective fuel pump and relay	A
		● Lack of or insufficient fuel	B
	● Belt	● Defective	B
		● Defective timing	B
	● Compression	● Incorrect valve clearance	C
		● Loosened spark plugs or defective gasket	C
		● Loosened cylinder head bolts or defective gasket	C
		● Improper valve seating	C
		● Defective valve stem	C
		● Worn or broken valve spring	B
		● Worn or stuck piston rings, cylinder and piston	C
		● Incorrect valve timing	B
● Improper engine oil (low viscosity)	B		
3) Initial combustion occurs.	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Defective intake manifold gasket	B
		● Defective throttle body gasket	B
	● Fuel line	● Defective fuel pump and relay	C
		● Clogged fuel line	C
		● Lack of/or insufficient fuel	B
	● Belt	● Defective	B
		● Defective timing	B
	● Compression	● Incorrect valve clearance	C
		● Loosened spark plugs or defective gasket	C
		● Loosened cylinder head bolts or defective gasket	C
		● Improper valve seating	C
		● Defective valve stem	C
		● Worn or broken valve spring	B
		● Worn or stuck piston rings, cylinder and piston	C
		● Incorrect valve timing	B
● Improper engine oil (low viscosity)	B		

## 2-3b [K100]

### 1. Engine Trouble in General

## DIAGNOSTICS

TROUBLE	PROBLEM PARTS, ETC.	POSSIBLE CAUSE	RANK
4) Engine stalls after initial combustion.	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened or cracked intake duct	B
		● Loosened or cracked PCV hose	C
		● Loosened or cracked vacuum hose	C
		● Defective intake manifold gasket	B
		● Defective throttle body gasket	B
		● Dirty air cleaner element	C
	● Fuel line	● Clogged fuel line	C
		● Lack of or insufficient fuel	B
	● Belt	● Defective	B
		● Defective timing	B
	● Compression	● Incorrect valve clearance	C
		● Loosened spark plugs or defective gasket	C
		● Loosened cylinder head bolts or defective gasket	C
		● Improper valve seating	C
		● Defective valve stem	C
		● Worn or broken valve spring	B
● Worn or stuck piston rings, cylinder and piston		C	
● Incorrect valve timing		B	
● Improper engine oil (low viscosity)	B		
2. Rough idle and engine stall	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened or cracked intake duct	A
		● Loosened or cracked PCV hose	A
		● Loosened or cracked vacuum hose	A
		● Defective intake manifold gasket	B
		● Defective throttle body gasket	B
		● Defective PCV valve	C
		● Loosened oil filler cap	B
		● Dirty air cleaner element	C
	● Fuel line	● Defective fuel pump and relay	C
		● Clogged fuel line	C
		● Lack of/or insufficient fuel	B
	● Belt	● Defective timing	C
	● Compression	● Incorrect valve clearance	B
		● Loosened spark plugs or defective gasket	B
		● Loosened cylinder head bolts or defective gasket	B
		● Improper valve seating	B
		● Defective valve stem	C
		● Worn or broken valve spring	B
		● Worn or stuck piston rings, cylinder and piston	B
		● Incorrect valve timing	A
	● Improper engine oil (low viscosity)	B	
	● Lubrication system	● Incorrect oil pressure	B
		● Defective rocker cover gasket	C
	● Cooling system	● Overheating	C
	● Others	● Malfunction of evaporative emission control system	A
		● Stuck or damaged throttle valve	B
		● Accelerator cable out of adjustment	C

# DIAGNOSTICS

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TROUBLE	PROBLEM PARTS, ETC.	POSSIBLE CAUSE	RANK
3. Low output, hesitation and poor acceleration	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened or cracked intake duct	A
		● Loosened or cracked PCV hose	A
		● Loosened or cracked vacuum hose	B
		● Defective intake manifold gasket	B
		● Defective throttle body gasket	B
		● Defective PCV valve	B
		● Loosened oil filler cap	B
		● Dirty air cleaner element	A
	● Fuel line	● Defective fuel pump and relay	B
		● Clogged fuel line	B
		● Lack of/or insufficient fuel	C
	● Belt	● Defective timing	B
	● Compression	● Incorrect valve clearance	B
		● Loosened spark plugs or defective gasket	B
		● Loosened cylinder head bolts or defective gasket	B
		● Improper valve seating	B
		● Defective valve stem	C
		● Worn or broken valve spring	B
		● Worn or stuck piston rings, cylinder and piston	C
		● Incorrect valve timing	A
	● Improper engine oil (low viscosity)	B	
● Lubrication system	● Incorrect oil pressure	B	
● Cooling system	● Overheating	C	
	● Over cooling	C	
● Others	● Malfunction of evaporative emission control system	A	
4. Surging	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened or cracked intake duct	A
		● Loosened or cracked PCV hose	A
		● Loosened or cracked vacuum hose	A
		● Defective intake manifold gasket	B
		● Defective throttle body gasket	B
		● Defective PCV valve	B
		● Loosened oil filler cap	B
		● Dirty air cleaner element	B
	● Fuel line	● Defective fuel pump and relay	B
		● Clogged fuel line	B
		● Lack of/or insufficient fuel	C
	● Belt	● Defective timing	B
	● Compression	● Incorrect valve clearance	B
		● Loosened spark plugs or defective gasket	C
		● Loosened cylinder head bolts or defective gasket	C
		● Improper valve seating	C
		● Defective valve stem	C
		● Worn or broken valve spring	C
		● Worn or stuck piston rings, cylinder and piston	C
		● Incorrect valve timing	A
	● Improper engine oil (low viscosity)	B	
● Cooling system	● Overheating	B	
● Others	● Malfunction of evaporative emission control system	C	

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TROUBLE	PROBLEM PARTS, ETC.	POSSIBLE CAUSE	RANK
5. Engine does not return to idle.	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened or cracked vacuum hose	A
	● Others	● Stuck or damaged throttle valve	A
		● Accelerator cable out of adjustment	B
6. Dieseling (Run-on)	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Cooling system	● Overheating	B
	● Others	● Accelerator cable out of adjustment	B
7. After burning in exhaust system	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened or cracked intake duct	C
		● Loosened or cracked PCV hose	C
		● Loosened or cracked vacuum hose	B
		● Defective PCV valve	B
		● Loosened oil filler cap	C
	● Belt	● Defective timing	B
	● Compression	● Incorrect valve clearance	B
		● Loosened spark plugs or defective gasket	C
		● Loosened cylinder head bolts or defective gasket	C
		● Improper valve seating	B
		● Defective valve stem	C
		● Worn or broken valve spring	C
		● Worn or stuck piston rings, cylinder and piston	C
	● Incorrect valve timing	A	
● Lubrication system	● Incorrect oil pressure	C	
● Cooling system	● Over cooling	C	
● Others	● Malfunction of evaporative emission control system	C	
8. Knocking	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A
	● Intake system	● Loosened oil filler cap	B
	● Belt	● Defective timing	B
	● Compression	● Incorrect valve clearance	C
		● Incorrect valve timing	B
	● Cooling system	● Overheating	A
9. Excessive engine oil consumption	● Intake system	● Loosened or cracked PCV hose	A
		● Defective PCV valve	B
		● Loosened oil filler cap	C
	● Compression	● Defective valve stem	A
		● Worn or stuck piston rings, cylinder and piston	A
	● Lubrication system	● Loosened oil pump attaching bolts and defective gasket	B
		● Defective oil filter seal	B
		● Defective crankshaft oil seal	B
		● Defective rocker cover gasket	B
		● Loosened oil drain plug or defective gasket	B
● Loosened oil pan fitting bolts or defective oil pan	B		

# DIAGNOSTICS

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1. Engine Trouble in General

TROUBLE	PROBLEM PARTS, ETC.	POSSIBLE CAUSE	RANK	
10. Excessive fuel consumption	● Fuel injection system <Ref. to 2-7 On-Board Diagnostics II System>		A	
	● Intake system	● Dirty air cleaner element	A	
	● Belt	● Defective timing	B	
	● Compression	● Incorrect valve clearance		B
		● Loosened spark plugs or defective gasket		C
		● Loosened cylinder head bolts or defective gasket		C
		● Improper valve seating		B
		● Defective valve stem		C
		● Worn or broken spring		C
		● Worn or stuck piston rings, cylinder and piston		B
		● Incorrect valve timing		B
	● Lubrication system	● Incorrect oil pressure		C
	● Cooling system	● Over cooling		C
● Others	● Accelerator cable out of adjustment		B	