

2012 - Mazda6 - Engine

SYMPTOM DIAGNOSTIC INDEX [MZI 3.7 V6]

- Confirm trouble symptom using the following diagnostic index, then go to appropriate troubleshooting chart.

Diagnostic Index

No.	TROUBLESHOOTING ITEM		DESCRIPTION	PAGE
1	Melting of main or other fuses		—	(See NO.1 MELTING OF MAIN OR OTHER FUSES [MZI 3.7 V6] .)
2	MIL illuminates		• The MIL is illuminated incorrectly.	(See NO.2 MIL ILLUMINATES [MZI 3.7 V6] .)
3	Will not crank		• The starter does not work.	(See NO.3 WILL NOT CRANK [MZI 3.7 V6] .)
4	Hard to start/long crank/erratic start/erratic crank		• The starter cranks engine at normal speed but engine requires excessive cranking time before starting. • The battery is in normal condition.	(See NO.4 HARD TO START/ LONG CRANK/ ERRATIC START/ ERRATIC CRANK [MZI 3.7 V6] .)
5	Engine stalls	After start/at idle	• Engine stops unexpectedly.	(See NO.5 ENGINE STALLS-AFTER START/ AT IDLE [MZI 3.7 V6] .)
6	Crank normally but will not start		• The starter cranks engine at normal speed but the engine will not run.	(See NO.6 CRANKS NORMALLY BUT WILL NOT START [MZI 3.7 V6] .)
7	Slow return to idle		• Engine takes more time than normal to return to idle speed.	(See NO.7 SLOW RETURN TO IDLE [MZI 3.7 V6] .)
8	Engine runs rough/rolling idle		• Engine speed fluctuates between specified idle speed and lower speed and engine shakes excessively. • Idle speed is too slow	(See NO.8 ENGINE RUNS ROUGH/ ROLLING IDLE [MZI 3.7 V6] .)

			and engine shakes excessively.	
9	Fast idle/runs on		- The engine speed continues at fast idle after warm-up. - The engine runs after the ignition is off.	(See NO.9 FAST IDLE/ RUNS ON [MZI 3.7 V6] .)
10	Low idle/stalls during deceleration		Engine stops unexpectedly at the beginning of deceleration or recovery from deceleration.	(See NO.10 LOW IDLE/ STALLS DURING DECELERATION [MZI 3.7 V6] .)
11	Engine stalls/quits	Acceleration/cruise	- Engine stops unexpectedly at the beginning of acceleration or during acceleration. - Engine stops unexpectedly while cruising.	(See NO.11 ENGINE STALLS/ QUITTS, ENGINE RUNS ROUGH, MISSES, BUCK/ JERK, HESITATION/ STUMBLE, SURGES [MZI 3.7 V6] .)
	Engine runs rough	Acceleration/cruise	Engine speed fluctuates during acceleration or cruising.	
	Misses	Acceleration/cruise	Engine misses during acceleration or cruising.	
	Buck/jerk	Acceleration/cruise/deceleration	Vehicle bucks/jerks during acceleration, cruising, or deceleration.	
	Hesitation/stumble	Acceleration	Momentary pause at beginning of acceleration or during acceleration.	
	Surges	Acceleration/cruise	Momentary minor irregularity in engine output.	
12	Lack/loss of power	Acceleration/cruise	Performance is poor under load (such as power down when climbing hills).	(See NO.12 LACK/ LOSS OF POWER- ACCELERATION/ CRUISE [MZI 3.7 V6] .)
			Sound is heard when air/fuel mixture is ignited by something	(See NO.13 KNOCKING/ PINGING-

13	Knocking/pinging	Acceleration/cruise	other than spark plug (such as hot spot in combustion chamber).	ACCELERATION/ CRUISE [MZI 3.7 V6] .)
14	Poor fuel economy		Fuel economy is unsatisfactory.	(See NO.14 POOR FUEL ECONOMY [MZI 3.7 V6] .)
15	Emission compliance		Fails emissions test.	(See NO.15 EMISSION COMPLIANCE [MZI 3.7 V6] .)
16	High oil consumption/leakage		Oil consumption is excessive.	(See NO.16 HIGH OIL CONSUMPTION/ LEAKAGE [MZI 3.7 V6] .)
17	Cooling system concerns	Overheating	Engine runs at higher than normal temperature/overheats.	(See NO.17 COOLING SYSTEM CONCERNS-OVERHEATING [MZI 3.7 V6] .)
18	Cooling system concerns	Runs cold	Engine takes excessive time to reach normal operating temperature.	(See NO.18 COOLING SYSTEM CONCERNS-RUNS COLD [MZI 3.7 V6] .)
19	Exhaust smoke		Blue, black, or white smoke from exhaust system.	(See NO.19 EXHAUST SMOKE [MZI 3.7 V6] .)
20	Fuel odor (in engine compartment)		Gasoline fuel smell or visible leakage.	(See NO.20 FUEL ODOR (IN ENGINE COMPARTMENT) [MZI 3.7 V6] .)
21	Engine noise		Engine noise from under hood.	(See NO.21 ENGINE NOISE [MZI 3.7 V6] .)
22	Vibration concerns (engine)		Vibration from under hood or driveline.	(See NO.22 VIBRATION CONCERNS (ENGINE) [MZI 3.7 V6] .)
23	A/C does not work sufficiently		A/C compressor magnetic clutch does not engage when the A/C switch is turned on.	(See NO.23 A/ C DOES NOT WORK SUFFICIENTLY [MZI 3.7 V6] .)
24	A/C is always on or A/C compressor runs continuously		A/C compressor magnetic clutch does not disengage.	(See NO.24 A/ C IS ALWAYS ON OR A/ C COMPRESSOR RUNS CONTINUOUSLY [MZI 3.7 V6] .)
			A/C compressor	(See NO.25 A/ C DOES NOT CUT OFF UNDER

25	A/C does not cut off under wide open throttle conditions		magnetic clutch does not disengage under WOT.	WIDE OPEN THROTTLE CONDITIONS [MZI 3.7 V6] .)
26	Exhaust sulphur smell		• Rotten egg smell (sulphur) from exhaust.	(See NO.26 EXHAUST SULPHUR SMELL [MZI 3.7 V6] .)
27	Fuel refill concerns		• Fuel tank is not filled smoothly.	(See NO.27 FUEL REFILL CONCERNS [MZI 3.7 V6] .)
28	Fuel filling shut off concerns		• Fuel does not shut off properly.	(See NO.28 FUEL FILLING SHUT OFF CONCERNS [MZI 3.7 V6] .)
29	Spark plug condition		• Incorrect spark plug condition.	(See NO.29 SPARK PLUG CONDITION [MZI 3.7 V6] .)
30	ATX concerns	Upshift/downshift engagement	• ATX concerns not related to engine performance.	(See SYMPTOM TROUBLESHOOTING ITEM TABLE [AY6A-EL] .)

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