

2012 - Mazda6 - Engine

SYMPTOM DIAGNOSTIC INDEX [MZR 2.5]

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

Diagnostic Index

No.	TROUBLESHOOTING ITEM		DESCRIPTION
1	Melting of main or other fuses		—
2	MIL illuminates		• MIL is illuminated incorrectly.
3	Will not crank		• Starter does not work.
4	Hard to start/long crank/erratic start/erratic crank		• Starter cranks engine at normal speed but engine requires excessive cranking time before starting.
5	Engine stalls	After start/at idle	• Engine stops unexpectedly at idle and/or after start.
6	Crankes normally but will not start		• Starter cranks engine at normal speed but engine will not run.
7	Slow return to idle		• Engine takes more time than normal to return to idle speed.
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 and engine shakes excessively.
9	Fast idle/runs on		• Engine speed continues at fast idle after warm-up. • Engine runs after ignition is off.
10	Low idle/stalls during deceleration		• Engine stops unexpectedly at beginning of deceleration or recovery from deceleration.

11	Engine stalls/quits	Acceleration/cruise	• Engine stops unexpectedly at beginning of acceleration or during acceleration. • Engine stops unexpectedly while cruising.
	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. (e.g. power down when climbing hills)
13	Knocking/pinging	Acceleration/cruise	• Sound is produced when air/fuel mixture is ignited by something other than spark plug. (e.g. hot spot in combustion chamber)
14	Poor fuel economy		• Fuel economy is unsatisfactory.
15	Emission compliance		• Fails emissions test.
16	High oil consumption/leakage		• Oil consumption is excessive.
17	Cooling system concerns	Overheating	• Engine runs at higher than normal temperature/overheats.
18	Cooling system concerns	Runs cold	• Engine takes excessive time to reach normal operating temperature.
19	Exhaust smoke		• Blue, black, or white smoke from exhaust system.
20	Fuel odor (in engine compartment)		• Gasoline fuel smell or visible leakage.

21	Engine noise		• Engine noise from under hood.
22	Vibration concerns (engine)		• Vibration from under hood or driveline.
23	A/C does not work sufficiently		• A/C compressor magnetic clutch does not engage when A/C is turned on.
24	A/C is always on or A/C compressor runs continuously		• A/C compressor magnetic clutch does not disengage.
25	A/C is not cut off under WOT conditions		• A/C compressor magnetic clutch does not disengage under WOT.
26	Exhaust sulphur smell		• Rotten egg smell (sulphur) from exhaust.
27	Fuel refill concerns		• Fuel tank does not fill smoothly.
28	Fuel filling shut off concerns		• Fuel does not shut off properly.
29	Spark plug condition		• Incorrect spark plug condition.
30	ATX concerns	Upshift/downshift/engagement	• ATX concerns not related to engine performance.

2012 - Mazda6 - Engine

SYMPTOM DIAGNOSTIC INDEX [MZR 2.5]

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

Diagnostic Index

No.	TROUBLESHOOTING ITEM		DESCRIPTION
1	Melting of main or other fuses		—
2	MIL illuminates		• MIL is illuminated incorrectly.
3	Will not crank		• Starter does not work.
4	Hard to start/long crank/erratic start/erratic crank		• Starter cranks engine at normal speed but engine requires excessive cranking time before starting.
5	Engine stalls	After start/at idle	• Engine stops unexpectedly at idle and/or after start.
6	Crankes normally but will not start		• Starter cranks engine at normal speed but engine will not run.
7	Slow return to idle		• Engine takes more time than normal to return to idle speed.
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 and engine shakes excessively.
9	Fast idle/runs on		• Engine speed continues at fast idle after warm-up. • Engine runs after ignition is off.
10	Low idle/stalls during deceleration		• Engine stops unexpectedly at beginning of deceleration or recovery from deceleration.

11	Engine stalls/quits	Acceleration/cruise	- Engine stops unexpectedly at beginning of acceleration or during acceleration. - Engine stops unexpectedly while cruising.
	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. (e.g. power down when climbing hills)
13	Knocking/pinging	Acceleration/cruise	Sound is produced when air/fuel mixture is ignited by something other than spark plug. (e.g. hot spot in combustion chamber)
14	Poor fuel economy		Fuel economy is unsatisfactory.
15	Emission compliance		Fails emissions test.
16	High oil consumption/leakage		Oil consumption is excessive.
17	Cooling system concerns	Overheating	Engine runs at higher than normal temperature/overheats.
18	Cooling system concerns	Runs cold	Engine takes excessive time to reach normal operating temperature.
19	Exhaust smoke		Blue, black, or white smoke from exhaust system.
20	Fuel odor (in engine compartment)		Gasoline fuel smell or visible leakage.

21	Engine noise		• Engine noise from under hood.
22	Vibration concerns (engine)		• Vibration from under hood or driveline.
23	A/C does not work sufficiently		• A/C compressor magnetic clutch does not engage when A/C is turned on.
24	A/C is always on or A/C compressor runs continuously		• A/C compressor magnetic clutch does not disengage.
25	A/C is not cut off under WOT conditions		• A/C compressor magnetic clutch does not disengage under WOT.
26	Exhaust sulphur smell		• Rotten egg smell (sulphur) from exhaust.
27	Fuel refill concerns		• Fuel tank does not fill smoothly.
28	Fuel filling shut off concerns		• Fuel does not shut off properly.
29	Spark plug condition		• Incorrect spark plug condition.
30	ATX concerns	Upshift/downshift/engagement	• ATX concerns not related to engine performance.