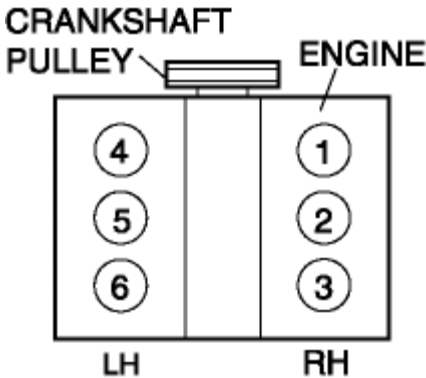


2012 - Mazda6 - Engine

ENGINE TECHNICAL DATA [MZI 3.7 V6]

Item	Specification
Ignition timing	Approx. BTDC 13 °
Idle speed (P position)	No load: 570—670 rpm Electrical load on: 570—730 rpm Power steering oil pump operation: 600—700 rpm A/C and heater operation: 570—745 rpm
CO concentration	Within the regulation
HC concentration	Within the regulation
Standard valve clearance [Engine cold]	IN: 0.150—0.250 mm {0.00591—0.00984 in} EX: 0.300—0.400 mm {0.0119—0.0157 in}
Oil control valve resistance	5—14 ohms
Engine oil capacity (approx. quantity)	Oil replacement: 4.7 L {5.0 US qt, 4.1 Imp qt} Oil and oil filter replacement: 5.2 L {5.5 US qt, 4.6 Imp qt} Total (dry engine): 5.7 L {6.0 US qt, 5.0 Imp qt}
Oil pressure (reference value) [oil temperature: 93.3 °C {200 °F}]	310—621 kPa {3.17—6.33 kgf/cm ² , 45.0—90.0 psi} [2,000 rpm]
Engine coolant capacity (approx. quantity)	8.9 L {9.4 US qt, 7.8 Imp qt}
Cooling system cap valve opening pressure	93—123 kPa {0.95—1.25 kgf/cm ² , 14.0—17.8 psi}
Thermostat initial-opening temperature	79.5—83.3 °C {176—181 °F}

Thermostat full-open temperature	94.5 °C {202 °F}
Thermostat full-open lift	More than 8.1 mm {0.32 in}
Cooling fan motor No.1, No.2 standard current	22.5—25.5 A [12 V]
Fuel line pressure	375—450 kPa {3.83—4.58 kgf/cm ² , 54.4—65.2 psi}
Fuel injector resistance	11.3—12.7 ohms [20 °C {68 °F}]
Battery electrolyte specific gravity [20 °C {68 °F}]	1.22—1.29
Battery parasitic draw (When the ignition is off (key is removed), all doors and the hood are closed.)	50—65 mA
Generator standard voltage [IG-ON]	Terminal B: B+ Terminal A: B+ Terminal RC: Approx. 1 V or less Terminal LI: Approx. 1 V
Generator standard voltage [Idle, 20 °C {68 °F}]	Terminal B: 12—16 V Terminal A: 12—16 V Terminal RC: 0—16 V Terminal LI: 1—16 V
Generator generated current minimum value	70% of the nominal output current (nominal output current: 110 A) [Ambient temp. 20 °C {68 °F}, voltage 13.0—15.0 V, both engine and generator are hot]
Generator rotor resistance (between slip rings) [20 °C {68 °F}]	1.8—2.2 ohm
Generator brush length	Standard: 22.5 mm {0.886 in} Minimum: 5.0 mm {0.20 in}
Generator brush spring force	Standard: 4.1—5.3 N {0.42—0.54 kgf, 1.0—1.1 lbf} Minimum: 1.7 N {0.17 kgf, 0.38 lbf}
	1-4-2-5-3-6

Firing order	CYLINDER No.  LH RH
Ignition coil secondary coil resistance	5—6 kilohms
Spark plug type	Motorcraft AYFS22FM
Spark plug gap	1.29—1.45 mm {0.051—0.057 in}
Spark plug resistance	2—20 kilohms
Starter no-load test voltage	11 V
Starter no-load test current	90 A or less
Starter pinion gap	0 mm {0 in}
Starter armature runout	0.1 mm {0.004 in} max.
Starter commutator diameter	Standard: 29.4 mm {1.16 in} Minimum: 28.8 mm {1.13 in}
Segment groove depth of starter commutator	Standard: 0.5 mm {0.02 in} Minimum: 0.2 mm {0.008 in}
Starter brush length	Standard: 12.3 mm {0.484 in} Minimum: 5.5 mm {0.22 in}
Starter brush spring force	Standard: 15.0—20.4 N {1.53—2.08 kgf, 3.38—4.58 lbf} Minimum: 2.75 N {0.280 kgf, 0.618 lbf}

Engine oil specification

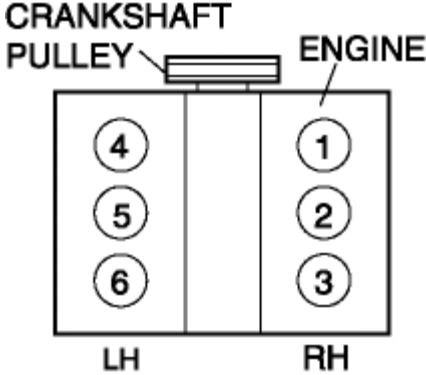
Item	U.S.A. and CANADA	Except U.S.A. and CANADA
Engine oil grade	 (ILSAC)	 (ILSAC)
		API SM or ILSAC
Engine oil viscosity	5W-20	5W-20 (If SAE 5W-20 engine oil is not available in your market, use SAE 10W-30, 10W-40, 5W-30, 5W-40 engine oil.)

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		API SM or ILSAC
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