

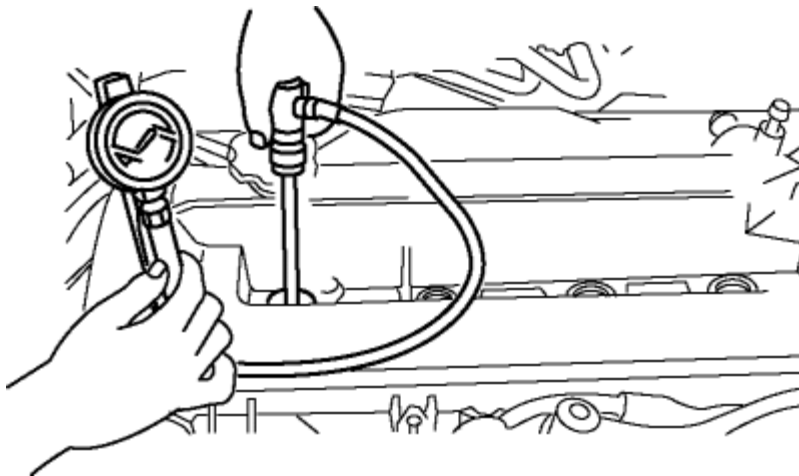
2012 - Mazda6 - Engine

COMPRESSION INSPECTION [MZR 2.5]

WARNING:

- Hot engines and oil can cause severe burns. Be careful not to burn yourself during removal/installation of each component.
- Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.
- Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure". (See [BEFORE SERVICE PRECAUTION \[MZR 2.5\]](#).)

1. Verify that the battery is fully charged. (See [BATTERY INSPECTION \[MZR 2.5\]](#).)
 - Recharge it if necessary. (See [BATTERY RECHARGING \[MZR 2.5\]](#).)
2. Warm up the engine to the normal operating temperature.
3. Perform "Fuel Line Safety Procedures". Leave the fuel pump relay removed. (See [BEFORE SERVICE PRECAUTION \[MZR 2.5\]](#).)
4. Remove the plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
5. Remove the ignition coils. (See [IGNITION COIL REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
6. Remove the spark plugs. (See [SPARK PLUG REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
7. Connect a compression gauge into the spark plug hole.



8. Fully depress the accelerator pedal and crank the engine.
9. Note down the maximum gauge reading.
10. Inspect each cylinder as above.
 - If the measured value is less than the limited value, or there is a cylinder

whose compression value varies from that of other cylinders by **196.1 kPa { 2.0 kgf/ cm², 28.5 psi}** or more, add a small amount of engine oil through the spark plug hole. Then measure the compression pressure and perform the respective operations for the following cases.

- If the compression increases, the piston, the piston rings, or cylinder wall may be worn and overhaul is required.
- If the compression stays low, a valve may be stuck or improperly seated and overhaul is required.
- If the compression in adjacent cylinders stays low, the cylinder head gasket may be damaged or the cylinder head distorted and overhaul is required.

Compression

- Standard: 1,324 kPa {13.50 kgf/cm², 192.0 psi} [300 rpm]
- Minimum: 927 kPa {9.45 kgf/cm², 134 psi} [300 rpm]
- Maximum difference between cylinders: 196.1 kPa {2.0 kgf/cm², 28.5 psi}

11. Disconnect the compression gauge.

12. Install the following parts.

- a. Spark plugs. (See [SPARK PLUG REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
- b. Ignition coils. (See [IGNITION COIL REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)
- c. Fuel pump relay. (See [AFTER SERVICE PRECAUTION \[MZR 2.5\]](#).)
- d. Plug hole plate. (See [PLUG HOLE PLATE REMOVAL/ INSTALLATION \[MZR 2.5\]](#).)

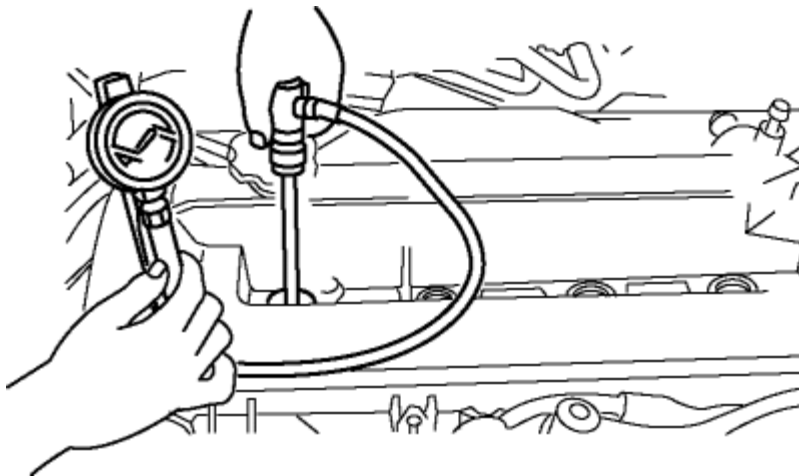
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