

# COMPRESSION INSPECTION

## HINT:

If there is a lack of power, excessive oil consumption or poor fuel economy, measure the compression pressure.

### 1. WARM UP AND STOP ENGINE

Allow the engine to warm up to normal operating temperature.

### 2. REMOVE SPARK PLUGS

- (a) Remove the V-bank cover.
- (b) Remove the air cleaner.
- (c) Remove the intake air surge tank (See page [EM-62](#)).
- (d) Remove the 6 ignition coils.
- (e) Remove the 6 spark plugs.
- (f) Disconnect the 6 injector connectors.

### 3. CHECK CYLINDER COMPRESSION PRESSURE

- (a) Insert a compression gauge into the spark plug hole.
- (b) Fully open the throttle.
- (c) While cranking the engine, measure the compression pressure.

## HINT:

Always use a fully charged battery to obtain an engine speed of 250 rpm or more.

- (d) Repeat steps (a) through (c) for each cylinder.

## NOTICE:

**This measurement must be done in the shortest possible time.**

### Compression pressure:

**1.3 MPa (13.3 kgf/cm<sup>2</sup>, 189 psi) or more**

**Minimum pressure: 1.0 MPa (10.2 kgf/cm<sup>2</sup>, 145 psi)**

### Difference between each cylinder:

**0.1 MPa (1.0 kgf/cm<sup>2</sup>, 15 psi) or less**

- (e) If the cylinder compression pressure in 1 or more cylinders is low, pour a small amount of engine oil into the cylinder through the spark plug hole and repeat steps (a) through (c) for cylinders with low compression pressure.
  - If adding oil improves the compression pressure, it is likely that the piston rings and/or cylinder bore are worn or damaged.
  - If compression pressure stays low, a valve may be sticking, seating may be improper, or there may be a leak past the gasket.

### 4. REINSTALL SPARK PLUGS

- (a) Connect the 6 injector connectors.
- (b) Install the 6 spark plugs.  
**Torque: 20 N·m (200 kgf·cm, 15 ft·lbf)**
- (c) Install the 6 ignition coils.
- (d) Install the intake air surge tank (See page [EM-89](#)).
- (e) Install the air cleaner.
- (f) Install the V-bank cover.

