

COMPRESSION CHECK

HINT: If there is 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. (3S-GTE)

REMOVE CHARGE AIR COOLER

(See steps 13 to 15 on pages [TC-9](#) and 10)

3. (3S-GTE)

DISCONNECT SOLENOID RESISTOR CONNECTOR

4. (3S-GTE)

DISCONNECT COLD START INJECTOR CONNECTOR

5. DISCONNECT DISTRIBUTOR CONNECTOR(S)

6. REMOVE SPARK PLUGS

7. CHECK CYLINDER COMPRESSION PRESSURE

- Insert a compression gauge into the spark plug hole.
- Fully open the throttle.
- While cranking the engine, measure the compression pressure.
HINT: Always use a fully charged battery to obtain engine speed of 250 rpm or more.

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

NOTICE: This measurement must be done in as short a time as possible.

Compression pressure:

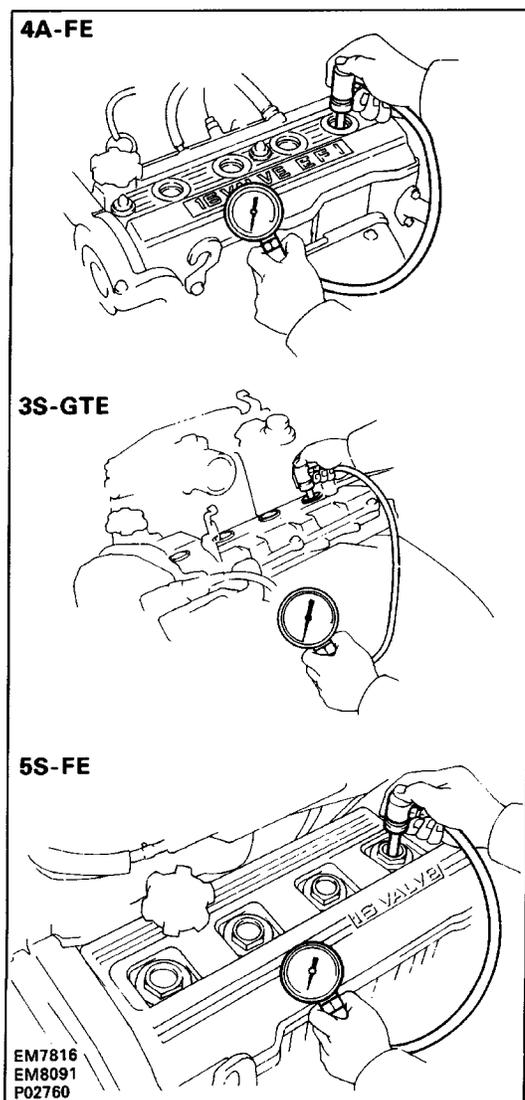
4A-FE	1,320 kPa (13.5 kgf/cm ² , 191 psi)
	or more
3S-GTE	1,128 kPa (11.5 kgf/cm ² , 164 psi)
	or more
5S-FE	1,226 kPa (12.5 kgf/cm ² , 178 psi)
	or more

Minimum pressure:

4A-FE and 5S-FE	981 kPa (10.0 kgf/cm ² , 142 psi)
3S-GTE	883 kPa (9.0 kgf/cm ² , 128 psi)

Difference between each cylinder:

98 kPa (1.0 kgf/cm², 14 psi) or less



- (e) If the cylinder compression in one 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.
- If adding oil helps the compression, chances are that the piston rings and/or cylinder bore are worn or damaged.
 - If pressure stays low, a valve may be sticking or seating is improper, or there may be leakage past the gasket.

8. REINSTALL SPARK PLUGS

Torque: 18 N-m (180 kgf-cm, 13 ft-lbf)

9. RECONNECT DISTRIBUTOR CONNECTOR(S)

10. (3S-GTE)

RECONNECT COLD START INJECTOR CONNECTOR

11. (3S-GTE)

RECONNECT SOLENOID RESISTOR CONNECTOR

12. (3S-GTE)

REINSTALL CHARGE AIR COOLER

(See steps 11 to 13 on page [TC-17](#))