

# ENGINE DOES NOT START OR IS HARD TO START

### 1. Spark Plug Inspection

Remove and inspect spark plug.

*Are the spark plugs in good condition?*

- NO** – • Incorrect spark plug heat range  
• Incorrect spark plug gap  
• Dirty air cleaner

**YES** – GO TO STEP 2.

### 2. Spark Test

Perform spark test.

*Are there good sparks?*

- NO** – • Loose or disconnected ignition system wire  
• Faulty ignition coil  
• Broken or shorted direct ignition coil connector wire  
• Faulty ignition pulse generator  
• Faulty engine stop switch  
• Faulty engine control module (ECM)

**YES** – GO TO STEP 3.

### 3. Fuel Pump Inspection

Check for operation of the fuel pump and inspect the fuel flow.

*Is the fuel pump unit normal?*

- NO** – Faulty fuel pump unit (page 6-33).

**YES** – GO TO STEP 4.

### 4. Programmed Fuel Injection System Inspection

Check the fuel injection system.

*Is the fuel injection system normal?*

- NO** – Faulty fuel injection system (page 6-54, 6-43).

**YES** – GO TO STEP 5.

### 5. Cylinder compression Inspection

Test the cylinder compression.

*Is the compression specified?*

- NO** – • Valve stuck open  
• Worn cylinder and piston rings  
• Damaged cylinder head gasket  
• Seized valves  
• Improper valve timing

**YES** – GO TO STEP 6.

### 6. Engine Start Condition

Start by following normal procedure.

*Did the engine start but stops?*

- YES** – • Leaking intake manifold  
• Leaking intake pipes  
• Faulty starter valves  
• Improper ignition timing (Faulty ECM or ignition pulse generator)  
• Contaminated fuel