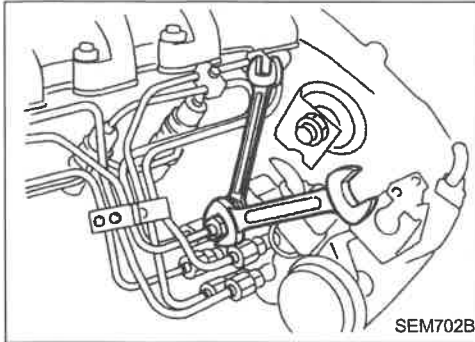
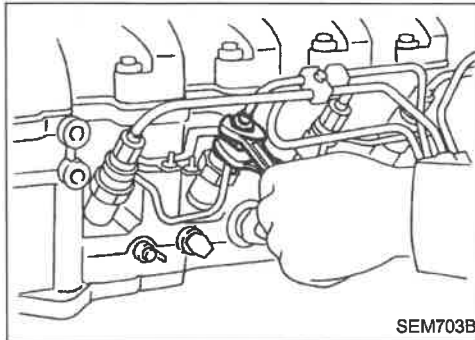


COMPRESSION PRESSURE

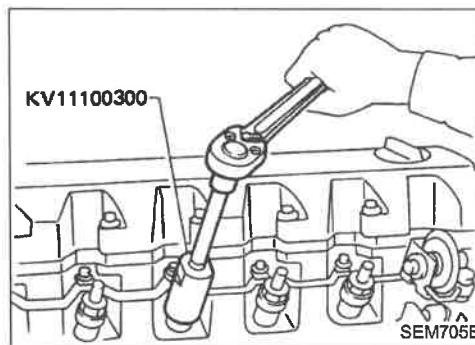
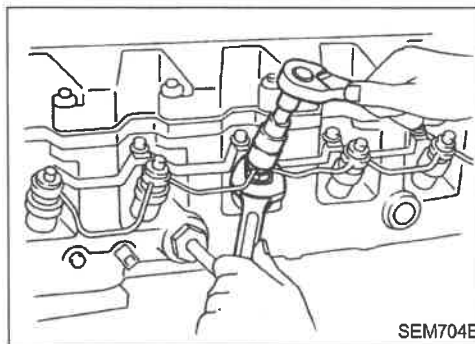


Measurement of Compression Pressure

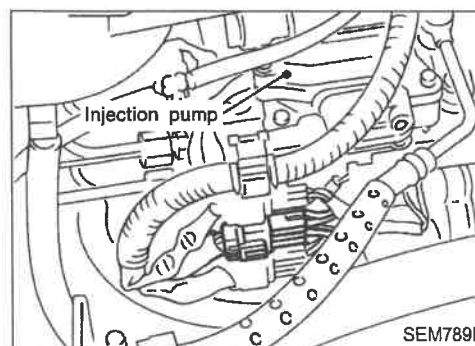
1. Warm up engine sufficiently.
2. Disconnect injection tube on nozzle side and loosen injection tubes on pump side. Release clamps on injection tubes.
 - **Use two wrenches to prevent delivery holder on pump side from loosening.**



3. Remove spill-tube assembly.
 - **To prevent spill tube from breaking, remove it by gripping nozzle holder.**



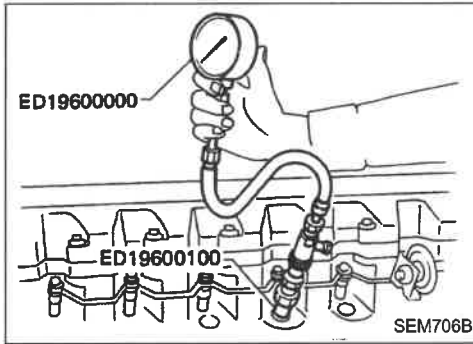
4. Remove all injection nozzles using Tool or a suitable tool.



5. Turn ignition switch OFF and disconnect harness connector (black colored) at injection pump.

COMPRESSION PRESSURE

Measurement of Compression Pressure (Cont'd)



6. Fit compression gauge adapter to cylinder head.

7. Crank engine and read gauge indication.

Crank speed: 200 rpm

Compression pressure:

Standard

3,040 kPa (30.4 bar, 31 kg/cm², 441 psi)

Limit

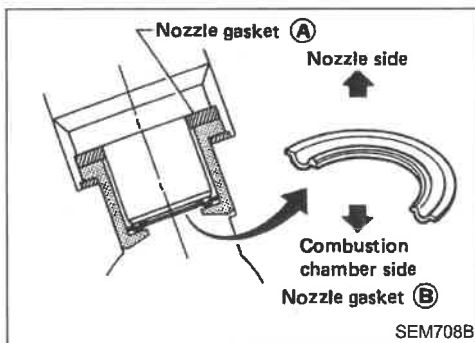
2,452 kPa (24.5 bar, 25 kg/cm², 356 psi)

Differential limit between cylinders

490 kPa (4.9 bar, 5 kg/cm², 71 psi)

8. If the pressure appears low, pour about 3 ml (0.11 Imp fl oz) of engine oil through nozzle holes and repeat test. For indications of test, refer to the following table.

Gauge indication during tests	Trouble diagnosis
	<ul style="list-style-type: none"> ● Piston rings are worn or damaged.
	<ul style="list-style-type: none"> ● If two adjacent cylinders are low, gasket is damaged. ● Valve is sticking. ● Valve seat or valve contact surface is incorreced.



9. Replace nozzle gaskets and install injection nozzles.

New nozzle gasket installation direction is as shown.

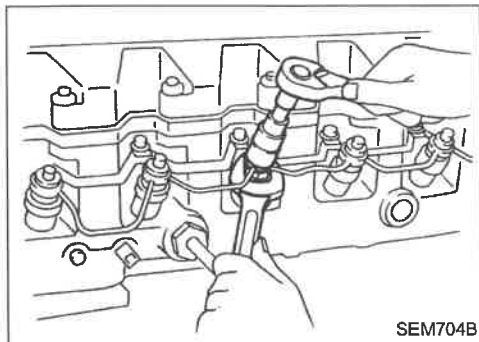
Nozzle to cylinder head:

⌚: 59 - 69 N·m

(6.0 - 7.0 kg-m, 43 - 51 ft-lb)


COMPRESSION PRESSURE

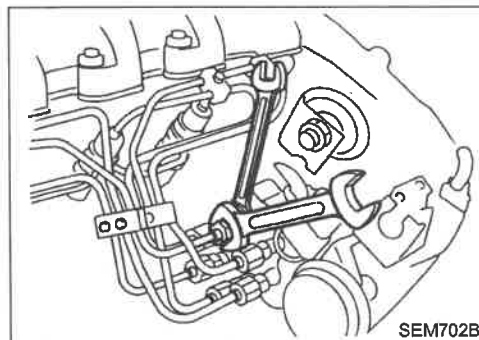
Measurement of Compression Pressure (Cont'd)



10. Install spill tube by holding nozzle holder.

Spill tube nut:

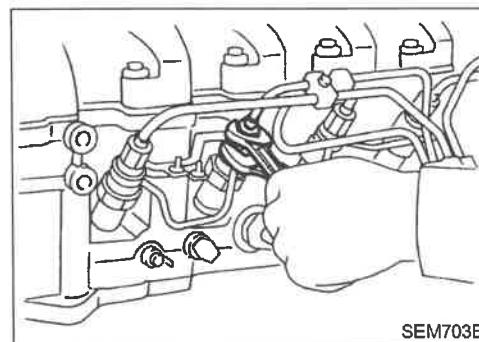
: 39 - 49 N·m
(4 - 5 kg-m, 29 - 36 ft-lb)



11. Install injection tubes using two wrenches as shown.

Injection tube:

: 22 - 25 N·m
(2.2 - 2.5 kg-m, 16 - 18 ft-lb)



12. Initialize the ECM.
Refer to EC section ("HOW TO ERASE DTC").

