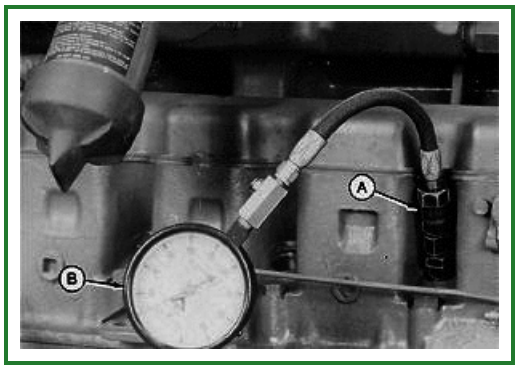
Test Engine Compression Pressure



RG4118-UN: JT01675A Nozzle Adapter and JT01682 Gauge

IMPORTANT:

Compression pressures are affected by the cranking speed of the engine. Before beginning test, insure that batteries are fully charged and injection nozzle area is thoroughly cleaned.

1. Start engine and run at rated speed until it warms up to normal operating temperature. From a cold start, operate engine 10-15 minutes at slow idle.
2. Remove V-belts from engine.
3. Remove injection lines, leak-off lines, and injection nozzles. (See REMOVE INJECTION NOZZLES in Group 35).
4. Install the JT01675A Nozzle Adapter (A) with the JT01682 Gauge (B) and hose assembly into injection nozzle bore.
5. Pull fuel shut-off knob all the way out, if equipped, and close fuel shut-off valve.
6. Crank engine over and record compression readings at 200-250 rpm cranking speed.
7. If pressure is much lower than shown, remove gauge and apply oil to ring area of piston through nozzle bore. Do not use too much oil or get oil on the valves.

Item	Measurement	Specification
Engine Compression	6466D	3 000-3 410 kPa (30.0-34.1 bar) (435-495 psi)
	6466T Serial No. (-253372)	2 280-2 550 kPa (22.8-25.5 bar) (330-370 psi)
	6466T Serial No. (253373-)	2 690-3 100 kPa (26.9-31.0 bar) (390-450 psi)
	6466A Serial No. (-233592)	2 280-2 550 kPa (22.8-25.5 bar) (330-370 psi)
	6466A Serial No. (233593-)	2 450-2 860 kPa (24.5-28.6 bar) (355-415 psi)
	Maximum Variation Between Cylinders	340 kPa (3.4 bar) (50 psi)

NOTE:

Pressure given was taken at 183 m (600 ft) above sea level. A 3.6 percent reduction in gauge pressure will result for each additional 300 m (1000 ft) of altitude.

8. Crank engine over and record compression reading again. If pressure is higher than 2 790 kPa (27.9 bar) (405 psi), worn or stuck rings are indicated. Replace piston rings or install new piston and liner set. (See Group 10.)

   If pressure is below 2 380 kPa (23.8 bar) (345 psi) it is possible that valves are worn or sticking. Recondition cylinder head as needed. (See Group 05.)

9. Measure compression pressure in all remaining cylinders and compare readings. Recondition cylinders and valves as required. (See Group 05.)

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