

CYLINDER HEAD/VALVES

TORQUE VALUES

Cylinder head	28–30 N·m (2.8–3.0 kg·m, 20–22 ft·lb)
Cam sprocket	8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)
Carburetor insulator	8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)
Pulse rotor	8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)
Decompressor guide bolt	5–7 N·m (0.5–0.7 kg·m, 3.6–5 ft·lb)
Valve adjuster cover	10–14 N·m (1.0–1.4 kg·m, 7–10 ft·lb)
Spark plug	12–19 N·m (1.2–1.9 kg·m, 9–14 ft·lb)
Pulse cover screw	4–7 N·m (0.4–0.7 kg·m, 2.9–5 ft·lb)
Pulse generator screw	4–7 N·m (0.4–0.7 kg·m, 2.9–5 ft·lb)
Valve adjuster lock nut	15–18 N·m (1.5–1.8 kg·m, 11–13 ft·lb)

TOOLS

Special

Valve guide reamer, 5.48 mm 07984–0980000

Common

Valve guide remover, 5.5 mm 07742–0010100 or 07942–3290100

Valve spring compressor 07757–0010000 or 07957–3290001

TROUBLESHOOTING

Engine top-end problems usually affect engine performance. These problems can be diagnosed by a compression test, or by tracing engine noises to the top-end with a sounding rod or stethoscope.

Low compression

1. Valves:

- Incorrect valve adjustment.
- Burned or bent valve.
- Incorrect valve timing.
- Weak valve spring.

2. Cylinder head:

- Leaking or damaged head gasket.
- Warped or cracked cylinder head.

3. Cylinder and piston (Section 7).

4. Faulty decompressor lever.

High compression

- Excessive carbon build-up on piston crown or on combustion chamber.

Excessive noise

1. Incorrect valve adjustment.
2. Sticking valve or broken valve spring.
3. Damaged or worn rocker arm or camshaft.
4. Worn or damaged cam chain.
5. Worn or damaged cam chain tensioner.
6. Worn cam sprocket teeth.

Poor idling

1. Compression too low.
2. Faulty decompressor lever.

Hard starting

- Faulty decompressor lever.