

CRANKCASE/CRANKSHAFT/BALANCER/PISTON/CYLINDER

TORQUE VALUES

Crankcase	7 mm bolt	18 N·m (1.8 kgf·m, 13 lbf·ft)	
	8 mm bolt	24 N·m (2.4 kgf·m, 17 lbf·ft)	
	9 mm bolt (main journal bolt)	See page 13-21	Apply oil to the threads and seating surface
Lower crankcase sealing bolt		59 N·m (6.0 kgf·m, 43 lbf·ft)	Apply a locking agent to the threads
Lower crankcase socket bolt		12 N·m (1.2 kgf·m, 9 lbf·ft)	Apply a locking agent to the threads
Lower crankcase sealing bolt		29 N·m (3.0 kgf·m, 22 lbf·ft)	Apply a locking agent to the threads
Lower crankcase socket bolt		23 N·m (2.3 kgf·m, 17 lbf·ft)	Apply a locking agent to the threads
Connecting rod bolt (new bolt)		See page 13-8	Apply oil to the threads and seating surface
Connecting rod bolt (retightening)		See page 13-12	Apply oil to the threads and seating surface

TROUBLESHOOTING

Cylinder compression is too low, hard to starting or poor performance at low speed

- Leaking cylinder head gasket
- Worn, stuck or broken piston ring
- Worn or damaged cylinder and piston

Cylinder compression too high, overheating or knocking

- Excessive carbon built-up on piston head or combustion chamber

Excessive smoke

- Worn cylinder, piston or piston ring
- Improper installation of piston rings
- Scored or scratched piston or cylinder wall

Abnormal noise

- Worn piston pin or piston pin hole
- Worn connecting rod small end
- Worn cylinder, piston or piston rings
- Worn main journal bearings
- Worn crankpin bearings

Engine vibration

- Excessive crankshaft runout
- Incorrect balancer timing