

4. LUBRICATION SYSTEM

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SERVICE INFORMATION

GENERAL

⚠ WARNING

- *If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area. The exhaust contains poisonous carbon monoxide gas that may cause loss of consciousness and may lead to death. Run the engine in an open area or with an exhaust evacuation system in enclosed area.*
- *Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil. KEEP OUT OF REACH OF CHILDREN.*

- The oil pump can be serviced with the engine installed in the frame.
- The service procedures in this section must be performed with the engine oil drained.
- When removing and installing the oil pump, use care not to allow dust or dirt to enter the engine.
- If any portion of the oil pump is worn beyond the specified service limits, replace the oil pump as an assembly.
- After the oil pump has been installed, check that there are no oil leaks.

SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Engine oil capacity	At draining	1.0 liter (1.06 US qt, 0.88 Imp qt)	—
	At disassembly	1.3 liter (1.37 US qt, 1.14 Imp qt)	—
Recommended engine oil		Honda 4-stroke oil or equivalent <i>motor oil</i> API service classification SE, SF or SG Viscosity: SAE 10W-30	—
Oil pump rotor	Tip clearance	—	0.20 (0.008)
	Body clearance	0.150 – 0.210 (0.0059 – 0.0083)	0.26 (0.010)
	Side clearance	0.050 – 0.100 (0.0020 – 0.0040)	0.15 (0.006)

TORQUE VALUES

Oil pump bolt 5.2 N·m (0.53 kgf·m, 3.8 lbf·ft)

TROUBLESHOOTING

Engine oil level too low

- Normal oil consumption
- External oil leak
- Worn piston ring or incorrect piston ring installation
- Worn valve guide or seal

Oil contamination

- External oil leak
- Worn piston ring or incorrect piston ring installation
- Worn valve guide or seal
- Clogged oil strainer screen