**PISTON**

**PISTON RING**
- REASSEMBLY: Install all rings with the markings facing upward.
- Be sure that the top and second rings are not interchanged.
- Check that the rings rotate smoothly after installation.
- Space the piston ring end gaps 120 degrees apart, and do not align the gaps with the piston pin bore.
- Space the oil ring side rail end gaps at least 10 mm (0.4 in) apart. Coat the oil ring with oil after assembly.

**PISTON**
- MARKING
- TOP RING (CHROME FACED)
- SECOND RING (BLACK FACED)
- OIL RING (COMBINATION RINGS)
- PISTON PIN CLIP

**CRANKCASE COVER/CRANKSHAFT/PISTON**

**PISTON**
- REASSEMBLY: Install with the triangle mark toward the pushrod hole.
- TRIANGLE MARK
- PUSH ROD HOLE

**CRANKCASE**
- OIL SEAL 22 x 35 x 6 mm (GX120)
  - 25 x 41 x 6 mm (GX160/GX200)

**CONNECTING ROD**
- CONNECTING ROD BOLT
  - 12 N·m (1.2 kgf·m, 9 lbf·ft)

**GOVERNOR DRIVE GEAR**
- OIL DRAIN BOLT
  - 18 N·m (1.8 kgf·m, 13 lbf·ft)

**DRAIN BOLT WASHER**
- Replace

**OIL SEAL**
- 22 x 41 x 6 mm (GX120)
  - 25 x 41 x 6 mm (GX160/GX200)

**CRANKSHAFT**
- TIMING GEAR

**BALL BEARING**
- CRANKSHAFT

**CRANKCASE COVER**
- 6 x 28 (GX120)
  - 8 x 32 (GX160/GX200)

**GASKET**
- 8 x 32 (GX160/GX200)

**OIL SEAL**
- 22 x 41 x 6 mm (GX120)
  - 25 x 41 x 6 mm (GX160/GX200)

**PUNCH MARKS**
- CRANKCASE COVER

**CAMSHEAFT**
- VALVE LIFTER
- REASSEMBLY: With the crankshaft in place, align the timing punch mark on the cam gear with the punch mark on the crankshaft gear.
- Before installing, inspect for worn and weakened springs and check that the decompressor weight moves smoothly.

**REASSEMBLY**
- Install the lifters immediately before installing the camshaft.

**CAMSHAFT**
- TIMING GEAR

**BALL BEARING**
- CRANKSHAFT

**CRANKCASE COVER**
- 6 x 28 (GX120)
  - 8 x 32 (GX160/GX200)

**GASKET**
- 8 x 32 (GX160/GX200)

**OIL SEAL**
- 22 x 41 x 6 mm (GX120)
  - 25 x 41 x 6 mm (GX160/GX200)

**PUNCH MARKS**
- CRANKCASE COVER

**CYLINDER HEAD/VALVES**

**VALVE SPRING RETAINER**
- GX120/GX160/GX200:
  - REASSEMBLY: Push down and slide the retainer to the side, so the valve stem slips through the hole at the side of the retainer.

**REASSEMBLY**
- The exhaust valve retainer has a larger center recess than the intake valve retainer so it can accept the valve rotator.
  - NOTICE: Do not remove the valve spring retainers while the cylinder head is installed, or the valves will drop into the cylinder.

**REMOVAL/INSTALLATION:**
- Before installation, remove any carbon deposits from the combustion chamber and inspect the valve seats.
- Measure the cylinder compression after reassembly.

**GOVERNOR**
- REASSEMBLY: Be sure to install the governor weight before installing the crankshaft.

**REASSEMBLY:**
- The lock pin must be installed with the straight side of the pin against the groove in the shaft.

**YELLOW (TO ENGINE SWITCH)**

**WASHER**
- 10 mm NUT

**GOVERNOR SLIDER WASHER (2)**

**GOVERNOR ARM SHAFT**

**REASSEMBLY:**
- Insert firmly into the shaft groove.

**CLIP**

**REASSEMBLY:**
- Install firmly in the groove.

**GOVERNOR ARM SHAFT LOCK PIN**

**WASHER**

**OIL LEVEL SWITCH D-RING**

See the shop manual for additional information. © Honda Motor Co., Ltd. 2009