

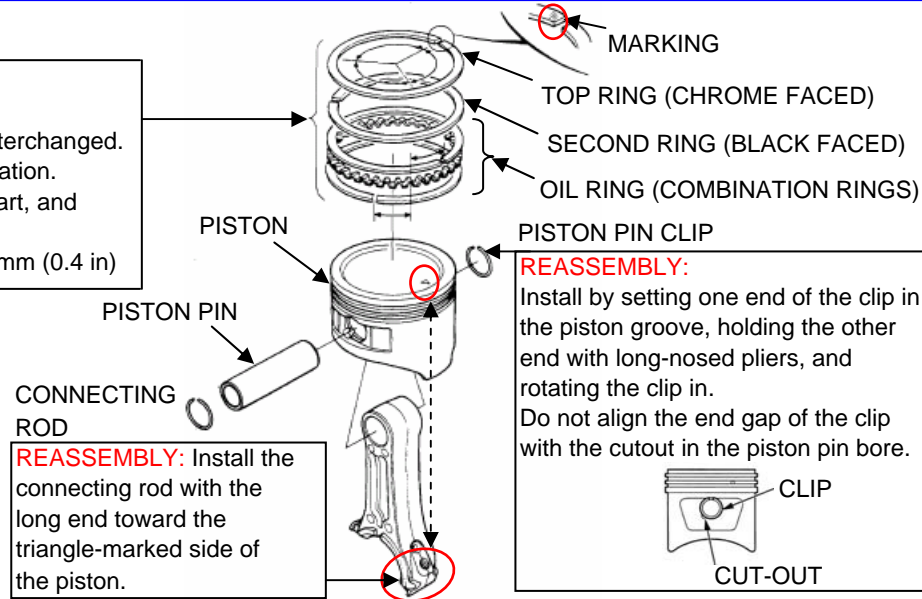
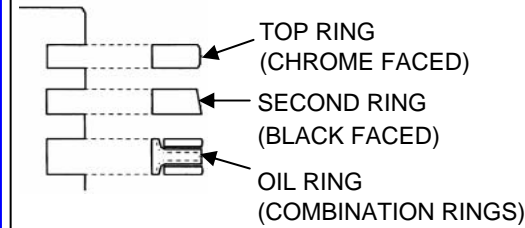


PISTON

PISTON RING

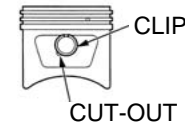
REASSEMBLY:

- 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.



CONNECTING ROD
REASSEMBLY: Install the connecting rod with the long end toward the triangle-marked side of the piston.

PISTON PIN CLIP
REASSEMBLY: Install by setting one end of the clip in the piston groove, holding the other end with long-nosed pliers, and rotating the clip in. Do not align the end gap of the clip with the cutout in the piston pin bore.



CYLINDER HEAD/VALVES

GX120/GX160: VALVE SPRING RETAINER

DISASSEMBLY:

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.

EXHAUST VALVE

REASSEMBLY:

• Before installation, remove carbon deposits and inspect the valve.

• Do not interchange with the intake valve.

VALVE HEAD DIAMETER

GX120: IN: 22 mm (0.87 in)

EX: 19 mm (0.75 in)

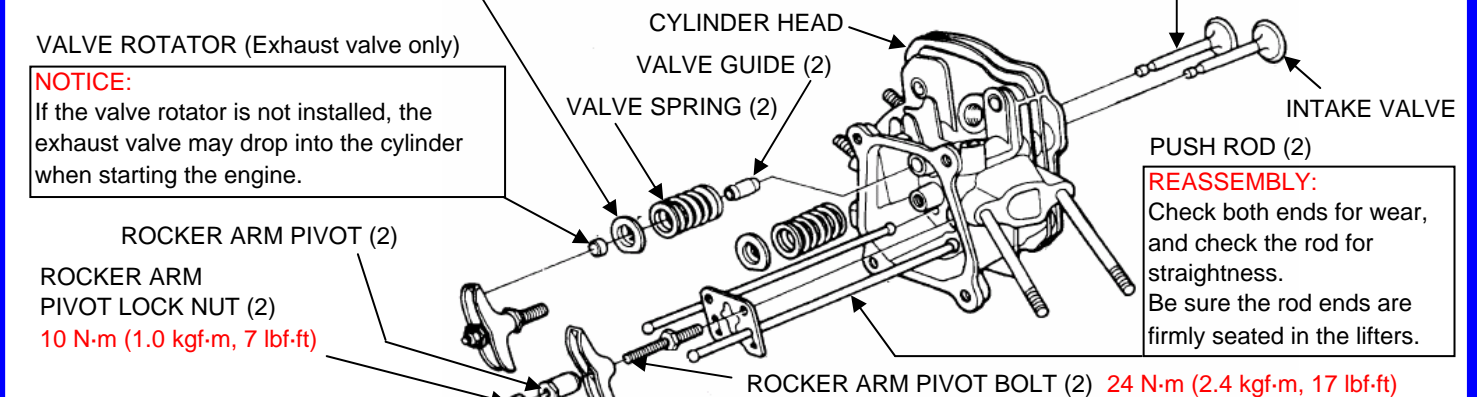
GX160: IN: 25 mm (0.98 in)

EX: 24 mm (0.94 in)

VALVE ROTATOR (Exhaust valve only)

NOTICE:

If the valve rotator is not installed, the exhaust valve may drop into the cylinder when starting the engine.



ROCKER ARM PIVOT LOCK NUT (2)
 10 N·m (1.0 kgf·m, 7 lbf·ft)

ROCKER ARM (2)

REASSEMBLY:

Before installing, check for wear on the surfaces which contact the pivot bolt, the push rod, and the rocker arm pivot.

GX200: Refer to the above for information not shown below.

VALVE STEM SEAL (Intake valve only)

Replace with a new one when reassembling.

INTAKE VALVE

REASSEMBLY:

• Do not interchange with the exhaust valve.

Valve head diameter: Intake: 25 mm (0.98 in) Exhaust: 24 mm (0.94 in)

• Be careful not to damage the valve stem seal when installing.

CRANKCASE COVER/CRANKSHAFT/PISTON

PISTON

REASSEMBLY:

Install with the triangle mark toward the pushrod hole.

TRIANGLE MARK
 PUSH ROD HOLE

VALVE LIFTER

REASSEMBLY:

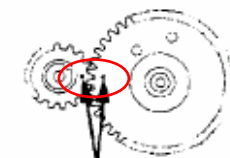
Install the lifters immediately before installing the camshaft.

CAMSHAFT

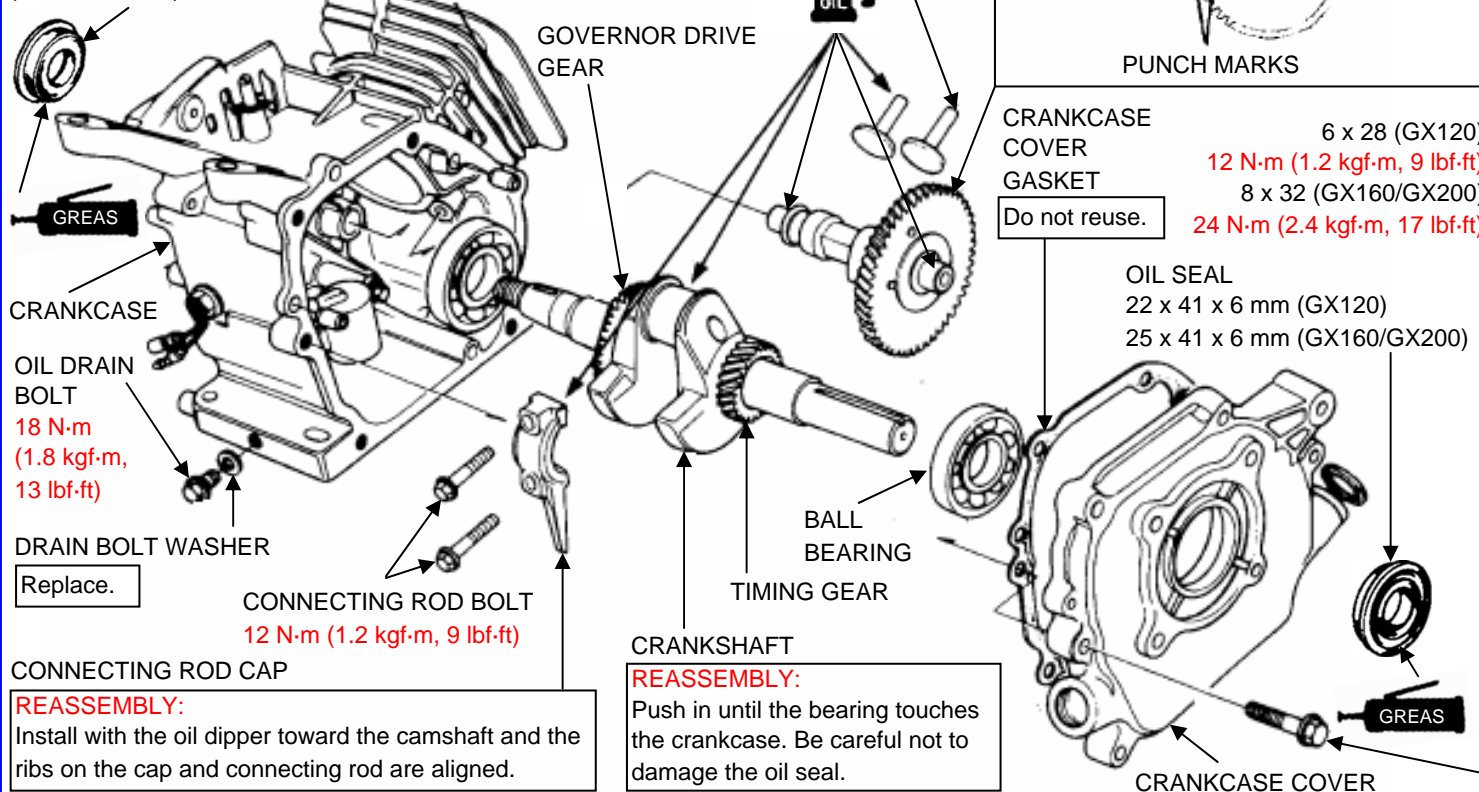
REASSEMBLY:

• 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.



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



CRANKCASE COVER 6 x 28 (GX120)
 12 N·m (1.2 kgf·m, 9 lbf·ft)

GASKET 8 x 32 (GX160/GX200)
 Do not reuse. 24 N·m (2.4 kgf·m, 17 lbf·ft)

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

GREAS

GREAS

GREAS

OIL DRAIN BOLT 18 N·m (1.8 kgf·m, 13 lbf·ft)

DRAIN BOLT WASHER Replace.

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

CONNECTING ROD CAP

REASSEMBLY: Install with the oil dipper toward the camshaft and the ribs on the cap and connecting rod are aligned.

CRANKSHAFT

REASSEMBLY:

Push in until the bearing touches the crankcase. Be careful not to damage the oil seal.

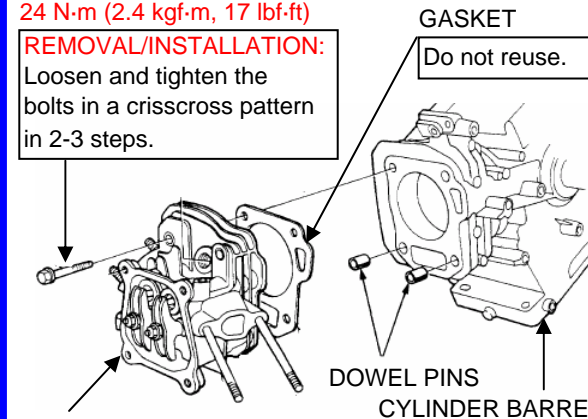
CYLINDER HEAD

8 x 55 (4) (GX120), 8 x 60 (4) (GX160/GX200)

24 N·m (2.4 kgf·m, 17 lbf·ft)

REMOVAL/INSTALLATION:

Loosen and tighten the bolts in a crisscross pattern in 2-3 steps.



CYLINDER HEAD

REMOVAL/INSTALLATION:

• Before installation, remove any carbon deposits from the combustion chamber and inspect the valve seats.

• Measure the cylinder compression after reassembly.

GOVERNOR

GOVERNOR WEIGHT

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

GOVERNOR SLIDER

REASSEMBLY: Install inside the case.

CLIP

REASSEMBLY: Insert firmly into the shaft groove.

10 mm NUT

Green (To side plate)

Yellow (To engine switch)

O-RING

REASSEMBLY: Install firmly in the groove.

