



## PISTON

**PISTON RINGS**

- TOP RING (CHROME PLATED)
- SECOND RING
- OIL RING (COMBINATION RINGS)

**PISTON PIN CLIP (2)**

**REASSEMBLY:** Do not align the end gap of the clip with the cutout in the piston pin bore.

**TOP RING (CHROME FACE)**

**MARK**

**MODEL MARK**

**SECOND RING (BLACK FACE)**

10 mm (0.4 in)

**SPACER**

**SIDE RAIL (2)**

**PISTON**

**PISTON PIN**

**CONNECTING ROD WITH THE LONG END**

**NOTICE:** Take care not to break the piston ring when installing the piston assembly in the cylinder.

**CUTOUT**

**CLIP**

## CRANKCASE COVER/GOVERNOR

**GOVERNOR ARM SHAFT**

6 mm WASHER

**REASSEMBLY:** Install inside the cover.

**CRANKCASE COVER**

8 mm LOCK PIN

**GOVERNOR ARM SHAFT**

**GROOVE**

**LOCK PIN**

**GOVERNOR WEIGHT HOLDER ASSEMBLY**

**GOVERNOR HOLDER CLIP**

6 mm THRUST WASHER

**GOVERNOR SLIDER**

6 mm WASHER

**GOVERNOR HOLDER SHAFT**

**GROOVE**

## VALVES/FLYWHEEL

**VALVE SPRING RETAINER (2)**

**NOTICE:** Do not remove the valve spring retainer while the piston is installed, or the valves will drop into the cylinder.

**VALVE SPRING (2)**

**VALVE STEM SEAL (Intake valve only)**

**SPARK PLUG BPR6ES (NGK)**

**CYLINDER BARREL**

**VALVE GUIDE**

**INTAKE VALVE**

**EXHAUST VALVE**

**VALVE HEAD DIAMETER:**  
IN: 25 mm (0.98 in)  
EX: 24 mm (0.94 in)

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

14 mm SPECIAL NUT  
Aluminum flywheel:  
52 N·m (5.3 kgf·m, 38 lbf·ft)  
Cast iron flywheel:  
74 N·m (7.5 kgf·m, 54 lbf·ft)

25 x 18 mm SPECIAL WOODRUFF KEY  
When installing the flywheel, check to be sure that the woodruff key remains in its slot on the crankshaft.

## CRANKCASE COVER/CRANKSHAFT/CYLINDER BARREL

28 x 41.25 x 6 mm OIL SEAL

**INSTALLATION:** Be careful not to damage the lip of the oil seal when installing the crankcase cover with the oil seal.

**GREASE** (Apply grease to the oil seal lips.)

6 x 25 (8)  
12 N·m (1.2 kgf·m, 9 lbf·ft)

**OIL FILLER CAP**

**PACKING**

**CRANKCASE COVER**

**OIL DRAIN PLUG BOLT**  
24 N·m (2.4 kgf·m, 17 lbf·ft)

**THRUST WASHER**

**OIL DRAIN PLUG WASHER (Replace)**

**TIMING BELT**

Specified belt: 84HU7 G-200

**INSTALLATION:** Check that the belt is not worn or cracked and do not bend or twist the belt.

**PISTON ASSEMBLY**

**INSTALLATION:** Install with the model mark and connecting rod long end to the right side of the cylinder.

8 x 20 mm DOWEL PIN (2)

**CONNECTING ROD CAP**

**OIL DIPPER**

**CONNECTING ROD BOLT (2)**  
12 N·m (1.2 kgf·m, 9 lbf·ft)

**CRANKSHAFT**

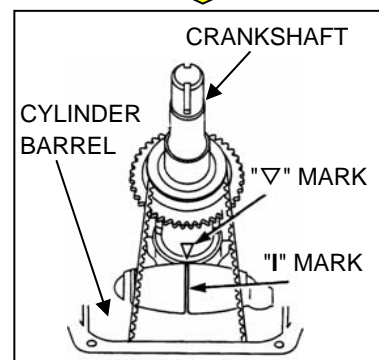
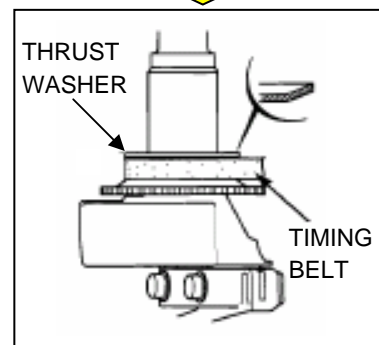
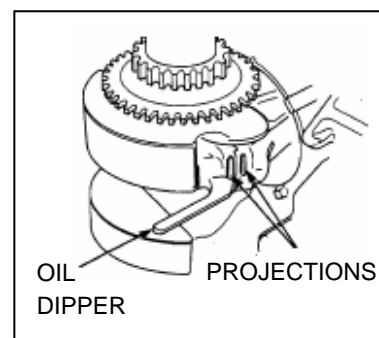
**INSTALLATION:**

- Be careful not to damage the oil seal.
- After installation, clean the crankshaft tapered surface.

**CYLINDER BARREL**

25.4 x 62 x 6 mm OIL SEAL

**GREASE** (Apply grease to the oil seal lips.)



**LIQUID GASKET APPLICATION AREA**

**CYLINDER BARREL**

(Hondabond HT, ThreeBond 1207, or equivalent)  
Assemble **within 10 minutes** after applying the liquid gasket.

Loosely tighten each bolt, then tighten to the specified torque in the numbered sequence.

## CAM PULLEY/ROCKER ARM/CYLINDER HEAD COVER

**CYLINDER HEAD COVER**

6 x 12 (4)  
12 N·m (1.2 kgf·m, 9 lbf·ft)

**VALVE ADJUSTING SCREW (2)**

**VALVE ADJUSTING LOCK NUT (2)**

**ROCKER ARM SHAFT (2)**

**INTAKE ROCKER ARM**

**EXHAUST ROCKER ARM**

**CAM PULLEY**

**ROCKER ARM**

**TIMING BELT**

**CAM PULLEY SHAFT**

6.8 x 1.9 mm O-RING  
Do not reuse.

**CYLINDER HEAD COVER VIEWED FROM BACK SIDE:**

**LIQUID GASKET APPLICATION AREA**

- Apply a liquid gasket (Hondabond HT, ThreeBond 1207, or equivalent) to the cylinder head cover.
- Assemble **within 10 minutes** after applying the liquid gasket.
- Wait for **approximately 20 minutes** after assembly before filling with oil and starting the engine.

**VIEW FROM PTO SIDE:**

**ALIGNMENT MARKS**

**CAM PULLEY**

**CYLINDER HEAD COVER MATING SURFACE**

**CRANKSHAFT KEY GROOVE**

- Set the cam pulley on the timing belt with care not to turn the crankshaft.
- Install the cam pulley shaft on the cylinder barrel.

**ROCKER ARM SHAFT**

Install the rocker arm shaft from the opposite side from the cam pulley as shown.