

Fig. 3.49 Removing the piston pin  
① Piston pin clip ② Piston

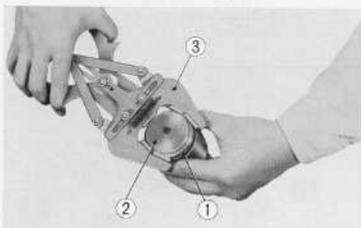


Fig. 3.50 Removing the piston ring  
① Piston ring ② Piston ③ Piston ring removing tool

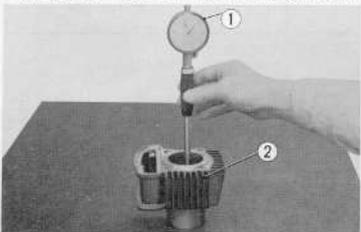


Fig. 3.51 Measuring the cylinder bore  
① Cylinder gauge ② Cylinder



Fig. 3.52 Measuring piston skirt diameter  
① Piston ② Micrometer

- The cam chain guide roller can be removed from the cylinder by removing the cam chain guide roller pin.
- Remove the piston pin clip ① and push out the piston pin to disassemble the piston from the connecting rod. (Fig. 3.49)

#### CAUTION:

When removing the piston pin clip, care should be exercised so that the clip does not drop into the crankcase.

- Remove the piston rings ① from the piston ② by using a ring removing tool (special tool) ③. If no tool is available, the rings may also be removed by hand, by spreading the ring at the opening with both hands, the ring should not be twisted. (Fig. 3.50)

#### C. Inspection

- Measure the cylinder bore, taper, out-of-round with a precision cylinder gauge ①. Take the measurement at the top, middle and bottom in both the X and Y axes. (Fig. 3.51)

Item	Standard value	Serviceable limit
Cylinder taper	0.01 (0.0004 in)	Replace if over 0.05 (0.002 in)
Cylinder bore	50~50.01 (1.9685~1.9688 in)	Replace if over 50.1 (1.9739 in)
Surface roughness	1.5 micron	—

- The clearance between the piston and cylinder will greatly affect the engine performance. Because of the piston being elliptical, the clearance is controlled very closely. The clearances are not the same, however, if any area is greater than 0.1mm (0.004 in), the cylinder should be rebored and fitted with an oversize piston.

Oversize pistons are available in 0.25, 0.50, 0.75 and 1.00 mm (0.01, 0.02, 0.03 and 0.04 in) size.

- When removing carbon deposits from the piston top and ring grooves, care should be exercised so as not to cause any scratches or damages to the piston.
- Measure the skirt of the piston perpendicular to the piston pin hole. (Fig. 3.52)

Item	Standard value
Outside dia.	49.97~49.99 (1.9673~1.9681 in)