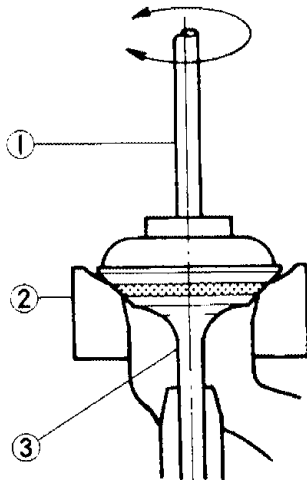


## 4-22 ENGINE TOP END

### Valve Lapping



1. Lapper
2. Valve Seat

3. Valve

### Measuring Valve-to-Guide Clearance (Wobble Method)

If a small bore gauge is not available, inspect the valve guide wear by measuring the valve to valve guide clearance with the wobble method, as indicated below.

- Insert a new valve into the guide and set a dial gauge against the stem perpendicular to it as close as possible to the cylinder head mating surface.
- Move the stem back and forth to measure valve/valve guide clearance.
- Repeat the measurement in a direction at a right angle to the first.
- ★ If the reading exceeds the service limit, replace the guide.

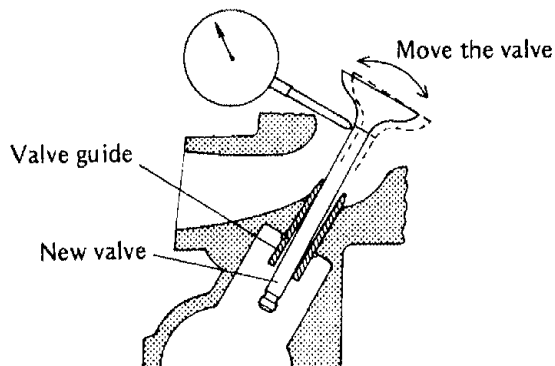
#### NOTE

○ The reading is not actual valve/valve guide clearance because the measuring point is above the guide.

### Valve/Valve Guide Clearance (Wobble Method)

	Standard	Service limit
Inlet	0.02 – 0.09 mm	0.25 mm
Exhaust	0.06 – 0.12 mm	0.26 mm

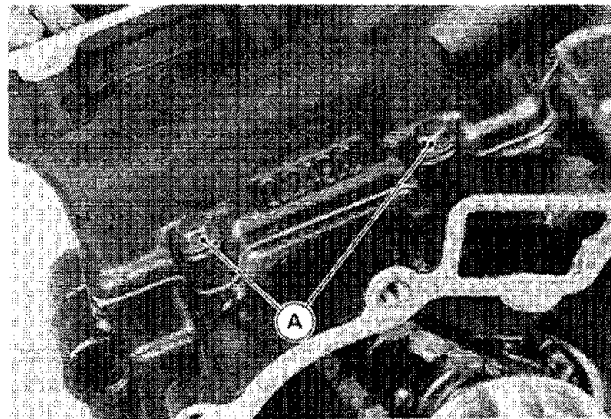
### Wobble Method



## Cylinder, Piston

### Cylinder Removal

- Remove the following parts before cylinder removal.
  - Cylinder Head Cover
  - Carburetor
  - Main Oil Pipe
  - Camshafts
  - Cylinder Head
  - Radiator Hose (Cylinder side)
- Remove the cylinder base bolts.

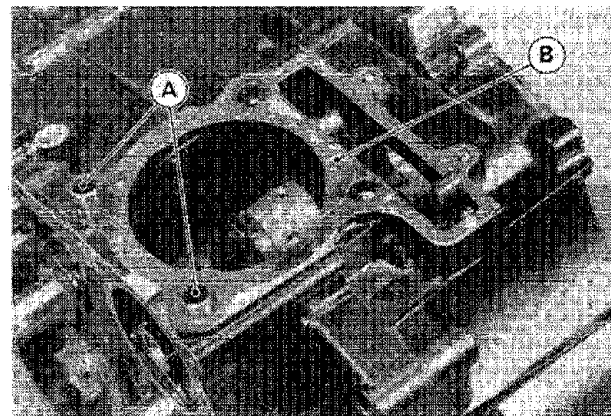


A. Cylinder Base Bolts

- Take out the cylinder.

### Cylinder Installation Notes

- See that the dowel pins are in place on the crankcase and install a new cylinder base gasket.



A. Dowel Pins

B. Gasket

- Install the piston.
- Install the cylinder and tighten the cylinder base bolts to the specified torque (see Exploded View).