

## SHIM SELECTION

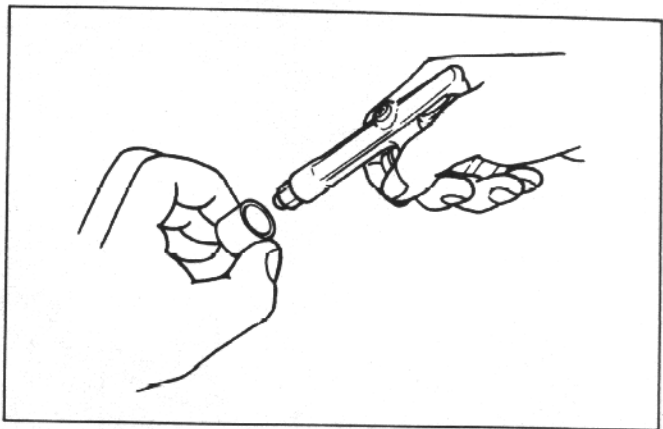
If the clearance is not correct:

Remove the camshafts (page 8-2).

Remove the valve buckets and shims (page 8-6).

### NOTE

- Do not allow shims to fall into the crankcase. The shim(s) may occasionally stick to the bucket.
- Mark the positions of all buckets and shims to ensure correct reassembly.
- It is easy to remove the valve bucket with a valve lapping tool or magnet.
- Remove the shims with tweezers or a magnet.

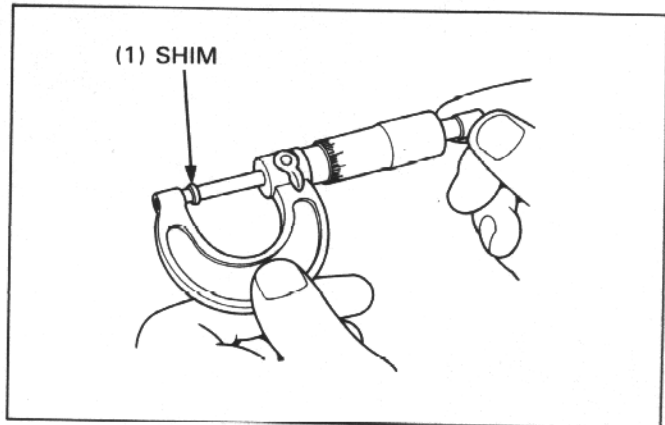


Clean the valve buckets with compressed air.

Measure the shim thickness with a micrometer and record it.

### NOTE

- Sixty-five different shims are available in thickness intervals of 0.025 mm. The thinnest is 1.200 mm the thickest is 2.800 mm.



To confirm your shim choice, you may use the following formula:

$$a = (b - c) + d$$

**a:** new shim thickness

**b:** recorded valve clearance

**c:** specified valve clearance (IN: 0.15 mm EX: 0.20 mm)

**d:** old shim thickness

example:

**b:** recorded valve clearance: 0.18 mm

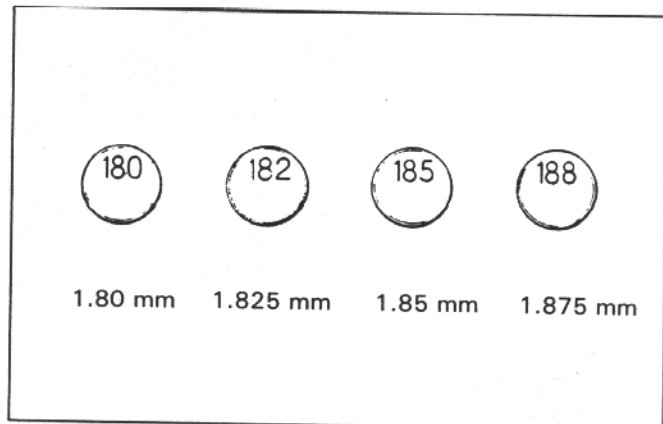
**d:** old shim thickness: 1.850 mm

**c:** specified valve clearance: 0.15 mm

$$a = (0.18 - 0.15) + 1.850$$

$$a = 1.880$$

now shim thickness = 1.875 mm



### NOTE

- If the required thickness of the new shim is more than 2.800 mm, the valve seat is probable heavily carboned. Reface the seat, recheck valve clearance and reselect the shim.