

6. Hold adjusting screw while tightening lock nut.
7. Recheck adjustment with feeler gauge.
8. Repeat operation on remaining valves.
9. Install rocker box covers.

## Valve Clearance and Timing

Valve clearance are given for "cold" (room temp.) engines as follows:

### Timing

1600	1600 S
<b>Intake:</b> 0.10 mm .004 in.	<b>Intake:</b> 0.15 mm .006 in.
<b>Exhaust:</b> 0.15 mm .006 in.	<b>Exhaust:</b> 0.10 mm .004 in.

Engine Type	1600	1600 S
Intake opens before TDC	7°	17°
Intake closes after BDC	45°	53°
Exhaust opens before BDC	44°	50°
Exhaust closes after TDC	6°	14°

Valves should be adjusted according to the listed clearances. Incorrect valve settings will cause damage in the following ways:

#### Insufficient clearance:

- Burned valves and seats
- Distorted valves
- Altered valve timing
- Irregular running

#### Excessive clearance:

- Loud valve gear
- Increased wear
- Altered valve timing
- Irregular running

Correct valve adjustment is not effective unless the valves are in good condition and seat properly.

### Note

These values are valid for a valve clearance of **1.00 mm (.039 in.)** with a cold engine. Readjust the valve clearance to operating values after checking timing.

After grinding valves and seats adjust clearances 0.15 mm (.006 in.) greater than normal to allow for setting of valves during a test run of at least one half hour.

Adjust valves to correct clearance after test run.

## Exchanging and Reconditioning Cylinder Heads

Cylinder heads with valve guides or seats which cannot be locally repaired should be sent to the factory.

New cylinder heads are individually measured and marked with the volume of the combustion chambers. It is important to install only cylinder heads of matched volumes  $\pm 1$  cc.

Reconditioned cylinder heads are recalibrated and stamped with the new volume.

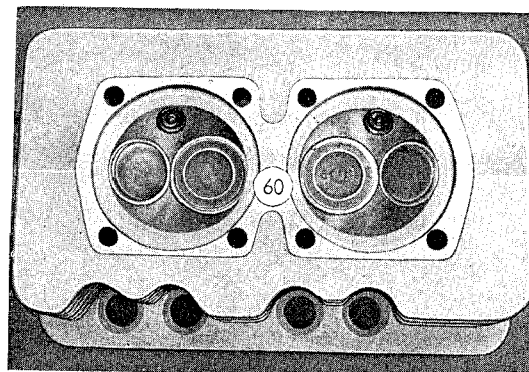


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