

## RECONDITIONING or the EXCHANGE OF CYLINDER HEADS

Cylinder heads which become unserviceable due to defects or wear in the valve guides, valve seats, or spark plug seats, may be sent in to the factory for reconditioning. At time of manufacture, all cylinder heads are tested for combustion chamber displacement and the appropriate value in cubic centimeters is stamped into each unit.

It is essential that each engine is fitted with cylinder heads of like displacement; a difference of 1 cc (.06 cu. in.) is permissible. If the cylinder heads are reconditioned locally, their cubic displacement must be established subsequent to the overhaul and the new values stamped in.

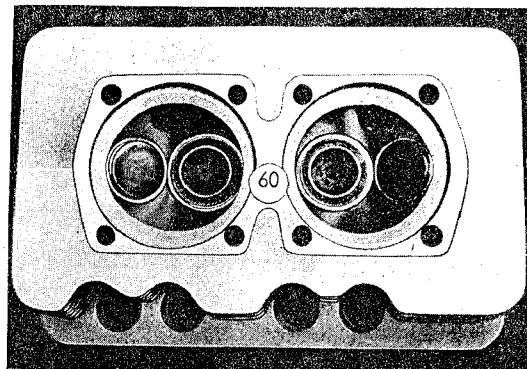


Fig. 4

## VALVE CLEARANCE and TIMING

### VALVE CLEARANCE

Valve clearance should be checked and adjusted only when the engine is cold. The following values apply:

	<u>1600 C (616/15)</u>	<u>1600 SC (616/16)</u>
Intake	0.10 mm (.004 in.)	0.15 mm (.006 in.)
Exhaust	0.15 mm (.006 in.)	0.10 mm (.004 in.)

The valve clearance must be checked at regular intervals and adjusted when necessary; this work requires skilled care.

### VALVE TIMING

Due to the introduction of a differently cut camshaft in the 1600 C engine (616/15), the valve timing values have changed as follows:

Engine Type	1600 C (616/15)	-	1600 S (616/12)	1600 SC (616/16)	-	1600 S-90 (616/7)
Intake opens before TDC	10°	-	17°	17°	-	17°
Intake closes after BDC	44°	-	53°	53°	-	53°
Exhaust opens before BDC	42°	-	50°	50°	-	50°
Exhaust closes after TDC	6°	-	14°	14°	-	14°
Valve lift: Intake	10 mm (.394 in.)	-	10.8 mm (.425 in.)	10.8 mm (.425 in.)	-	10.8 mm (.425 in.)
Exhaust	8.6 mm (.339 in.)	-	9.2 mm (.362 in.)	9.2 mm (.362 in.)	-	9.2 mm (.362 in.)

**NOTE:** These values are applicable with a valve clearance of 1.00 mm (.039 in.) and the engine cold. The valve clearance must be readjusted to normal values upon completion of the valve timing test.