



Fig. 39. Checking tappet clearances

THAT EACH BOLT IS CORRECTLY TIGHTENED. IF THIS IS NOT DONE SOME BOLTS MAY BE SO STIFF TO MOVE THAT A CORRECTLY SET TORQUE SPANNER MAY NOT BE ABLE TO CHECK THEM, IF THEIR TIGHTNESS IS JUST BELOW THE CORRECT TORQUE.

Valve clearances—When to check (See Fig. 39)

The valve clearances are checked when the engine is COLD in any of the following circumstances.

1. During service, if required, after removing the valve cover.
2. Before removing the cylinder head for refacing the valves and seats for grinding in the valves.

The clearances found are used to determine what to do with each valve. For instance a valve in good condition having too much clearance could be refaced to reduce its clearance and save changing its adjusting

shim. Alternatively, a valve having insufficient clearance with one of the thinnest shims might need replacing, because, if it were refaced proper clearance would not be obtained.

3. Before replacing a cylinder head which has been reassembled after its valves have been ground in. This involves the temporary replacement of the tappet housing, tappet shims, tappets and camshaft.
4. After replacing a cylinder head on which the valve clearances have been corrected. This is a check to ensure that bolting the cylinder head down does not alter the valve clearances.

Valve clearances—How to check

Clearances are checked between the tappet flat face and the back of the cam, when the cam peak is pointing toward the centre of the valve cover, as shown in Fig. 39.