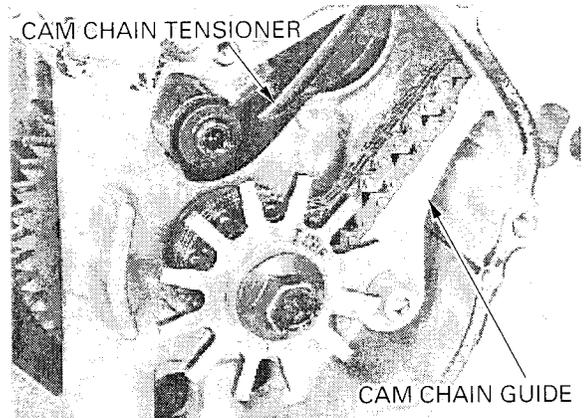
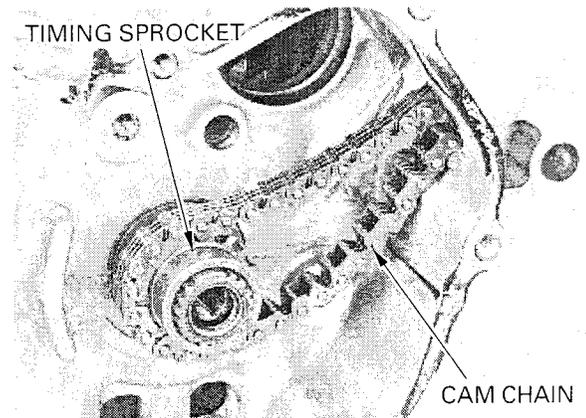


Remove the right crankcase cover and ignition pulse generator rotor (page 17-7).

Remove the socket bolt, washer, cam chain guide and collar.  
Remove the socket bolt, cam chain tensioner and washer.



Remove the cam chain and timing sprocket from the crankshaft.

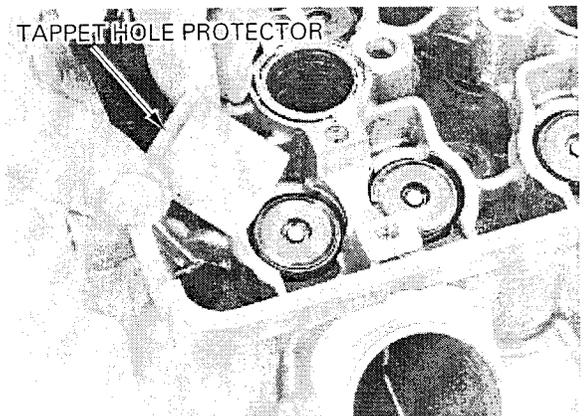


## CYLINDER HEAD DISASSEMBLY

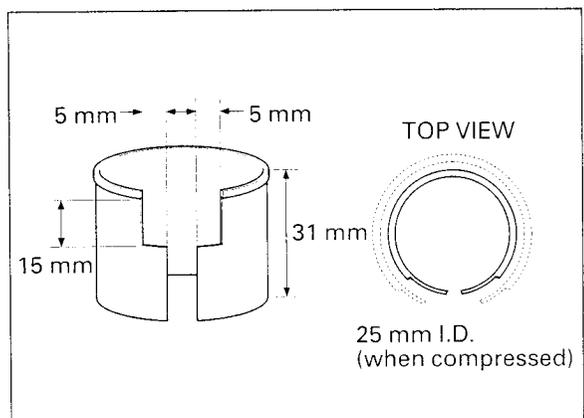
Remove the spark plugs from the cylinder head.

Install the tappet hole protector into the valve lifter bore.

**TOOL:**  
**Tappet hole protector**      07HMG-MR70002  
   (Not available in U.S.A.)



An equivalent tool can easily be made from a plastic 35 mm film container as shown.



## CYLINDER HEAD/VALVES

Remove the valve spring cotters using the special tools as shown.

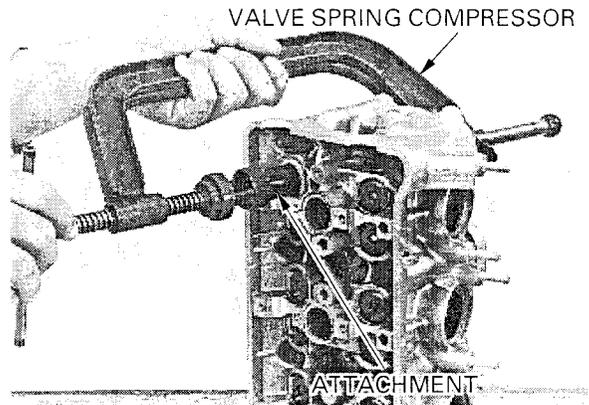
### TOOLS:

Valve spring compressor 07757-0010000

Valve spring compressor attachment 07959-KM30101

### NOTICE

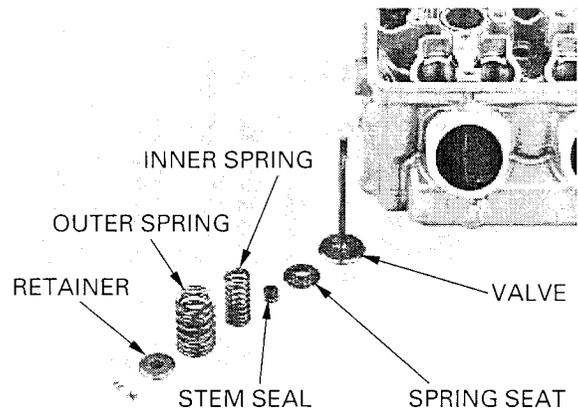
To prevent loss of tension, do not compress the valve springs more than necessary to remove the cotters.



Mark all parts during disassembly so they can be placed back in their original locations.

Remove the following:

- Spring retainer
- Outer and inner valve springs
- Valve
- Stem seal
- Valve spring seat



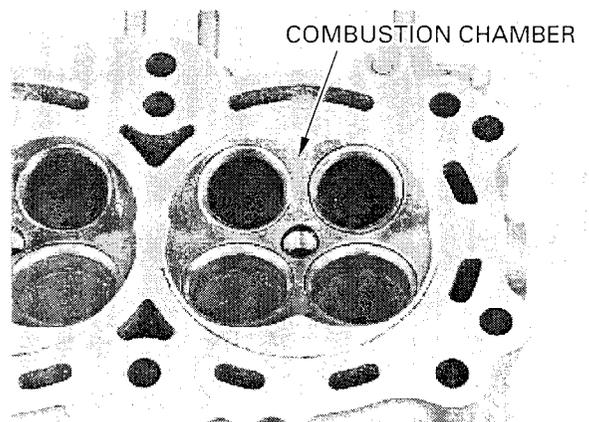
## CYLINDER HEAD INSPECTION

### CYLINDER HEAD

Avoid damaging the gasket surface.

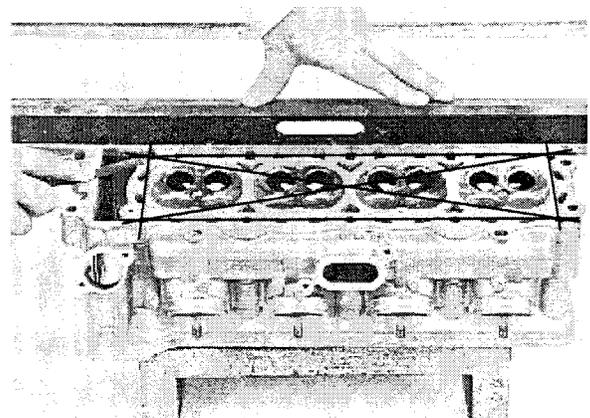
Remove carbon deposits from the combustion chambers.

Check the spark plug hole and valve areas for cracks.



Check the cylinder head for warpage with a straight edge and feeler gauge.

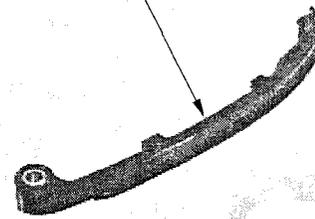
**SERVICE LIMIT:** 0.10 mm (0.004 in)



**CAM CHAIN TENSIONER/  
CAM CHAIN GUIDE**

Inspect the cam chain tensioner and cam chain guide for excessive wear or damage, replace if necessary.

CAM CHAIN TENSIONER



CAM CHAIN GUIDE

**VALVE SPRING**

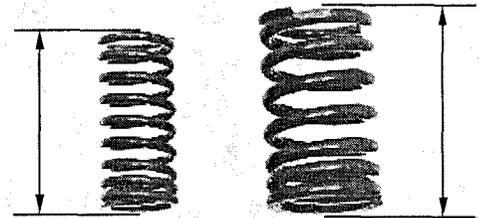
Measure the free length of the inner and outer valve springs.

**SERVICE LIMITS:**

**Inner :** 34.1 mm (1.34 in)

**Outer :** 37.2 mm (1.46 in)

Replace the springs if they are shorter than the service limits.

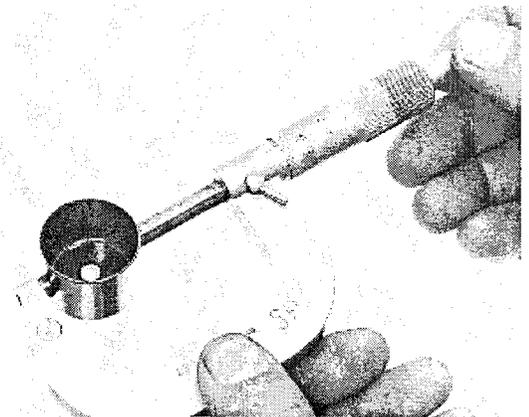


**VALVE LIFTER**

Inspect each valve lifter for scratches or abnormal wear.

Measure the each valve lifer O.D.

**SERVICE LIMIT:** 25.97 mm (1.022 in)

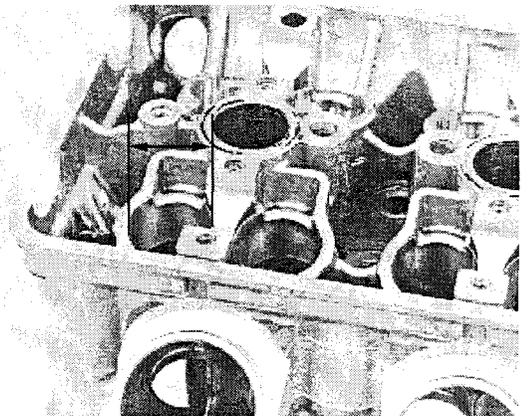


**VALVE LIFTER BORE**

Inspect each valve lifter bore for scratches or abnormal wear.

Measure the each valve lifter bore I.D.

**SERVICE LIMIT:** 26.04 mm (1.025 in)



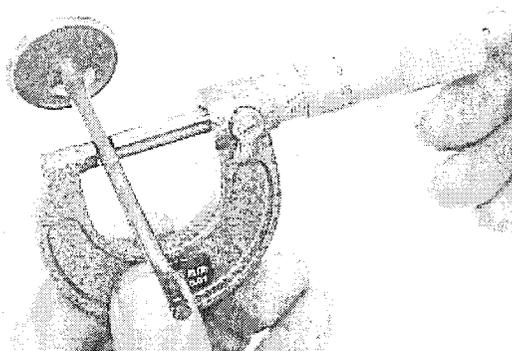
## VALVE/VALVE GUIDE

Inspect each valve for bending, burning, or abnormal stem wear.  
Check valve movement in the guide, measure and record each valve stem O.D.

### SERVICE LIMITS:

**IN:** 4.465 mm (0.1758 in)

**EX:** 4.455 mm (0.1754 in)

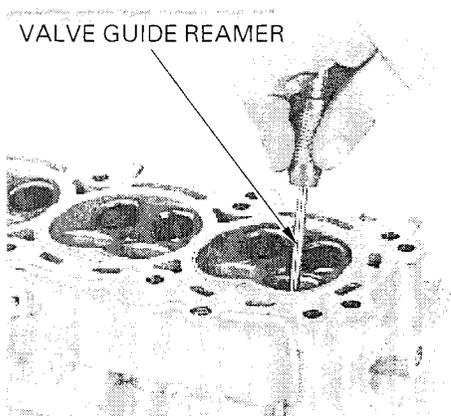


Ream the guides to remove any carbon deposits before checking clearances.  
Insert the reamer from the combustion chamber side of the head and always rotate the reamer clockwise.

### TOOL:

Valve guide reamer,  
4.508 mm

07HMH-ML00101  
07HMH-ML0010A  
(U.S.A. only)



Measure and record each valve guide I.D.

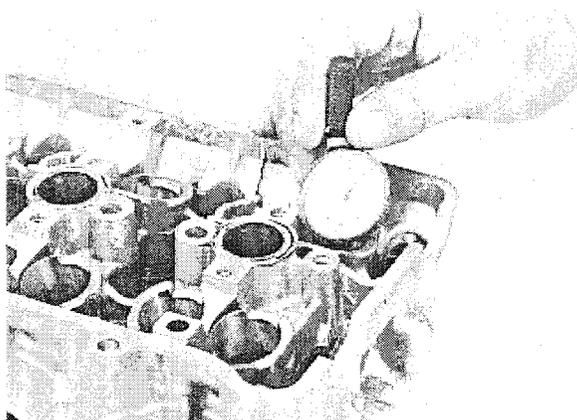
**SERVICE LIMIT: IN/EX:** 4.540 mm (0.1787 in)

Subtract each valve stem O.D. from the corresponding guide I.D. to obtain the stem-to-guide clearance.

### STANDARDS:

**IN:** 0.010 – 0.037 mm (0.0004 – 0.0015 in)

**EX:** 0.020 – 0.047 mm (0.0008 – 0.0019 in)



*Reface the valve seats whenever the valve guides are replaced (page 8-18).*

If the stem-to-guide clearance is out of standard, determine if a new guide with standard dimensions would bring the clearance within tolerance. If so, replace any guides as necessary and ream to fit.  
If the stem-to-guide clearance is out of standard with the new guides, replace the valves and guides.

