

**VALVE SPRING**

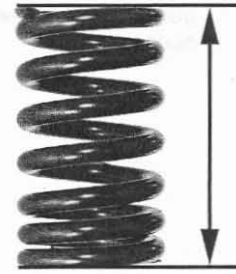
Measure the free length of the valve springs.

**SERVICE LIMITS:**

**IN:** 38.7 mm (1.52 in)

**EX:** 38.7 mm (1.52 in)

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

**VALVE/VALVE GUIDE**

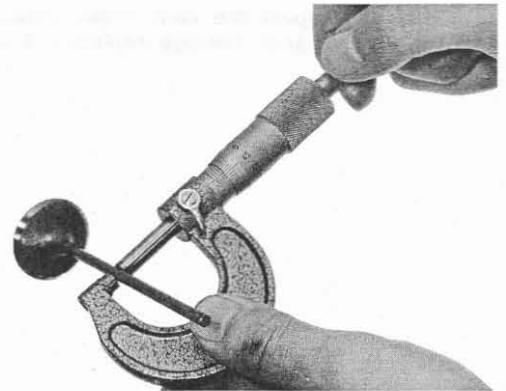
Check that the valve moves smoothly in the guide. Inspect each valve for bending, burning or abnormal stem wear.

Measure and record each valve stem O.D.

**SERVICE LIMITS:**

**IN:** 3.965 mm (0.1561 in)

**EX:** 3.955 mm (0.1557 in)



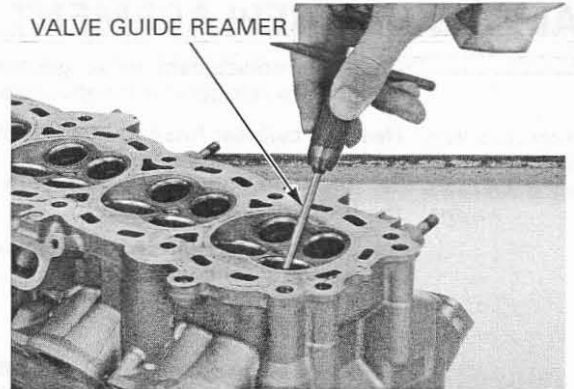
Ream the guides to remove any carbon deposits before checking clearances.

Insert the reamer from the combustion chamber side of the cylinder head and always rotate the reamer clockwise.

**TOOL:**

Valve guide reamer, 4.00 mm 07MMH-MV90100

VALVE GUIDE REAMER



Measure and record each valve guide I.D.

**SERVICE LIMIT: IN/EX:** 4.04 mm (0.159 in)

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

**SERVICE LIMIT:**

**IN:** 0.075 mm (0.0030 in)

**EX:** 0.085 mm (0.0033 in)

*Reface the valve seats whenever the valve guides are replaced (page 9-20).*

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 exceeds the service limit with the new guides, replace the valves and guides.

