

Fig. 3.25 Inspecting the valve seat contact

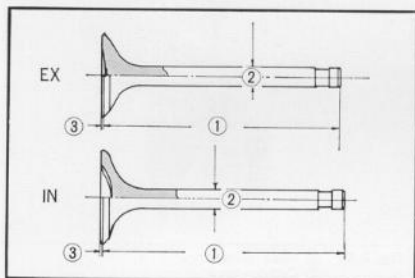


Fig. 3.26 Exhaust and inlet valves

- ① Length
- ② Stem diameter
- ③ Head thickness

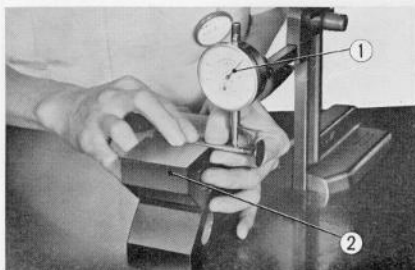


Fig. 3.27 Measuring valve

- ① Dial gauge
- ② V block

7. Inspection of valve sealing

Assemble the valve into the cylinder head as shown in Fig. 3.25 so that the valves are well seated and fill the cylinder head combustion chamber with oil, inject a blast of air $2\text{kg}/\text{cm}^2$ (28.4psi) in from the inlet and exhaust ports and if any bubbles should appear, it is an indication that the valve seats are not completely sealed. (Fig. 3.25)

(a) Exhaust valve (Fig. 3.26, 27)

Item	Standard value	Serviceable limit
Length ①	65.8~66.0 (2.593~2.600 in)	Replace if under 65.4 (2.577 in)
Stem dia ②	5.435~5.445 (0.2141~0.2145 in)	Replace if under 5.415 (0.2134 in)
Head thickness ③	0.6~0.8 (0.024~0.032 in)	Replace if under 0.3 (0.012 in)
Concentricity of valve face	0.02 TIR (0.0008 in)	Replace if over 0.03 (0.0012 in)

(b) Inlet valve (Fig. 3.26, 27)

Item	Standard value	Serviceable limit
Length ①	67.2~67.4 (2.648~2.654 in)	Replace if under 66.8 (2.632 in)
Stem dia ②	5.455~5.465 (0.2149~0.2153 in)	Replace if under 5.435 (0.2141 in)
Head thickness ③	0.6~0.8 (0.024~0.032 in)	Replace if under 0.3 (0.012 in)
Concentricity of valve face	0.02 TIR (0.0012 in)	Replace if over 0.03 (0.0012 in)

Valve Mechanism

Both the inlet and exhaust valves are incorporated in the combustion chamber. The inlet valve is designed larger than the exhaust valve to afford greater volumetric efficiency. The exhaust valve is constantly exposed to extremely high temperature; therefore, it is made of special high heat resisting material to withstand the high temperature as well as the wear.

The cam chain revolves at a very high speed within the cam chain chamber which is located on the left side of the cylinder, making it necessary to use a heat resistant as well as a wear resistant rubber on the cam chain guide sprocket and cam chain tensioner roller to prevent chain noise. Further, in contrast to the conventional push rod type of a mechanism, this system has less reciprocating moving parts to cause hitting noises, making the operation