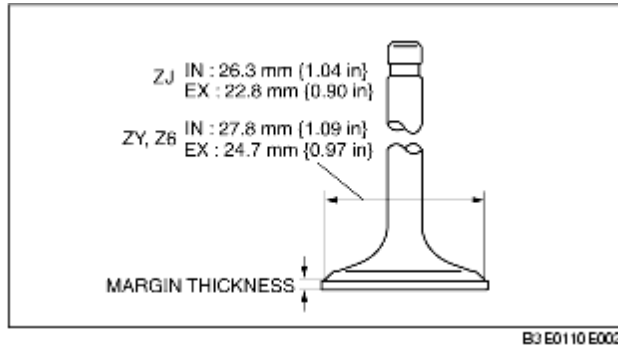


VALVE, VALVE GUIDE INSPECTION

B3E011010280E02

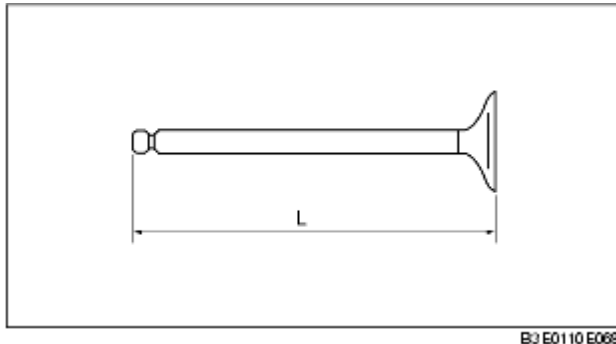
1. Measure the valve head margin thickness using a vernier caliper.



- If not within the specification, replace the valve.

Standard valve head margin thickness
1.6-2.0 mm {0.063-0.078 in}

2. Measure the length of each valve using the vernier caliper.



- If it is less than the minimum specification, replace the valve.

Standard valve length (mm {in})

Valve	ZJ	ZY, Z6
IN	98.01-98.61 {3.859-3.882}	96.80-97.40 {3.812-3.834}
EX	98.44-99.04 {3.876-3.899}	96.30-96.90 {3.792-3.814}

Minimum valve length (mm {in})

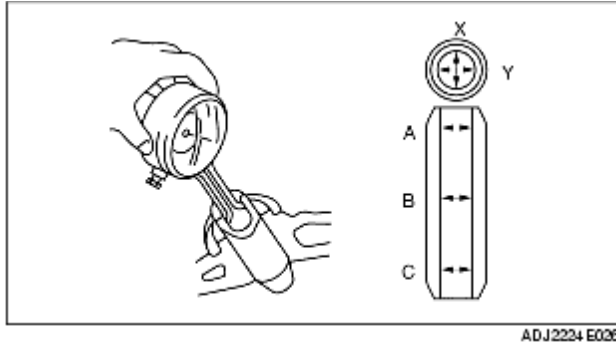
Valve	ZJ	ZY, Z6
IN	97.79 {3.850}	96.58 {3.802}
EX	98.22 {3.867}	96.08 {3.783}

3. Measure the stem diameter of each valve using the micrometer. Measurement positions total six and they are in the X and Y directions at the three points (A, B, and C) as shown in the figure.

- If it is less than the minimum specification, replace the valve.

Standard valve stem diameter**IN: 5.470-5.485 mm {0.2154-0.2159 in}****EX: 5.465-5.480 mm {0.2152-0.2157 in}****Minimum valve stem diameter****IN: 5.424 mm {0.2136 in}****EX: 5.419 mm {0.2134 in}**

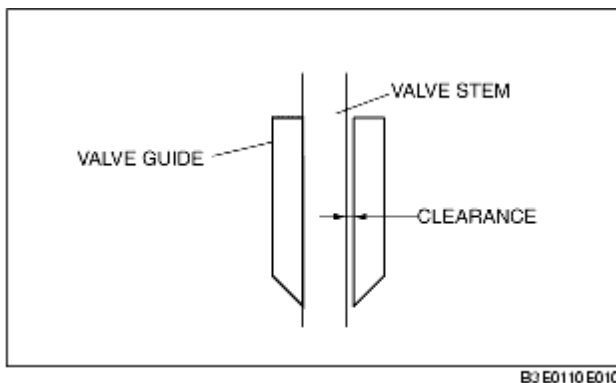
4. Measure the inner diameter of each valve guide using the caliper gauge. Measurement positions total six and they are in the X and Y directions at the three points (A, B, and C) as shown in the figure.



- If not within the specification, replace the valve guide.

Standard valve guide inner diameter**5.510-5.530 mm {0.2170-0.2177 in}**

5. Calculate the clearance between the valve stem and the valve guide by subtracting the inner diameter of the valve guide from the outer diameter of the corresponding valve stem.



- If it exceeds the maximum specification, replace the valve or the valve guide, or both.

Standard clearance**IN: 0.025-0.060 mm {0.0010-0.0023 in}****EX: 0.030-0.065 mm {0.0012-0.0025 in}****Maximum clearance****0.10 mm {0.04 in}**

6. Measure the protrusion height (dimension A) of each valve guide using the vernier caliper.

- If not within the specification, replace the valve guide

Standard height**12.2-12.8 mm {0.49-0.50 in}**