1D

Valve Clearance Inspection and Adjustment

NOTE:
For identification of each cylinder, refer to *Precautions for Identification of Cylinder*.

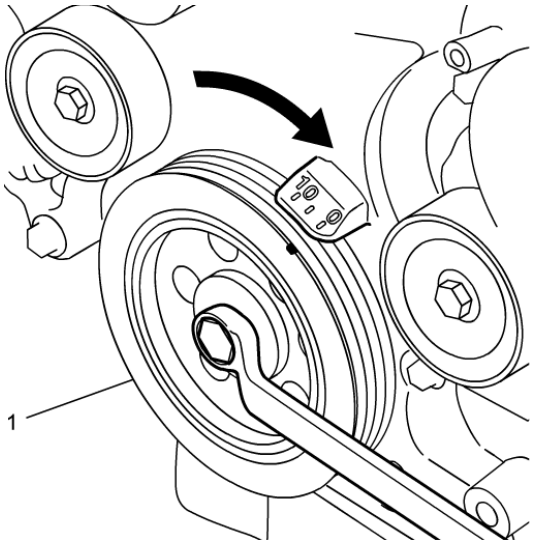
Inspection

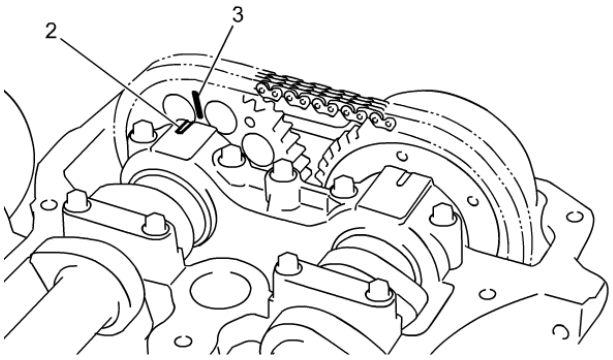
1) Disconnect negative (–) cable from battery.

2) Remove cylinder head cover. ☞

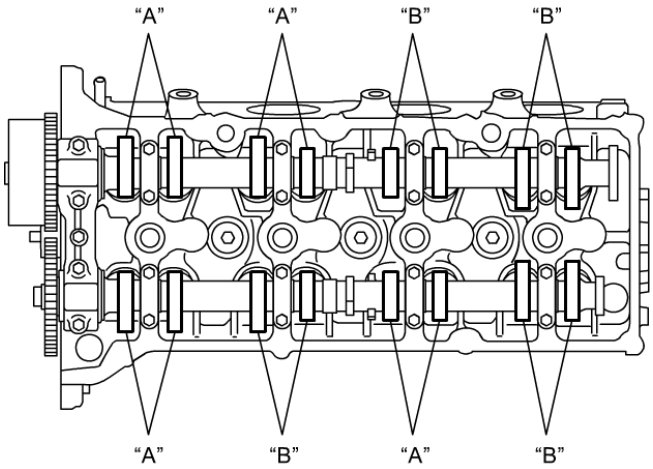
3) Remove engine under cover.

4) Align timing mark (3) on exhaust camshaft timing sprocket with match mark (2) on camshaft housing No.1, by turning crankshaft pulley (1) clockwise with 19 mm wrench.





5) Measure valve clearances with thickness gauge according to the following procedures.
a) Measure valve clearances of indicated valves “A” in figure.
b) Turn crankshaft pulley 360° clockwise with 19 mm wrench.
c) Measure valve clearances of indicated valves “B” in figure.



If valve clearance is out of specification, record valve clearance and adjust it to specification.

Valve clearance specification

When cold (ECT: 15 – 25 °C (59 – 77 °F)):

- **Intake: 0.16 – 0.24 mm (0.0063 – 0.0094 in.)**
- **Exhaust: 0.31 – 0.39 mm (0.0123 – 0.0153 in.)**

Adjustment

1) Remove tappet to be replaced. ☞

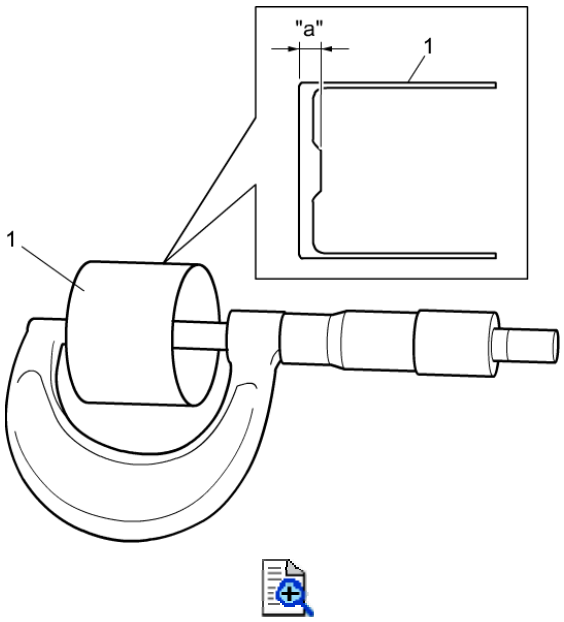
2) Select proper size of tappet as follows.

a) Using a micrometer, measure the thickness of the removed tappet (1).

b) Calculate the thickness of new tappet by formula below.

> **NOTE:**
> **If the number at second places of decimal point A is odd number, use (A – 0.01) tappet.**

Intake side:
A = B + C – 0.20 mm (0.0079 in.)
Exhaust side:
A = B + C – 0.35 mm (0.0138 in.)
A: Thickness "a" of new tappet
B: Thickness "a" of removed tappet
C: Measured valve clearance



c) Select new tappet closest to calculated value from available size as a spare part.

3) Install tappets and camshafts. ☞

4) Recheck valve clearance.