VALVE CLEARANCE (S05C–TB)

140NC–03

ADJUSTMENT

HINT:

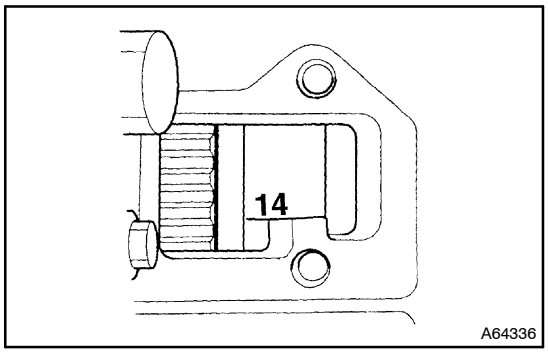
Inspect and adjust the valve clearance when the engine is cold.

1. REMOVE INTAKE AIR CONNECTOR

2. REMOVE CYLINDER HEAD COVER SUB–ASSY

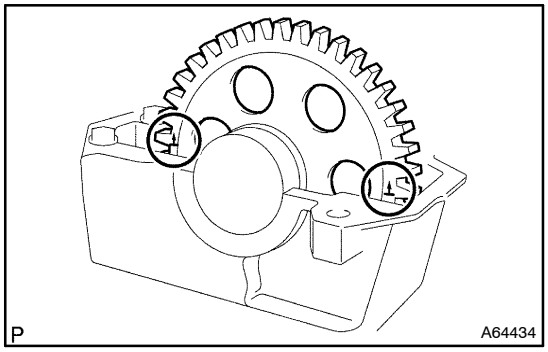
NOTICE:

Clean all dust from around the cylinder head cover before removing it to prevent foreign particles from getting in.



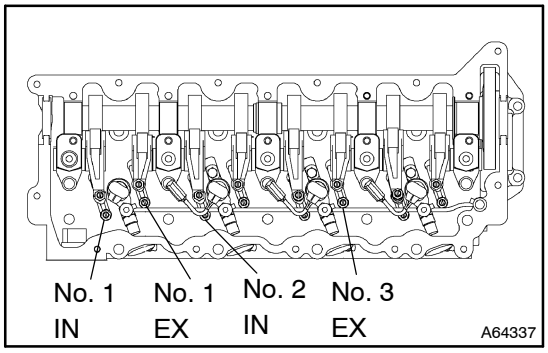
3. INSPECT VALVE CLEARANCE

(a) Turn the crankshaft to align mark 14 on the outer periphery of the flywheel with the pointer of the flywheel housing.



(b) The No. 1 piston is at the TDC of the compression stroke when the arrow printed on the camshaft points up and the underline is horizontal.

If not, turn the crankshaft 1 revolution (360°) and align the marks as shown above.



(c) Check only those valves indicated in the illustration.

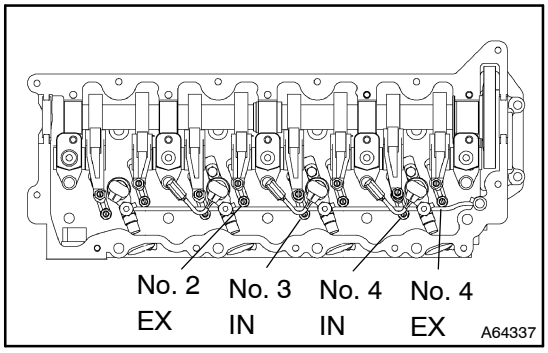
(1) Using a feeler gauge, measure the clearance between the valve lifter and camshaft.

(2) Record the measurements of the valve clearance that is out–of–specification.

If the clearance is out of the standard range, adjust the valve clearance using the following.

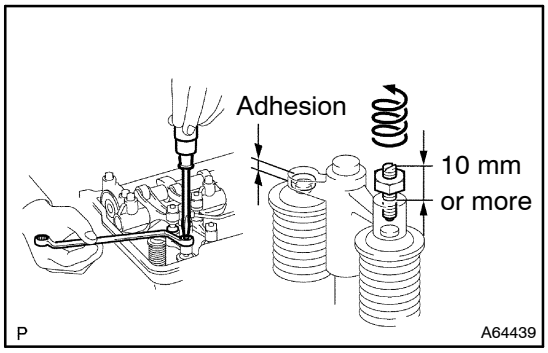
Valve clearance (Cold):

Intake	0.30 mm (0.012 in.)
Exhaust	0.45 mm (0.018 in.)



(d) Turn the crankshaft one revolution (360°) and align the marks as shown above (See step (a)).

(e) Check only the valves indicated in the illustration. Measure the valve clearance (See step (c)).

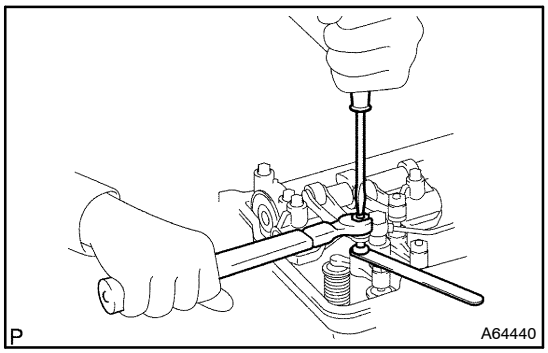


4. ADJUST VALVE CLEARANCE

(a) Loosen the adjusting screw nut of the cross head completely.

HINT:

- The adjusting screw must protrude by 10 mm (0.3931 in.) or more from the valve bridge upper surface.
- Unless the adjusting screw is completely loose to the valve stem, the following adjustments may be adversely affected.

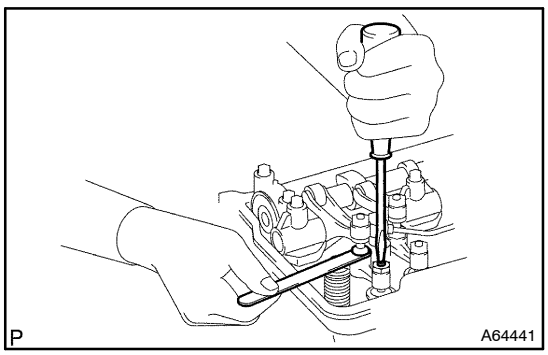


(b) Insert a 30 mm (0.012 in.) feeler gauge for the intake or 0.45 mm (0.018 in.) feeler gauge for the exhaust between the rocker arm and valve bridge. Adjust the clearance with the adjusting screw of the rocker arm. Tighten the lock nut.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

HINT:

The feeling of the feeler gauge during the clearance adjustment is the same as before.



(c) With the feeler gauge inserted, loosen the adjusting screw of the valve bridge. Make sure that the feeler gauge is not felt loose.

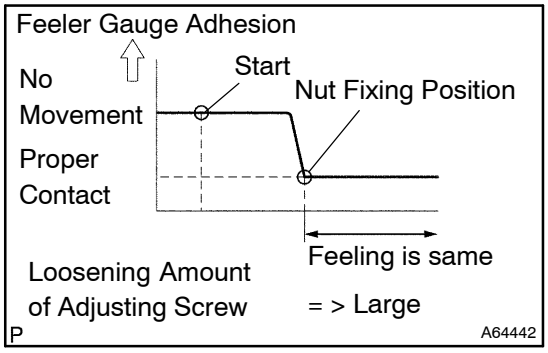
HINT:

If it is loose, repeat the following steps.

(d) Tighten the adjusting screw of the valve bridge until the feeler gauge does not move.

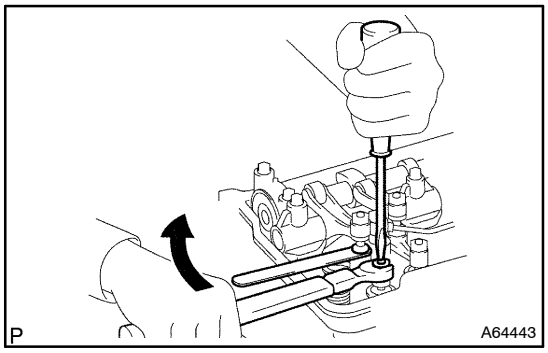
(e) While loosening the adjusting screw of the valve bridge gradually, adjust the valve clearance. Tighten the lock nut of the valve bridge when the feeler gauge is felt correct.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

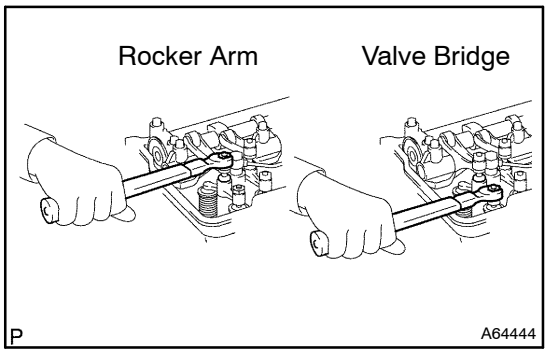


HINT:

- The feeling of the feeler gauge during the clearance adjustment is the same as before.
- Do not over–loosen the adjusting screw so that this will cause the valve bridge to come off from the valve stem. The feeler gauge may have excessive clearance between the adjusting screw of the valve bridge and the valve. This does not allow the correct adjustment.



- The adjustable valve clearance, when either the No. 1 or No. 4 piston is at the TDC of the compression stroke, is shown in the following chart. After completing the valve clearance adjustment when the No. 1 piston is at the TDC of the compression stroke, turn the crankshaft one complete revolution and make the No. 4 piston be at the TDC of the compression stroke (The arrow printed on the camshaft points down and the underline is horizontal) and adjust the rest of the valve clearances.

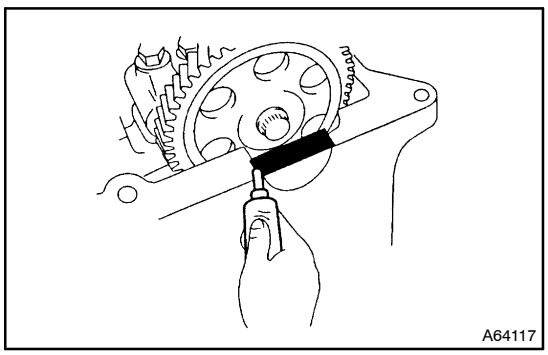


(f) Finally, tighten all the lock nuts of the rocker arm and the cross head with the following torque and make sure that they are all tight (the nuts do not turn).

HINT:

Never over–tighten them with more than the following torque.

Torque: 28 N·m (280 kgf·cm, 20 ft·lbf)



5. INSTALL CYLINDER HEAD COVER SUB–ASSY

(a) Clean the matching face of the cylinder head and cover.

(b) Apply seal packing to the front and rear ends of the cylinder head, and install it onto the cylinder head within 20 minutes.

Seal packing: Part No. 08826–00080 or equivalent
Coating width: 1.5 – 2.5 mm (0.059 – 0.098 in.)
Torque: 28.5 N·m (290 kgf·cm, 21 ft·lbf)

HINT:

If more than 20 minutes have passed since the seal packing is applied, do not assemble the parts. After removing the seal packing completely, reapply it to assemble them.

(c) Tighten the mounting bolt of the head cover through the silent block and fix the head cover on the cylinder head.

Torque: 28.5 N·m (290 kgf·cm, 21 ft·lbf)

6. INSTALL INTAKE AIR CONNECTOR