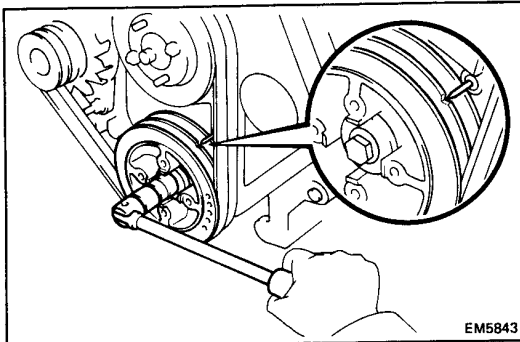


ADJUSTMENT OF VALVE CLEARANCE

HINT: Adjust the valve clearance while the engine is cold.

1. (2L-T)
REMOVE AIR CLEANER
2. (w/ Intake Pipe)
REMOVE INTAKE PIPE
3. REMOVE CYLINDER HEAD COVER
(See step 16 on page EM-38)
4. SET NO. 1 CYLINDER TO TDC/COMPRESSION



EM5843

- (a) Turn the crankshaft pulley clockwise, and align its groove with the timing pointer.
 - (b) Check that the valve lifters on the No. 1 cylinder are loose and valve lifters on the No. 4 cylinder are tight.
- If not, turn the crankshaft one revolution (360°) and align the mark as above.

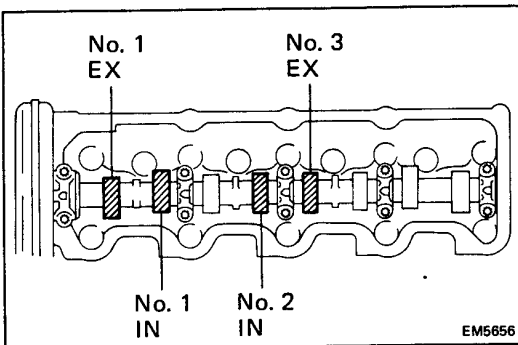
5. ADJUST VALVE CLEARANCE

- (a) Check only the valves indicated in the illustration.
 - Using a feeler gauge, measure the clearance between the valve lifter and camshaft.
 - Record the valve clearance measurements which are out of specification. They will be used later to determine the required replacement adjusting shim.

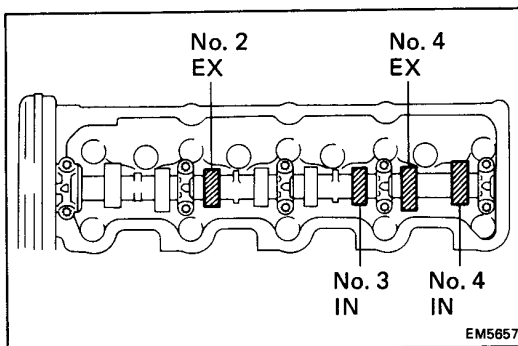
Valve clearance (Cold):

Intake 0.20 – 0.30 mm (0.008 – 0.012 in.)
Exhaust 0.40 – 0.50 mm (0.016 – 0.020 in.)

- (b) Turn the crankshaft one revolution (360°), and align the mark as above (See procedure step 4).
- (c) Check only the valves indicated in the illustration. Measure the valve clearance. (See procedure step (a))



EM5656

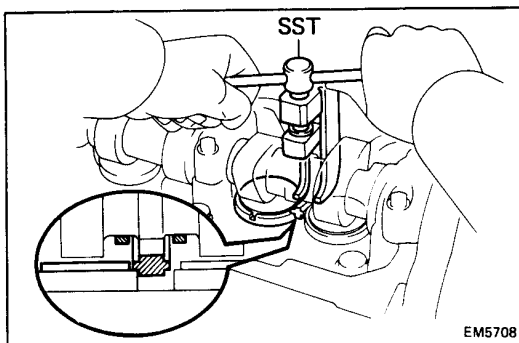


EM5657

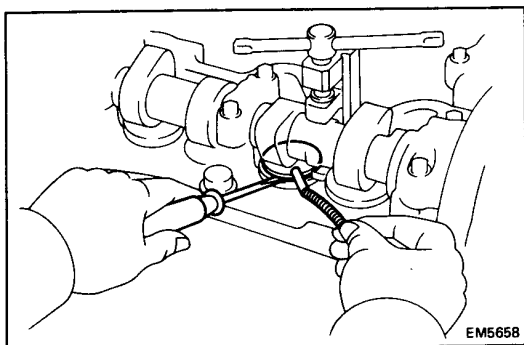
- (d) Remove the adjusting shim.
 - Turn the crankshaft to position the cam lobe of the camshaft on the adjusting valve upward.
 - Using SST, press down the valve lifter.

SST 09248-64010

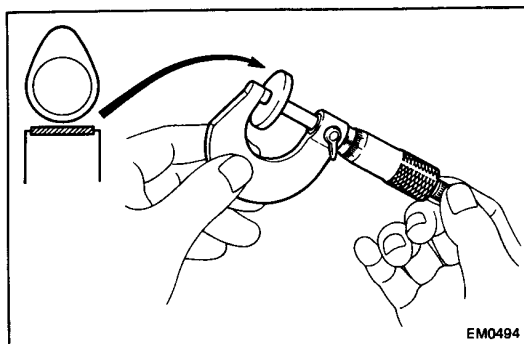
HINT: Before pressing down the valve lifter, position the notch on the exhaust manifold side.



EM5708



- Remove the adjusting shim with small screwdriver and magnetic finger.



- (e) Determine the replacement adjusting shim size by using following the formula or charts:

- Using a micrometer, measure the thickness of the shim which was removed.
- Calculate the thickness of the new shim so the valve clearance comes within specified value.

T Thickness of used shim

A Measured valve clearance

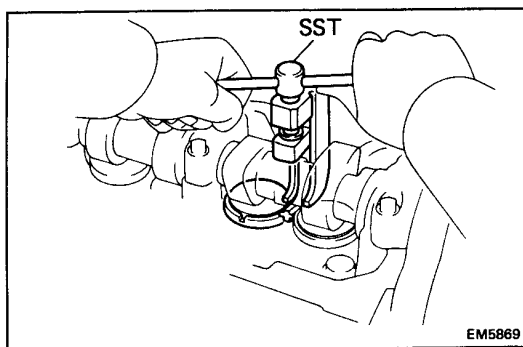
N Thickness of new shim

Intake side: $N = T + (A - 0.25 \text{ mm (0.010 in.)})$

Exhaust side: $N = T + (A - 0.45 \text{ mm (0.018 in.)})$

- Select a new shim with a thickness as close as possible to the calculated values.

HINT: Shims are available in seventeen sizes in increments of 0.050 mm (0.0020 in.), from 2.500 mm (0.0984 in.) to 3.300 mm (0.1299 in.).



- (f) Install a new adjusting shim.
- Place a new adjusting shim on the valve lifter.
 - Remove SST.

SST 09248-64010

- (g) Recheck the valve clearance.

- REINSTALL CYLINDER HEAD COVER
(See step 4 on page EM-43)
- (w/ Intake Pipe)
REINSTALL INTAKE PIPE
- (2L-T)
REINSTALL AIR CLEANER

