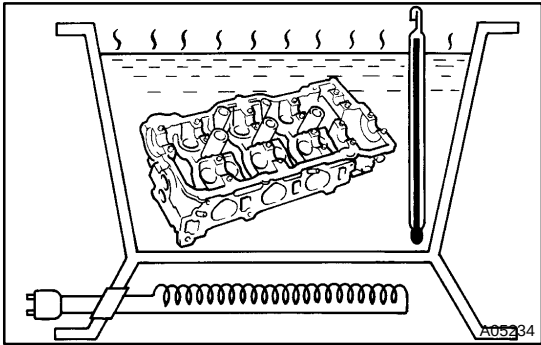
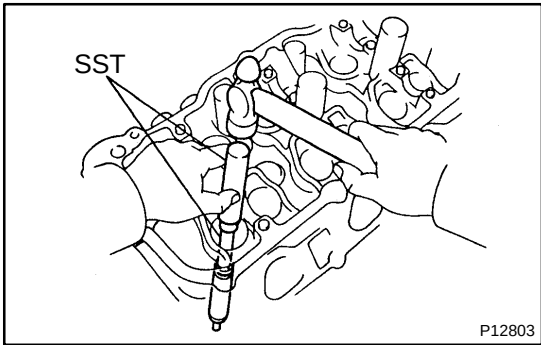




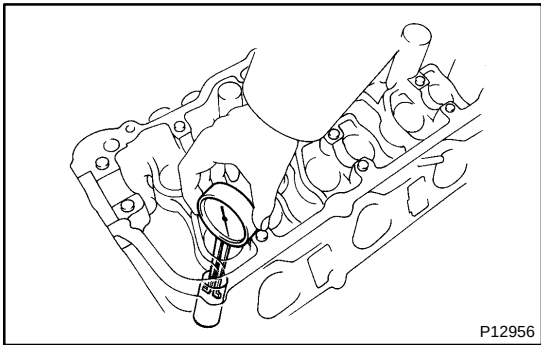
REPLACEMENT

1. REPLACE VALVE GUIDE BUSHINGS

- (a) Gradually heat the cylinder head to 80 - 100°C (176 - 212°F).



- (b) Using SST and a hammer, tap out the guide bushing.
SST 09201-01055, 09950-70010 (09951-07100)



- (c) Using a caliper gauge, measure the bushing bore diameter of the cylinder head.

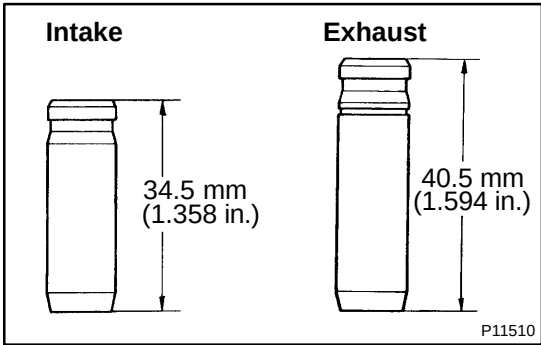
- (d) Select a new guide bushing (STD or O/S 0.05).
If the bushing bore diameter of the cylinder head is greater than 10.313 mm (0.4060 in.), machine the bushing bore to the following dimension:

10.345 - 10.363 mm (0.4073 - 0.4080 in.)

- If the bushing bore diameter of the cylinder head is greater than 10.363 mm (0.4080 in.), replace the cylinder head.

Both intake and exhaust

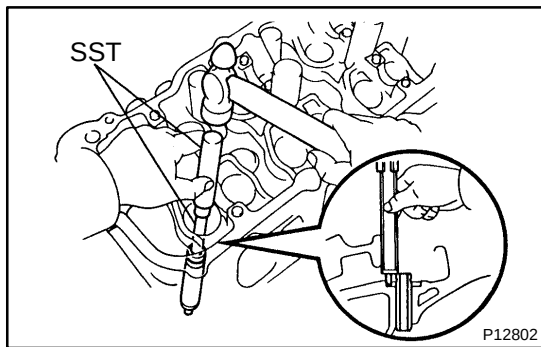
Bushing bore diameter mm (in.)	Bushing size
10.295 - 10.313 (0.4053 - 0.4060)	Use STD
10.345 - 10.363 (0.4073 - 0.4080)	Use O/S 0.05



HINT:

Different bushings are used for the intake and exhaust.

- (e) Gradually heat the cylinder head to 80 - 100°C (176 - 212°F).



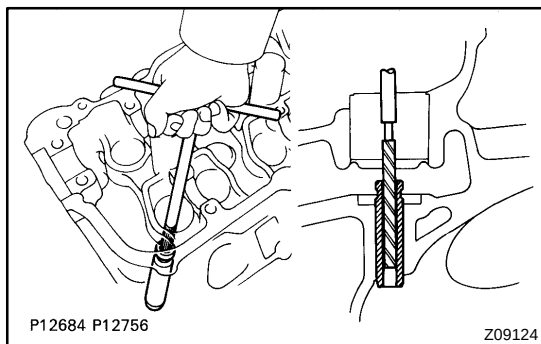
- (f) Using SST and a hammer, tap in a new guide bushing to the specified protrusion height.

SST 09201-01055, 09950-70010 (09951-07100)

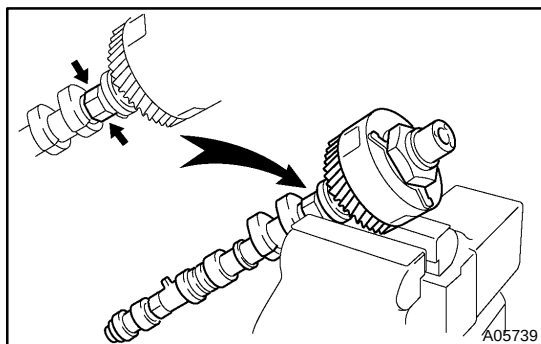
Protrusion height:

Intake: 11.1 - 11.5 mm (0.437 - 0.453 in.)

Exhaust: 8.9 - 9.3 mm (0.350 - 0.366 in.)



- (g) Using a sharp 5.5 mm reamer, ream the guide bushing to obtain the standard specified clearance (See page [EM-43](#)) between the guide bushing and valve stem.



2. REPLACE CAMSHAFT TIMING GEAR (VVT-i)

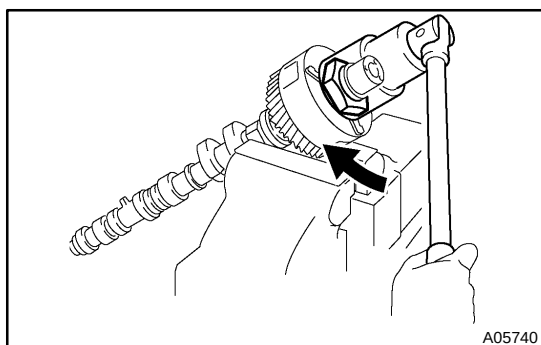
NOTICE:

Do not remove or install the camshaft timing gear (VVT-i) beside changing VVT-i or the camshaft.

- (a) Mount the hexagon wrench head portion of the camshaft in a vise.

NOTICE:

Be careful not to damage the camshaft.



- (b) Using a 46 mm socket wrench, remove the lock nut by turning it clockwise.

NOTICE:

- Remove it under the condition that the lock pin is operated and lock at the maximum delay angle position.
- The lock nut have LH threads.
- Never use any tool other than the socket wrench, otherwise that may result in deforming the cam angle rotor portion.

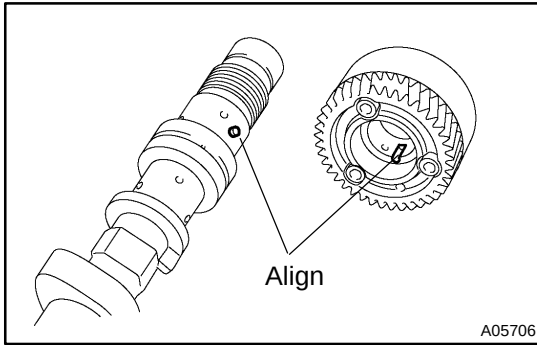
- (c) Remove the camshaft VVT-i.

HINT:

In case of having difficulty to remove VVT-i, apply a slight hitting using a plastic-faced hammer and then remove it.

NOTICE:

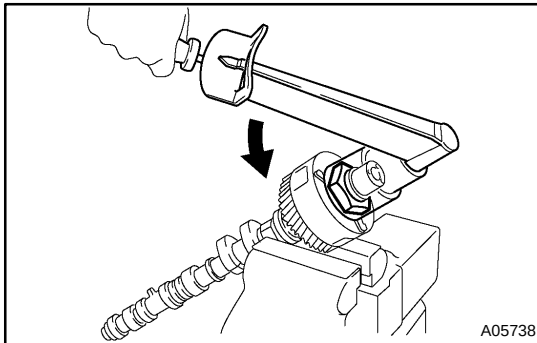
Never remove the 3 bolts on the gear.



- (d) Align the knock pin and knock pin groove and install VVT-I on the camshaft.

NOTICE:

Install it under the condition that the lock pin is operated and lock at the maximum delay angle position.



- (e) Apply the engine oil on the nut, the placing surface of VVT-i and the screw portion.

HINT:

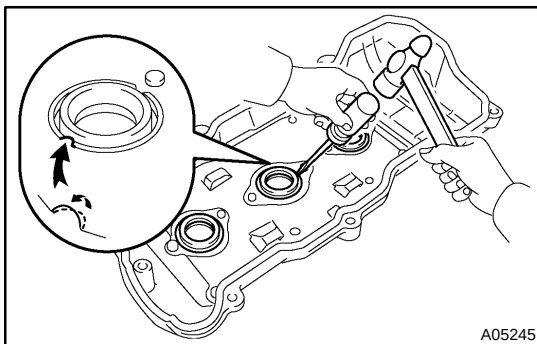
Be sure to apply the oil, otherwise the prescribed torque cannot be obtained.

- (f) Using a 46 mm socket wrench, install and torque a new lock nut by turning it counterclockwise.

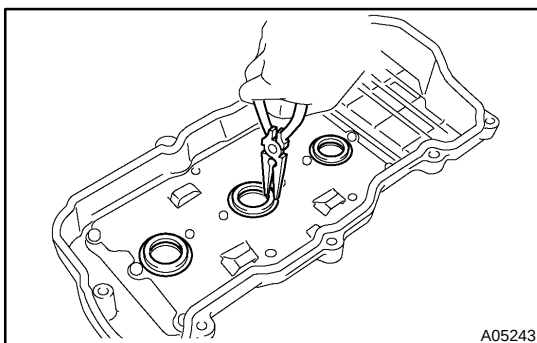
Torque: 150 N·m (1,530 kgf·cm, 110 ft·lbf)

NOTICE:

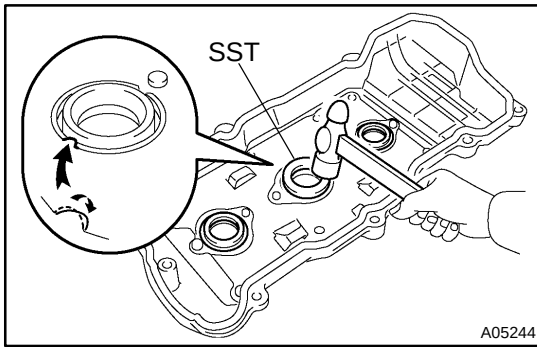
- Must change the nuts to the new ones when to change VVT-i.
- The lock nut have LH threads.
- Never use any tool other than the socket wrench, otherwise that may result in deforming the cam angle rotor portion.

**3. REPLACE SPARK PLUG TUBE GASKETS**

- (a) Bend up the tab on the ventilation baffle plate which prevents the gasket from the slipping out.
- (b) Using a screwdriver and hammer, tap out the gasket.



- (c) Using needle-nose pliers, pry out the gasket.



- (d) Using SST and a hammer, tap in a new gasket until its surface is flush with the upper edge of the cylinder head cover.
SST 09608-03071
- (e) Apply a light coat of MP grease to the gasket lip.
- (f) Return the ventilation plate tab to its original position.