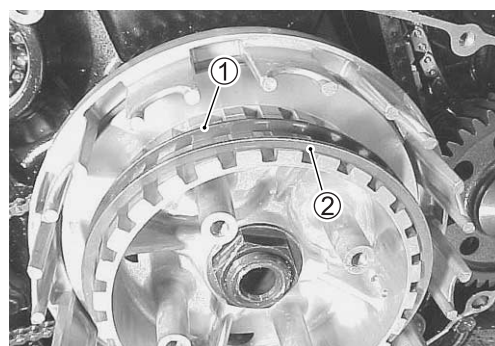
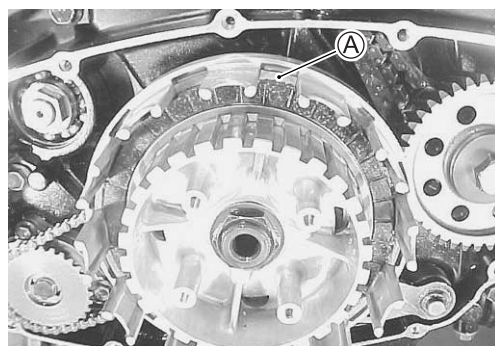


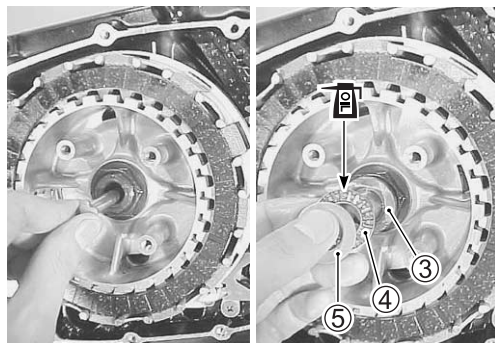
- Install the wave washer seat ① and the wave washer ②.



- Install the clutch drive plate No.2 (A) first.
- Install the drive and driven plate one by one into the clutch sleeve hub.

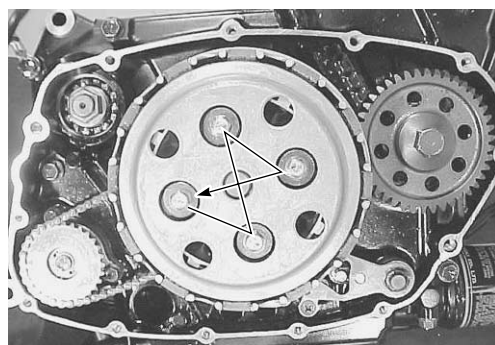


- Install the push rod.
- Install the clutch push piece ③, bearing ④ and thrust washer ⑤.
- Apply engine oil to the bearing.

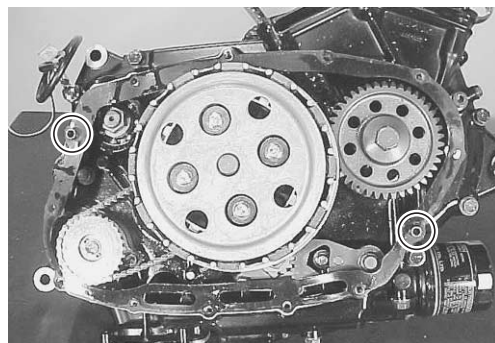


- Install the springs and tighten the clutch spring set bolts diagonally to the specified torque.

 **Clutch spring set bolt: 10 N·m (1.0 kgf·m, 7.0 lb·ft)**



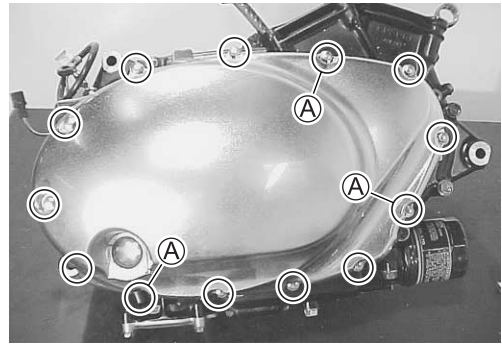
- Install the new clutch cover gasket and dowel pins.



- Install the clutch cover and tighten the bolts.

NOTE:

Fit the new gasket to the bolt (A).




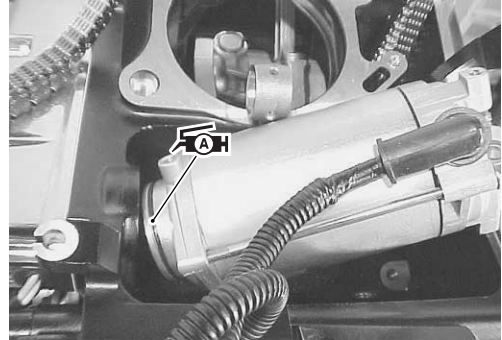
STARTER MOTOR

- Install the starter motor.

NOTE:

Apply grease to the new O-ring.

 **99000-25030: SUZUKI SUPER GREASE "A" (For USA)**
99000-25010: SUZUKI SUPER GREASE "A"
(For the others)

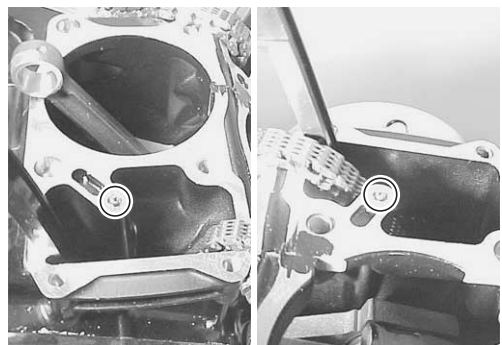


- Install the starter motor cover.



OIL JET

- Apply engine oil to the new O-ring and install the oil jets.



PISTON

- Apply a light coat of SUZUKI MOLY PASTE to the piston pins.

 **99000-25140: SUZUKI MOLY PASTE**

- When installing the piston, the arrow mark on the piston head is located to the exhaust side.



- Place a cloth beneath the piston, and install the circlip ①.

▲ CAUTION

When turning the crankshaft, pull the cam chains upward, or the chains will be caught between the crankcase and the cam drive sprocket.



CYLINDER

- Install the cam chain tension adjuster to the cylinder.
- After unlocking the ratchet, push the cam chain tension adjuster rod.
- Insert the special tool between the ratchet and the adjuster body.

TOOL 09918-53810: Chain tensioner lock tool

U Cam chain tension adjuster mounting bolt: 10 N·m
(1.0 kgf·m, 7.0 lb·ft)



- Coat SUZUKI BOND “1207B” lightly to the mating surfaces among the crankcase mating surfaces.

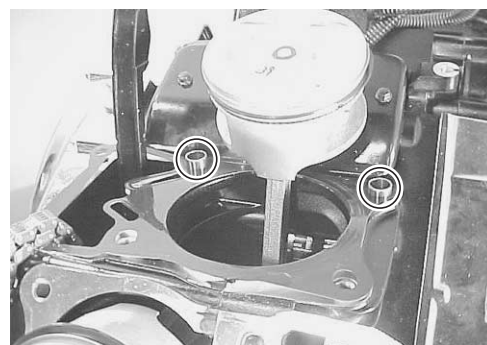
1207B 99104-31140: SUZUKI BOND “1207B” (For USA)
99000-31140: SUZUKI BOND “1207B” (For the others)



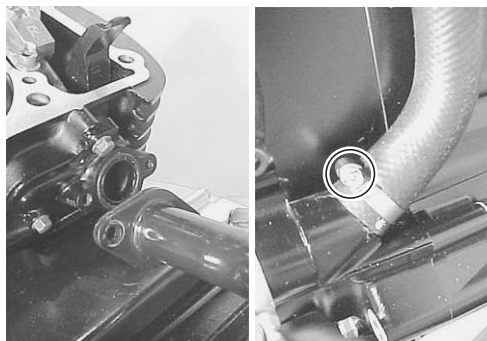
- Fit the dowel pins and the new gasket.

▲ CAUTION

Use a new gasket to prevent gas leakage.



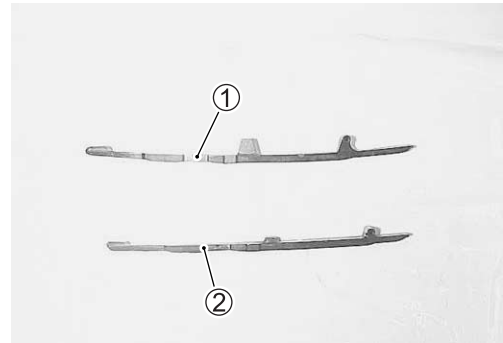
- Install the cylinder. (Rear cylinder)
- Install the water hose and pipe.



CYLINDER HEAD

- Install the cam chain guide.

- ① For front cylinder
- ② For rear cylinder



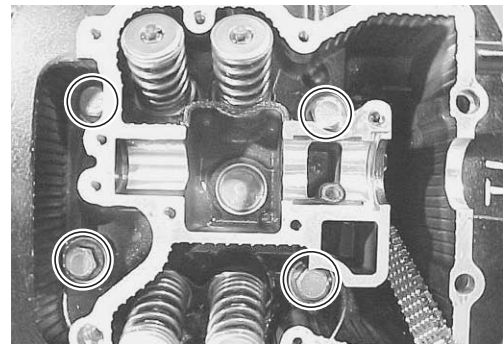
- Fit the dowel pins and the new cylinder head gasket.

⚠ CAUTION

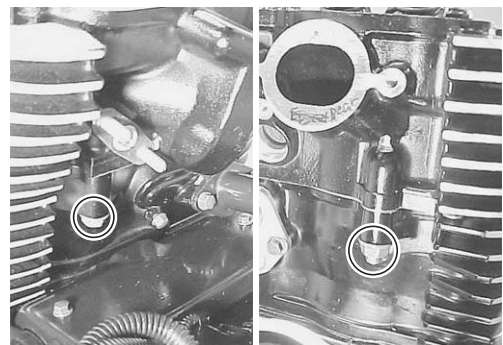
Use a new gasket to prevent gas leakage.



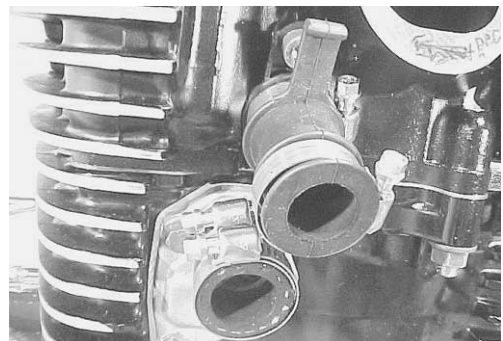
- Install the cylinder head and tighten the cylinder head bolts diagonally to the specified torque. (Rear cylinder)



- Tighten the cylinder head bolt and nut.



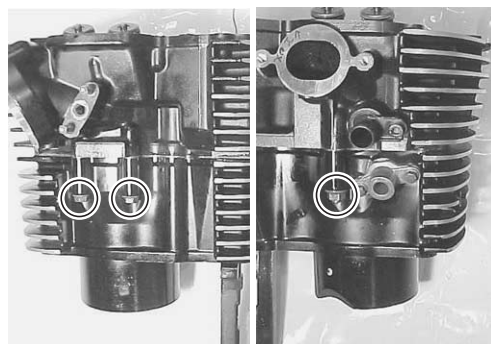
- Install the water hoses to the front cylinder.



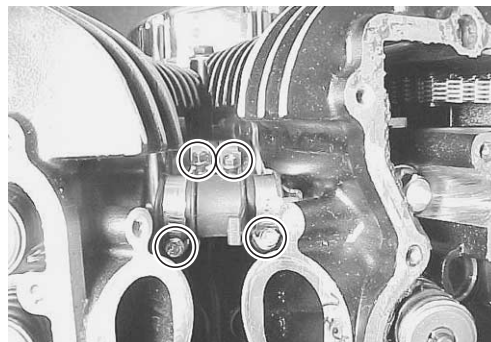
FRONT CYLINDER

- Assemble the front cylinder and the cylinder head.
- Tighten the cylinder head bolts and nut.


 **Cylinder head bolt and nut (M8): 25 N·m**
(2.5 kgf·m, 18.0 lb-ft)



- Install the front cylinder assembly to the crankcase.
- Connect the water hoses.



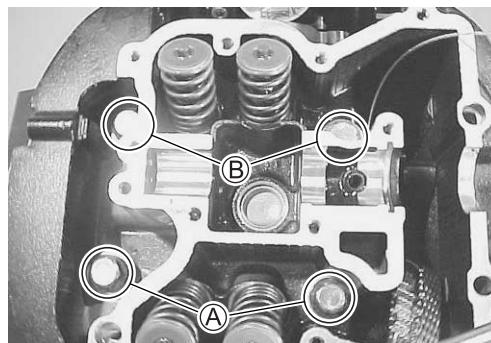
- Tighten the cylinder head bolts to the specified torque.

 **Cylinder head bolt (M10): Initial: 25 N·m**
(2.5 kgf·m, 18.0 lb-ft)
Final: 38 N·m
(3.8 kgf·m, 27.5 lb-ft)

NOTE:

Bolt ①: 165 mm (6.5 in)

Bolt ②: 155 mm (6.1 in)

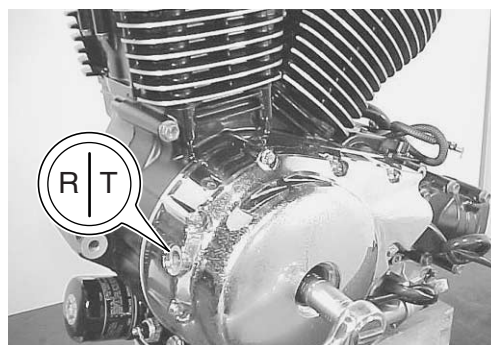


CAMSHAFT

- Position "RIT" mark on the generator rotor with the center of the valve timing inspection hole.

⚠ CAUTION

Pull the cam chains upward, or the chain will be caught between crankcase and cam drive sprocket.



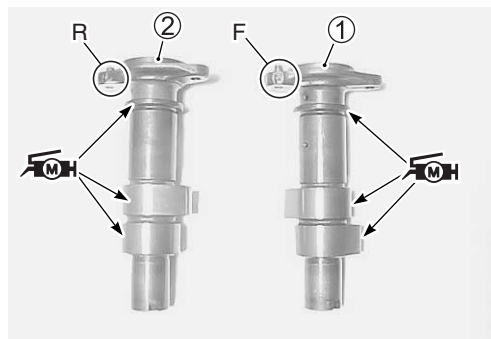
- Before installing the camshafts onto each cylinder head, apply SUZUKI MOLY PASTE onto the camshaft journals. Also, apply engine oil onto the camshaft journal holders.

 **99000-25140: SUZUKI MOLY PASTE**

NOTE:

The camshaft is identified by the embossed letters "F" and "R".

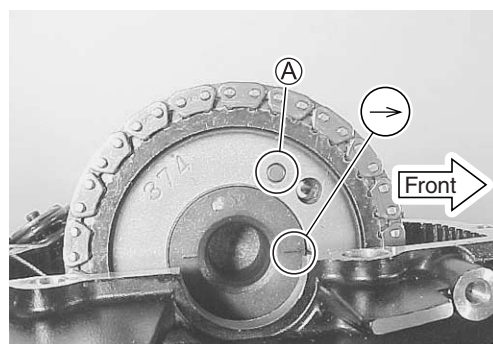
- ① Front cam shaft
- ② Rear cam shaft



- Align the arrow marks on the front and rear camshafts so it is parallel with the surface of the cylinder heads.

NOTE:

Arrow marks are located to forward.



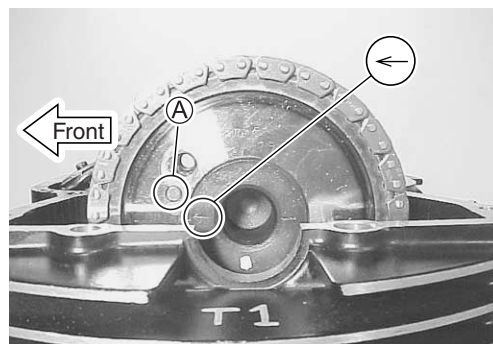
Rear (No. 1) cylinder head

- Engage the chains on the cam sprockets with the locating pin holes (A) as shown in the photograph.

NOTE:

Do not rotate the generator rotor while doing this. When the sprocket is not positioned correctly, turn the sprocket.

- Recheck the position of the "RIT" mark on the generator rotor, arrow mark on the No.1 (Rear) camshaft and arrow mark on the No.2 (front) camshaft.



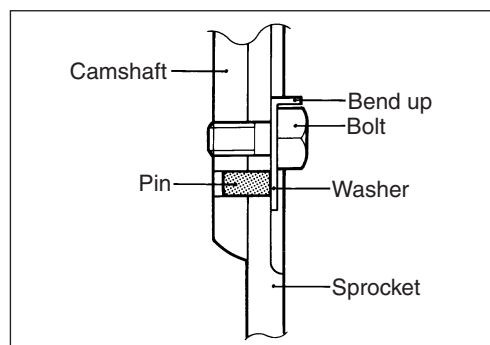
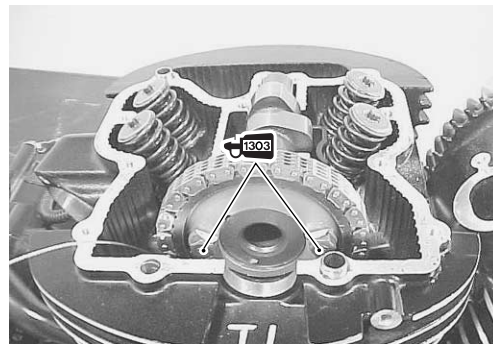
Front (No. 2) cylinder head

- Install the lock washer so that it is covering the locating pin.
- Apply THREAD LOCK SUPER "1303" to the bolts and tighten them to the specified torque.

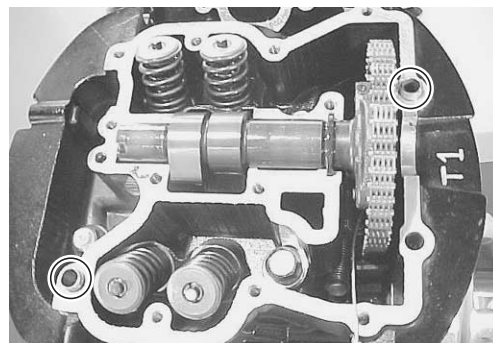
 **Cam chain sprocket bolt: 15 N·m (1.5 kgf·m, 11.0 lb·ft)**

 **99000-32030: THREAD LOCK SUPER "1303"**

- Bend up the washer tongue positively to lock the bolts.


**CYLINDER HEAD COVER**

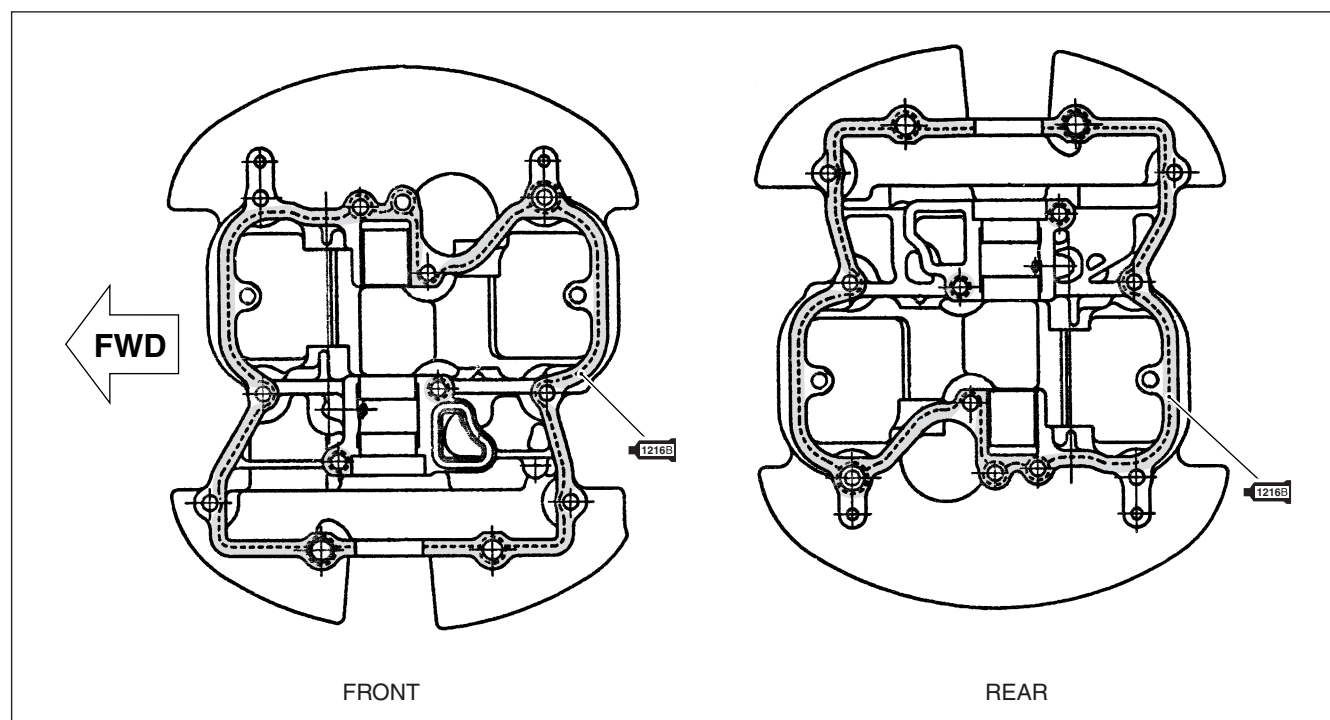
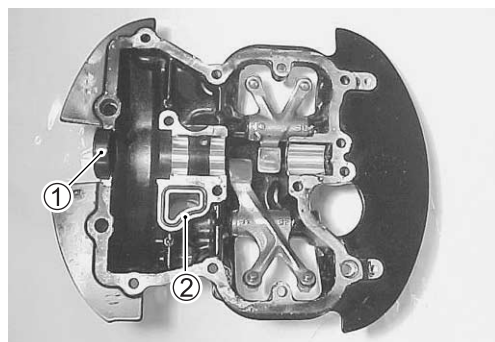
- Clean the mating surfaces of the cylinder head and head cover before matching.
- Install the dowel pins to the cylinder head.




- Apply SUZUKI BOND “1216B” to the mating surface of the cylinder head cover.
- Fit the camshaft end caps ①.
- Apply grease to the O-ring ② and install it. (Front cylinder only)

 **99000-31230: SUZUKI BOND “1216B”**

 **99000-25030: SUZUKI SUPER GREASE “A” (For USA)**
99000-25010: SUZUKI SUPER GREASE “A”
 (For the others)

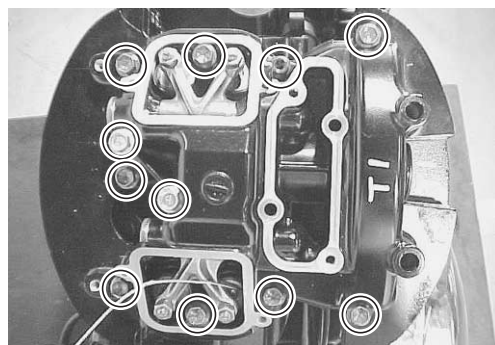
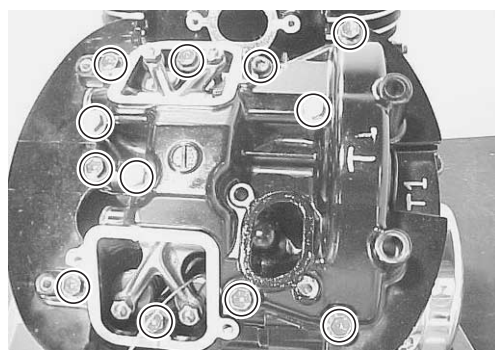


- Lightly tighten the cylinder head cover bolts diagonally, and then if everything is satisfactory, tighten securely with a torque wrench to the specified torque.

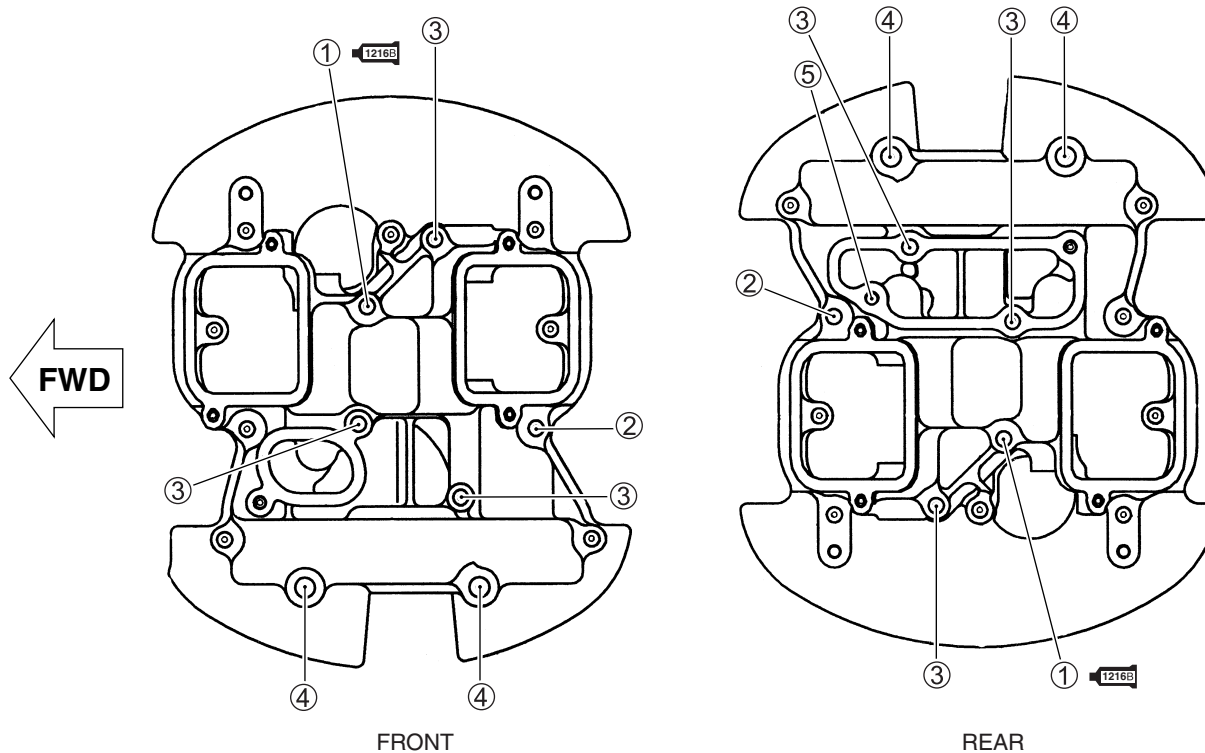
 **Cylinder head cover bolt (M6): 10 N·m (1.0 kgf·m, 7.0 lb-ft)**
(M8): 25 N·m
(2.5 kgf·m, 18.0 lb-ft)

NOTE:

When tightening the cylinder head cover bolts, the piston must be at top dead center on the compression stroke.



LOCATION OF CYLINDER HEAD COVER BOLT

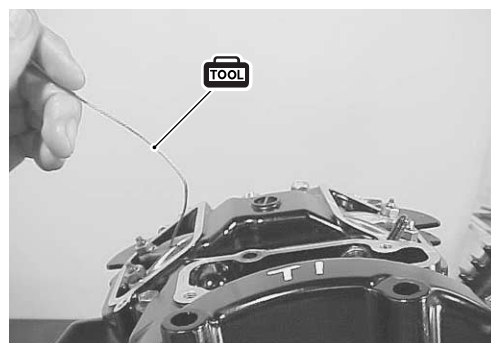
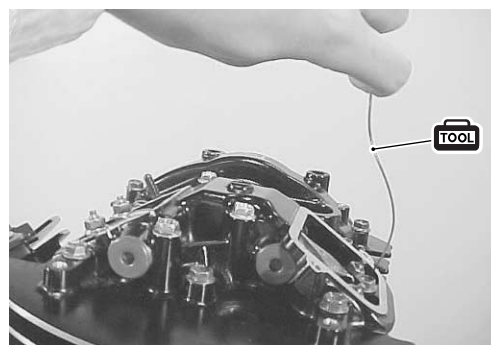
**NOTE:**

- * Before installing the bolt ①, apply SUZUKI BOND "1207B" to the thread of the bolt.
- * Allen bolt: ②
- * Stainlessbolt: ①, ③, ④.
- * Fit the gasket to the bolt ⑤.

- Remove the tensioner lock tools.

NOTE:


Click sound is heard when the cam chain tension adjuster is released.

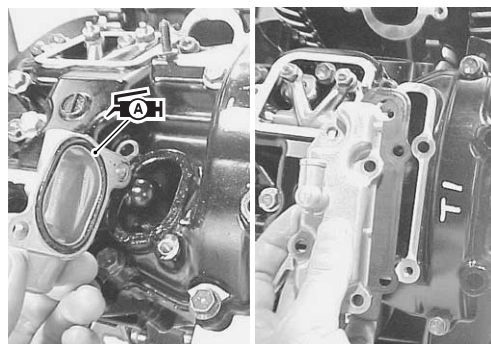


- Install the intake pipe.



- Apply grease to the new O-ring and install the water outlet union.

 **99000-25030: SUZUKI SUPER GREASE "A" (For USA)**
99000-25010: SUZUKI SUPER GREASE "A"
 (For the others)



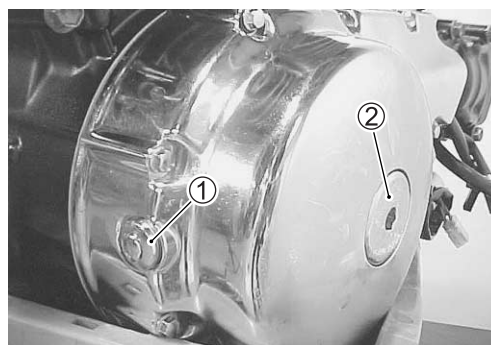
- Install the gasket and the breather cover.
- Apply grease to the new O-rings and install the valve inspection caps.

 **99000-25030: SUZUKI SUPER GREASE "A" (For USA)**
99000-25010: SUZUKI SUPER GREASE "A"

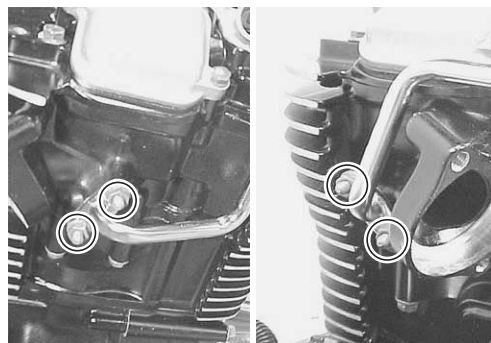


(For the others)

- Install the valve timing inspection plug ① and the generator



cover cap ②.



- Install the PAIR pipes.
- Install the head cover caps ①.
- Install the spark plugs.

 **09930-10121: Spark plug wrench set**

