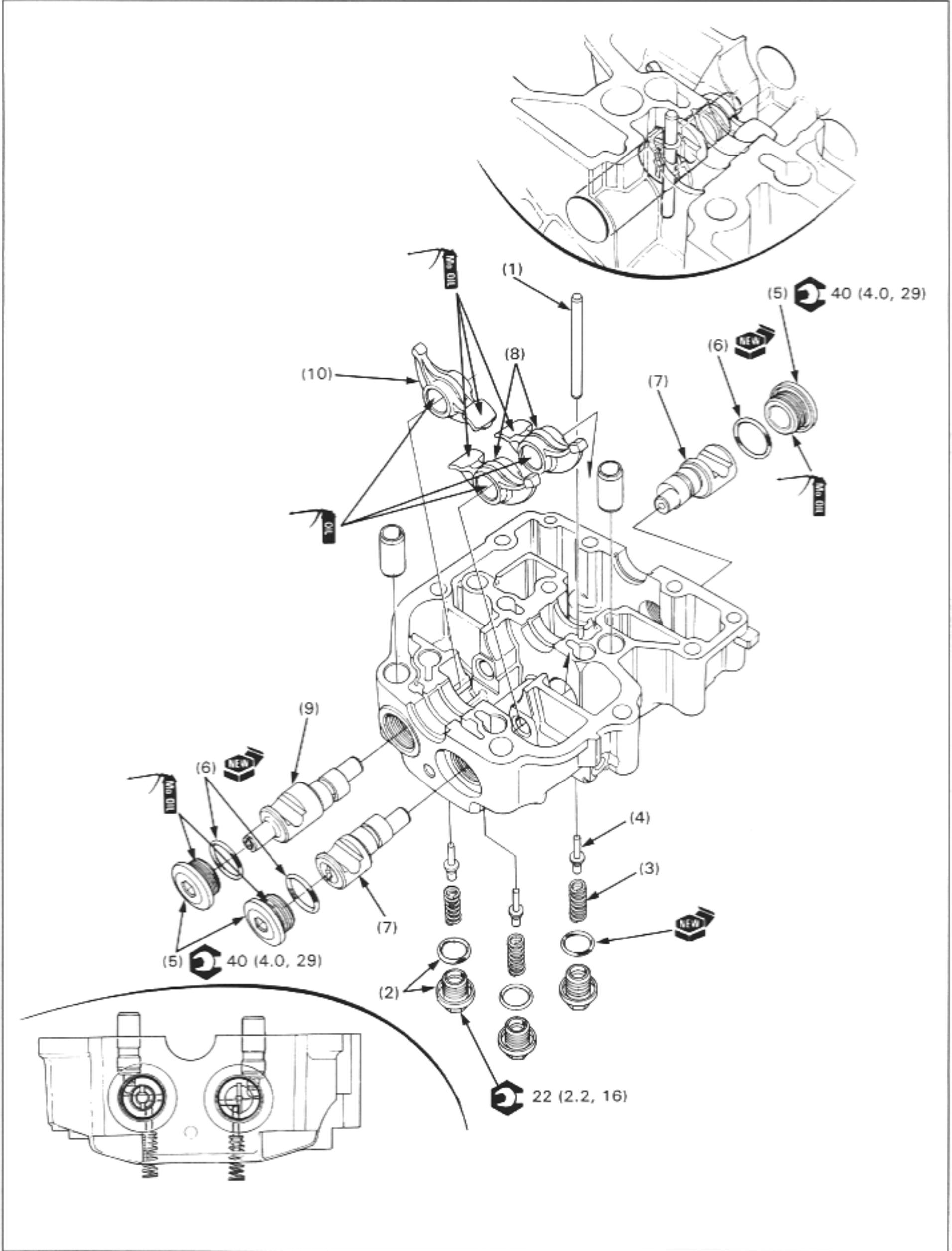


Cylinder Head Cover Disassembly/Assembly

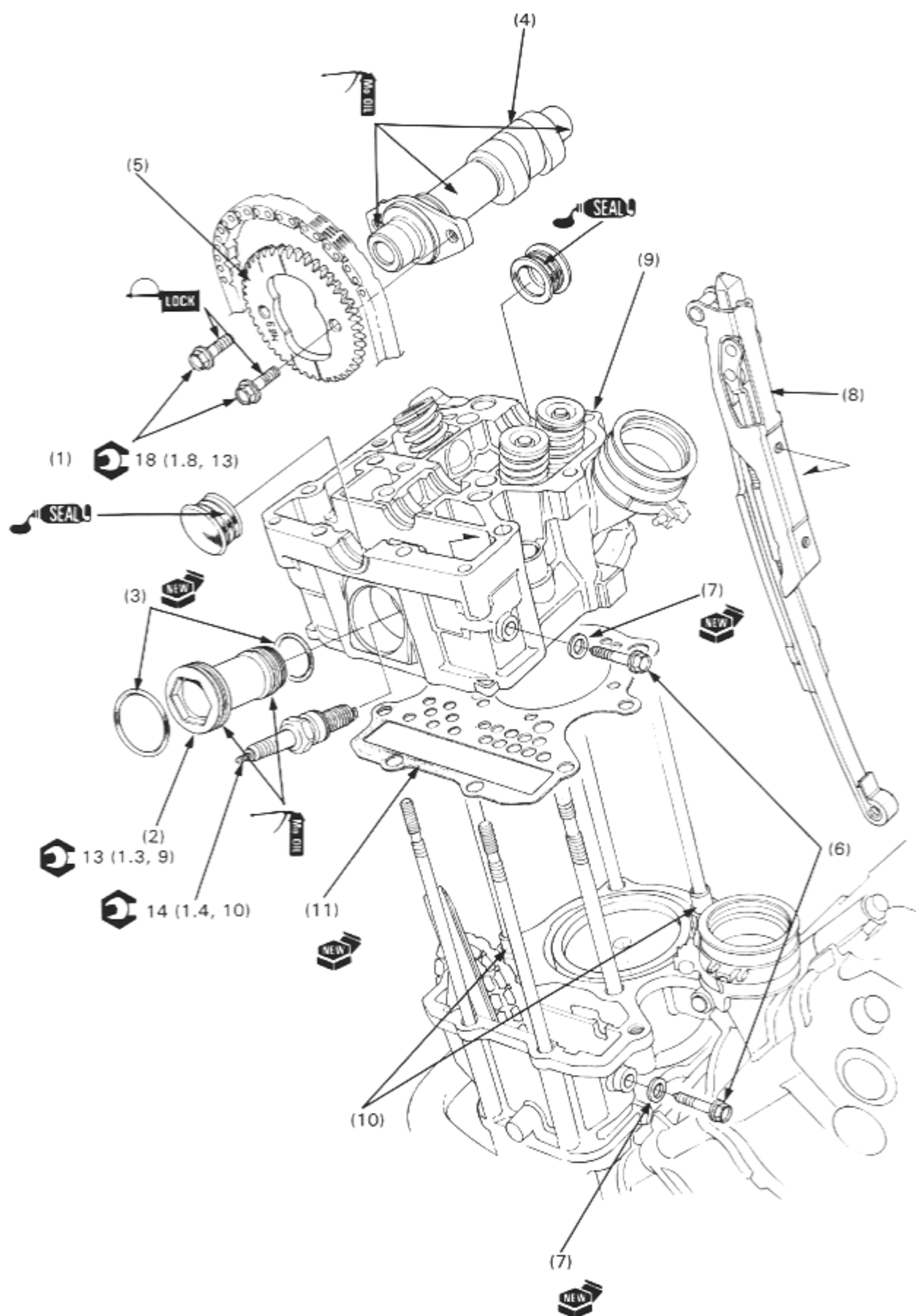


Requisite Service

- Cylinder head cover removal/installation (page 8-2)

Procedure		Q'ty	Remarks
Disassembly Order			
(1)	Stopper pin	1	
(2)	Assist shaft cap/O-ring	3	
(3)	Assist spring	3	
(4)	Assist shaft	3	
(5)	Rocker arm shaft hole plug	3	
(6)	O-ring	3	
(7)	Intake rocker arm shaft	2	NOTE • Remove the intake rocker arm shaft on the opposite side by tapping the cylinder head cover with a plastic hammer.
(8)	Intake rocker arm	2	
(9)	Exhaust rocker arm shaft	1	NOTE • Thread a 6 mm bolt into the exhaust rocker arm shaft and pull the bolt to remove the shaft.
(10)	Exhaust rocker arm	1	
Assembly Order			
(10)	Exhaust rocker arm	1	NOTE
(9)	Exhaust rocker arm shaft	1	• Brush Molybdenum disulfide oil on the slipper surface of the rocker arms and coat the contact surfaces of the rocker shafts with clean engine oil.
(8)	Intake rocker arm	2	
(7)	Intake rocker arm shaft	2	Rotate the rocker arm shaft so that the arms are moved in toward the center of the cover, then install it.
(1)	Stopper pin	1	NOTE • Put your finger on the rocker arms as you rotate the shaft to be sure which way they're moving.
(6)	O-ring	3	
(5)	Rocker arm shaft hole plug	3	
(4)	Assist shaft	3	Install into the rocker arm shaft groove as shown.
(3)	Assist spring	3	
(2)	Assist shaft cap/O-ring	3	

Cylinder Head Removal/Installation



NOTE

- Camshaft and cam chain service can be done with the engine in the frame.
- Before removal, release the cam chain tensioner by pulling the wedge A straight up while holding wedge B down, then secure wedge A with a 2 mm pin (page 8-10).

Requisite Service

- Engine removal/installation (page 7-6)
- Cylinder head cover removal/installation (page 8-2)

Procedure		Q'ty	Remarks
	Removal Order		Installation is in the reverse order of removal.
(1)	Cam sprocket bolt	2	NOTE • Rotate the crankshaft clockwise one turn (360°) and remove the other sprocket bolt. • Be careful not to let the cam sprocket bolts fall into the crankcase.
(2)	Spark plug sleeve collar	1	
(3)	O-ring	2	
(4)	Camshaft	1	NOTE • Rotate the crankshaft clockwise half a turn (180°), then remove it.
(5)	Cam sprocket	1	NOTE • Attach the piece of wire to the cam chain to prevent it from being dropped into the crankcase, then remove it.
(6)	Cam chain tensioner bolt	2	
(7)	Sealing washer	2	
(8)	Cam chain tensioner	1	
(9)	Cylinder head assembly	1	
(10)	Dowel pin	2	
(11)	Gasket	1	

Cam Chain Inspection

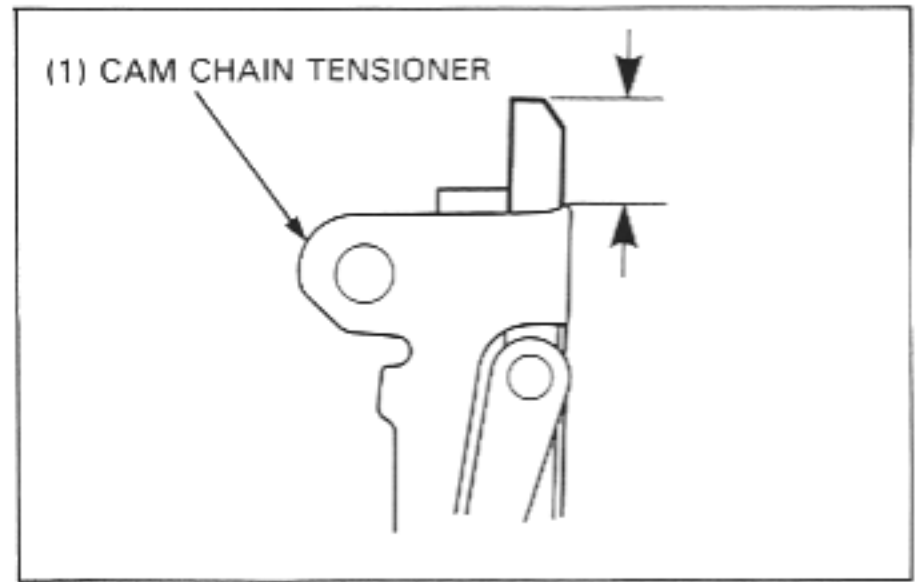
Measure the distance of the cam chain tensioner projection above the bracket as shown.

Replace the cam chain with a new one if the projection exceeds 9 mm (0.35 in).

To replace the cam chain, remove the following parts.

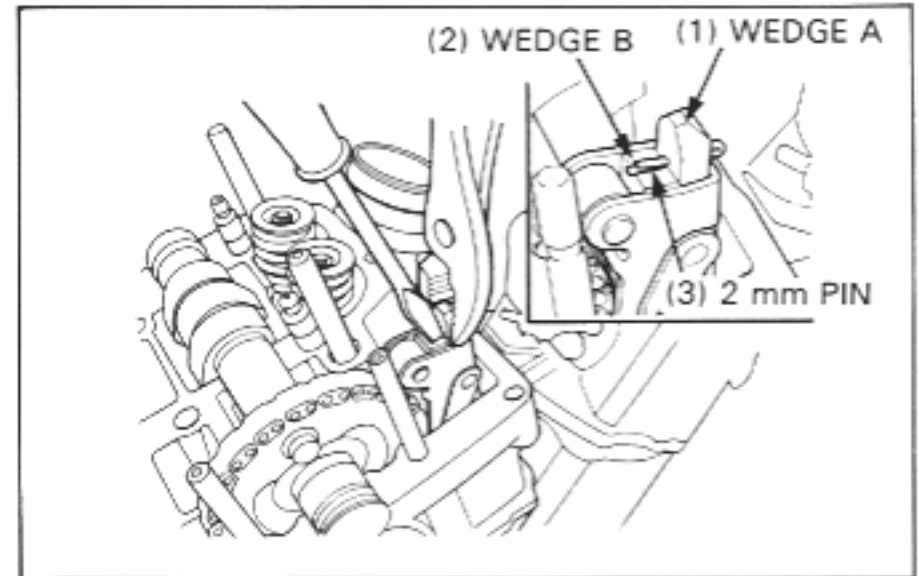
Front cylinder: Starter driven gear (page 17-8).

Rear cylinder : Primary drive gear (page 9-6).



Camshaft Removal

Release the cam chain tensioner by pulling wedge A straight up while holding wedge B down, then secure wedge A with a 2 mm pin as shown.

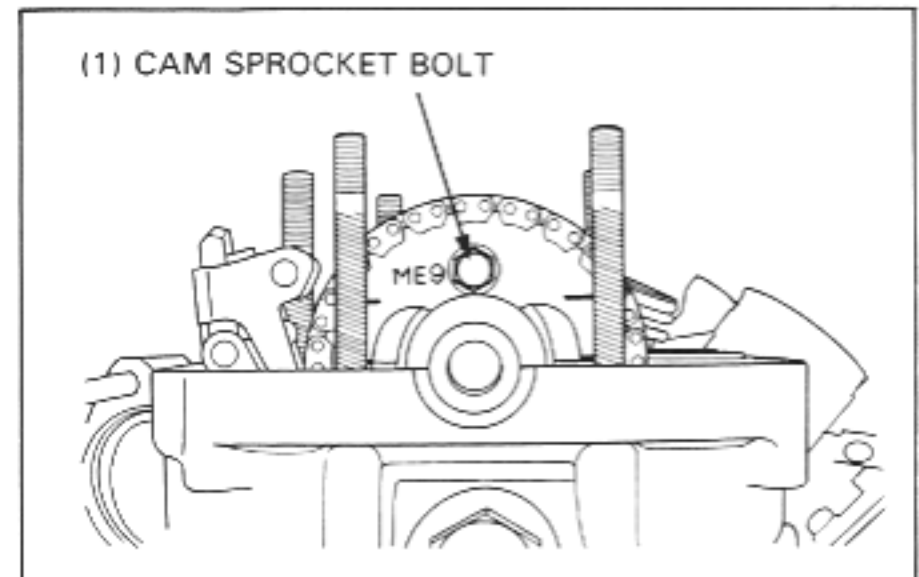


Remove the cam sprocket bolt.

Rotate the crankshaft clockwise one turn (360°) and remove the other cam sprocket bolt.

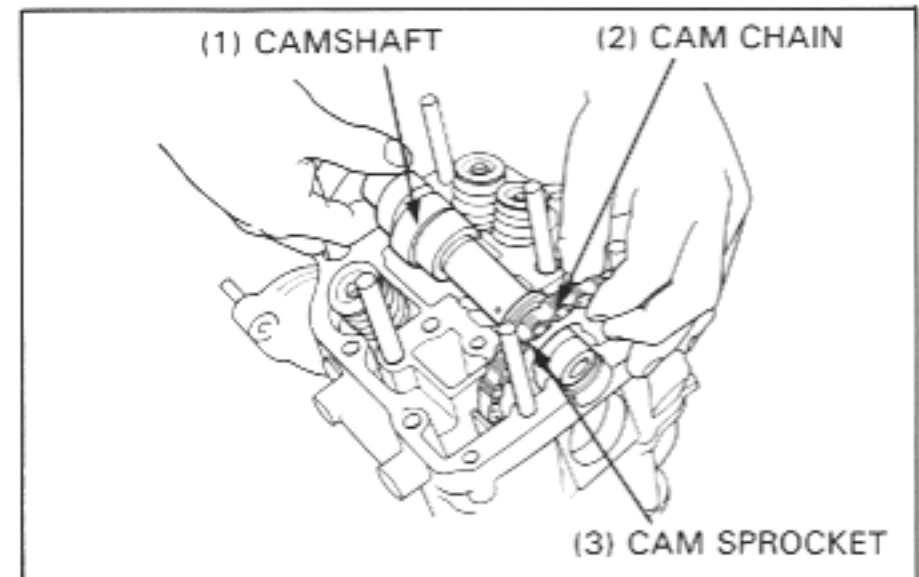
NOTE

- Be careful not to let the cam sprocket bolt fall into the crankcase.



Remove the cam sprocket from the camshaft flange with the cam chain.

Rotate the crankshaft clockwise half a turn (180°) and remove the camshaft from the cam sprocket.

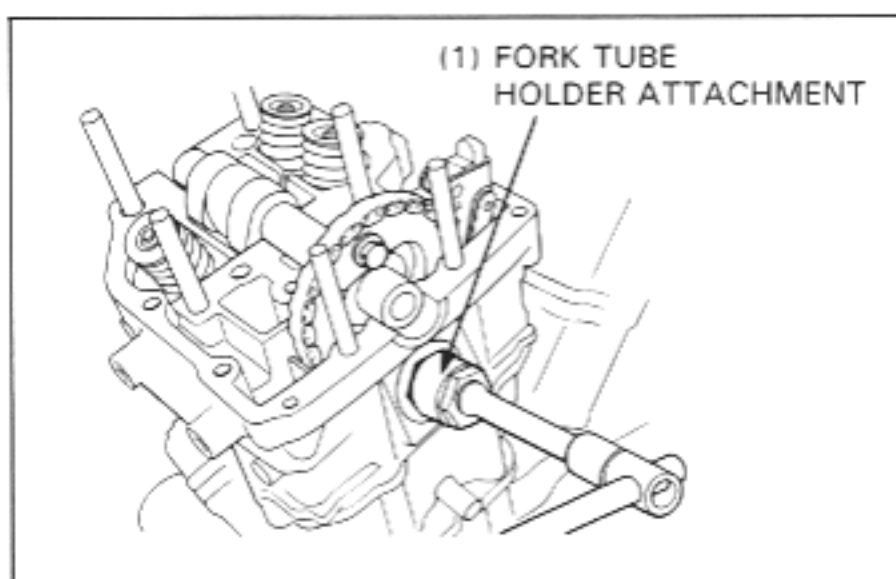


Remove the spark plug.

Remove the spark plug sleeve from the spark plug hole on the cam chain side using the special tool.

S TOOL
Fork tube holder attachment 07930-KA50100

Attach a piece of wire to the cam chain to prevent it from being dropped into the crankcase, and remove the cam sprocket.

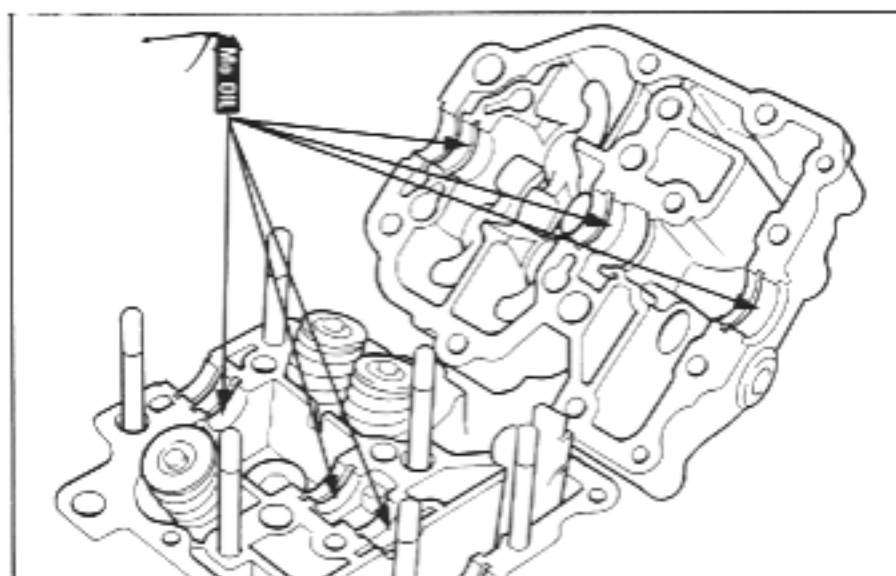


Camshaft Installation

Lubricate the camshaft journal surface of the cylinder head with molybdenum disulfide oil.

NOTE

- If both front and rear camshafts were removed, start the installation with the front cylinder as described below.
- Even if you are servicing either the front or rear cylinder head, the other cylinder head cover must be removed and the other camshaft position must be checked.

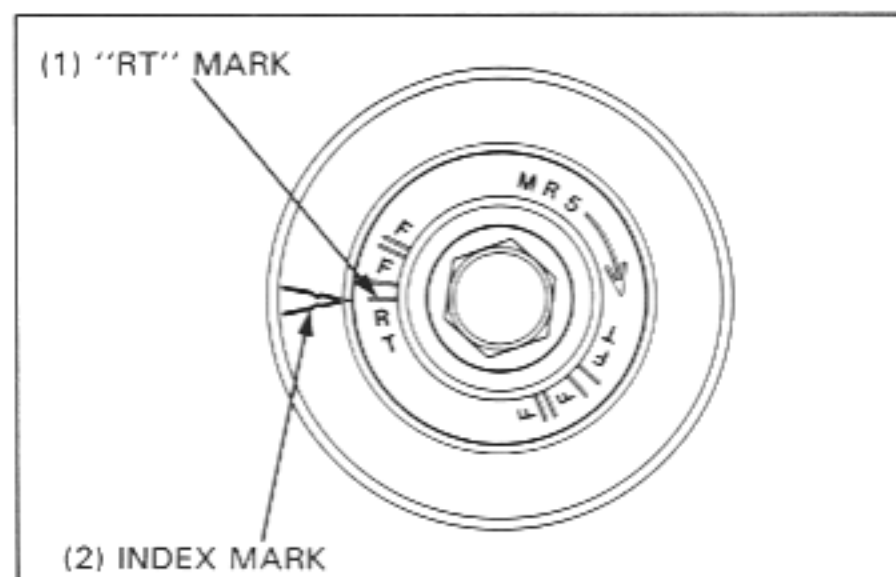


Front Cylinder Camshaft Installation

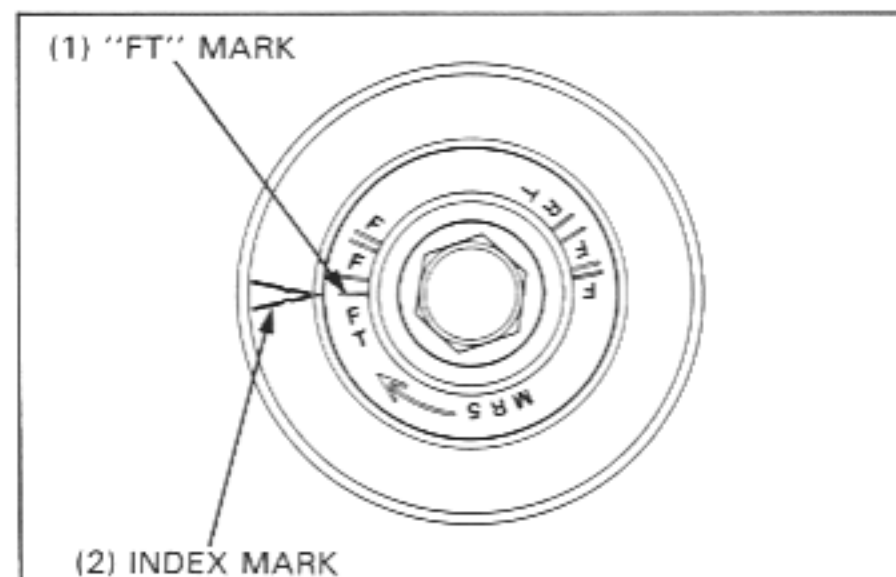
Turn the crankshaft clockwise and align the "RT" mark on the primary drive gear with the index mark on the right crankcase cover.

Make sure the "R" mark on the rear camshaft is facing DOWN (cannot be seen).

If the "R" mark is facing up, turn the crankshaft clockwise one revolution so that the "R" mark is facing down.



Next turn the crankshaft clockwise approximately 3/8 turn until the "FT" mark on the primary drive gear and the index mark on the right crankcase cover align.



Cylinder Head/Cylinder/Piston

Install the camshaft on the cylinder head through the cam chain and install the cam sprocket on the camshaft with the timing marks (index line) facing the outside.

NOTE

- The camshafts are identified by marks on their flanges.
"F": Front cylinder camshaft
"R": Rear cylinder camshaft

Place the camshaft into its correct position with the "F" mark on the flange facing up.

Align the timing marks (index line) on the cam sprocket with the top of the cylinder head and place the cam chain on the sprocket.

Install the cam sprocket on the camshaft flange and recheck that the timing marks (index lines) align with the top of the cylinder head.

NOTE

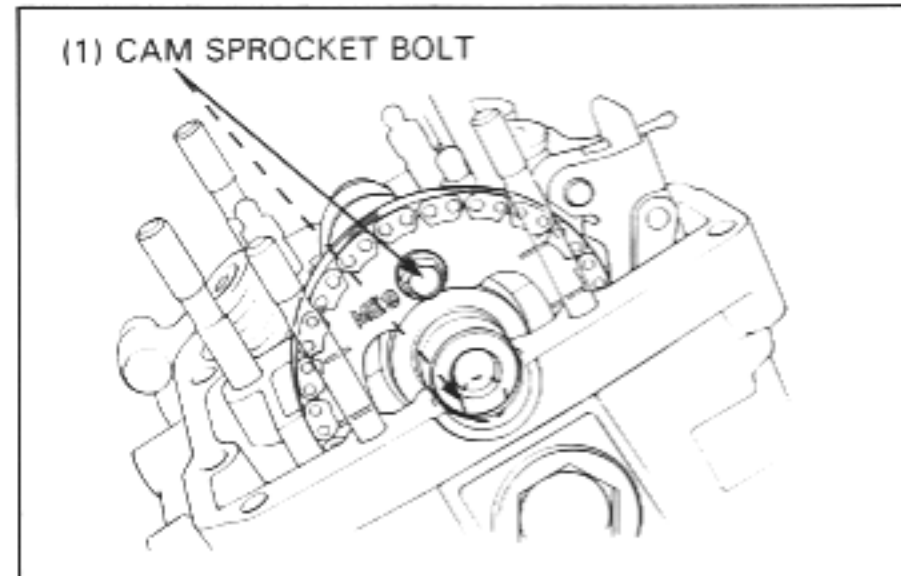
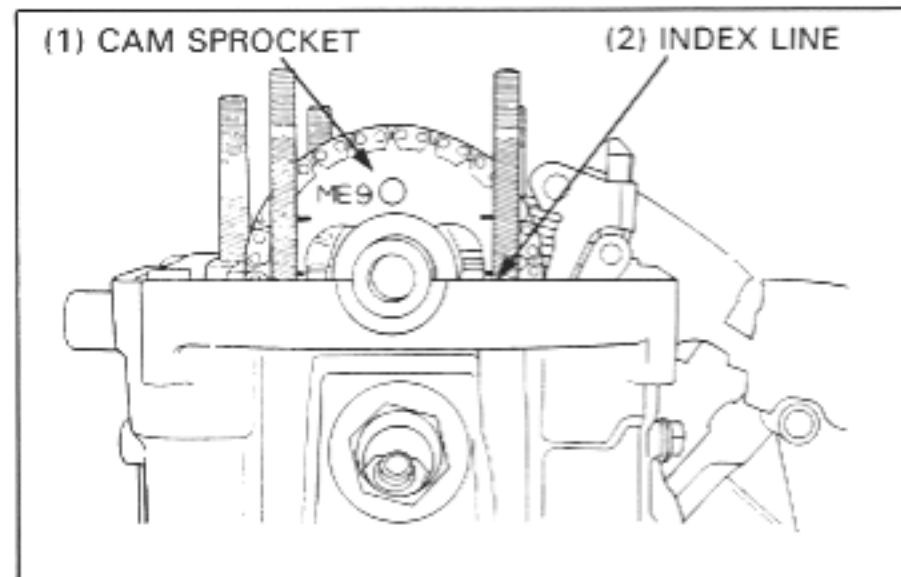
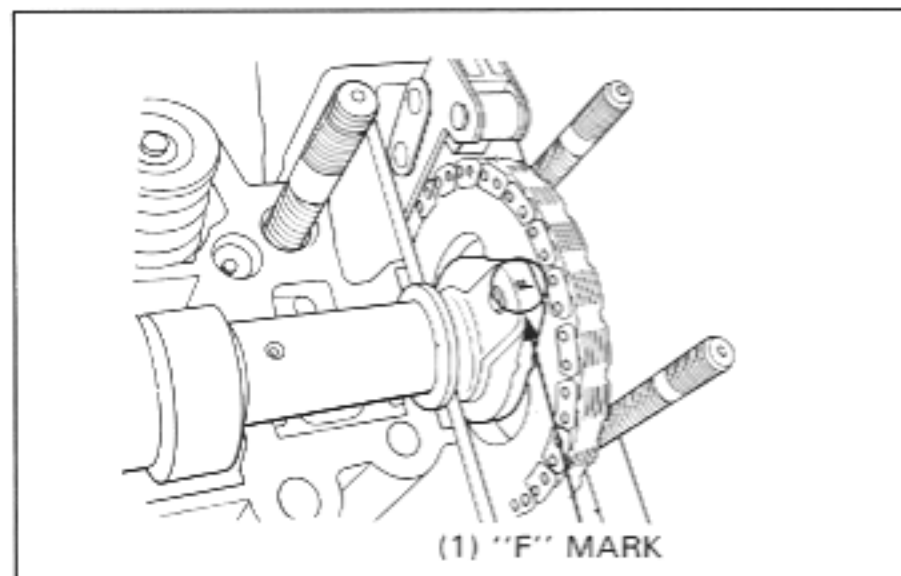
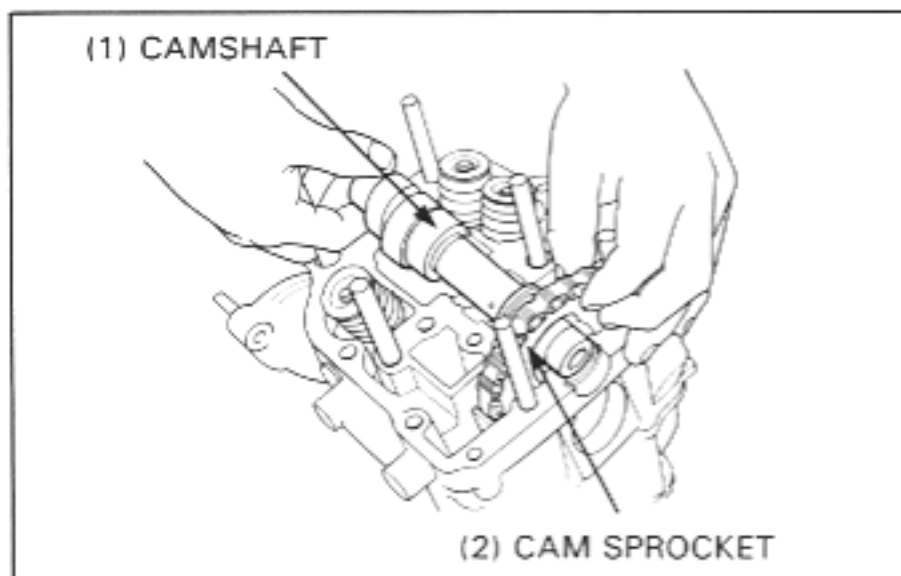
- Apply a locking agent to the sprocket bolt threads.

Align the cam sprocket bolt holes in the cam sprocket and camshaft, install and tighten the cam sprocket bolt finger tight.

Turn the crankshaft clockwise 360°, install the other cam sprocket bolt and tighten it to the specified torque.

Torque: 18 N·m (1.8 kg·m, 13 ft·lb)

Turn the crankshaft clockwise 360° and tighten the other cam sprocket bolt to the specified torque.



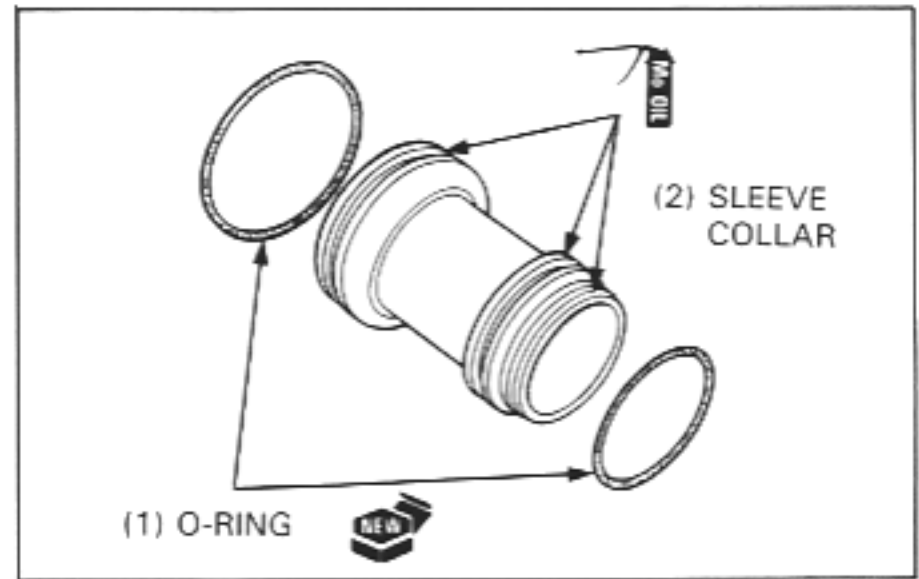
Apply molybdenum disulfide oil to the spark plug sleeve threads and O-ring groove.

Place the new O-ring into the spark plug sleeve collar groove. Install the sleeve using the special tool.

S TOOL

Fork tube holder attachment 07930-KA50100

Torque: 13 N·m (1.3 kg·m, 9 ft·lb)

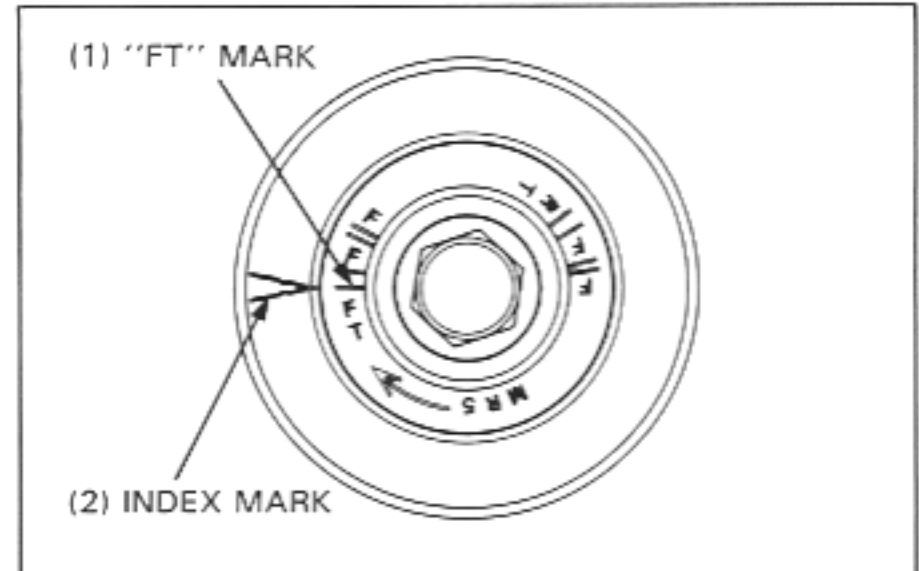


Rear Cylinder Camshaft Installation

Turn the crankshaft clockwise and align the "FT" mark on the primary drive gear with the index mark on the right crankcase cover.

Make sure the "F" mark on the front camshaft is facing UP.

If the "F" mark is facing down (cannot be seen), turn the crankshaft clockwise one revolution so that the "F" mark on the front camshaft is facing UP.



Next turn the crankshaft clockwise approximately 5/8 turn until the "RT" mark on the primary drive gear and the index mark on the right crankcase cover align.

The remainder of the rear cylinder camshaft installation is the same as the procedures described on page 8-12 except the mark on the camshaft flange that should face up should be an "R".

Installing Both Camshaft

Turn the crankshaft clockwise and align the "FT" mark on the primary drive gear with the index mark on the right crankcase cover.

Install the front camshaft with the "F" mark on the camshaft facing UP.

Then follow each of the detailed instructions on page 8-12.

Next turn the crankshaft clockwise approximately 5/8 turn until the "RT" mark on the primary drive gear and the index mark on the right crankcase cover.

Install the rear camshaft with the "R" mark on the rear camshaft facing UP.

Then follow each of the detailed instructions on page 8-12 except the mark on the camshaft flange that should face up should be an "R".

