

MAINTENANCE

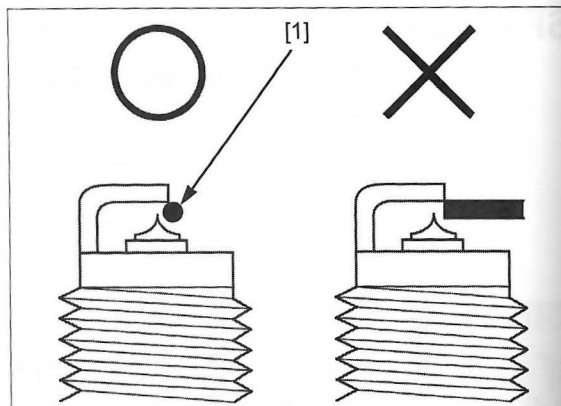
To prevent damaging the iridium center electrode, use a wire type feeler gauge to check the spark plug gap.

Check the spark plug gap between the center and side electrodes with a wire type feeler gauge [1].

Make sure that the Φ 1.0 mm (0.04 in) plug gauge does not insert between the gap.

Do not adjust the spark plug gap. If the gap is out of specification, replace with a new one.

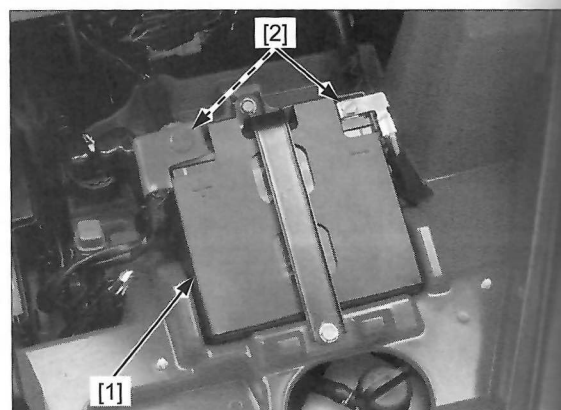
If the gauge can be inserted into the gap, replace the plug with a new one.



BATTERY

Remove the front hood (page 2-15).

Check the battery [1] for loose connections or corroded terminals [2].



VALVE CLEARANCE

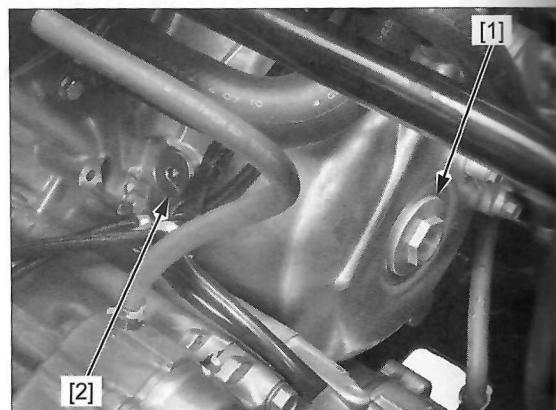
NOTE:

- Inspect and adjust the valve clearance while the engine is cold (below 35°/95°F).

Remove the following:

- rear center cover (page 2-8)
- cylinder head cover (page 10-5)

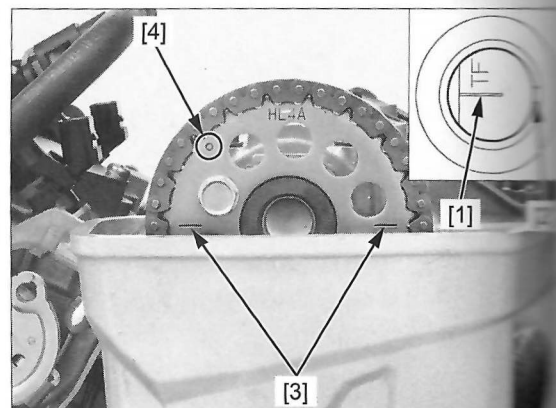
Remove the crankshaft hole cap [1] and the timing hole cap [2].



Rotate the crankshaft counterclockwise and align the "TF" mark [1] on the flywheel with the index mark [2] on the alternator cover.

Make sure the index lines [3] on the cam sprocket align with the upper surface of the cylinder head and the punch mark [4] on the sprocket is visible.

If the punch mark is not visible, rotate the crankshaft counterclockwise one full turn and align the "TF" mark with the index mark again.

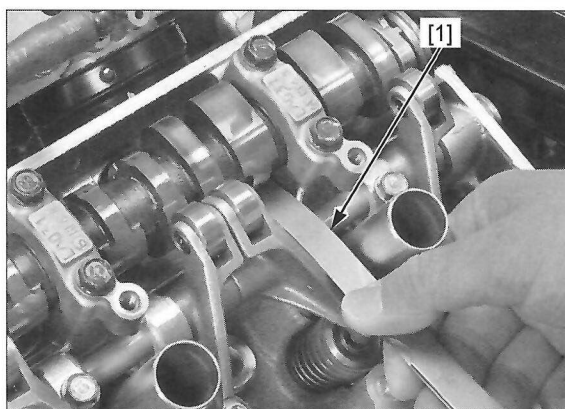


Check the front cylinder intake valve clearances by inserting a feeler gauge [1] between the valve lifter and cam lobe.

Front cylinder intake valve clearance:

0.16 ± 0.03 mm (0.006 ± 0.001 in)

Adjust the valve clearance by changing the valve lifter shim (page 3-11).



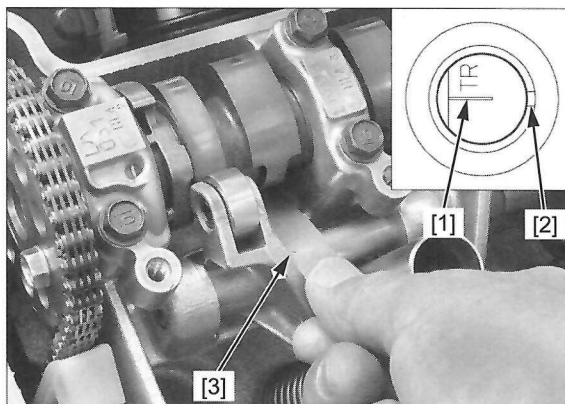
Rotate the crankshaft counterclockwise 270° and align the "TR" mark [1] with the index mark [2].

Check the rear cylinder intake valve clearances by inserting a feeler gauge [3] between the valve lifter and cam lobe.

Rear cylinder intake valve clearance:

0.16 ± 0.03 mm (0.006 ± 0.001 in)

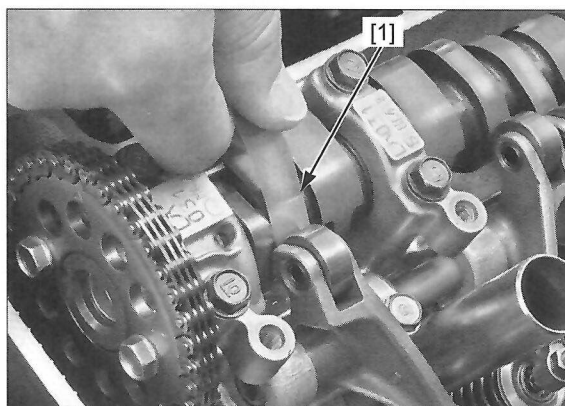
Adjust the valve clearance by changing the valve lifter shim (page 3-11).



Check the rear cylinder exhaust valve clearances by inserting a feeler gauge [1] between the rocker arm roller and cam lobe.

Rear cylinder exhaust valve clearance:

0.24 ± 0.02 mm (0.009 ± 0.001 in)



Adjust the valve clearance by loosening the lock nut [1] and turning the adjusting screw [2] until there is a slight drag on the feeler gauge [3].

TOOLS:

Valve adjusting wrench [4] 07708-0030400

Lock nut wrench, 8 x 9 mm [5] 07708-0030100

U.S.A. TOOL:

Tappet adjustment wrench, 3 mm [4] 07908-3290100

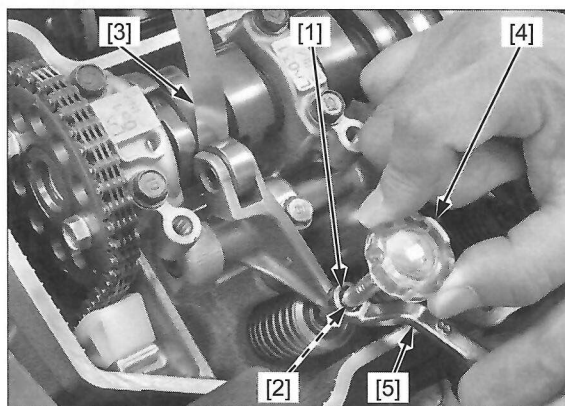
Tappet lock nut wrench, 8 mm [5] 07908-3290200

Apply engine oil to the lock nut threads and seating surface.

Hold the adjusting screw and tighten the lock nut.

TORQUE: 10 N·m (1.0 kgf·m, 7 lbf·ft)

After tightening the lock nut, recheck the valve clearance.



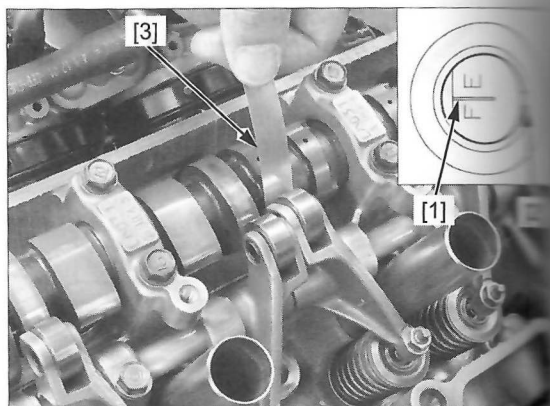
MAINTENANCE

Rotate the crankshaft counterclockwise 255° and align the "FE" mark [1] with the index mark [2].

Check the front cylinder exhaust valve clearances by inserting a feeler gauge [3] between the rocker arm roller and cam lobe.

Front cylinder exhaust valve clearance:

0.24 ± 0.02 mm (0.009 ± 0.001 in)



Adjust the valve clearance by loosening the lock nut [1] and turning the adjusting screw [2] until there is a slight drag on the feeler gauge [3].

TOOLS:

Valve adjusting wrench [4] 07708-0030400

Lock nut wrench, 8 x 9 mm [5] 07708-0030100

U.S.A. TOOL:

Tappet adjustment wrench, 3 mm [4] 07908-3290100

Tappet lock nut wrench, 8 mm [5] 07908-3290200

Apply engine oil to the lock nut threads and seating surface.

Hold the adjusting screw and tighten the lock nut.

TORQUE: 10 N·m (1.0 kgf·m, 7 lbf·ft)

After tightening the lock nut, recheck the valve clearance.

Coat new O-rings [1] with oil and install them into the timing hole cap [2] and crankshaft hole cap [3].

Apply grease to the threads of the timing hole and crankshaft hole caps.

Install the timing hole and crankshaft hole caps, and tighten them.

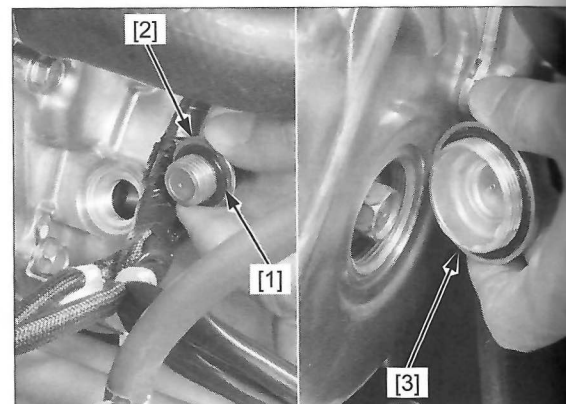
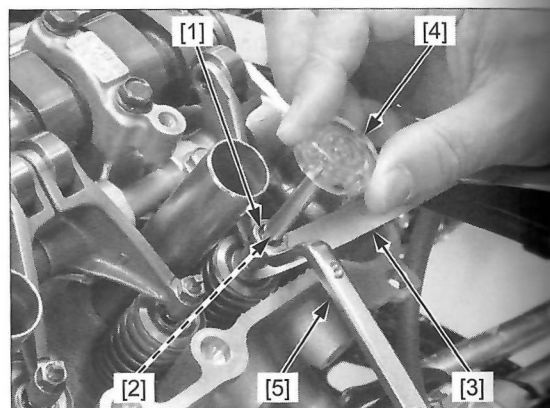
TORQUE:

Timing hole cap: 10 N·m (1.0 kgf·m, 7 lbf·ft)

Crankshaft hole cap: 12 N·m (1.2 kgf·m, 9 lbf·ft)

Install the following:

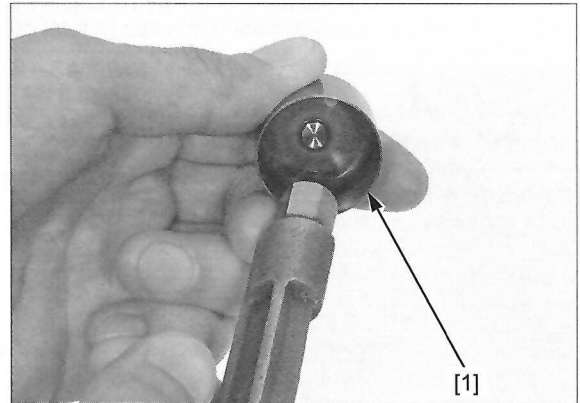
- rear center cover (page 2-8)
- cylinder head cover (page 10-6)



INTAKE VALVE CLEARANCE ADJUSTMENT

Remove the valve lifter [1] and shim (page 10-10).

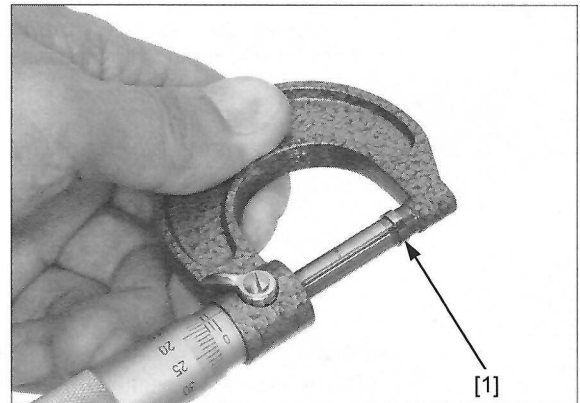
Clean the valve shim contact area in the valve lifter with compressed air.



Measure the shim [1] thickness and record it.

NOTE:

- Fifty-one different shim thicknesses are available in increments of 0.025 mm (from 1.200 mm to 2.450 mm).



Calculate the new shim thickness using the equation below.

$$A = (B - C) + D$$

A: New shim thickness

B: Recorded valve clearance

C: Specified valve clearance

D: Old shim thickness

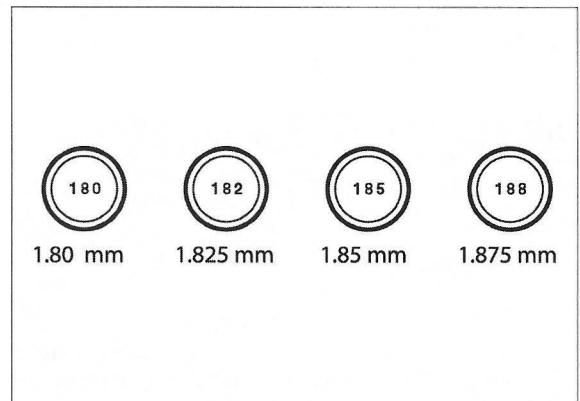
NOTE:

- Make sure of the correct shim thickness by measuring the shim with the micrometer.
- Reface the valve seat if carbon deposits result in a calculated dimension of over 2.450 mm.

Install newly selected shims on the valve retainers.

Install the valve lifter and camshaft (page 10-12).

Rotate the crankshaft counterclockwise several times and recheck the valve clearances.



ENGINE OIL

LEVEL CHECK

NOTE:

- Check the oil level after starting the engine and allowing the oil to circulate through the engine thoroughly. It is especially important on a dry sump engine, due to the comparatively large volume of oil.
- Do not snap the throttle while idling or the oil level reading will be inaccurate.