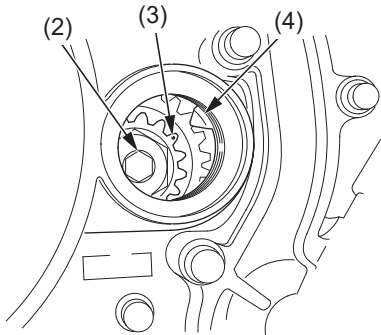


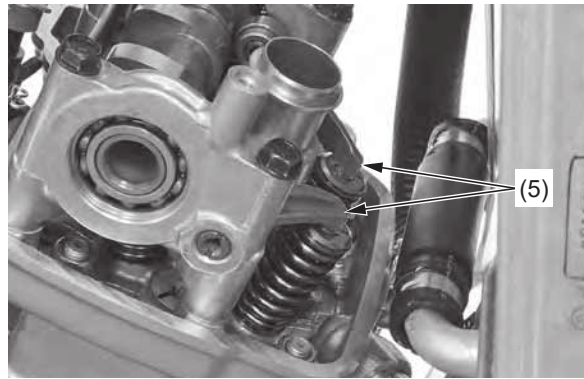
# Valve Clearance

3. Rotate the crankshaft by turning the primary drive gear bolt (2) (crankshaft) clockwise until the punch mark (3) on the primary drive gear aligns with the index mark (4) on the right crankcase cover. In this position, the piston may either be on the compression or exhaust stroke.

If the crankshaft passed the punch mark, rotate the primary drive gear bolt clockwise again and align the punch mark with the index mark. The inspection must be made when the piston is at the top of the compression stroke when both the intake and exhaust valves are closed. This condition can be determined by moving the exhaust rocker arms (5). If they are free, it is an indication that the valves are closed and that the piston is on the compression stroke. If they are tight and the valves are open, rotate the primary drive gear bolt 360° and realign the punch mark with the index mark.



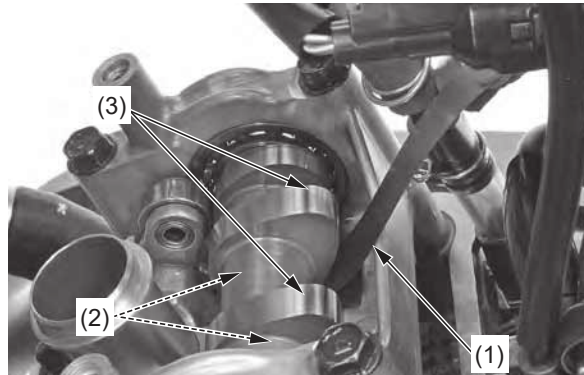
(2) primary drive gear bolt  
(3) punch mark  
(4) index mark



(5) exhaust rocker arms

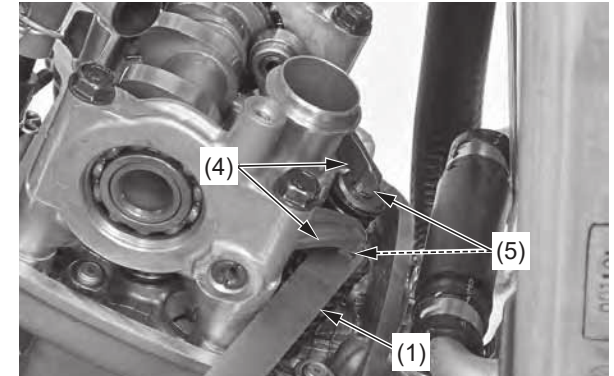
## Valve Clearance Inspection

1. Measure the intake valve clearance by inserting a feeler gauge (1) between the valve lifters (2) and intake cam lobes (3).



(1) feeler gauge  
(2) valve lifters  
(3) intake cam lobes

2. Measure the exhaust valve clearance by inserting a feeler gauge (1) between the exhaust rocker arms (4) and exhaust valve shims (5).



(1) feeler gauge  
(4) exhaust rocker arms  
(5) exhaust valve shims

Valve Clearance:

IN:  $0.006 \pm 0.001$  in ( $0.16 \pm 0.03$  mm)  
EX:  $0.010 \pm 0.001$  in ( $0.26 \pm 0.03$  mm)

If intake valve clearance and exhaust valve clearance need adjustment, see *Camshaft Holder Assembly Removal* (page 55) and select the correct shim for each valve.