

GL1100 Goldwing, Valve Clearance Adjustment



by Steve "Roady" Mate at NGWClub.com

<http://www.ngwclub.com/forum/viewtopic.php?p=59151>

Engine must be stone-cold . . . that's overnight-cold.

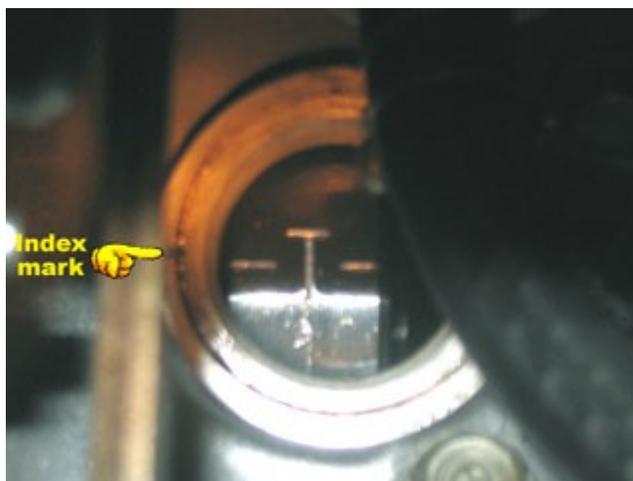
1. Remove the valve covers by loosening the four 10-mm bolts evenly and in a diagonal pattern. This helps to avoid distorting the covers.
2. Remove the spark plugs, timing mark cover and rotor bolt cover.
3. Place a 12-mm offset-box-end wrench on the rotor bolt [Picture 1]. Rotate the engine **clockwise** until the intake valve on #1 cylinder opens and closes. Pull up only! You do not want to loosen that rotor bolt. #1 Intake is the upper valve on the right front cylinder.
4. Continue rotating until the flywheel's **T-1** mark is aligned with the index marks on the case [Picture 2]. #1 is now at TDC (top dead center).
5. Check the clearance on the following valves by running the correct size feeler gauge between the valve stem head and the adjusting screw.

#1 Intake - - .004" (.1 mm) - - - right front, top
#1 Exhaust - .005" (.13 mm) - - right front, bottom
#3 Exhaust - .005" (.13 mm) - - right rear, bottom
#4 Intake - - .004" (.1 mm) - - - left rear, top

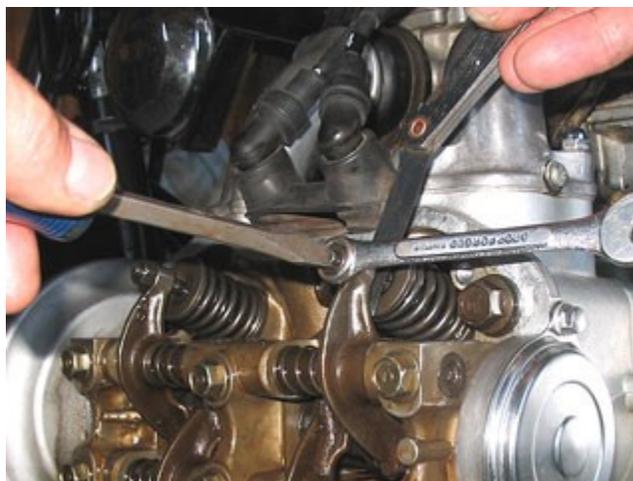
6. If the gap on a valve is incorrect, loosen the nut with a 10mm box wrench and screw the adjuster in or out with your screwdriver [Picture 3]. Use a light touch here and don't push in on the screwdriver. Turn the screw in until the feeler gauge won't move, then back off slowly until it just starts to move. You want just a little resistance to movement here. When it's correct, the next size larger gauge will not easily slide in and the next one smaller will be sloppy-loose.
7. When the adjustment is correct, tighten the nut while holding the adjustment screw in position with the screwdriver.



Picture 1



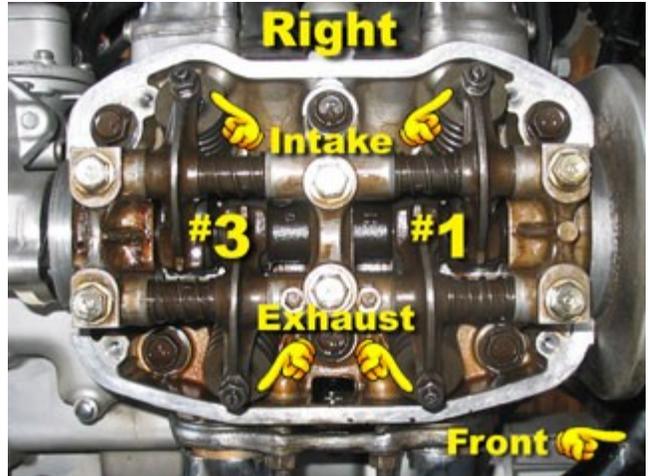
Picture 2



Picture 3

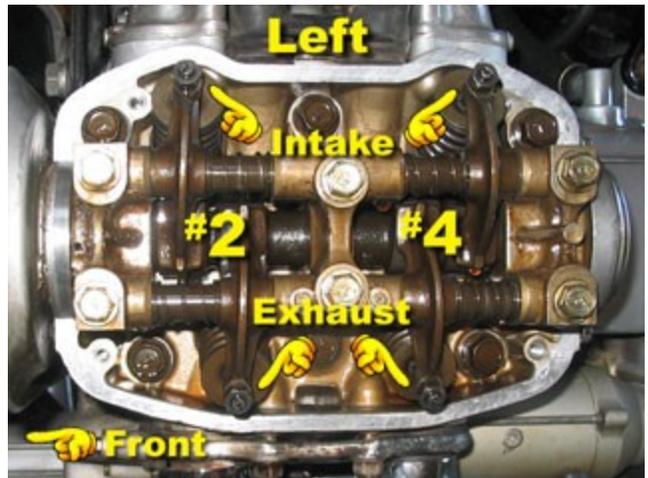
8. Torque the locknuts to 9-12 lb.ft. (1.2-1.6 kgf m) and re-check the clearance on #1 intake and exhaust, #3 exhaust and #4 intake. Adjust any that are incorrect.
9. Rotate the engine 360° clockwise until the **T-1** mark is again lined up the the index marks. #2 piston is now at TDC. Check and adjust the clearance on the following valves as you did in Steps 6 & 7.

#2 Intake - - - .004" (.1 mm) - - left front, top
 #2 Exhaust - .005" (.13 mm) - - left front, bottom
 #4 Exhaust - .005" (.13 mm) - - left rear, bottom
 #3 Intake - - - .004" (.1 mm) - - - right rear, top



Picture 4

10. Torque the locknuts to 9-12 lb.ft. (1.2-1.6 kgf m) and then re-check the clearance on #2 intake and exhaust, #4 exhaust and #3 intake.
11. An additional check should be done at this time as described in Steps 12 - 15.
12. Rotate the engine 360° clockwise. #1 intake will open and close. Align **T-1** to the index marks. #1 is now at TDC. Check the valve clearance and re-adjust if needed.



Picture 5

13. Rotate the engine 180° and align the **T-2** mark [Picture 6]. #3 is now at TDC. Check valve clearance on #3.
14. Rotate the engine 180° and align the **T-1** mark. #2 is now at TDC. Check valve clearance on #2.
15. Rotate the engine 180° and align the **T-2** mark. #4 is now at TDC. Check valve clearance on #4.
16. Inspect, clean/replace gaskets and refit the valve covers. Torque the 10-mm bolts to 6-9 lb.ft. (.8-1.2 kgf m) evenly and in a diagonal pattern.
17. Inspect, clean/replace O-rings and refit the timing mark cover and rotor cover. Do not overtighten!



Picture 6

18. Go for a ride and enjoy the weather.