

RHOADS LIFTERS "V-MAX" AND "ORIGINAL" ADJUSTMENT PROCEDURE

Rhoads Variable Duration Lifters are the finest performance hydraulic lifters available anywhere in the world. They **increase low-end torque up to 25%, increase engine vacuum up to 5 inches, improve idle quality, reduce carbon emissions for street driven machines, and are anti-pump up for maximum rpm power.** Our newly developed and newly patented Rhoads V-Max Lifters are adjusted from the bottom up, not the top down, so **they cannot collapse** as other performance hydraulic lifters can. Because they are reasonably priced, **Rhoads Lifters are simply the biggest bang for the buck** when it comes to squeezing every ounce of power out of your performance engine, whether it be on the track or on the street. Thoroughly clean and liberally coat all lifters with oil before inserting in the engine block. Flat tappet lifters should be coated with break-in lube on the bottom of each lifter.

Adjust lifters when valve is in the fully closed position (base circle of the cam). Note: Adjust Intake valve when Exhaust valve begins to open; Adjust Exhaust valve just before intake valve closes.

V-MAX RHOADS LIFTERS: All part numbers with an "X", example: 8178X , 8178XL

Requires adjustable rocker and may be used with Hydraulic cam for street or racing, or solid lifter cams for racing only

Note: Some part numbers for Rhoads V-Max Lifters may require longer pushrods, generally **+.100" to +.150" longer.**

Check for proper rocker arm geometry after adjustment to determine if longer pushrods are needed. It is recommended that an adjustable pushrod be used to determine proper pushrod length.

Hydraulic Cams: Place a feeler gauge between the rocker arm and valve stem as if adjusting solid lifters.

For Street use, the feeler gauge thickness should be **no less than .010" and no more than .020".**

For Racing, no less than .010" and no more than .040".

Tighten the adjustment nut with the feeler gauge between the rocker arm and valve stem until the plunger bottoms out in the lifter shell and the valve begins to open. Now loosen the lock nut until the valve just closes and you can just begin to spin the pushrod with your fingers. At this point the adjustment is correct and you can remove the feeler gauge. **After the adjustment, the plunger position should be nearly all the way down to the bottom of the lifter shell and not up against the retaining ring, with no clearance in the valve train whatsoever.** For aluminum engine blocks, the adjustment must be repeated when the engine is at normal operating temperatures. For greater accuracy, it is optional for cast iron blocks to be readjusted after the engine is at operating temperatures.

Solid Lifter Cams: Adjust the lifters as above under V-Max hydraulic cams, but add clearance ramps to the adjustment amount. i.e. If solid cam calls for a .025" adjustment, the feeler gauge thickness would be .055" if using a .030" adjustment.

ORIGINAL RHOADS LIFTERS: For Adjustable or Non-Adjustable Rocker Arms on Hydraulic Cams Only

Adjustable Rocker Arms - Move the pushrod up and down while tightening on the lock nut until all vertical movement in the pushrod is removed and the plunger just begins to compress, then tighten an additional 1/2 turn. For maximum anti-pump-up performance in racing applications only, it is not necessary to tightening an additional 1/2.

Non-Adjustable Rocker Arms - Install as you would standard hydraulic lifters, making sure all plungers are compressed and there is no clearance in the valve train when the valves are closed and the lifters are riding on the base circle of the cam.

Note: When the engine is at normal operating temperatures, Rhoads Lifters will sound similar to solid lifters at idle. The name "Rhoads" and "V-Max" are trademarks of Rhoads Lifters Inc. Original Rhoads Lifters are made under the following U.S. Patent Numbers: 4,524,731; 3,921,609. V-Max Rhoads Lifters are made under the following U.S. Patent number: 7,131,411B1; Please call 520-229-9375 with any questions or concerns.

Other suggestions: With Rhoads V-Max Lifters, the intake and exhaust valves can be adjusted with different amounts of leak down.

For maximum Vacuum and smoother idle and less cylinder cranking compression, use less leak down on intake and more leak down on exhaust. To maintain a lopey idle, use less leak down on exhaust and more leak down on intake.

To check for valve to piston clearance, adjust the plunger all the way down to the bottom of the lifter on both intake and exhaust valves, check the valve to piston clearance, then readjust the lifters per the specifications above.