



VALVE ADJUSTMENT MADE SIMPLE

Whether or not Chevy, Ford, Pontiac, Oldsmobile, or 4-6-8 cylinders, Foreign or Domestic follow these directions closely and valve adjustment is very simple.

MUST check if the pushrods are bent new or used. Using any piece of glass roll one pushrod at a time across flat surface it will roll smooth, if it is bent you will know it and change if necessary. Heavy wall pushrods must be used for high spring pressures.

Final wash pushrods with soap and hot water air blowing thoroughly. Dry inside and out. Hold all pushrods ends to a light inspecting holes to be completely clear.

Lube lifter side of pushrods with molyube also lube guide plate where pushrods will rub.

Now install pushrods thru the guide plate into lifter socket. To make sure you are in the center of lifter spin pushrod with your fingers pressing lightly it will find the middle easily. Now lube top of pushrods with molyube.

Time to install you new Scorpion Rockers. Note they have been final washed just wipe with clean lint free rag and lube trunnion with any thin motor oil, also lube pushrod cup with generous amount of molyube. Now make sure the flat of trunnion is facing up, set rocker over oiled rocker stud make sure pushrod is in center of pushrod cup by lightly pressing on rocker and spinning pushrod, install all rockers the exact same way.

NOTE don't worry about the lobes that are up and do not rotate engine. This action can result in bending pushrods **don't rotate yet.**

Now flood top of stud and trunnion with motor oil before screwing polylock down. **Do not tighten** spin polylock down with your fingers until pushrod has no lash but will still spin with your fingers repeated until all rockers are installed.

Take spark plugs out of head so you are not fighting compression, then with a long 1/2" ratchet and a socket to fit balancer bolt, rotate engine direction 1/4 turn at a time, this will loosen some of the rocker. With your fingers tighten polylocks until there's no lash checking that pushrods still spin repeat exactly over & over until all rockers are down with no lash note as you take lash out of loose rocker arms some of the valves will start opening this is OK.

Time to adjust valves, the most important thing to know is do one cylinder at a time starting at front and working your way around. Rotate engine directions when the exhaust valve starts to open adjust intake valve, when the intake valve opens and start to close adjust exhaust valve.

FOR HYDRAULIC AND HYDRAULIC ROLLER CAMS

Example When the exhaust valve just starts to open on # 1 Cylinder we will adjust # 1 intake valve by loosening polylock slightly while spinning pushrod until you feel lash in the rocker arm spin polylock down until you feel lash go away and now feel the pushrod snug up a little

while your spinning it, this is known as 0 lash now place offset 5/8 box wrench on polylock facing exhaust side of head at 6:00 position turn wrench $\frac{3}{4}$ of a turn will put the wrench at 3:00 position Now use T handle Allen wrench and screw the set screw down against the top of stud firmly then bump wrench slightly tighter to lock set screw DO NOT OVERTIGHTEN this will split polylock you don't need much to lock set screw to stud after adjusting put a magic marker slash across top of rocker to tell you it has been done, now rotate engine until intake valve opens and just starts to close and repeat adjustment on #1 exhaust valve (note one Cylinder at a time). Repeat one cylinder at a time until complete engine is finished.

Now it is time to double check starting at #1 cylinder when exhaust starts to open check intake. New Hydraulic lifters won't be pumped up yet so you should be able to spin pushrod with some resistance. Think of a Hydraulic lifter as a shock absorber. And you want to be in the middle of it, you will be able to push the lifter plunger to the bottom of the lifter until you have oil pressure and then it become solid, you should put a 2nd mark on top of rocker so you know it has been double checked all rockers that are 100 % finished being adjusted you should have a magic marker X on them one mark for 1st adjustment 2nd mark for final checked.

ADJUSTING VALVES ON SOLID LIFTER OR ROLLERCAMS

The most important thing to know is adjust one cylinder at a time starting at # 1 and work your way around you must rotate engine direction. When the Exhaust valve starts to open on #1 cylinder adjust intake valve when the intake valve open & starts to close adjust #1 Exhaust valve.

EXAMPLE when Exhaust valve starts to open on #1 cylinder we will adjust #1 intake valve by loosening polylock slightly while spinning pushrod until you feel lash in the rocker.

Now spin polylock down until you feel the lash go away you will feel pushrod snug up a little while your spinning it, this is known As O lash. Place offset 5/8 box wrench on polylock loosen polylock slightly while sliding feeler gage in-between roller and tip of valve. (See cam card for lash spec)

Spin polylock down against feeler gage now use a T handle Allen wrench and screw the set screw down against the top of stud firmly then bump wrench slightly tighter to lock set screw Do not over tighten this will split polylock you don't need much to lock set screw to stud after adjusting put a magic marker slash across top of rocker to tell you it has been done, now rotate engine until intake valve on #1 cylinder opens and starts to close now adjust #1 exhaust valve repeat same valve adjust procedure (ONE CYLINDER AT A TIME)

Repeat one cylinder at a time until complete engine is finished now it is time to double check starting at #1 cylinder repeat valve adjust procedure when Exhaust Valve starts to open check # 1 intake with feeler gage. After removing feeler gage spin push rod this guaranties nothing is rubbing pushrod. You should put a 2nd mark on top of rocker so you will know it has been double checked all rockers that are a 100% finished being adjusted should have a magic marker X on them. One mark for 1st adjustment 2nd mark for final check.

VALVE ADJUSTMENT MADE SIMPLE BY SCORPION PERFORMANCE INC.

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