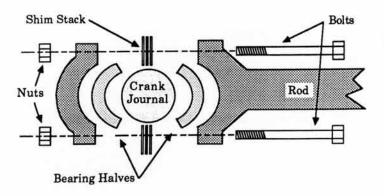
## ROD CLEARANCE ADJUSTMENTS

## By Dick Ray Western Maryland M-9, No. 67

Setting the rod clearance on a Fairmont single cylinder engine is something that should be done when you are first restoring a car. Once this is done, you should not have to redo it for many years. The adjustment is significantly more difficult with the engine in the car, therefore, it is recommended that this procedure be done with the engine removed. It might also be advisable for you to do any engine cleanup and repainting at this time.



After removing the carburetor, unwire the rod bolts and carefully remove the cap. At each stage of the process, be careful to re-install the cap, bearing halves, and shim stack in exactly the same position that they were removed. If identifying marks are not there, you will need to scratch some on the rod, cap, and bearing halves. The stack of shims should also be preserved as upper and lower stacks.

After cleaning all the parts, and wiping oil off the crankshaft journal, reassemble everything with a piece of Plastigauge (available from NAPA auto parts stores) between the bearing and the crankshaft. Then remove the cap, and inspect the width of the compressed Plastigauge. A scale on the package tells what the clearance is. If the clearance is more than 0.003 inches, remove one or two thin shims and repeat the process until the proper 0.002- to 0.003-inch clearance is obtained.

To reduce the clearance by 0.001 inch, it is necessary to remove one 0.001-inch shim from each side. Be careful to remove only the thinnest possible shim from each side. Always remove the thinnest possible shim each time you remove the shims. All of this operation will be much easier, if you have a helper to hold the flywheels from turning while you work on the bolts. The helper can also assist by holding the rod up against the crankshaft by pushing on the piston with a wood dowel through the spark plug hole.

Finally, clean all the Plastigauge material from the bearing surfaces and reassemble with plenty of oil in the bearings. Tighten the rod bolts alternately a little at a time, moving the crankshaft back and forth to make sure that it always turns freely. With the spark plug back in, the engine should rebound on compression. Don't forget to rewire the rod bolts to prevent loosening.

Before buttoning up the engine, wash out the crankcase with fuel mix and a toothbrush to remove all the sludge and dirt particles. This is also a good time to go through the timer, clean out the carburetor float bowl, and remove carbon from the exhaust ports. Your engine is now ready for at least another five years.

Note: The above procedure is similar for the Fairmont twin-cylinder RK engine, except that access is gained through a removable top cover, and the recommended clearance is 0.002 to 0.004 inches.