

# THE EXTRA MILE

## Engine Building and Power Techniques

BY SCOTT SEHR



Absolutely, The Most Motor For Your Money! *Guaranteed*

## It's Prime Time

Priming a freshly built engine properly is not as quick and simple as it may sound but it is critical. Often when I ask a customer how they went about priming their engine they say, "I primed it until I got oil pressure; it only took less than a minute or so". I cringe when I hear this. Oil pressure showing up on the gauge is just the beginning of the priming process. The object of priming an engine is to push all of the air out of all of the oil passages and galleries and to fill them all with oil. By doing this we make sure that all of the components are getting proper oiling from the very start. This not only prevents premature wear, possible failures and shortened engine life, it also helps with cooling during that all-important first start up. It is also important that engine oil priming be done just before initial start up. If done days or weeks before the event, proper oil film is lost.

Every engine has numerous oil galleries, passages and obstacles and restrictions to inhibit oil flow. When using a high lift camshaft the lifters themselves can cause a restriction in the

system. The oil grooves in the body of the lifter are made for a stock lift camshaft, even some of the aftermarket lifters will have a narrower groove so at full lift the lifter oil groove is above the oil passage and causes an intermittent blockage. Hydraulic lifters can hold air in the lifter body. It takes a considerable amount of time to push out this trapped air so the lifter can be filled with oil as it should be. Until this happens there can't be continuous oiling to all of the rocker arms and cooling of the valve springs and guides are lost.

In engines with camshaft driven oil pumps we spin the oil pump and turn the engine over by hand until we have a constant flow of oil to all the rocker arms and springs while observing what the pressure is doing. If the engine has a crankshaft driven gearator style oil pump, a pressurized oil tank system is used to generate the needed flow. By taking the needed time to properly perform this critical step we insure our customers get "The Extra Mile".

Let us help you get the **"EXTRA MILE"** out of your next build.



Confirming oil to all rockerarms



Priming the oil system