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Make sure you're buying what you think you're buying. These no-name oil pumps are examples of what you might be getting from less-than-reputable suppliers. From left, this pump would not develop oil pressure when installed because one of the two internal gears was missing. Center, this pump did not have a hole machined in the housing for the mounting bolt. Right, this pump did not have a slot machined into the shaft for the distributor drive gear. The pump could not be installed. Photos courtesy of Schumann's Sales and Service.

at higher engine speeds. Some pumps also come with larger diameter inlet tubs that can flow more oil, including many high volume pumps that can boost flow.

A high volume oil pump with taller gears has a larger internal displacement, so it can move more gallons of oil per minute than a stock pump – typically 15 to 25 percent more oil.

The question is, does every performance engine really need a high volume oil pump?

Some engines do if they have looser bearing clearances because more space between the crankshaft bearings and journals require more

flow to maintain the oil film. An engine may also require a high volume oil pump if it has piston oilers for extra wrist pin lubrication and piston cooling, or additional oil squirters for the upper valvetrain, Variable Valve Timing or Cylinder Deactivation. Anything that uses more oil will require more flow from the pump.

A high volume pump can also help boost hot idle oil pressure readings and quiet a noisy valvetrain. But it should not be used to compensate for such things as excessive bearing or lifter bore clearances, or internal oil leaks.

On the other hand, if an engine has tighter bearing clearances and uses a low viscosity

oil (say 0W-40, 5W-20, 5W-30, etc.), a stock pump can probably provide adequate flow and pressure.

The downside of installing a high volume oil pump in an engine that doesn't really need one is that it wastes horsepower to pump the extra oil.

Choosing the right oil pump can make a big difference in how the oiling system performs. Choose a quality brand name pump rather than taking a chance on a low-priced no-name pump. We've seen some really bad oil pumps recently that were being sold on the internet as part of engine kits.

One of these pump failed to prime and develop any oil pressure after it was installed. When the pump was removed and disassembled, one of the two gears inside the pump was missing! That's a good reason to always disassemble and inspect a new oil pump before it is installed. Check the clearances and make sure the gears mesh and rotate smoothly.

Another SB Chevy pump we saw had no slot in the end of the pump drive gear shaft to mate with the distributor. Another SB Chevy pump casting did not even have a hole drilled in the casting for the mounting bolt that attaches the pump to the block! Talk about no quality control whatsoever!

We've also seen numerous dubious quality oil pumps from offshore suppliers that have very loose internal clearances (which greatly reduces pumping efficiency, flow and pressure) as well as ones where the gears bind up when you try to rotate the pump by hand. That kind of junk should never end up in a stock engine, let alone a high performance engine.

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