

THE EXTRA MILE

Engine Building and Power Techniques

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Sehr Performance
going the
"EXTRA MILE"

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Taking Care of the Power

Having an engine built for a high horsepower car is an exciting thing. Picking out the exotic parts and putting together your package to make your car go fast is something you put a lot of thought and care into. A high horsepower engine is designed for a specific purpose and the tuning window is narrowed. Because of the high horsepower, these engines are exposed to many stresses and abuse even though these engines are built with high-quality parts. Many of the parts can wear out or get damaged because of the power stresses. These are some things that I have found that some people do not understand.

Owning one of these engines requires some care and general maintenance to keep the engine running at peak performance and to get proper life out of the engine. Paying close attention to your engine can save you money in the long run. If one little part or tune up component starts to fail, then it will quickly snowball into a major failure. Consistent general maintenance will be the best safeguard to prevent this from happening. Here are some of the things that must be attended to in a high horsepower engine.

are burning, and if there are any oil consumption issues. They will provide evidence of a rich or lean condition as well.

- Check valve lash: Improperly adjusted valves can cause power loss and premature valve train wear.
- Inspect your valve springs: Because of the high lift radical profile camshafts of today's high horsepower engine, the valve springs have to endure many stresses. Valve spring breakage can cause major engine damage if gone undetected.
- Check ignition timing: This is one thing that is never "set it and forget it." Correctly adjusted timing will ensure the engine fires as designed. Timing can change because of distributor slippage, and worn distributor gears can cause ignition flutter. Erratic ignition firing will cause engine damage and can impede engine horsepower.

- Change the oil and filter: Because of the extreme conditions inside the high horsepower engine, the oil can break down sooner and the filter will catch much of the debris that may exist. Keeping fresh oil in the engine keeps things cleaner and provides maximum lubrication potential.

- Look at your spark plugs: The spark plugs will tell you how well the cylinders

- Inspect for oil and coolant leaks: High horsepower engines make more power and torque, so block and component twist can sometimes cause premature engine leaks. Spotting and fixing any leaks will keep these systems operating efficiently.

At Sehr Performance we have been building high horsepower engines for years and we understand what is required to keep these engines running the "Extra Mile."



Closely inspecting the spark plugs



Verifying valve lash