

ENGINE BUILDER

BabcoX

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**YOUR PERFORMANCE LEADER
FOR CRANKSHAFTS,
CONNECTING RODS
& ROTATING ASSEMBLIES**

however aftermarket manufacturers have gone to great lengths to provide products that address these problems. While neither of these should be a big concern for your grandfather's Buick, when we enter the performance realm where engine output and rpms increase substantially, they must be taken into consideration.

Windage can affect engine operation and oil pump function in several ways. At high rpms the crankshaft is throwing around some of the oil that is draining from the engine back into the pan against the block and cylinder walls, causing it to absorb heat and raising the oil temperature. While it is being thrown about, the oil can become aerated and the resulting air bubbles can reduce its ability to dissipate the heat, which further affects oil temperature. Aeration in the oil makes the pump work harder to try and move it. Topping all of this off is the thick mist of air and oil created in the pan that places drag on the crankshaft as it tries to spin through it and causes power loss.

Pan manufacturers have been creative in their attempts to combat windage. Oil pans are available with features such as additional baffling (some have trap door baffles that also help contain oil in a concentrated area around the pickup), screened or louvered windage trays that help to somewhat isolate the crank from the oil in the pan and crank scrapers, which help control the amount of oil that is thrown off the crankshaft and rods.

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SCHUMANN'S NEWEST CUTTING EDGE TECHNOLOGY

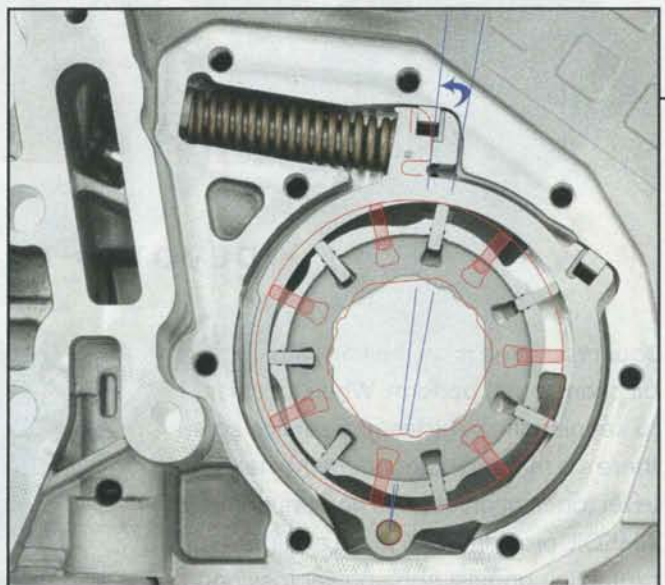
- The earth is flat! Subaru Flat Four 2.5 liter performance oil pumps with "Schumann's patented 140 operational BALL VALVE HYDRAULICS"! The end of inner-mingled O.E.M. street volumetric by-pass into the intake stream flow! Finally, a Subaru race pump!
 PART # SUB-140-10 (MM) and SUB-140-12 (MM)
- Subaru "longevity" O.E.M. by-pass system pumps with "dimple tech gears" by Schumann!
 PART # SUB-DTG-10 (MM) and PART # SUB-DTG-12 (MM)
- Patented "Energy Recovery" turbo charged oil pumps cancels Mother Nature's atmospheric 14.7 lbs. of pressure required to maintain priming of wet sump principle oil pumps. Vacuum pump race friendly! Chevy: LS, Small Block, Big Block. FoMoCo: Windsor's Cleveland, M/400, Big Block and F.E. Series.
- "ER-VAC" E.P.A. Patenting just released 1/9/2018 #9, 863, 418 and "ER-VAC" Trade Mark #86402414 issued 1/23/2018. First technology to "clean up" crankcase vapors! Vapors are mechanically and electronically reconstructed into droplet form for liquid measurements on the dipstick.
 "ER-VAC" E.P.A. is fuel flexible!
 "ER-VAC" E.P.A. is compatible with EGR systems!
 "ER-VAC" E.P.A. extends catalytic convertor life!
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These are Corvette LT4 oil reservoirs. These sumps also include a heater to warm the oil for faster warm-up times. These sumps even include a dipstick.



Gerotor style pump with gears that is also variable displacement. These types of pumps only pump as much oil as is needed.