



REMAN Tech / Photo Article:

Breathing New Life Into Used Superchargers!

***Magnuson Products,
A long time manufacturer of Superchargers
for the Performance Industry claims the distinction
of being the Only Authorized Remanufacture of EATON Superchargers
in North America. This essay will discuss the critical steps taken to turn a used
supercharger into a like new product with a lifetime guarantee and why you may want to think
twice about using a Junkyard part.***

Buick, Oldsmobile, Pontiac, Ford, Nissan, Jaguar, BMW Mercedes Benz and Chevrolet all use Eaton, hybrid roots type supercharger. This design of supercharger is used because of the compact size, smooth airflow characteristics and low heat generation. Unlike other types of superchargers, the hybrid roots blower does not compress the air inside the rotor housing but creates a more consistent manifold pressure within the manifold. Some superchargers have a pulsed output but the helical rotor design provides a smooth, increased air flow. This creates more torque and horsepower, along with immediate throttle response because of the higher density, more oxygenated air supply forced into the cylinders. Supercharged engines are noted for better fuel economy when operated under normal conditions. When climbing a hill or driving at higher elevations, the altitude compensating benefits of supercharged engines are immediately noticeable.

Here's what it takes to breath new life into a tired supercharger..

Used superchargers are received, completely disassembled and inspected. Rotors, gears and bearings are discarded. All remaining parts to be re-used, i.e, housing, bypass valve and nose cover, are thoroughly washed and re-inspected. A small piece of sand or road debris, ingested into any supercharger can score the internal surfaces ruin performance. Great care is taken during the inspection process to be sure the cases are free from scratches or cracks and the concentric surfaces are round and within tolerance.



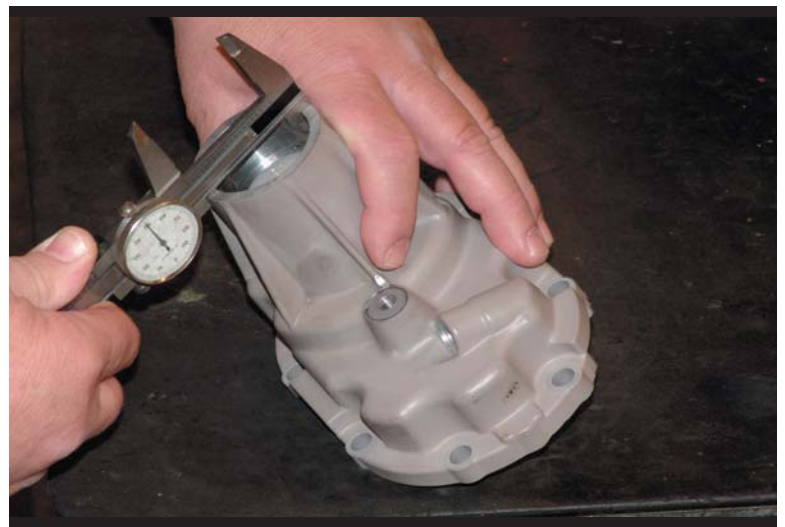
Ready To Be Remanufactured



***H**ow assembly takes place...*

The inside rotor surfaces are honed and checked again for concentricity, dimensions, and overall surface condition. All mating surfaces are lapped and re-inspected to insure flatness and a tight, leak free seal.

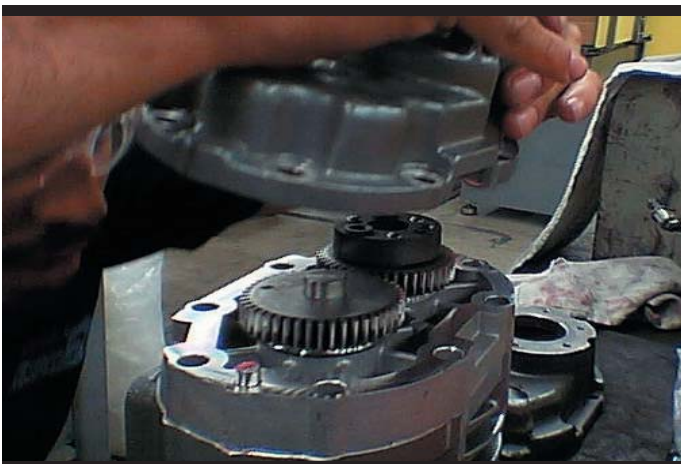
Bearing surfaces are carefully checked for roundness and size. New, larger, increased load carrying capacity bearings are pressed into place and all parts are kept in a clean environment, prior to final assembly.



The housing will receive a new rotor assembly, gears, bearings and seals from Eaton.

All of these parts are tested for clearance, lash and smoothness of operation.

A new coupling, called a molyguard, is installed during final assembly and all bolts are torqued to factory specifications. A proprietary, long life synthetic oil is used to maximize supercharger life. This oil has a very low expansion rate and excellent lubrication qualities.



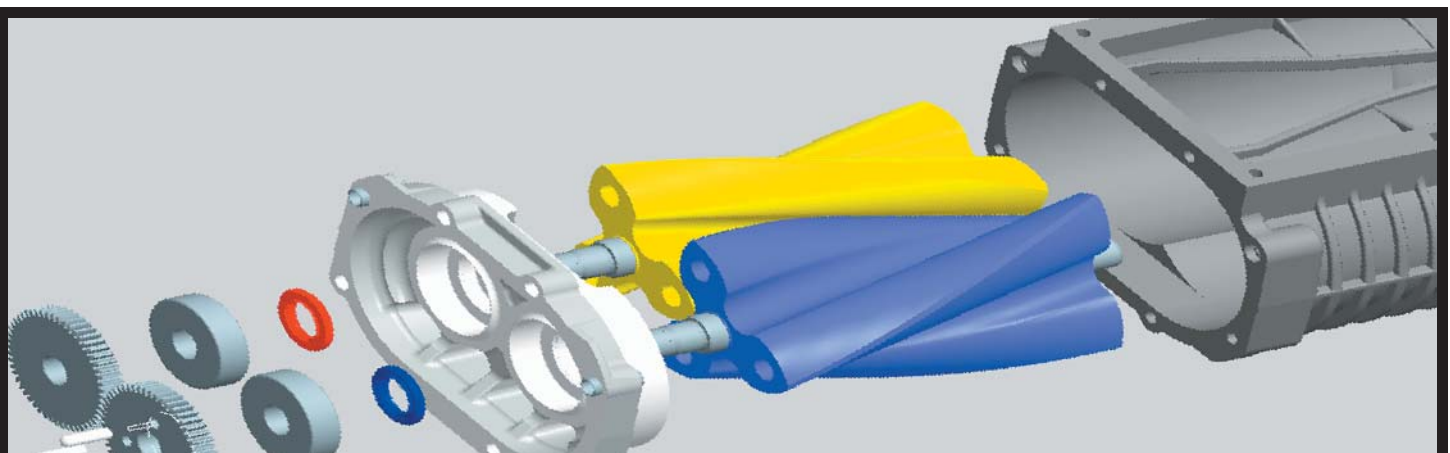
After assembly, all superchargers are tested on sophisticated equipment at various RPM settings for noise, vibration, and harmonics. Proper air volume, heat generation and smooth operation are the key issues in this ten minute test and all data is carefully recorded for each unit.



Tested superchargers are allowed to cool, inspected one last time and packaged with new gaskets, o-rings, instructions, and any other necessary components.



There are over 3.5 million supercharged vehicles on the road today. Many of them are running with tired, worn-out superchargers. Changing a supercharger is about the same as changing a water pump but not as messy! With a limited lifetime warranty, you can be assured that you will not have a come-back on this product.



For more information on EATON Remanufactured Superchargers, contact Magnuson Products, Inc., Ventura, California at 805-289-0044 or REMAN@Magnusonproducts.com .