

## RHINO SUPERCHARGER

### Rhino Supercharger

547-1040

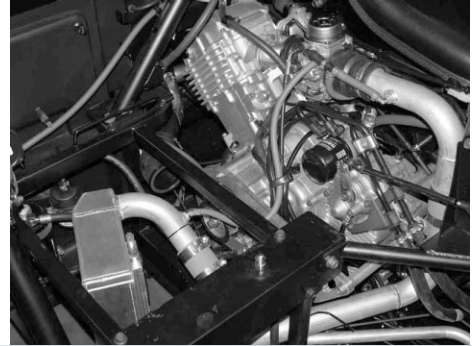
- Features 52 wheel horsepower at 10 lbs of boost (about 80 at the motor) - Stock Rhino has about 22 rear wheel horsepower (about 37 hp at the motor)
- Easy install - should be no cutting or fabricating (Installation takes approx. 4 hrs.) Blower and drive mounting components are made of billet aluminum and connect 100% into existing bolt holes. There are NO holes placed in any OEM component. Only 3/16" rivet holes and 1/4" mounting holes are added.
- Instantaneous throttle response
- Exhaust remains 100 % stock - The system is compatible with all after market exhaust systems but advertised horsepower numbers are achieved through stock exhaust.

Rhino Custom CDI Timing/Blower Warning Harness  
**(MUST BE PURCHASED WITH SUPERCHARGER)**

547-1041

Rhino Primary Over/Under Sheave Kit

547-1042



Rhino Supercharger - Overall

### Stage 1 Supercharger Specs:

Centrifugal Supercharger - Exactly the same as the compressor side of a turbo. The compressor's impeller is driven directly by the motor (where a turbo's compressor impeller is driven by a second impeller in the exhaust)

- Typical impeller speed 140,000 rpm (160,000 max)
- Internal speed multiplication is 12.7:1.
- Input speed to the blower is 11,000 rpm, well under the maximum rating of the belt.
- The stage 1 unit is capable of boost numbers of well over 10 psi.
- This unit carries a 2 year warranty for off road application. (The same unit when used on road has a 150,000 miles or 10 years warranty)
- Lubrication is accomplished with a special high grade type of transmission fluid. The unit utilizes positive pressure created by boost as well as an internal pump to circulate the fluid. This is a closed loop system. Includes billet reservoir with temp. sensor, filter and oil cooler. Only use MPI supplied Rotrex Traction Fluid.

Belt Drive System - Connected directly to the crank and transmitted to the blower via a cog belt drive system.

- A stub shaft is connected to the end of the crankshaft on the magneto side of the motor. The stub shaft is stronger and more durable than the crankshaft itself.
- The OEM side-cover is not modified. Simply remove the OEM fan assembly and bolt on the PTO assembly.
- A cog belt design was chosen due to long life - no chance of slippage due to tension or snow and minimal tension requirements. The belt sports a safety factor 3 1/2 times higher than the industry accepted belt drive.

Plumbing - components are aluminum with stainless clamps

- The Inter-cooler and air box are designed and constructed entirely of aluminum and utilizes an inter-cooler core capable of supplying motors over 300 hp. Pressure drop across the core is less than 1/2 lb. Air intake temperatures are typically between 30 - 50° above the ambient air temperature.
- Connection to the OEM carburetor (or throttle body) employs silicone hose & stainless constant tension clamps. This design can sustain boost numbers in excess of 25 psi.
- Employs the same electric pump used on OEM Ford automobiles. Power to the pump is electronically controlled.
- The entire fuel system used extra heavy duty 300 psi fuel line. Connections are made with constant tension stainless hose clamps.

Oiling System

- The OEM system is unmodified.
- The blower's oiling system is self contained and employs an external filter, reservoir and oil cooler. The blower system included an electronic temp. warning circuit that ties directly into the units electrical system. In case of overheat - both a warning symbol and check engine symbol will illuminate on the OEM dash.



Rhino Blower & Inter-cooler



Rhino Fuel System