MOSS MOTORS SUPERCHARGER FAQ LIST

WHICH CARS WILL THE KITS FIT: The 68-74.5 kit fits any 5 Main chrome bumper engine that is equipped with a factory alternator.

Example: You have a customer who has a 1963 MGB, but he has installed a 1966 5 main engine in the car and retrofitted a 1970 alternator after converting the car to Negative ground. The kit will fit.

The 74.5-80 kit will fit rubber bumper cars with brake servo. This kit will also fit the 74.5-75 car without servo, but has some extra unnecessary bits.

The critical application parts are:

1. The kits come with a 5 main water pump + pulley. So will only fit 5 Main engines.
2. The kits come with either a new alternator + pulley (68-74.5) or alternator pulley only (74.5-80). So will only fit alternator equipped cars (no generator pulleys yet, see below)
3. The 68-74.5 kit has an idler pulley set and stay bracket that fit chrome bumper front engine plates only. The 74.5-80 kit idler set and stay bracket fit the rubber bumper front engine plate only.
4. The 74.5-80 Carb adapter plate is machined at an angle to allow the carb. to clear the brake booster. There is also a spacer to move the air cleaner closer to the bulkhead to clear the booster.

WHEN WILL YOU HAVE AN MGA KIT?: The supercharger + carb. package was designed to also fit the MGA. We do not yet have an MGA waterpump pulley, nor a Generator pulley available. These are in the works (see below)

WILL THIS KIT FIT MY EARLY MGB: See above. The 3 Main MGB block, like the MGA uses a unique water pump. We do not have a water pump pulley available yet, but are working on it. The generator is also an issue (see below)

CAN I INSTALL THIS KIT ON A CAR WITH A GENERATOR?: We are a bit worried that the rear bronze bush on the generator may not hold up under the additional loading the serpentine belt system places on the unit. There is enough interest that we have decided to make the pulley available for those that want to give it a try. Moss Motors will not assume any responsibility for generator failure, but we are very interested to see if this will work. Stay tuned.

ARE THE KITS "SMOG" LEGAL: Sorry, no. There is no provision for an air pump, and later cars must have some type of separate exhaust manifold fitted. Please check with your local authorities before ordering.

WILL THE SUPERCHARGER BE SAFE ON A MODIFIED ENGINE?: We have not tested modified motors and results will differ. The kit was tested on a 1973 low compression 8.0:1 motor, 1976 low compression motors 8.0:1 and a 1969 high compression 8.8:1 motor. All engines were stock.

1. You can drive the car at 20mph in 4th gear. Press down on the accelerator and the car will accelerate like there is an electric motor under the hood.

2. You can drive up a winding mountain road in 4th gear, slow down for 35mph corners and accelerate out of the corner still in 4th.

3. In a non-OD car, you can enter an on-ramp at 70 mph and accelerate to 90 to get past the Z28 Camaro that won't let you in.

4. On an uphill two lane mountain road, you can pass that Winebago without seeing your life rush before your eyes as the oncoming semi gets closer.

5. It won't leap buildings in a single bound, but it will act like no MGB you have ever driven.

HOW COST EFFECTIVE IS THE SUPERCHARGER COMPARED TO OTHER MODIFICATIONS?: Extremely. The power and drivability was judged by an un-solicited expert as superior to one where $10,000 of "the right" engine modifications had been done. Luckily much of the expensive engine work in a modified engine can be utilized with the Supercharger, but it is not necessary.

WILL THE KIT WORK WITH A MODIFIED ENGINE?: Superchargers are very effective at increasing the efficiency of a poorly designed engine. The biggest improvement will be seen on a stock low compression engine. Higher than stock compression engines will have much less of a gain as boost pressures may need to be reduced to prevent detonation. A high flow head will also not show as much improvement, as much of the gain from a Supercharger is due to it's ability to fill cylinders effectively despite poor cylinder head design. Any work to improve bottom end strength and lubrication will be a benefit under the higher loads imposed by full boost driving.

WHAT ENGINE MODIFICATIONS DOES THE KIT REQUIRE?: Absolutely none. The kit works best on a stock engine. If you really want to spend some extra money, we have found the best distributor to use with the kit is the modern replacement for the stock 1962-67 distributor (143-110). This distributor has the modern 45D design, so is less susceptible to tracking and cross firing. Modified with a Pertronix Igniter (222-435) and high output coil you can be sure that your ignition is not going to be a weak point.

WHAT COMES IN THE KIT?:
The Supercharger Unit is a complete assembly of intake, supercharger and carburetor ready to hang onto the intake studs. A new cast iron water pump (1975-80 design) with 4 rib pulley. The 1968-74.5 kit includes a new late type high output Lucas Alternator and 4 rib pulley (you must use your existing alternator fan). The 75-80 kit includes a pulley to be used on your existing alternator. A really nifty, screw belt tensioner assembly makes adjusting belt tension much easier. To get the best airflow a K & N air filter assembly is included. All of the hardware, hoses, hoseclamps, cables and sundries are included so you have everything at hand to bolt the kit onto your car. 1974.5-80 models will require the addition of some type of separate exhaust manifold and downpipe. The kit is designed to work with both early

There was no evidence of detonation under some pretty stressful testing. Any detonation typically indicates incorrect timing or too lean of a mixture under load, and will quickly kill an engine. The kit as supplied will work safely on a stock engine with correct timing and original good condition fuel system. Anything other than that is going to be out of our current realm of experience. We are interested in hearing about installations on modified engines, so that we can keep this FAQ current.

WHAT ARE THE DANGERS?: Luckily the majority of noticeable power increase is from more efficient filling of the cylinders. This actually reduces the stresses on the engine as each cylinder contributes a more balanced thrust on the crankshaft. Under normal driving, you will notice smoothness and more power throughout the rev range. Under full boost there is an increased load on all wearing surfaces, so rod bearings in particular are going to be more highly stressed. Combustion temperatures are going to be higher under load, so valves and valve seats are going to have to be in good shape. Again, most MGB valve problems are due to mis-adjusted carbs so in most cases the likelihood of damage is going to be less. Marginal systems may fail under the increased load of the supercharger. Our experience has been that the cars ran cooler when supercharged, but under long term load such as climbing a hill marginal systems could overheat. A failing SU fuel pump can cause a lean condition which will produce damaging detonation, so ensure that the fuel system is in good condition.

DO I HAVE TO USE A SPECIAL FUEL?: We recommend that you use the highest octane generally available. Our cars were tested using Unleaded Premium fuel. Depending on timing and driving technique it is possible that lower rating fuel may be used but we do not recommend it.

HOW WILL THE SUPERCHARGER EFFECT MY FUEL MILEAGE?: From our experiences so far, if you drive the car normally, mileage will not decrease. This is probably due to higher efficiency. If you drive the engine hard, expect that there will be a drop in fuel mileage, but it should still be higher than a comparable "modified" normally aspirated motor.

HOW COME YOU SAY YOU GOT 100% INCREASE IN POWER ONE PLACE, AND 40% IN ANOTHER?: We tested the 1973 low compression car on a Rolling Road Dynamometer. The Horsepower and Torque overlays are published in British Motoring. We did not fudge anything. The figures reflect "Rear Wheel Horsepower" which is what actually hits the road after all the transmission and driveshaft losses. Most people are more familiar with "Flywheel Horsepower" which is what is printed in the workshop manuals. We have not tested the kit on an Engine Dynamometer, so are only guessing that based on the improvement in Rear Wheel Horsepower the kit will give approximately 40% improvement in Flywheel Horsepower. The published figure that sticks in most peoples minds is 90-98 bhp for the stock engine. We think the supercharged engine is putting out somewhere in the 130-140 bhp range. The figures are really not very insightful as improved drivability is the true test of success.

WHAT IS IT LIKE TO DRIVE?: Here comes the true test.

stock cast iron 3 into 2 manifolds and most aftermarket headers. Shims are included to allow the fitting of the various thickness exhaust manifolds.

WHAT OTHER PARTS ARE AVAILABLE?:
If you are running a brake booster, you must have a one way valve installed to prevent boost from damaging the brake servo. This is included in the 1975-80 kit.

One Way Valve 150-071

We do offer both a low boost, and high boost pulley so installers can set up the blower for their particular applications. Changing out the pulley without damaging the blower is tricky, so ask before ordering.

High Boost Pulley. 052-221 Low Boost Pulley. 052-276

We will be offering an Autometer Boost Gauge in a mount which attaches to the side of the steering column shroud. This puts the gauge on the same line of sight as the Tach and works really well.

Boost Gauge Kit. 150-028

WHAT NEXT?: The Supercharger Unit will be installed on the earlier 3 Main MGB and MGA applications. We are also looking at offering an alternator conversion kit for the earlier cars, to make a long life installation possible. After figuring out all the B Series motors, we will be taking a long hard look at the A Series 948-1275cc motors.

WILL THE KIT WORK ON AN AC EQUIPPED CAR?

The kit is only designed to mount on the standard layout engine. Since the Supercharger only fits on the left hand side of the engine, it is feasible that the dealer installed rotary type air conditioning could be used with the supercharger if the customer was able to source a suitable pulley and belt. Moss Motors does not have any experience with such a conversion but would be interested in hearing about successful applications.