Super Charger prep

The Kit includes these parts

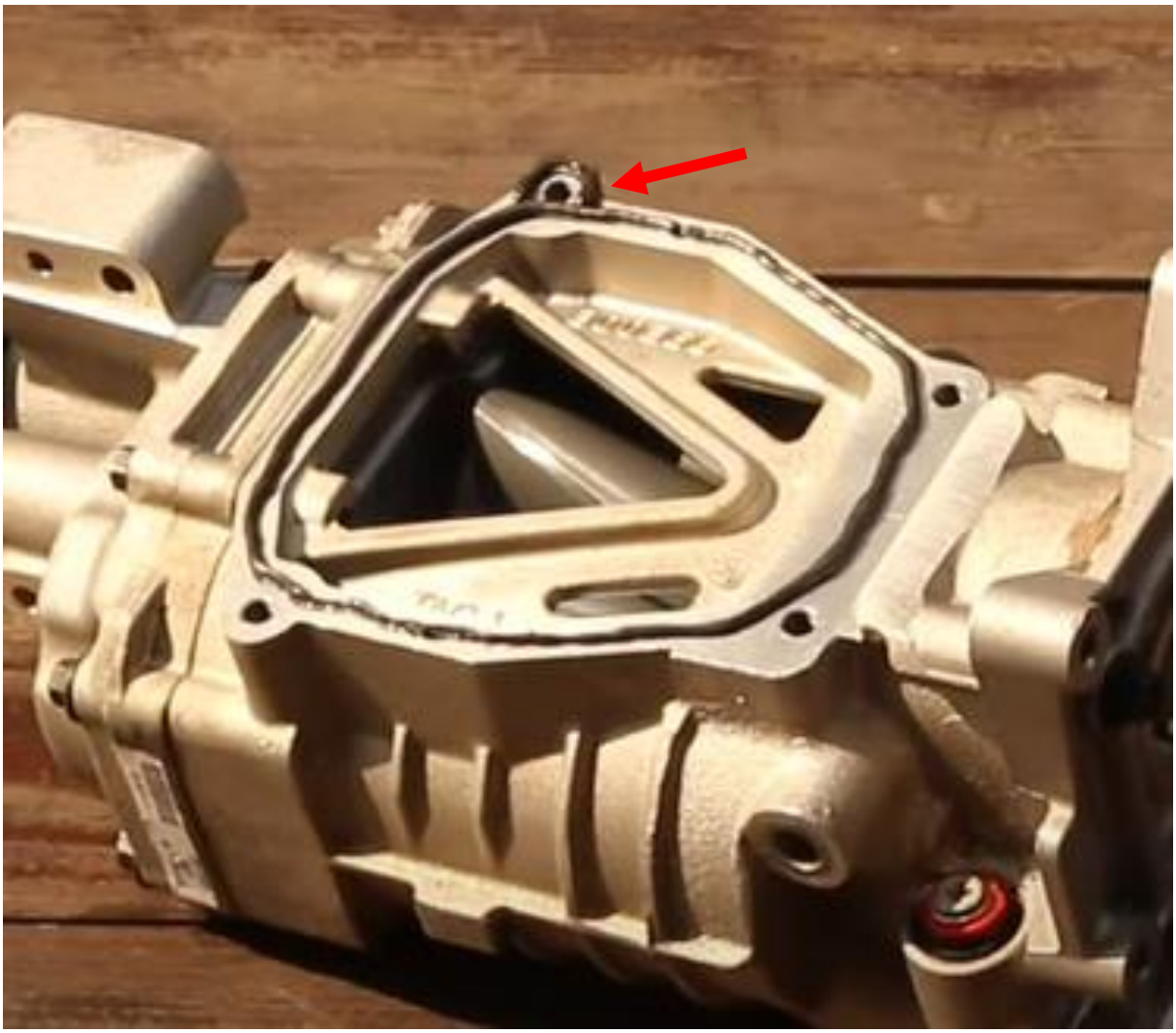
Step one is to service the Super Charger oil in front and rear oil fill holes using the right oil

40 ml oil for front and 145 ml oil for rear

Next is to cover all openings with tape in prep for cutting the two ears shown in the next picture

On the super charger you need to plug the opening shown in the picture using a bolt and some sealent

Next is to apply sealent to the outlet with a ring around this one bolt hole that will be inside the outlet pipe like in the picture then place the outlet flange and bolt down.



The one bolt in the outlet pipe will require you to apply some lock tight to the threads before you insert it. **To insure you do not drop ANYTHING into the super charger insert a CLEAN rag in to the pipe first this will save you the pain of ruining your super charger.**

Tighten the bolt with the locktite and remove the rag. Now tape over the opening for saftety.

Now for the inlet side pipe. Using the sealent around the outside of the flange

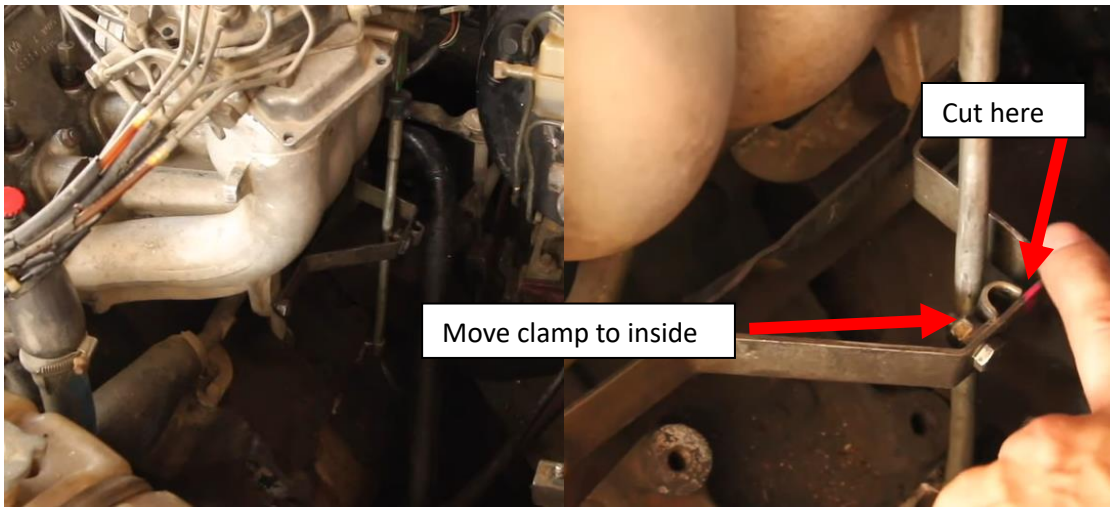
Set Super charger aside for 4 hours in order for the sealant to cure

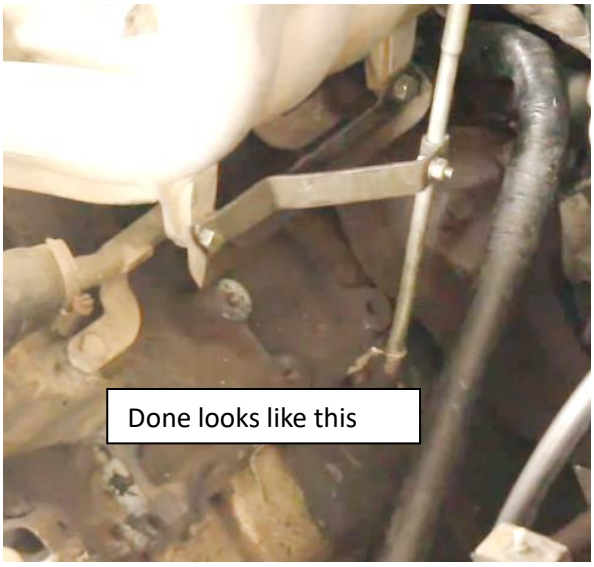
Now to the prep for the engine

Now you will need to rotate the engine to top dead center using the markes on the pulley and oil pump housing as in the picture.

Then remove the allen head screws holding the pulley to the crankshaft. If the pulley will NOT fall off that means that the center bolt has a washer that is touching it and this 24mm bolt will need to be loosened so that the washer can be slid to the side a bit and the pulley to be removed. Tighten the 24mm bolt back up to spec and now place the pulley on the shaft noting the timing mark lines up with the one on the housing. Insert the allen head bolts and tighten them to spec.

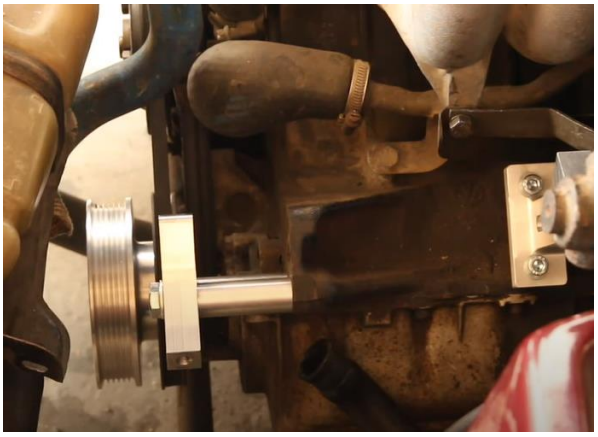
Reverse the dipstick holder and cut bracket.

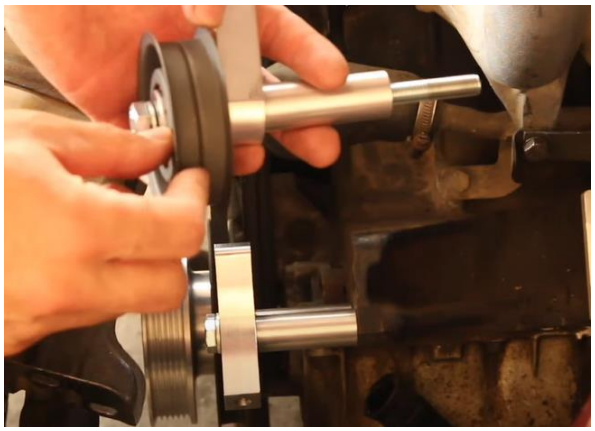




Next Clean and chase out the bolt holes in the block before you install the brackets in the next steps.

Install front bracket with spacers



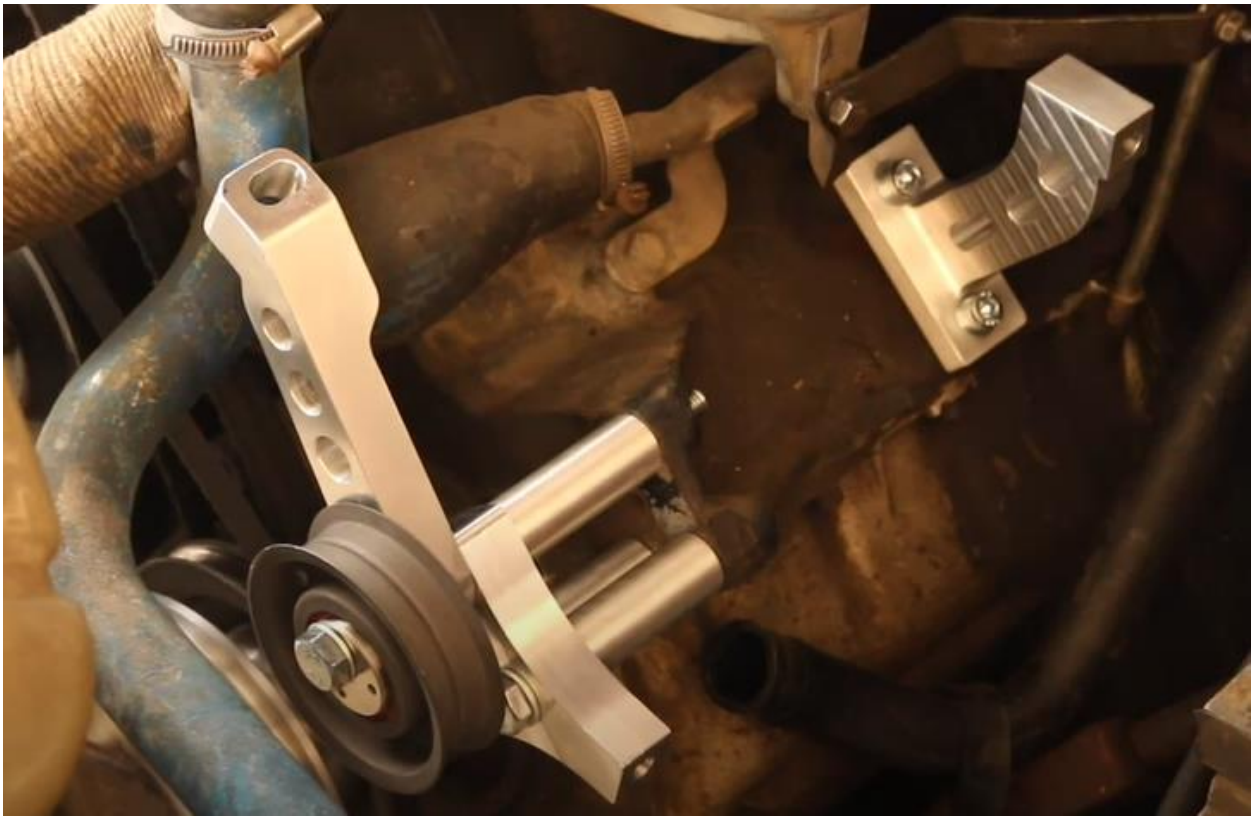


Preasembly of 3rd arm spacer with pulley and spacer

You will place spacer at block and the mount. Then insert the bolt with pulley and arm into the mount.

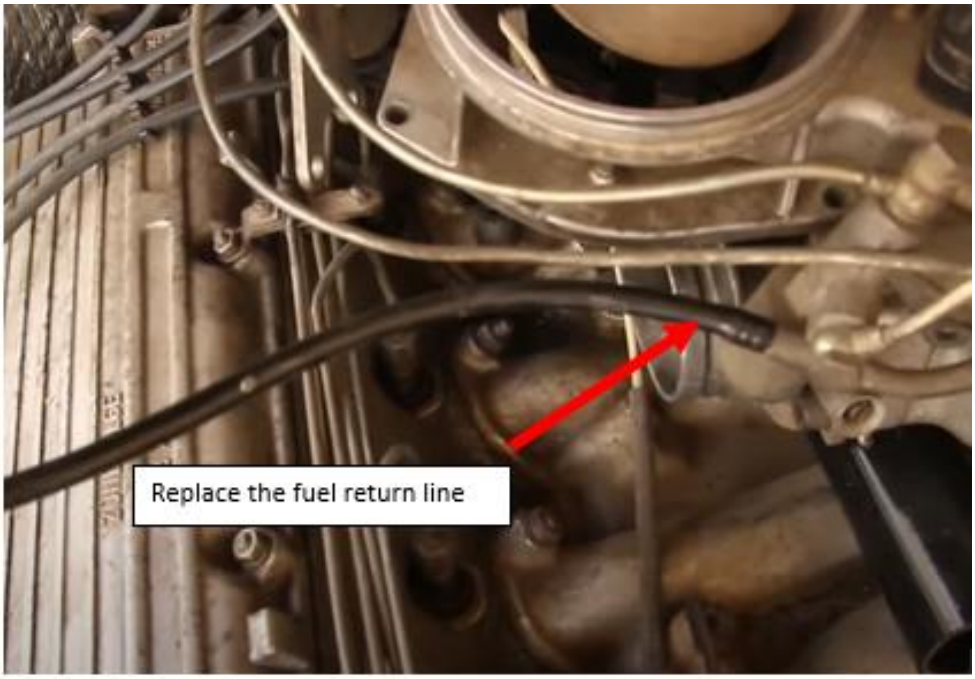
Leaving the pulley bolt hand tight, hand tighten the other 2 bolt for the mount and after that remove the pulley and bolt but the spacer will stay in place.

With that done this is how it should look



Only the rear bracket bolts should be tight at this point. You will need the front bolt loose to finish the install. On the body there is a bracket with a rubber insulation block that you need to loosen and turn 90 degrees see picture below.

Replace the fuel return line and install the new line from the kit.



Connect the other end of the return line before you install the supercharger or you will never be able to access the fitting in the picture

Before you drop in the Supercharger do the check list

Dipstick bracket cut and holder reversed

Oil vent hose tucked in and above the brackets

Rear Supercharger bracket bolts tightened to block

Front Supercharger bracket assembly in place but not tightened

Rubber mount fot metering head has been rotated 90 degrees

Fuel return line replaced and tightened to car body

Then on to the Supercharger

Using the all thread rod with a washer and nut started insert into the rear of Supercharger

You will use this to help you hold the Supercharger in place on top of the rear bracket and then holding the Supercharger pull all thread rod out just enough to insert it into the hole in the rear bracket.

now while you work on bolts for the front bracket insert the bolt to hold it in place DO NOT TIGHTEN any thing yet. Next on the rear bracket you need to place a washer and nut on the inside of the rear bracket. The space is very small so using a magnet or two fingers to hold the washer and nut in place while you turn the all thread rod in to catch the threads and flust up the threads on the rod and nut.

Now you can tighten the rear bolt abd the bottom two bolts on the front bracket but not the long bolt for the tensioner

Once done then you can remove the tensioner bolt and pully leaving the tensioner spacer in place

next you will install the drive belt on the pulleys

next step is to place the tensioner on top of the belt and then insert the bolt thru the tenisioner and spacer then insert the bolt for the top mount arm (you will tighten this bolt very last)

Now adjust the tenision pully and tighten the pulley bolt.

Then finaly tighten the top bolt to the arm. In the next steps you will be installing the piping.

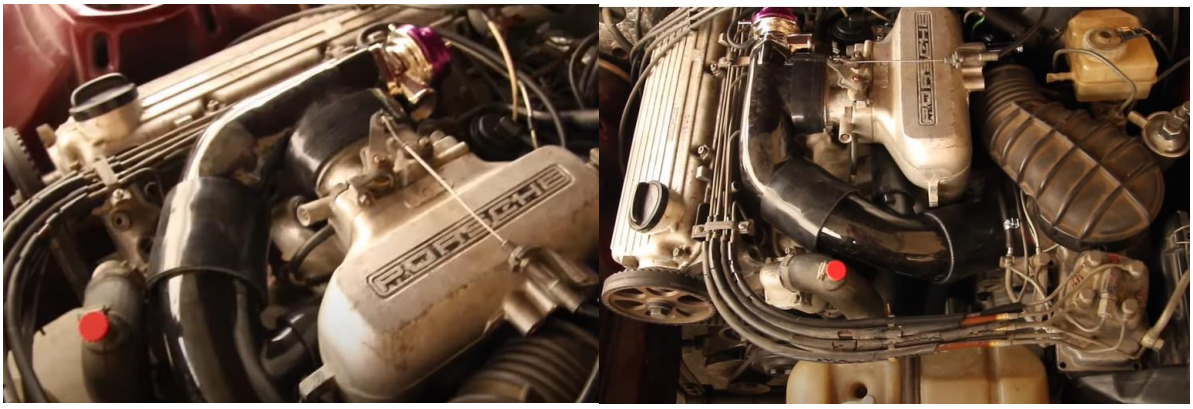
Next you will be using the sealent to glue the upper inlet pipe to the lower inlet pie that you installed on the super charge in the steps before.

Now is the time to remove any tape or rags that you inserted in to the openings of the super charger that was to protect it from any debrie falling in to it.

You will apply sealent to the outside of the flange on the lower inlet only.

The fit must be in this orientation only see picture above

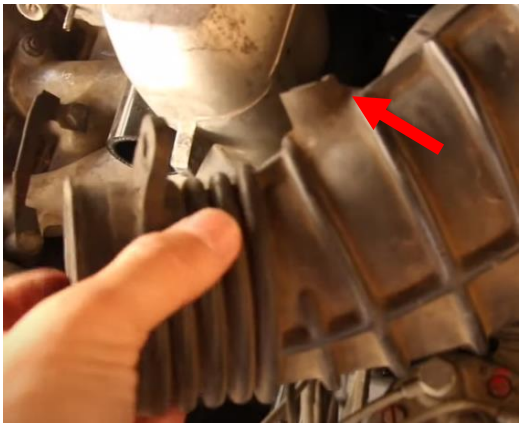
Now add the last new pipe to the throttle body using the rubber slip ring and clamp it in place with hose clamps.



Now for the inlet pipe you will need to remove the dip stick from the tube and set aside, you then remove the throtle cable bracket and push out of the way for now. Clutch cable may need to be held back some. Apply sealent to the flange on the pipe as in the picture and fit it down between the brake booster and the intake manifold. Rotating front to back as you go, then set over the outlet pipe flange. Then rotate to line up the mounting hole in the top of the pipe to the mounting hole for the throttle cable see picture.

The throttle bracket will sit between the manifold and the outlet pipe and be secured in place using the long M6 bolt from kit.

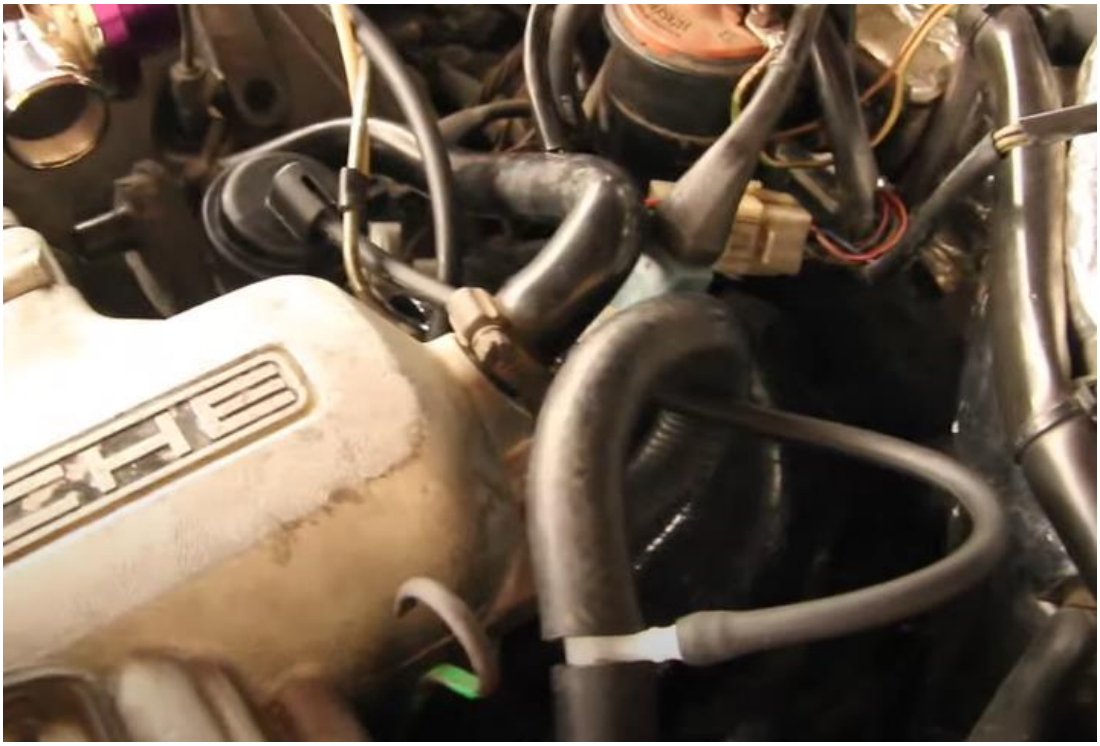
Now you will use your old rubber intake and make modifacation to it where it would normaly connect to the brake booster. You will cut back the rubber port for that as flush as you can and plug and seal it up. You will be routing it in another way.



Now rotate the rubber intake to connect to the new inlet and using a little oil on the rubber to lube up both ends so that installing will be easier carefully slide on to the new outlet pipe. You may want to loosen the long M6 bolt a bit but be very carefull as the new 3D printed pipe is brittle, then tighten the M6 bolt just snug so you don’t crack the new outlet pipe.

Now make sure that all these parts are seated and sealed correctly

You will cut the brake booster line at the point in picture to insert a plastic tee and then route to the booster and the small part of the tee goes to the recirc valve



Now is the time to connect the crankcase vent line to the air box

Next before startup is to retard the timing by up to 3 degrees mark the housing on the distutor and then loosen the bolt and turn clockwise and retighten the bolt

Before you startup you can install a wide band metering sensor but by all means check the engine after a NORMAL run to make sure that it is NOT running to lean. In one way you can pull the number one plug and look at the color, it should be light to dark brown. White means too little fuel and you need to adjust the metering head for more, and black adjust for less fuel.