

Seadoo Supercharger Removal Guide RXP

RXT, RXT-X, RXP-X and GTX models are very similar and Removal and Installation is similar.

The Ceramic washers installed by the OE manufacturer do not completely disintegrate upon failure they go into the engines oil system causing CATASTROPHIC damage to the entire motor. Once they the ceramic washers break the entire engine will need to be removed and disassembled. So this is the process to remove the Supercharger to allow you peacefully be on the water and enjoy your Seadoo. It is time to take preventative measures to ensure many years of service from your toy.

This is a general process to remove the supercharger from RXP models (All other models are very similar). This should only be done by persons with competent mechanical skills. Failing to do this properly can cause many problems, including complete engine failure or worse.

What you'll need:

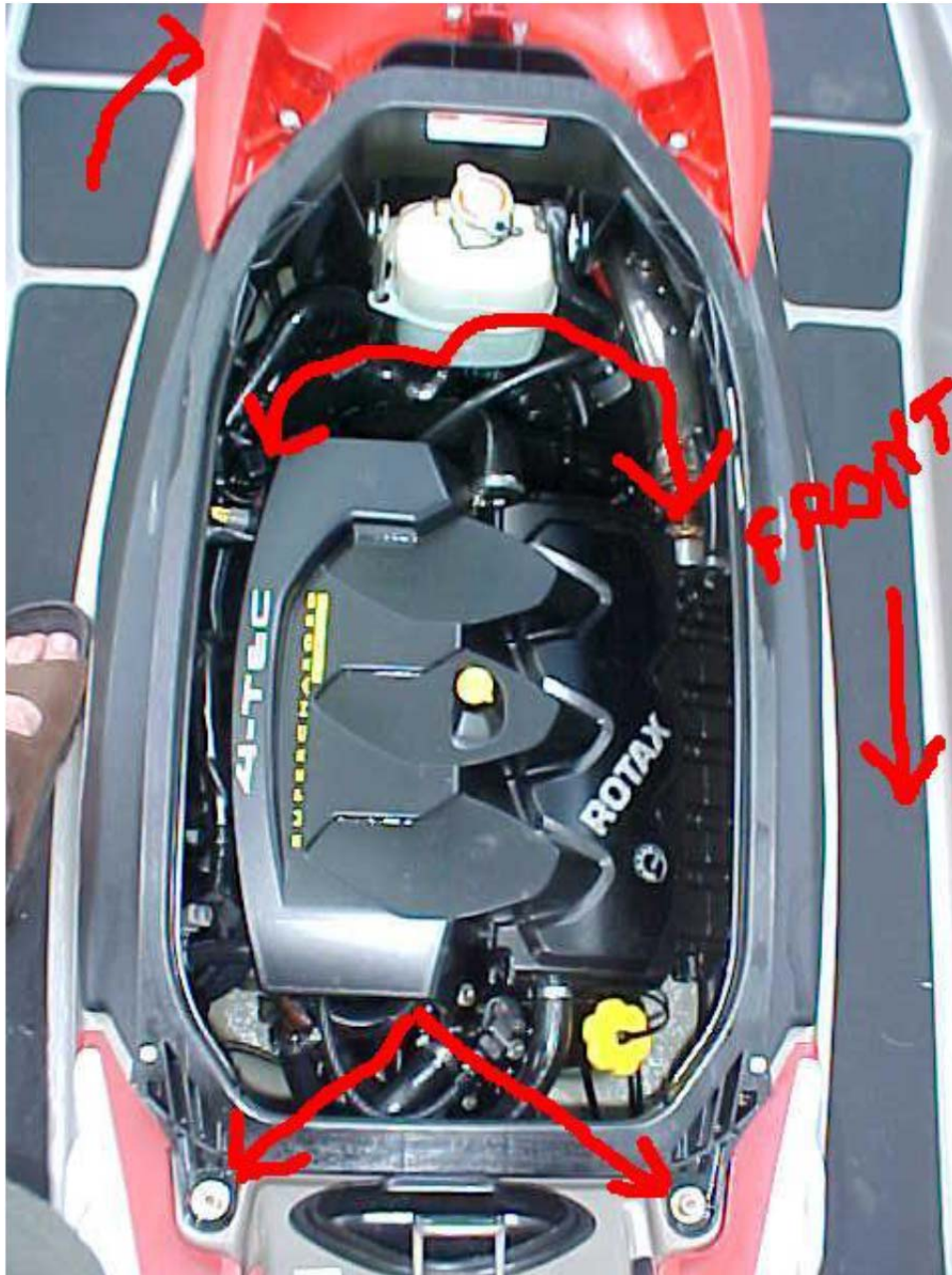
- Patience
- E8 torx socket (use an 8mm socket instead for 2006+)
- ¼ inch box-end wrench (you'll need an 8mm or 5/8" for 2006+)
- Flat-head screw driver
- 6mm hex wrench/Allen wrench (hex socket even better)
- Pliers
- 10mm deep socket
- Socket wrench with extension
- U-joint (not absolutely necessary, but VERY helpful)

Seat and Cowling Removal (RXP Models Only)

First you have to begin by removing the seat and cowling. There are five 6mm hex-head screws holding it on. Remove the seat. (RXP Models) Locate the BRP logo directly under the grab handle on the back of the ski. CAREFULLY pry the logo out and unscrew the hex head completely. Next remove the two hex head screws on either side of the "glovebox" and intake tunnel. Finally, there are two more hex head screws inside the cowling which need to be loosened, but not completely unscrewed. These two hex screws attach to clamps and do not need to be completely removed to separate the cowling from the hull.(if you do unscrew them completely it's no big deal, you just have to line up the clamps when you

reinstall the cowling at the end of the job). Remove the coolant reservoir by squeezing the tabs on either side and lifting it out of place. It may take a tug or two to break it loose if this is the first time you've removed it. Keep the reservoir upright during the SC removal.

Cowling bolt locations. Rear bolt is under the BRP logo under the grab handle.



This is how your RXP looks now. Much easier to access the engine now!



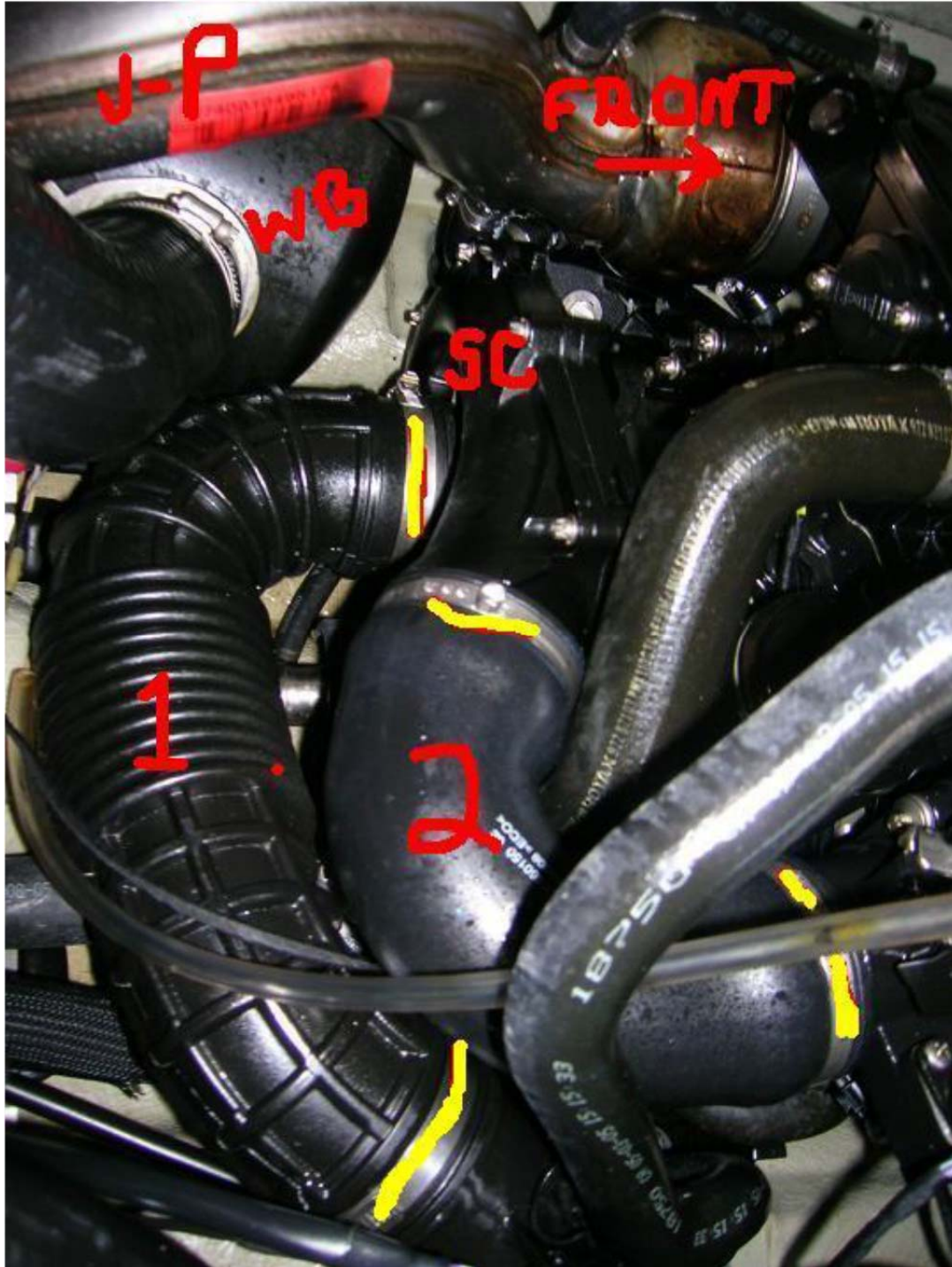
RXT and GTX Models

Remove the four 10 mm bolts that hold the air duct and where the seat locks are. Remove the coolant reservoir by squeezing the tabs on either side and lifting it out of place. It may take a tug or two to break it loose if this is the first time you've removed it. Keep the reservoir upright during the SC removal.

Now comes the real work

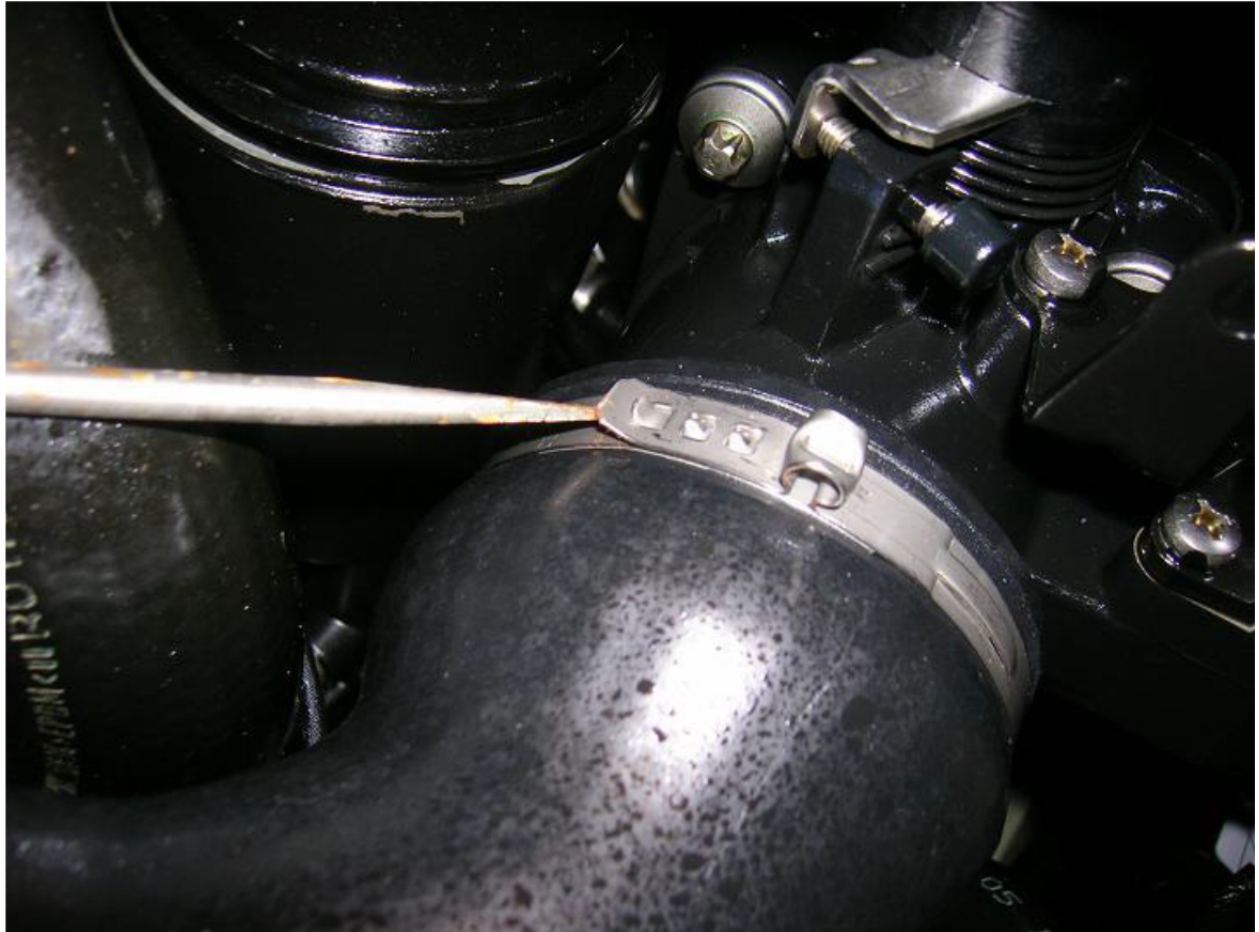
Begin by removing the hose to the supercharger intake (#1-seen here as the tube with "ribs") by using a flat head screwdriver and loosening the hose clamp on either side and taking the intake tube out.

The hoses are numbered and the clamps are highlighted in yellow. Also visible are the supercharger (SC), waterbox/muffler (WB), and J-pipe. Those, you'll mess with a little later.



Then remove the hose between the SC and the throttle body (#2). If you have factory (Oetiker) clamps as I do then you'll have to buy replacements as these get ruined and are not reusable. (Hose clamp is included in your kit so don't worry about damaging the 1 Oetiker clamp) **Only remove the Oetiker clamp that is attached to the supercharger and not the intake.** Even though it's a bit of overkill unless you're

running a high-boost setup, you might consider 2.5" OD T-bolt clamps as replacements. VERY CAREFULLY use the tip of a flathead screwdriver to remove the Oetiker clamp attached to the Supercharger ONLY! If you disconnect both of them then you will need to buy a hose clamp to secure the intake hose to the intake manifold (No big deal available at Home Depot) A twist works well to disconnect the clamp. Do not stab the hose because you'll have to buy a new one and wait for it to be shipped. By the way....it's a \$100 hose....ouch.



Once the hoses are out your hull now looks like this.

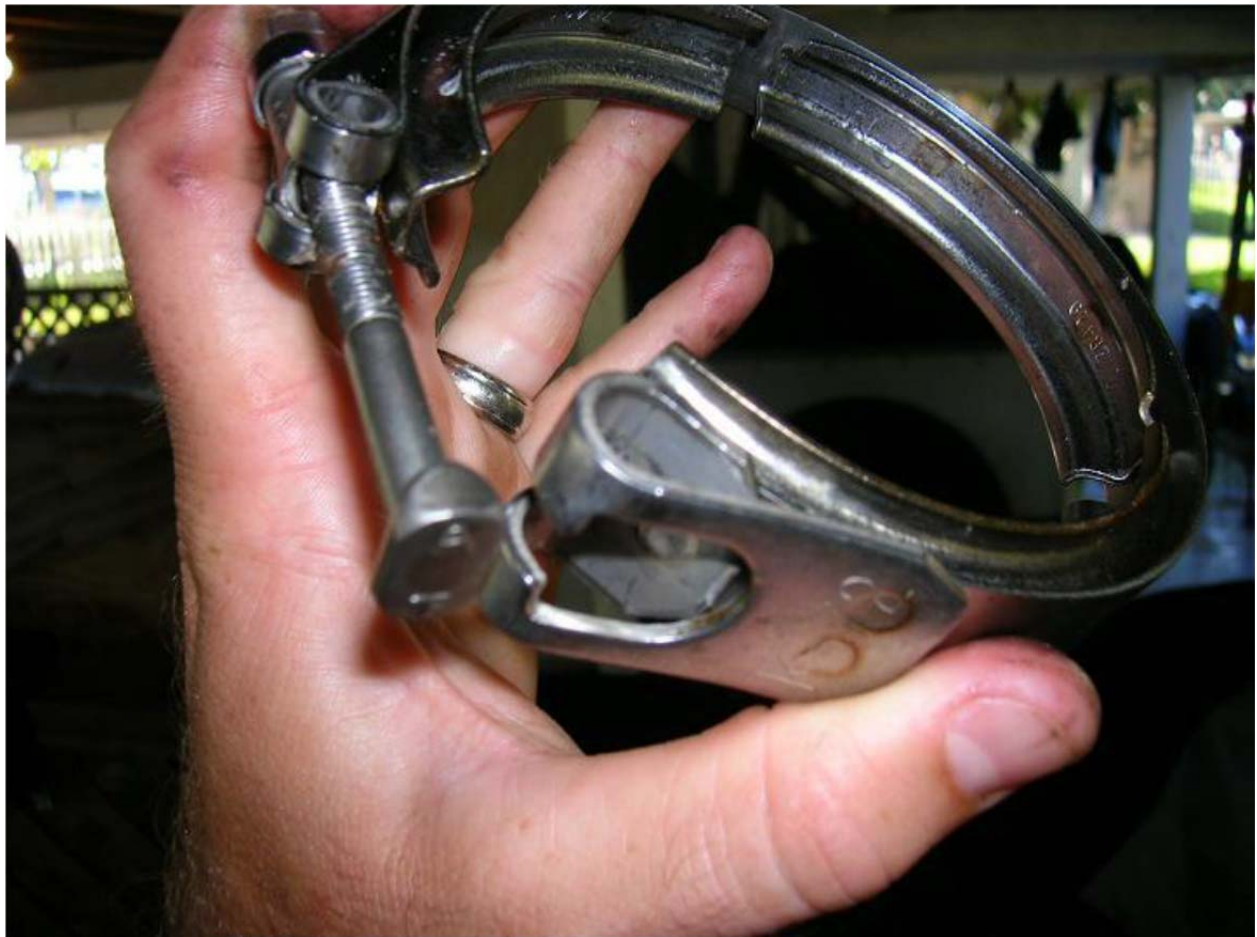


Now it's time to move the J-pipe and waterbox back just a couple inches to give you room to work and provide the required space to pull the SC out once you've unbolted it too.

Locate the clamp on the J-pipe that attaches it to the exhaust manifold on the port side of the craft. Seen above with a red sticker, is the J-pipe and the clamp is the shinier piece of metal towards the top of the photo. You'll need a 10mm deep socket (a U-joint also helps). If you have a rubber sleeve covering the bolt simply give it a twist and it should come right off. You may need to use a pair of pliers on the rubber sleeve. Unscrew the 10 mm bolt and make sure you don't drop the bolt that holds the exhaust clamp. For easier access, it is best to unclamp and remove the small black hose connecting to the J-pipe. The bolt does NOT need to be completely taken off the clamp but I find it easier if it is removed. You could just loosen it completely to allow the clamp bolt to "unhook" from underneath. You can also see the rubber hose (under my hand) which needs to be un-clamped to allow the J-Pipe to move back.



Here is a view of the clamp removed so you have an idea how it works. Once you loosen the bolt, you simply unhook the bottom of the bolt and it should pop right off. Some people have said their clamp was difficult to remove and they needed a whack with a rubber mallet (some used a block of wood and a hammer). Another was to break the clamp free is to use a small pry bar or screwdriver to loosen it. Be patient it will come off. Tap it in several areas and it will eventually loose. Do not use heat or a flame!



Once you have the clamp off, it'll make it easier to move the exhaust back if you also unhook the small (about $\frac{3}{4}$ ") hose from the top of the J-pipe to the exhaust manifold .

Next you need to remove the rubber retention strap from the waterbox. Some have made tools for this, but I just use a pair of pliers to grip the metal loop at the bottom of the strap and push it down to unhook it from the bracket. You can make a homemade tool which is basically a screwdriver with a small notch cut in the end with a metal file. You can use the notched end to unhook the loop, but this tool will be particularly useful when trying to re-attach the clamp. These same clamps hold your fuel tank in place, so having this modified screwdriver in your Sea Doo tool kit isn't a bad idea.



Once you unhook the J-pipe, hose, and waterbox you can slide the entire exhaust assembly back about 2-3 inches. Be careful, as there is still a hose attached to the bottom of the J-pipe, so don't force it. I prefer to unscrew one of the hose clamps allowing me to completely slide the j-pipe back allowing more room for you to remove the supercharger. This is also a good time to check the bilge for anything that can block the bailer tubes. Check for leaves or nuts and bolts.

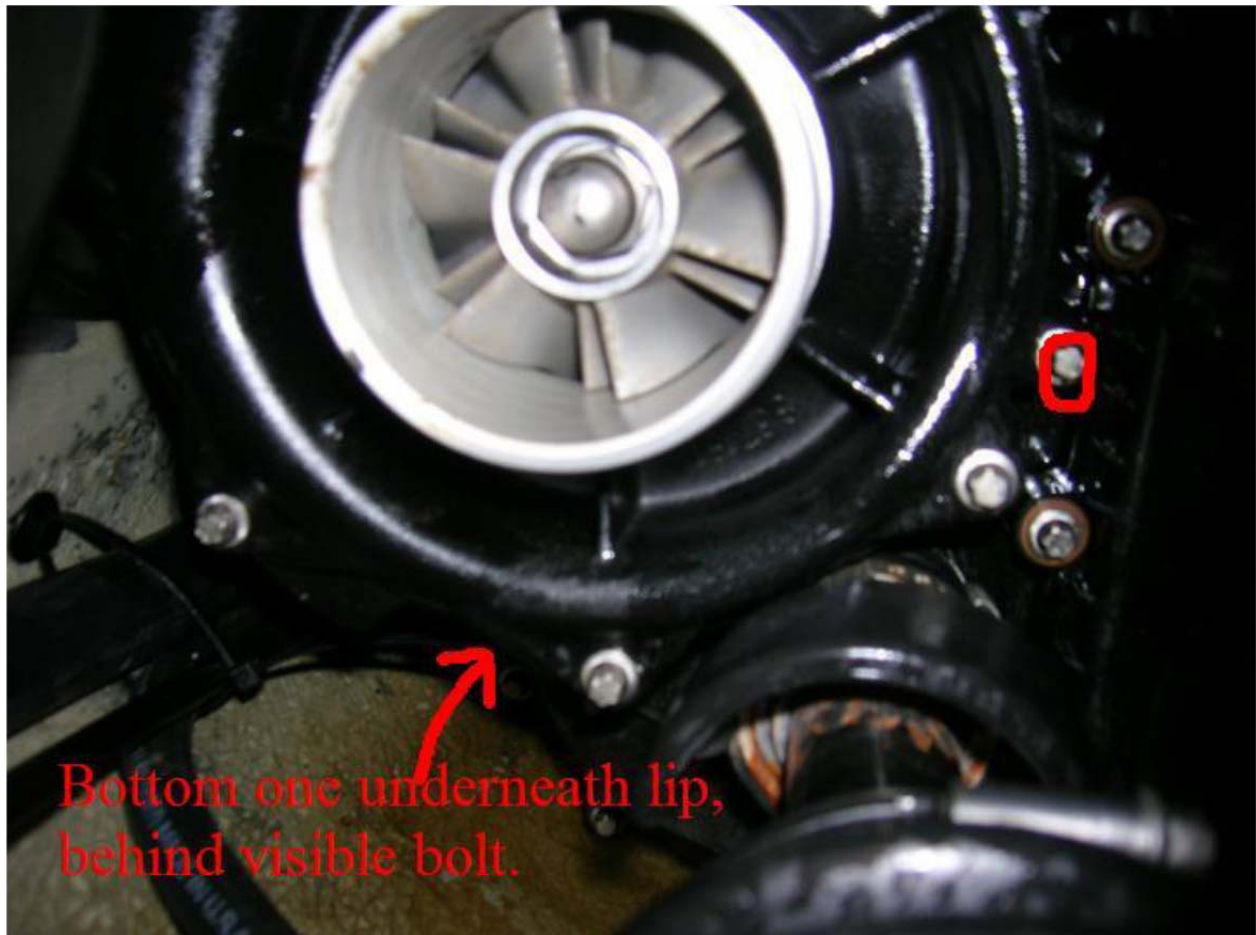


Finally, you can work on getting that SC out of there. There are three bolts holding the SC on the engine block. One on the back of the Supercharger, and two on the front of the SC. (note: the supercharger faces backwards in the craft so the bolt locations are when you are standing behind your craft facing forward looking at the SC.) You will need an E8 torx socket or 5/16" socket for the front two, and a 1/4 "or 5/16" box end wrench for the back bolt. For 2006+ boats, you'll need an 8mm socket with an extension for the front two, and an 8mm (or 5/8") box end wrench for the back bolt. Make sure you locate the

bolts that hold the SC to the block and not the ones that actually hold the SC housing halves together. RIVA has a good diagram showing the bolt locations

(updated doc location: http://www.rivaracing.com/instructions/rs1751_hdw_948.pdf).

View from back of craft. Location of the two bolts on the “front” of the SC. I actually used a ¼” socket and extension instead of the E8 torx socket (for 2006+, use an 8mm socket). I know it’s not the right tool, but it worked. **MAKE SURE YOU HAVE THE PROPER TOOL TO RE-INSTALL THE SUPERCHARGER!**



**Bottom one underneath lip,
behind visible bolt.**

View from above craft. This is the bolt for which you will need the ¼” (5/8”) box-end wrench. It’s tedious, but effective.



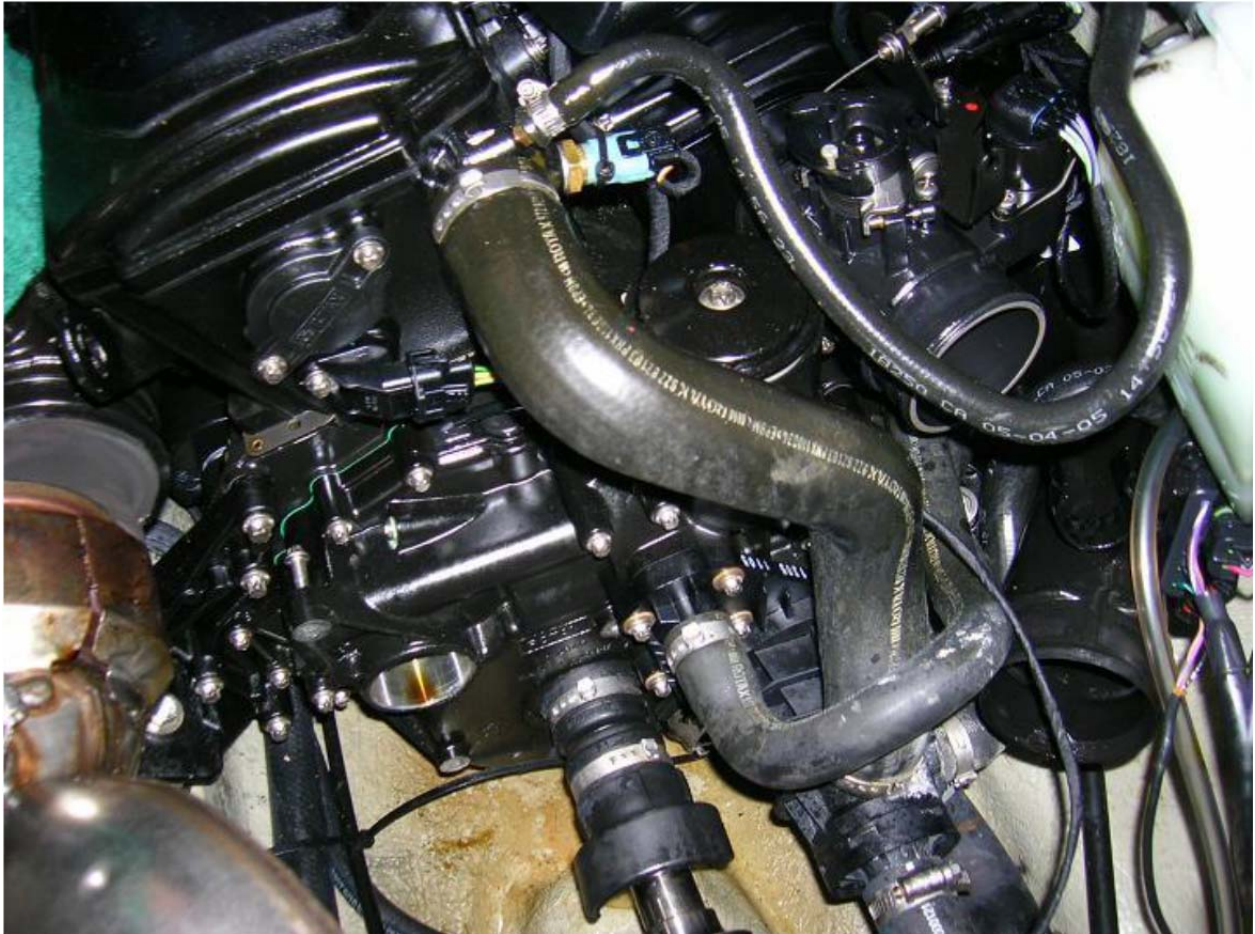
Once you have the three bolts off you can carefully slide the SC out. Once again, be careful. You do not want to damage any of the surfaces of the shaft, housing, or gear. Doing so will be big \$ and bigger headache.



If you have an adapter installed on your supercharger to connect to an aftermarket air intake, remove it at this time and set it aside.

Your removed supercharger will have engine oil on the shaft, and thicker grease near the base of the shaft. To prevent a mess, have a plastic shopping bag or trash bag nearby to put the supercharger inside, especially if you're preparing to ship it off to RYNO Powersports for rebuilding purposes.

Also, if your supercharger is going to be out of your boat for any length of time, consider placing a rag in the hole to prevent dust, debris, or even rodents from getting inside your engine.



Installation is basically the same with the exception that the Supercharger Kits include 3 washers that are required to be installed when re-installing your Supercharger. The 3 washers are to be placed between the Supercharger and engine when mounting the supercharger. Use grease to “stick” the washers on the engine portion and then slide the supercharger into the engine. You may need to twist and turn the Supercharger in order to get it in. Then install bolts and hand tighten as best as you can to get the threading started. Make sure you are careful not to drop the washers.

Torque mounting bolts to 89 foot inches

Re-install Supercharger hoses using the clamp provided.