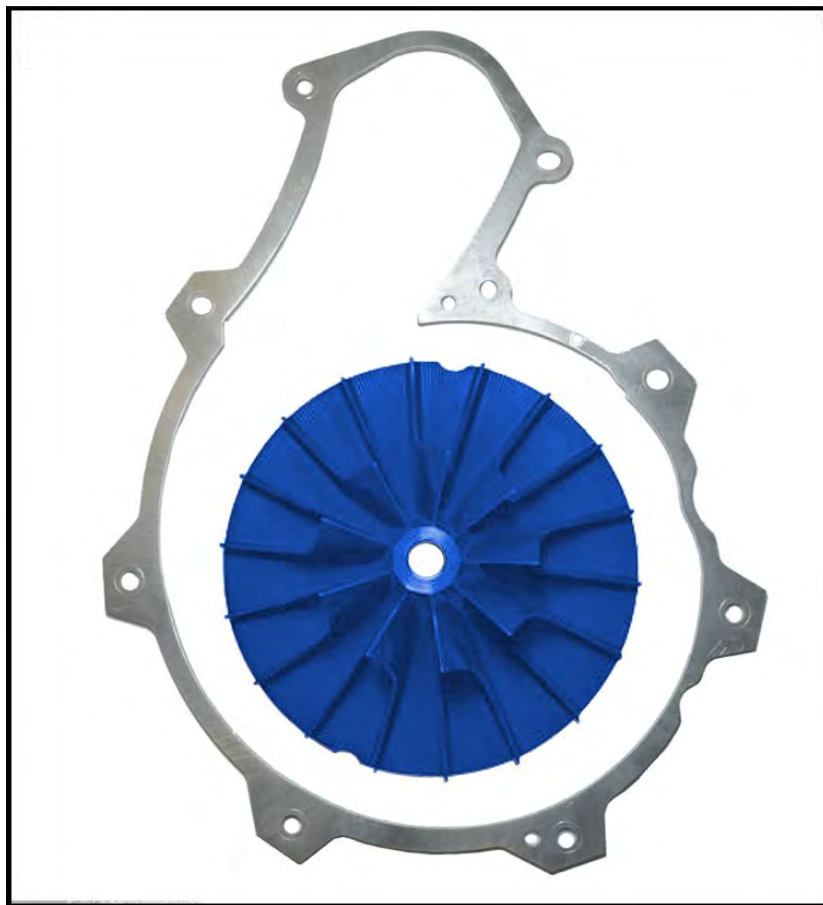




**RIVA RACING**  
PERFORMANCE PRODUCTS & ACCESSORIES

## **Sea-Doo 300 XX Supercharger Kit**

RS17140-135-1



**Note:** Installation of this kit into Sea-Doo 300 models requires that the OEM fuel injectors be replaced with upgraded fuel injectors such as RIVA part number VT1100-INJK. Failure to do so will result in serious engine damage.

**Applications:** Sea-Doo 300 Engines

**Approximate Installation Time:** 1hr.

**Required Materials:**

Blue Loctite

Loctite 5910 Sealant

**Part #**

N/A

N/A

**Recommended Specialty Tools:**

Digital Torque Wrench

Service Mounting Plate

Heat Gun

Supercharger Shaft Holder

**Part #**

N/A

529 035 947

N/A

529 036 420

We strongly recommend the use of a service manual to familiarize yourself with the various components and procedures involved with this installation. Please note that some of the original hardware removed in the disassembly process will be used in the installation process. These instructions have been written in step-by-step format and refer to illustrations. Read through instructions entirely before performing installation. Please follow these step-by-step instructions and illustrations carefully.

**\*\*\* ALLOW ENGINE TO COOL COMPLETELY BEFORE PERFORMING INSTALLATION \*\*\***

**\*\*\* NO SMOKING \*\*\* NO SMOKING \*\*\* NO SMOKING \*\*\***

## **- INSTALLATION INSTRUCTIONS -**

Remove supercharger unit from engine following instructions in OEM service manual.

**NOTE:** It is extremely important that the area utilized to work on the supercharger unit is very clean. Any foreign debris introduced into the supercharger unit will cause damage. It is equally important that care is taken when performing the following steps so as not to damage the impeller or working parts of the supercharger unit. Even a small mark on the impeller would ruin the dynamic balance causing severe damage.

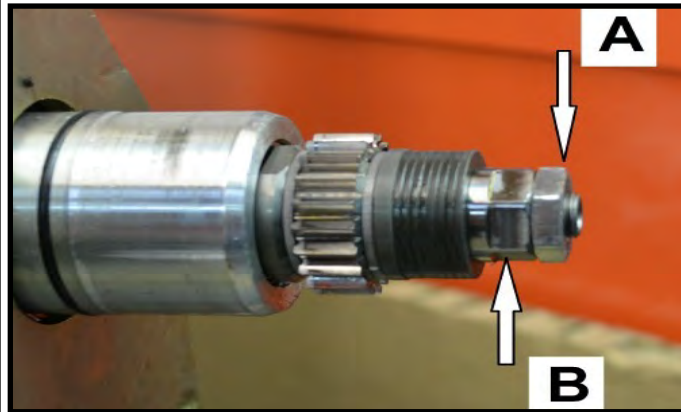
**NOTE:** Before proceeding we recommend you verify slip clutch is operating properly. This should be done before disassembling supercharger unit. Please refer to your Sea-Doo service manual for procedure. If the torque is not within OE specification, repair the supercharger clutch.

The slip moment setting for the RIVA RS1740-135-1 should be 16 lb.ft. The setting for the OEM supercharger is only 12.5 lb.ft. Therefore, It is necessary to adjust the OEM supercharger clutch nuts to achieve the proper slip.

Secure supercharger unit to service mounting plate and place in a securely mounted bench vise.

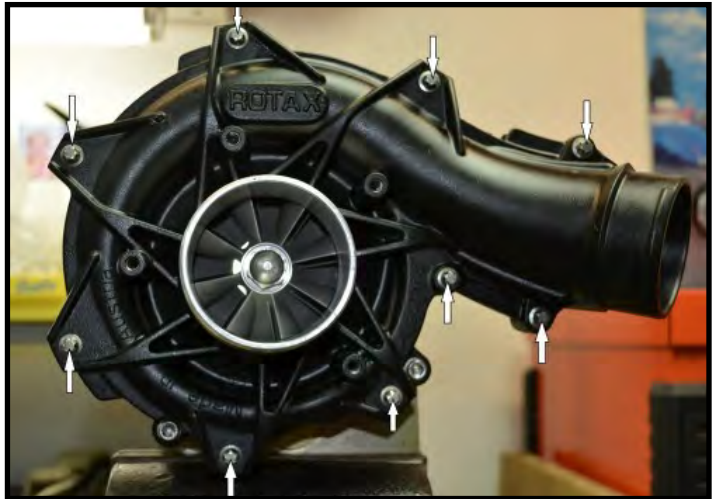
Hold supercharger gear with shaft holder tool 529036420 and loosen outer clutch nut (A). To increase slip moment tighten inner clutch nut (B). Temporarily retighten outer nut (A) while holding inner nut (B) with a wrench. Re-test slip moment per manual. Re-adjust as necessary. When correct reading is achieved hold inner nut (B). Remove outer nut (A) clean shaft and apply blue Loctite. Then tighten outer nut (A). Torque to 24 lb.ft. / 33NM.(Figure 1)

Figure 1



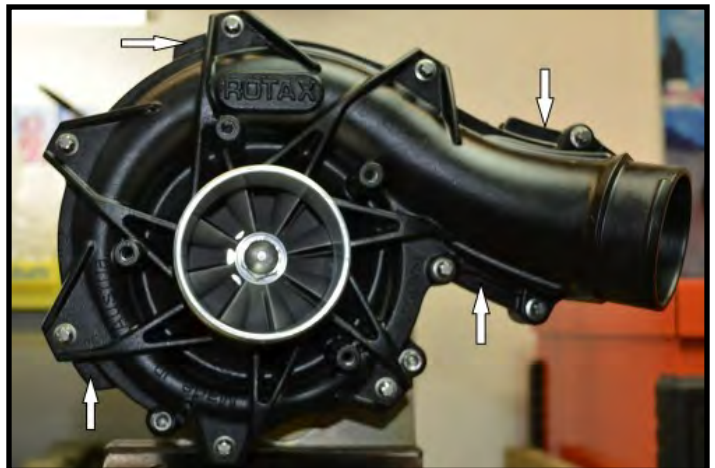
With supercharger secured to mounting plate remove the nine M6 x 35mm Torx screws securing impeller cover to supercharger base housing. (Figure 2)

Figure 2



Remove impeller cover. **NOTE:** It may be necessary to tap the cover in order to remove it. Use only a dead blow mallet and tap only on tabs of impeller cover plate. **DO NOT PRY COVER OFF.** (Figure 3)

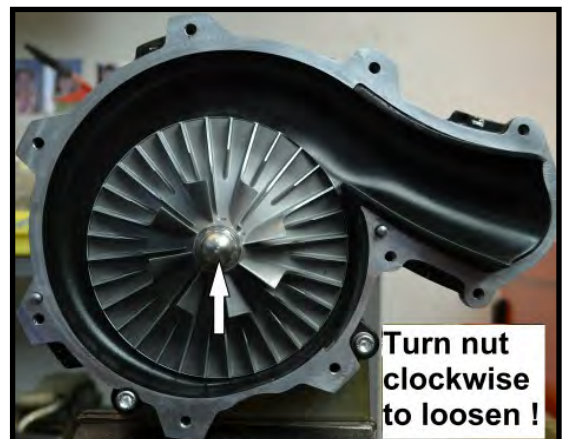
Figure 3



Secure impeller shaft at rear of supercharger housing using supercharger gear holder.

Hold impeller shaft in place and remove impeller nut and washer. **NOTE: You must turn impeller nut clockwise as threads are left-handed.** (Figure 4)

Figure 4





## **- INSTALLATION INSTRUCTIONS -**

Carefully remove OEM impeller by twisting and pulling. If Impeller does not come off easily warm impeller using a heat gun or hair dryer. **NOTE: Do not use a torch! Do not overheat!**

Thoroughly clean supercharger housing and impeller shaft with a non-residual cleaner. Remove all silicone from edge of supercharger housing.

Inspect and clean supplied RIVA Impeller thoroughly taking care not to damage fins.

Warm impeller using a heat gun or hair dryer. **NOTE: Do not use a torch! Do not overheat!**

Install RIVA impeller onto impeller shaft completely.

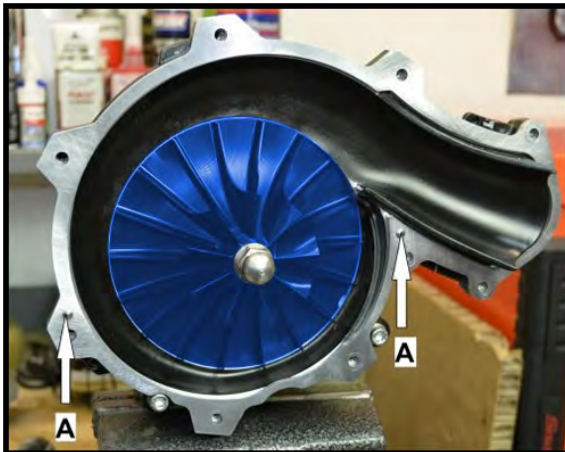
Install OEM flat washer and impeller nut. **NOTE: You must turn nut counter clock-wise as threads are left-handed. Apply Blue Loctite to threads inside of impeller nut.**

Secure impeller shaft at rear of supercharger unit using supercharger gear holder. Tighten impeller nut (counter clock-wise). **NOTE: Torque nut to 25 lbs.ft. / 34 N·m**

Spin impeller to ensure smooth operation.

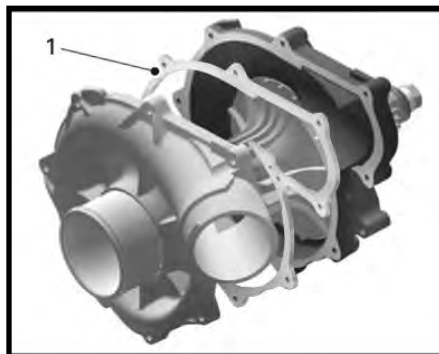
Pull locator dowel pins (A) out about 1 mm (.040") each to help locate cover. Figure 5

Figure 5



Apply a thin coat of Loctite Sealant 5910 to both sides of supplied spacer plate (1). Spread evenly covering surface completely. Clean any excess sealant at inner edge of spacer so as to prevent sealant from discharging into impeller area when halves are joined together. (Figure 6)

Figure 6



Reinstall supercharger impeller cover and secure with the nine OEM M6 x 35mm Torx screws. **NOTE: Apply blue Loctite to bolts. Torque bolts to 80 lbf·in / 11 N·m.** (Figure 7)

Figure 7



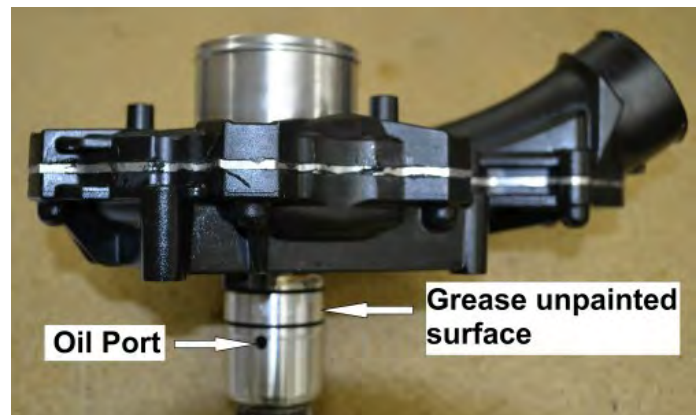
Spin impeller shaft to ensure smooth operation.

Remove supercharger unit from service mounting plate. Inspect o-rings at rear of impeller housing where it installs into engine. If either is damaged replace both.

Thoroughly coat unpainted area on rear of supercharger unit with grease.

**Note: Make sure not to cover the oil port (1) with grease.** (Figure 8)

Figure 8



Install supercharger unit onto engine following instructions in service manual. **NOTE: You may need to rotate supercharger impeller to allow supercharger gear to mesh with flywheel gear. Do not lose o ring on oil return port.**

Check bilge for tools, rags, etc. Run craft on a flush kit to

## **- INSTALLATION INSTRUCTIONS -**

check for proper operation.

**IMPORTANT:** Break in period for this supercharger is 1-2 hours. Check and/or adjust the slip on the SC shaft after 2 hours of operation after installation. The slip moment setting for the RIVA RS17140-135 should be 16 foot lbs. For optimum performance, inspect/adjust the slip again in 10-20 hours (depending upon application & water conditions). Once you have no-

ticed the slip has stabilized, you may go longer between slip inspections.

**Note:** Installation of this kit into Sea-Doo 300 models requires that the OEM fuel injectors be replaced with larger fuel injectors such as RIVA part number VT1100-INJK.

Failure to do so will result in serious engine damage.

***Remember, the water belongs to everyone.  
Please ride responsibly and respect the environment!***

### **Technical Support**

For answers to questions regarding installation or trouble shooting RIVA Performance Products contact:

RIVA Technical Support directly at (954) 247-0705 or by e-mail at [tech\\_support@rivaracing.com](mailto:tech_support@rivaracing.com).

### **Limited Warranty**

RIVA Supercharger Kits carry a 90 day limited warranty to the original purchaser. They are warranted to be free of defects in materials and workmanship under normal use and service. Customer modified components will be void of warranty. This warranty is limited to defects in the primary components only. Finish and/or wear marks in or on primary components are not covered under this warranty.

RIVA Racing's liability is expressly limited to the repair or replacement of the components contained within or associated with this kit. RIVA Racing agrees to repair or at RIVA's option, replace any defective unit without charge, if product is returned to RIVA Racing freight prepaid within the warranty period. Any equipment returned which, in RIVA's opinion, has been subjected to misuse, abuse, overheating or accident shall not be covered by this warranty.

RIVA Racing shall have no liability for special, incidental or consequential damages or injury to persons or property from any cause arising from the sale, installation or use of this product.

No other warranty, express or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose, applies. Various states do not allow for the limitation of incidental or consequential damages and therefore the above exclusion or limitation may not apply to you.

Warranty does not include the expenses related to freight or transportation of parts or compensation for any inconvenience or loss of use while being repaired. A copy of the original invoice and a Return Authorization Number (RA#) must accompany all warranty claims.

Warranted replacement parts will be returned freight collect.