



RIVA RACING
PERFORMANCE PRODUCTS & ACCESSORIES

Free Flow Exhaust Kit
PART# RK16090

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 clamps, hoses and hardware removed in the disassembly process will be used in the installation process. These instructions have been written in point form and refer to illustrations. Please follow these step-by-step instructions and illustrations carefully.

NOTE: These installation instructions are broken up into 2 sections.

Section 1 is for **Ultra 250X** applications (supercharged model) and begins on page 2. The supplied waterline, bypass fitting, hose barbed splicer and hose clamps **WILL NOT** be used for this application.

Section 2 is for **Ultra LX** applications (normally aspirated model) and begins on page 7. The supplied waterline, bypass fitting, hose barbed splicer and hose clamps **WILL** be used for this application.

– KAWASAKI ULTRA 250X INSTALLATION INSTRUCTIONS –

*** Remove wrist lanyard. Allow engine compartment components to cool completely before performing installation. ***

1. Remove rear storage tray. (see illustration #1) **Note:** We recommend covering the four studs for storage tray with several pieces of duct tape to prevent injury while performing installation.
2. Remove bolts securing oil catch can to intercooler. (see illustration #2) Remove hoses attached to catch can and remove catch can from engine compartment.
3. Disconnect waterline secured to top of intercooler. (see illustration #2)
4. Disconnect intercooler air inlet hose. (see illustration #2)
5. Disconnect primary bypass valve and over-boost bypass valve from intercooler. (see illustration #3) Disconnect intercooler inlet temperature sensor connector located near bypass valves.
6. Disconnect intercooler air outlet hose. (see illustration #3)
7. Disconnect waterline secured to bottom center section of intercooler. (see illustration #4) Remove the two bolts securing intercooler to hull.
8. Carefully slide intercooler towards exhaust until tab at rear on opposite side clears securing bracket. (see illustration #5) Remove second waterline secured to bottom of intercooler (under intercooler air outlet).
9. Remove intercooler by rotating air outlet upward while lifting.
10. Inside hull at rear remove air inlet tube(s) as needed. (see illustration #6) Remove exhaust hoses between primary muffler (left water box) and secondary muffler (right water box). **NOTE: Retain hose clamps.**
11. Remove secondary muffler (right water box) and discard. (see illustration #6)
12. Outside hull at rear of craft remove and discard plastic exhaust outlet nozzle. Remove exhaust outlet from hull.
13. Measure and cut exhaust outlet tube 7-1/2" from outlet flange. (see illustration #7) **NOTE: Sand or file rough edge after modifying. Thoroughly clean outlet tube using a non-residual cleaner.**
14. Install one supplied silicone coupler onto modified exhaust outlet tube and secure using OE hose clamp. (see illustration #8)
15. Install exhaust outlet into hull and secure using stock hardware. (see illustration #9) **NOTE: Be sure rubber gasket is in place between flange and hull. Do not apply sealant to gasket. Apply blue Loc-tite to bolts. Do not over tighten bolts.**
16. Install supplied billet exhaust outlet tip using supplied hardware. (see illustration #10) **NOTE: Do not use any sealant. Use blue Loc-tite on bolts. Do not over tighten bolts.**
17. Inside hull near primary muffler (right water box) cut and remove zip tie securing bilge siphon hose to hull. (see illustration #'s 11 & 12) Thoroughly clean primary muffler outlet using a non-residual cleaner.
18. Loosely install two OE clamps onto primary muffler outlet and one onto coupler on exhaust outlet. (see illustration #11)
19. Install second supplied silicone coupler completely onto curved end of Free Flow tube. Install straight end of Free Flow tube into coupler on exhaust outlet tube. Align curved end of Free Flow tube with primary muffler outlet and slide coupler onto outlet. (see illustration #12) Secure all hose clamps. **NOTE: Do not over tighten clamps. TIP: Spray a generous amount of glass cleaner into couplers prior to installing.**
20. Replace items removed in steps 1~10 in reverse order. **NOTE: Use blue Loc-tite on bolts securing intercooler to hull. Do not over tighten bolts.**
21. Installation is now complete. Thoroughly inspect engine compartment and bilge for tools, rags, parts, etc. Run craft on stand using flush kit. After engine cools check all hoses and clamps to make sure they are secure. **NOTE: Do not over tighten clamps.**

Remember, the water belongs to everyone. Please ride responsibly!

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@rivamotorsports.com.

Limited Warranty

RIVA Free Flow Exhaust 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 must accompany all warranty claims.

Warranted replacement parts will be returned freight collect.

- KAWASAKI ULTRA 250X INSTALLATION IMAGES -



Illustration #1

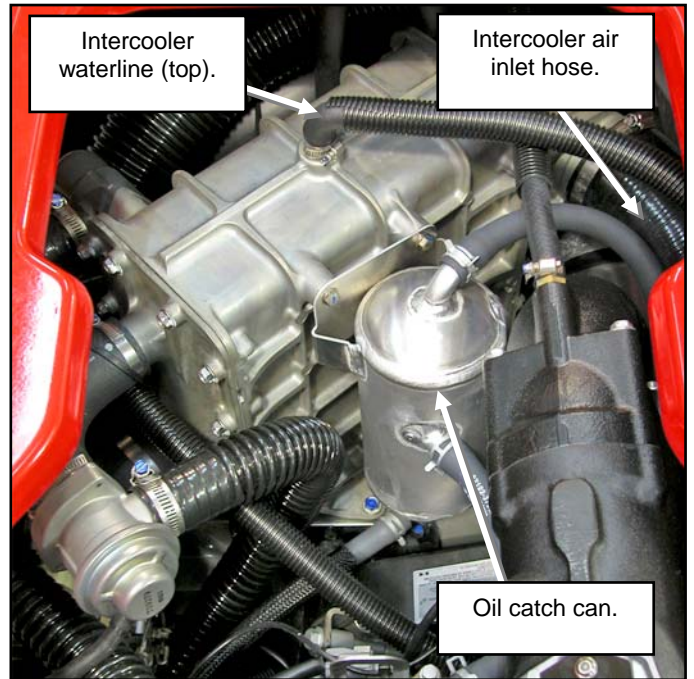


Illustration #2

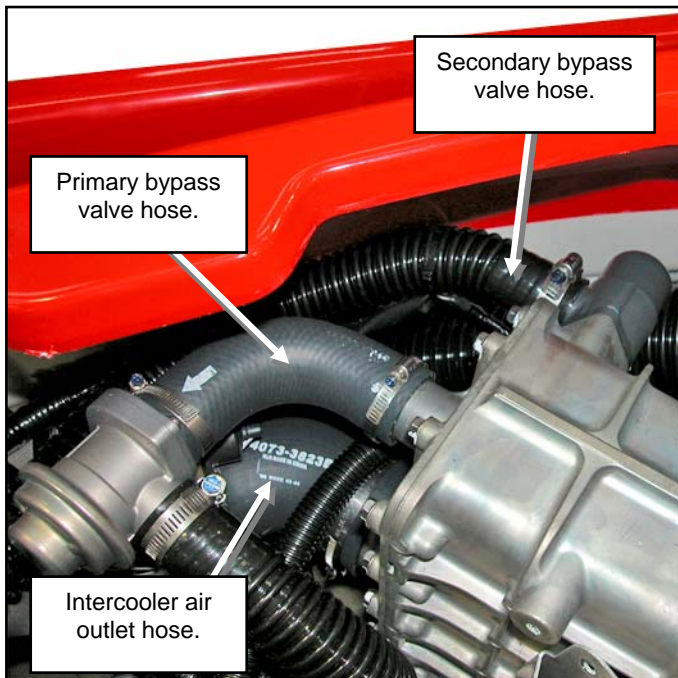


Illustration #3

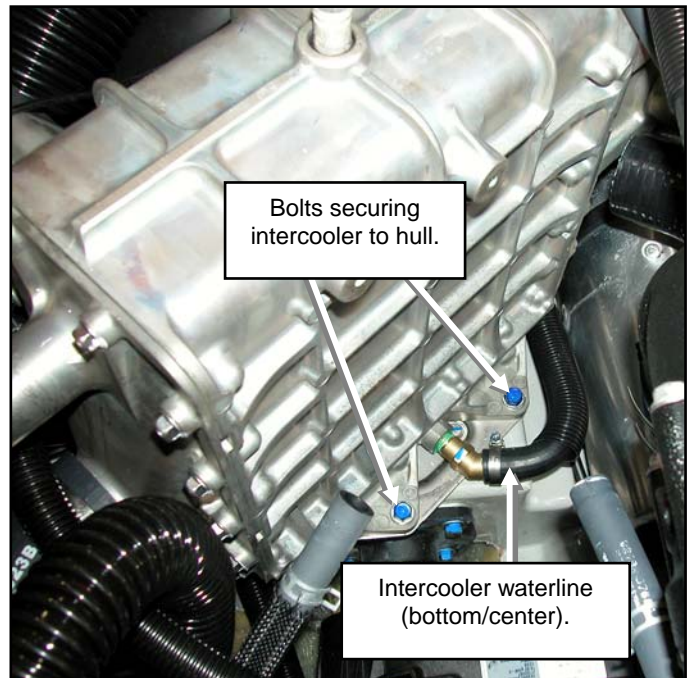


Illustration #4

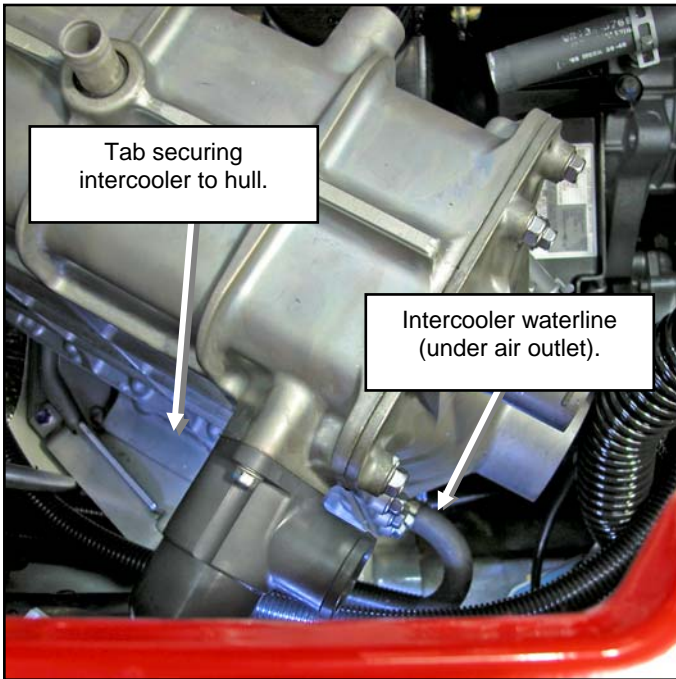


Illustration #5

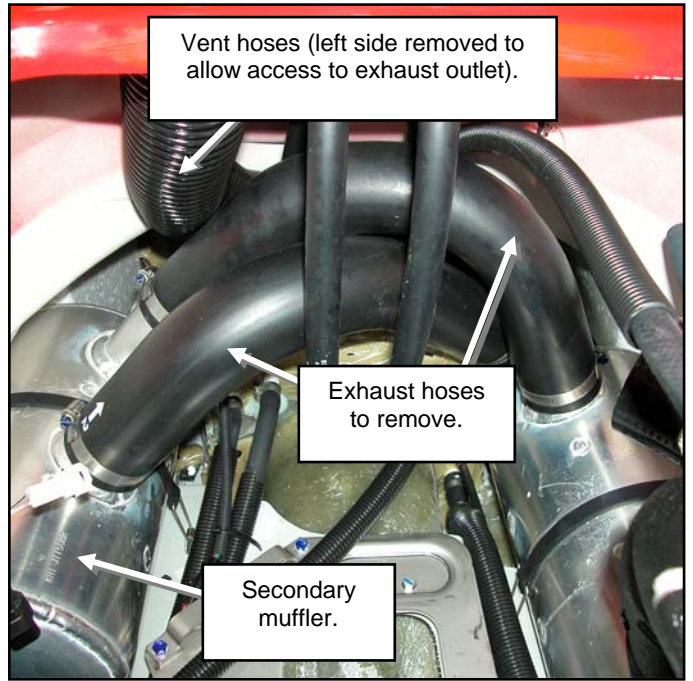


Illustration #6

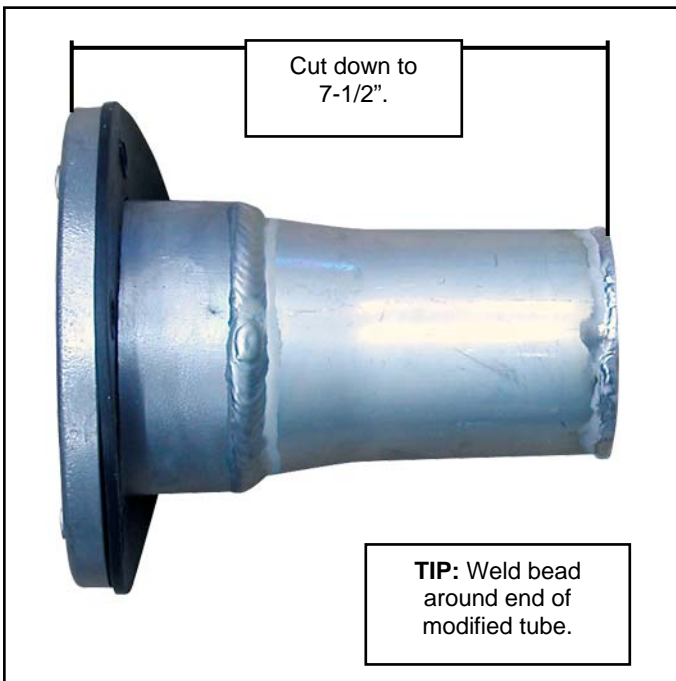


Illustration #7



Illustration #8

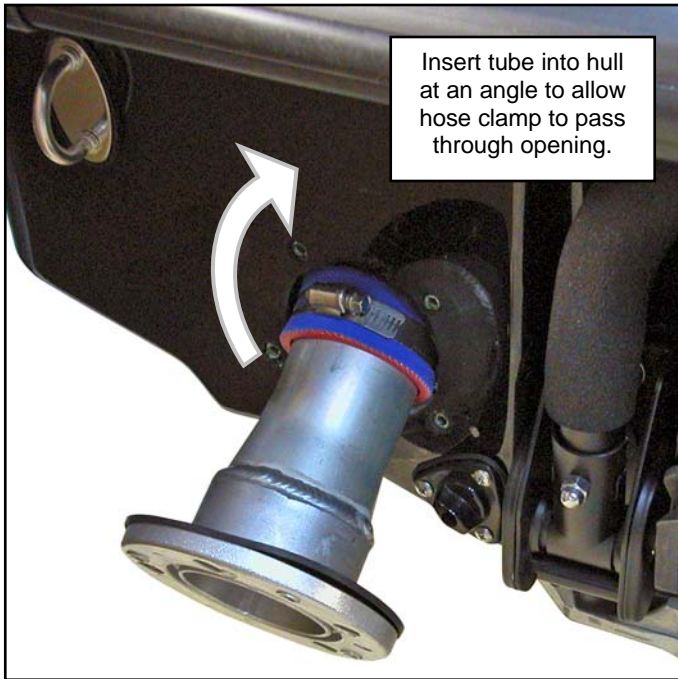


Illustration #9



Illustration #10



Illustration #11

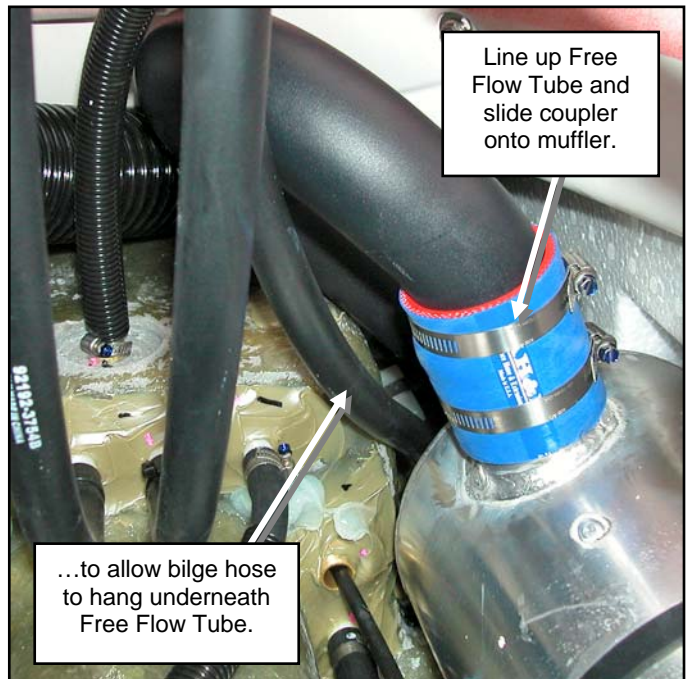


Illustration #12

– KAWASAKI ULTRA LX INSTALLATION INSTRUCTIONS –

*** Remove wrist lanyard. Allow engine compartment components to cool completely before performing installation. ***

1. Remove rear storage tray. (see illustration #1) Note: We recommend covering the four studs for storage tray with several pieces of duct tape to prevent injury while performing installation.
 2. Disconnect gray vent hose from front of OE air box that leads to top of catch can. (see illustration #2) Disconnect black vent hose from front of OE air box that leads to 'T' fitting at valve cover. (see illustration #3)
 3. Loosen clamp securing hose to throttle body air inlet. (see illustration #2) Remove OE air box.
 4. Inside hull at rear remove air inlet tube(s) as needed. (see illustration #4) Remove exhaust hoses between primary muffler (left water box) and secondary muffler (right water box). **NOTE: Retain hose clamps.**
 5. Remove secondary muffler (right water box) and discard. (see illustration #4)
 6. Outside hull at rear of craft remove and discard plastic exhaust outlet nozzle. Remove exhaust outlet from hull.
 7. Measure and cut exhaust outlet tube 7-1/2" from outlet flange. (see illustration #5) **NOTE: Sand or file rough edge after modifying. Thoroughly clean outlet tube using a non-residual cleaner.**
 8. Install one supplied silicone coupler onto modified exhaust outlet tube and secure using OE hose clamp. (see illustration #6)
 9. Install exhaust outlet into hull and secure using stock hardware. (see illustration #7) **NOTE: Be sure rubber gasket is in place between flange and hull. Do not apply sealant to gasket. Apply blue Loc-tite to bolts. Do not over tighten bolts.**
 10. Install supplied billet exhaust outlet tip using supplied hardware. (see illustration #8) **NOTE: Do not use any sealant. Use blue Loc-tite on bolts. Do not over tighten bolts.**
- ** NOTE: To achieve optimum performance with this Free Flow Exhaust Kit we recommend the modification outlined on page 11 be performed at this point. Installation of the Free Flow Exhaust Kit will be completed using the steps and illustrations on pages 11~14.**
11. Inside hull near primary muffler (right water box) cut and remove zip tie securing bilge siphon hose to hull. (see illustration #'s 9 & 10) Thoroughly clean primary muffler outlet using a non-residual cleaner.
 12. Loosely install two OE clamps onto primary muffler outlet and one onto coupler on exhaust outlet. (see illustration #9)
 13. Install second supplied silicone coupler completely onto curved end of Free Flow tube. Install straight end of Free Flow tube into coupler on exhaust outlet tube. Align curved end of Free Flow tube with primary muffler outlet and slide coupler onto outlet. (see illustration #11) Secure all hose clamps. **NOTE: Do not over tighten clamps. TIP: Spray a generous amount of glass cleaner into couplers prior to installing.**
 14. Replace items removed in steps 1~4 in reverse order. **NOTE: Do not over tighten clamps.**
 15. Installation is now complete. Thoroughly inspect engine compartment and bilge for tools, rags, parts, etc. Run craft on stand using flush kit. After engine cools check all hoses and clamps to make sure they are secure. **NOTE: Do not over tighten clamps.**

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- KAWASAKI ULTRA LX INSTALLATION IMAGES -

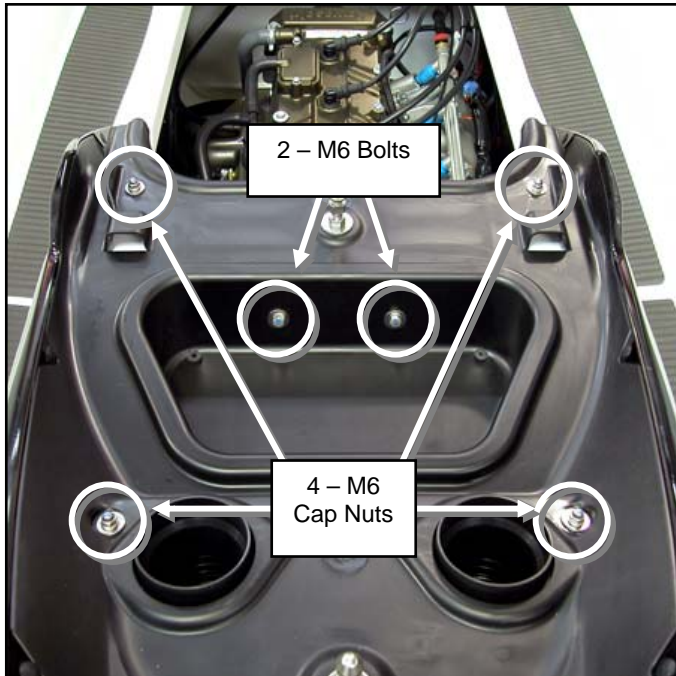


Illustration #1

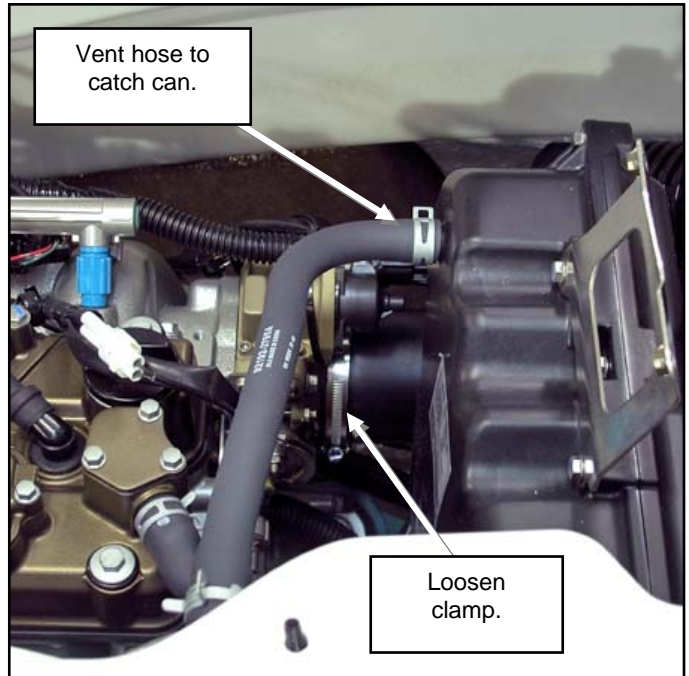


Illustration #2

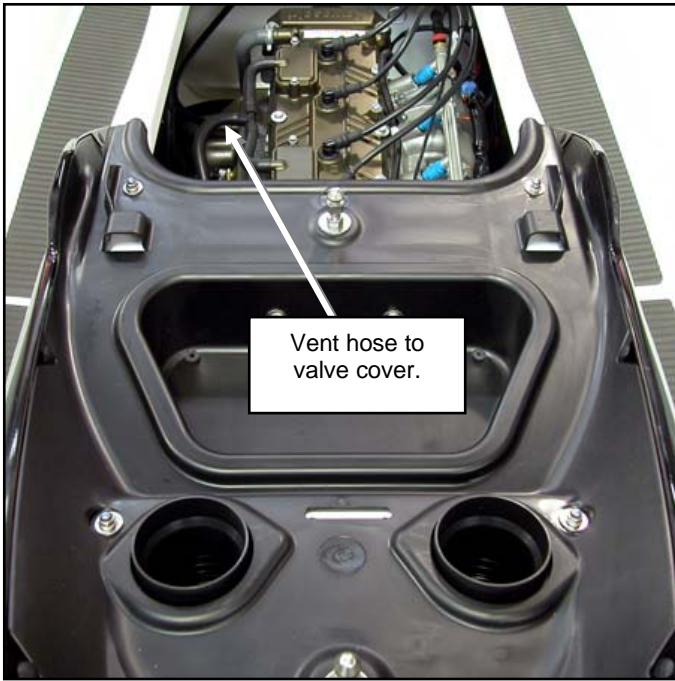


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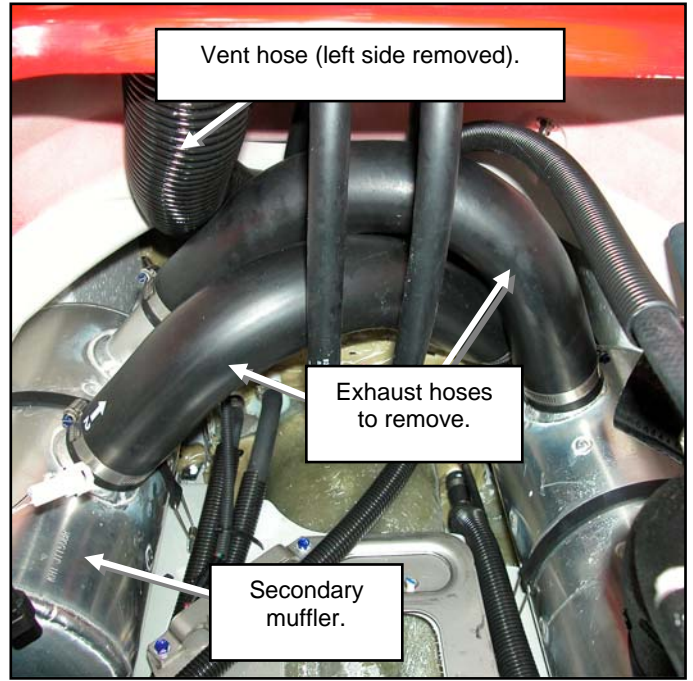


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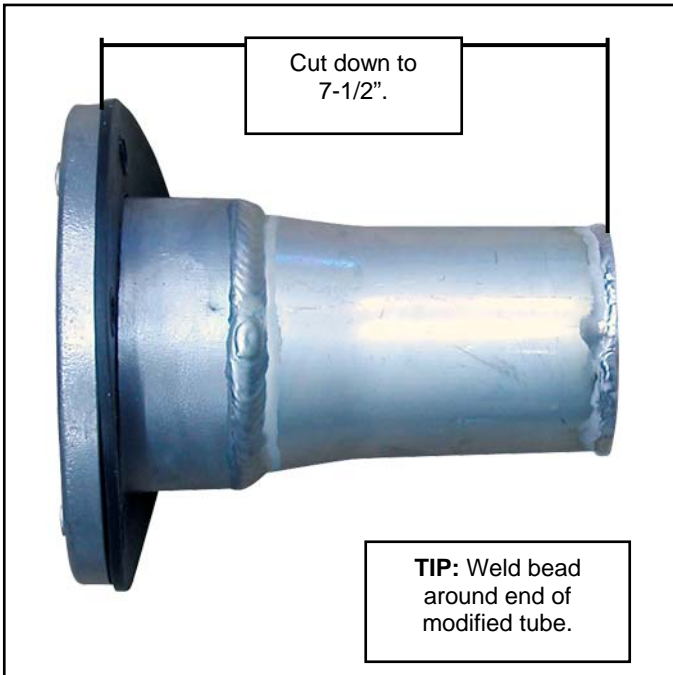


Illustration #5



Illustration #6



Illustration #7



Illustration #8



Illustration #9

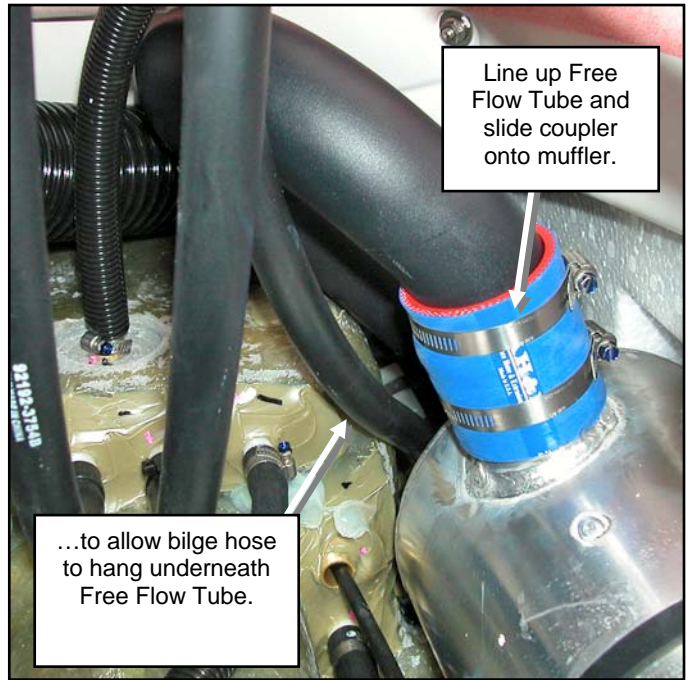


Illustration #10

ULTRA LX PRIMARY MUFFLER MODIFICATION PROCEDURE:

1. Inside hull, label and then remove waterlines secured to fittings at inlet of primary muffler (left water box). **TIP:** It will be easier to remove waterline from lower fitting during step 2.
2. Loosen clamps securing coupler at muffler inlet/exhaust pipe joint. Slide coupler forward onto exhaust pipe joint completely. **TIP:** Using a small screwdriver lift edge of coupler on exhaust pipe joint and apply glass cleaner.
3. Remove primary muffler from hull. Drain any excess water.
4. Remove end cap of primary muffler by cutting at weld. (see illustration #11)
5. Inside muffler remove inner ring at edge. (see illustration #12)
6. Inside muffler drill out baffle cap using a 1-3/4" hole saw bit. (see illustrations 13 & 14) **NOTE: Sand all edges thoroughly.**
7. Replace muffler end cap. **NOTE: An experienced welder should perform this procedure.**
8. Place primary muffler into cradle on left side of craft and secure strap. Slide coupler on exhaust pipe joint onto muffler inlet flange completely. Secure hose clamps. **NOTE: Do not over tighten clamps.**
9. Replace brass fitting at top of muffler inlet tube with supplied brass fitting. Attach waterline from exhaust side of cylinder to newly installed fitting and secure. Attach waterline from outlet at top of pump area to fitting at bottom of muffler inlet and secure. (see illustration #15) **NOTE: Apply pipe thread sealant to fitting. Do not over tighten fitting. Do not over tighten clamps.**
10. Install supplied 1/2" brass splicer into waterline from intake side of cylinder and secure. Attach supplied 1/2" waterline to splicer and secure using supplied hose clamp. (see illustration #16) **NOTE: Do not over tighten clamps.**
11. Install supplied bypass fitting in a location that will allow water to be expelled so as not to come in contact with rider(s). **TIP:** Choose a flat area at rear of craft. (see illustration #17) **NOTE: Apply silicone sealant to flange and threads of bypass fitting.**
12. Attach open end of supplied 1/2" waterline to newly installed bypass fitting and secure using supplied hose clamp. **NOTE: Do not over tighten clamp. TIP:** Secure spliced waterline to hull. Attach a small piece of padding to prevent chafing. (see illustration #16)
13. Thoroughly clean primary muffler outlet using a non-residual cleaner. Loosely install two OE clamps onto primary muffler outlet and one onto coupler on exhaust outlet. **TIP:** Spray a generous amount of glass cleaner into couplers prior to installing.
14. Install second supplied silicone coupler completely onto curved end of exhaust tube. Install straight end of exhaust tube into coupler on exhaust outlet. Align curved end of exhaust tube with primary muffler outlet and slide coupler onto outlet completely. (see illustration #10, page 10) Secure hose clamps. **NOTE: Do not over tighten clamps.**
15. Replace items removed in steps 1~4 on page 7. **NOTE: Do not over tighten clamps.**
16. Installation is now complete. Thoroughly inspect engine compartment and bilge for tools, rags, parts, etc. Run craft on stand using flush kit. After engine cools check all hoses and clamps to make sure they are secure. **NOTE: Do not over tighten clamps.**

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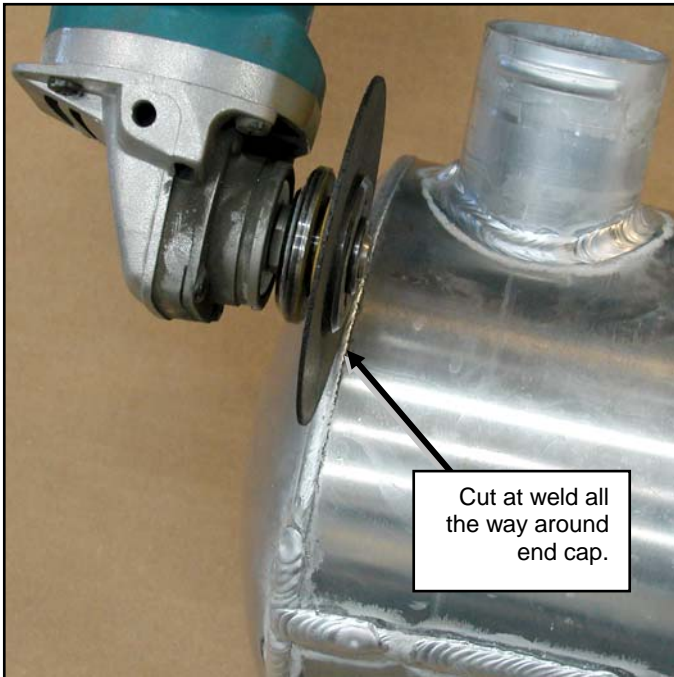
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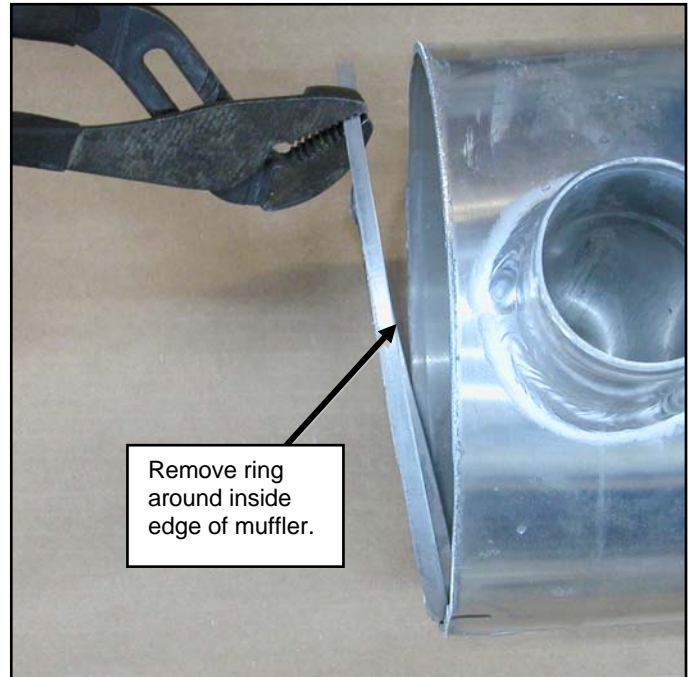
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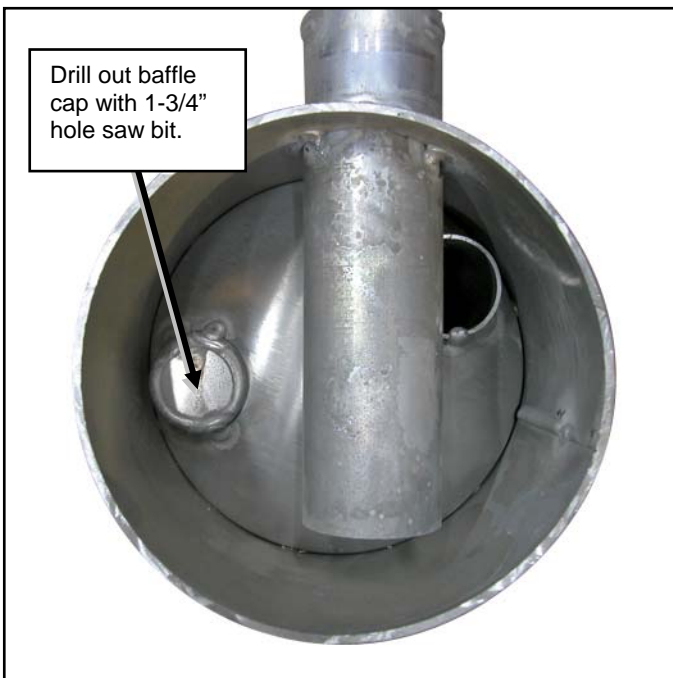
PRIMARY MUFFLER MODIFICATION PROCEDURE ILLUSTRATIONS:



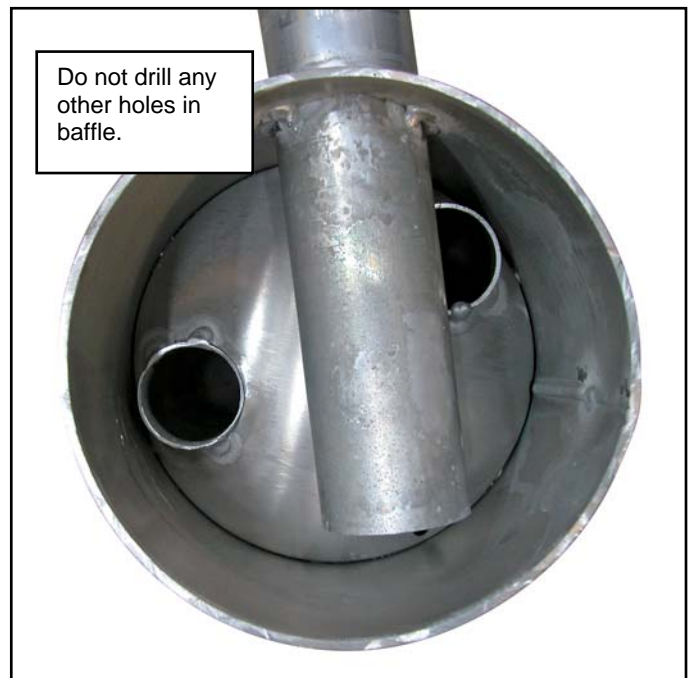
Illustration# 11



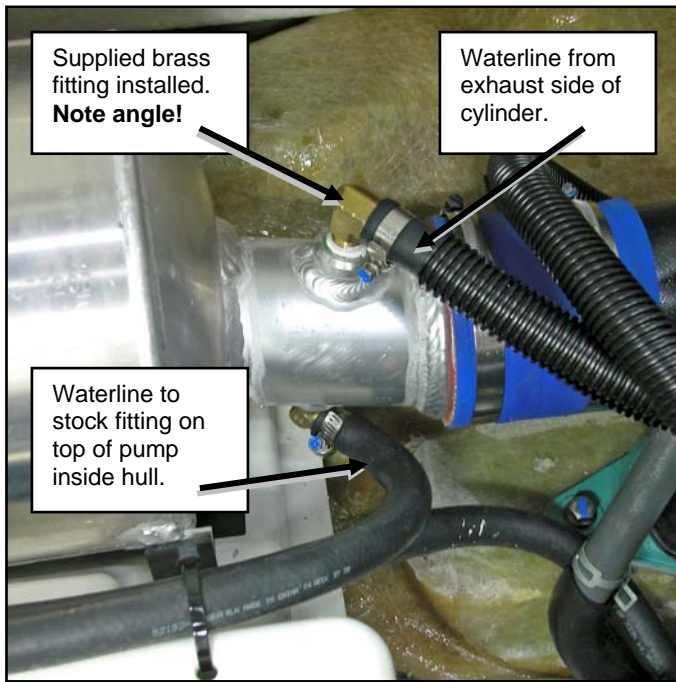
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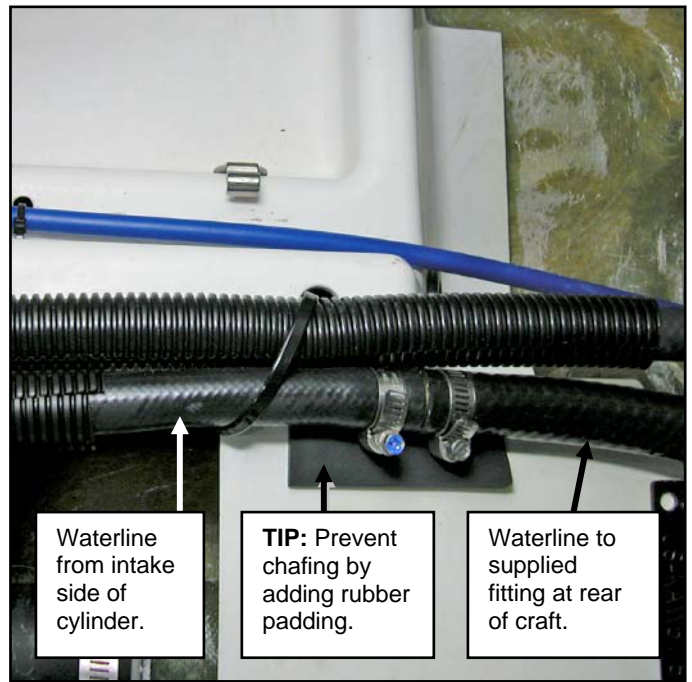
Illustration# 13



Illustration# 14



Illustration# 15



Illustration# 16



Illustration# 17