



780 Professional Drive N. Shreveport, LA 71105 Phone (318)-524-2270 Fax (318)-524-2297  
www.highlifter.com

## Yamaha Rhino 660 Lift Kit Installation Instructions

### Read before Installation

This product is designed for use on ATVs and/or RUVs to increase ground clearance and fender clearance. Purchasers should be aware that use of this product may increase the frequency of required maintenance, part wear, and will raise the center of gravity on your ATV and/or RUV, increasing risk of roll-over, injury and death on all types of terrain. It is your responsibility to always inform other operators and passengers of this vehicle about the added risks.

High Lifter Products, products are designed to best fit users ATV/RUV under stock conditions. Adding, modifying, or fabricating any OEM or aftermarket parts will void warranty. High Lifter Products, products could interfere with other aftermarket accessories. If the user has aftermarket products on machine, contact High Lifter Products to verify that they will work together. Adding aftermarket suspension components and/or more aggressive tires can cause breakage of other OEM driveline components such as differentials, axles or drive shafts.

We recommend that wider tires and/or wheel spacers be used to achieve a wider stance and to improve stability of the ATV and/or RUV. Riders should be advised that the handling characteristics of a taller ATV and/or RUV are different and require extra care when riding, particularly on side hills or off-camber situations. If you further raise the center of gravity by adding taller tires, heavy loads to racks or seats, or by any other means, the ATV and/or RUV must be operated with even more care, at slower speeds and on relatively flat ground. All turns should be done at a slow speed, even on level ground.

Operation of an ATV and/or RUV with or without modified suspension components, while or shortly after consuming alcohol or drugs, subjects the rider to the risk of serious bodily harm or possible death. This risk is compounded if the rider does not wear an approved helmet and other safety gear. High Lifter urges that all approved safety gear be worn when riding an ATV and/or RUV as a driver or passenger.

By purchasing and installing High Lifter Products, products, user agrees that should damages occur, High Lifter Products will not be held responsible for loss of time, use, labor fees, replacement parts, or freight charges. High Lifter Products will not be held responsible for any direct, indirect, incidental, special, or consequential damages that result from any product purchased from High Lifter Products. The total liability of seller to user for all damages, losses, and causes of action, shall not exceed the total purchase price paid for the product that gives rise to the claim.

### Dealers and other Installers

You are responsible for informing your customer and end user of the information contained above and the increased potential hazards of operating an ATV and/or RUV equipped with modified suspension components. If you install any suspension modifying components, it is your responsibility to also install the warning label prominently in view of the driver and in prominent view of the driver and passenger on RUVs and multi-passenger ATVs. They should also be instructed to notify anyone operating the vehicle, as well as any passengers, that said vehicle is modified.

As discussed above, it is critically important that they be instructed in the need for slower speed operation, regardless of terrain, after this lift kit is installed.

## **NOTE:**

**This kit does not work on Sport Edition Rhinos equipped with gas shocks.**

# Parts Diagram

**Front Lift Bracket  
(2ea)**



**Rear Lift Bracket  
Left (2ea)**



**Rear Lift Bracket  
Right (2ea)**



**Front Support Brace  
Long (2ea)**



**Front Support Brace  
Short (2ea)**



**Large Spacer  
(2ea)**



**Medium Spacer  
(2ea)**



**Small Spacer  
(2ea)**



**12x70 Button Bolt (2ea)**



**12x80 Hex Bolt (4ea)**



**10x60 Hex Bolt (4ea)**



**1/4x1 3/4 Hex Bolt (4ea)**



**12mm Lock Nut (6ea)**



**10mm Lock Nut (4ea)**



**1/4" Lock Nut (4ea)**

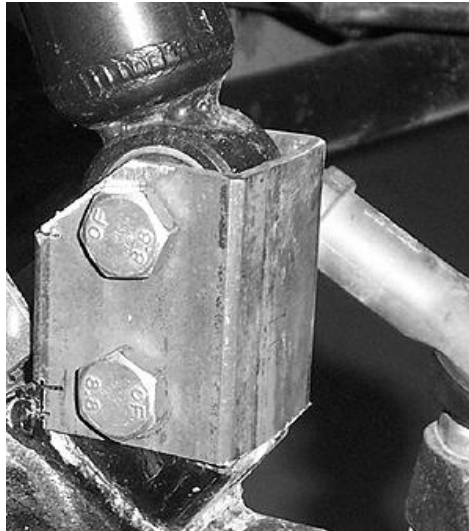
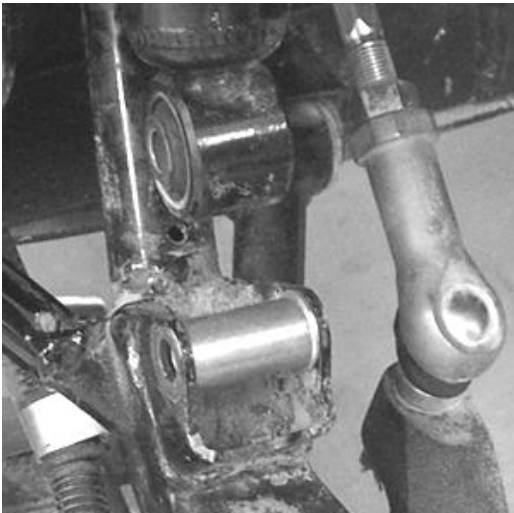


## Front Lift

- 1) Place jack under center of ATV front end and lift until front wheels clear the ground. Be careful to support ATV properly so that it is securely supported but so that A-arms and shocks can droop to full extension.
- 2) Remove front wheels and lower portion of shock from the A-arm.



- 3) Slide bottom of lift bracket over A-arm shock mount and insert one medium spacer between the center of the shock mount tabs and bracket.

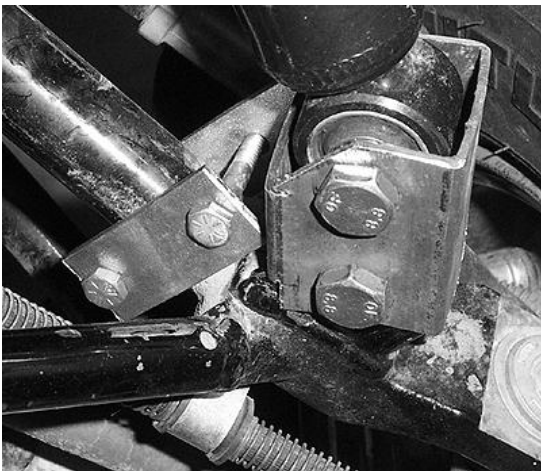


- 4) Now insert the 10 x 60 hex bolt and secure the bracket and spacer to the frame with the 10mm Locknut.

- 5) Slide bottom of the shock into top of the lift bracket. Insert the small spacer between the shock and the bracket. Then insert the 10 x 60 hex bolt, but do not attach the 10mm locking nut yet!



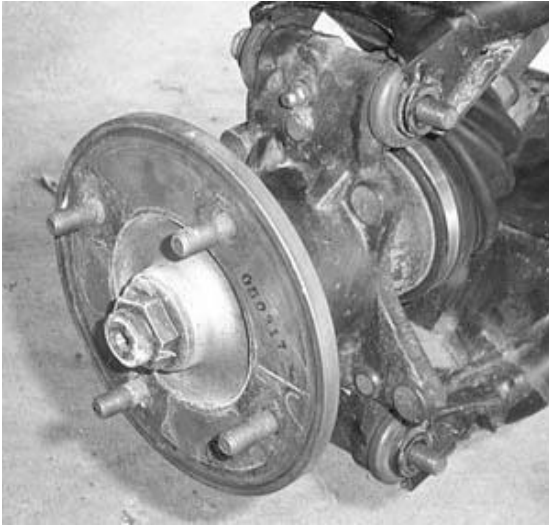
- 6) Secure the lift bracket to the A-arm using one long brace bracket and one short brace bracket. Sandwich the A-arm with the two brackets with the  $\frac{1}{4}$  x  $1\frac{3}{4}$  hex bolts and  $\frac{1}{4}$ " locking nut. Now attach the brace brackets to the top of the lift bracket securing the bracket with the 10mm locking nut.



- 7) Repeat the procedure for the other side.
- 8) Make sure all bolts are tightened to manufacturer's torque specifications.
- 9) Install the wheels, torque wheel lug nuts to manufacturer's specifications, lower and remove jack. Check for clearance problems or misalignment.

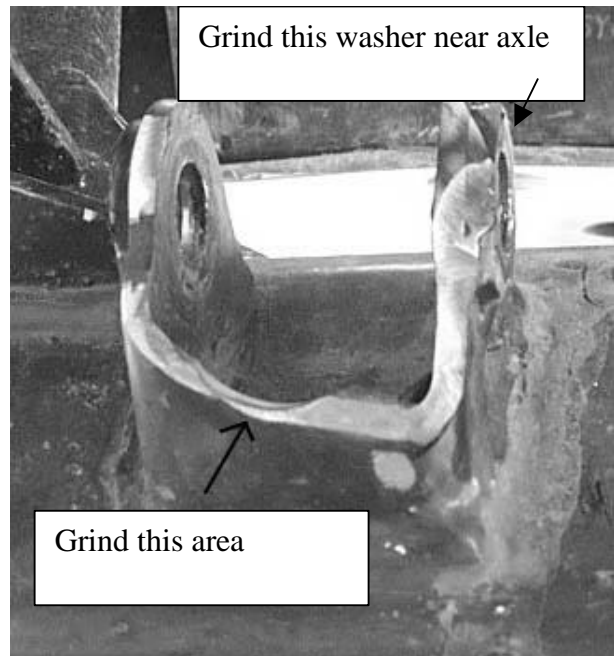
## Rear Lift

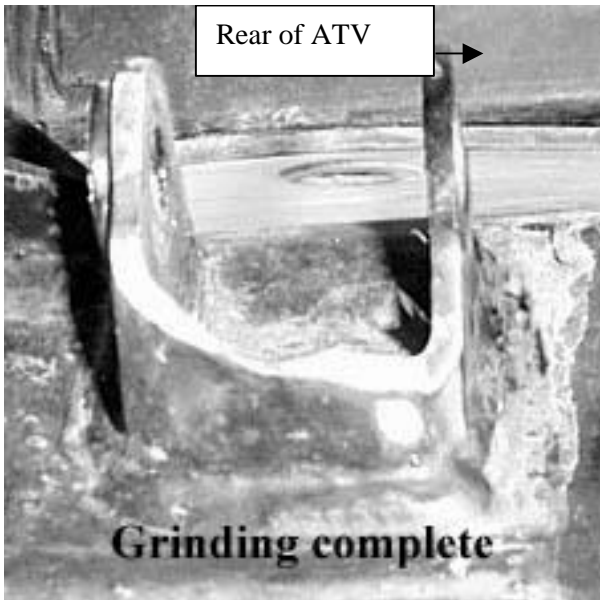
- 1) Place jack under ATV at the rear of the bottom skid plate and lift until the weight is off of the suspension. Be careful to secure the ATV properly so as not to fall off the jack.
- 2) Remove the rear wheels.
- 3) Remove the knuckle assembly.



- 4) Remove the shock from the ATV and secure the rear CV axle out of the way.
- 5) You will need to use a grinder to remove portions of the lower shock mount. There is a washer welded on the outside of the lower shock mount (**Rear Side**) that will need to be completely removed. This can be done using a grinder. You are grinding to clearance the axle.

**NOTE: GRIND SIDE NEAREST AXLE!!!!**





- 6) Once you have completed grinding portions of the shock mount reinstall the shock, attaching only the bottom portion.
- 7) Replace the stock bolt with the 12 x 70 button head bolt and 12mm lock nut. Make sure that the head of the bolt is closest to the CV axle bar.
- 8) You will need to grind down a small portion of the bolt and shock for clearance.



- 9) Next, attach the top of the shock to the ATV using brackets provided in the kit.
- 10) Place the large spacer between the shock mount tabs. On the outside of the shock mount attach the rear lift brackets. Loosely secure the spacer and rear lift brackets with the 12 x 80 hex bolt and 12mm lock nut.



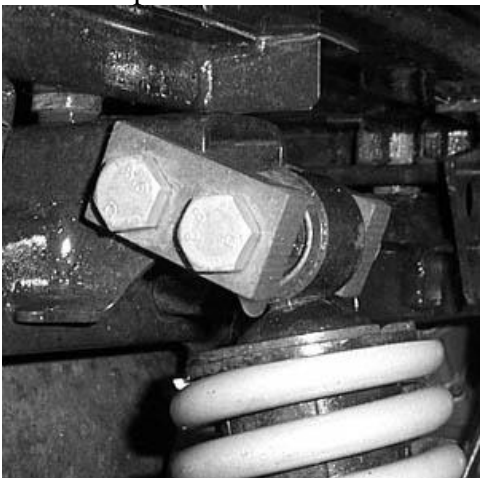
- 11) Next attach the top of the shock to the rear lift brackets using another 12 x 80 hex bolt and 12mm lock nut. (Use 1 left and 1 right bracket)



12) Make sure that the brackets run 20 degrees to the shock mount.



13) Tighten all bolts to 45ft lbs of torque. Make sure that they are tight enough so that the brackets do not rotate out of place.



14) Repeat steps for opposite side.

15) Install the wheels, torque wheel lug nuts to manufacturer's specifications, lower and remove jack. Check for clearance problems or misalignment.

**Thank You**  
**For Choosing**  
**High Lifter**  
PRODUCTS



### **High Lifter Lifetime Warranty**

From the beginning, High Lifter has engineered and manufactured some of the toughest, most durable products on the market. That's why this product comes with a Lifetime Warranty. It's our promise that High Lifter will never let you down.

- The **Lifetime Warranty** covers products sold to the original purchaser only and is not transferable. The term of the warranty is for the lifetime of the vehicle in question.
- Normal wear and tear items and finishes, such as, but not limited to: Heim joints, tie rod ends, ball joints, bearings, seals, bushings, bushing sleeves, zinc plating , powder coating, or chipping and discoloration of any finish is not covered.
- High Lifter will ship the replacement product after the returned product has been inspected by High Lifter staff.
- The warranty shall not include claims for damages, installation time or labor charges, economic losses, inconvenience, transportation, towing, down time, direct or indirect or consequential damages or delay resulting from any defect.
- The warranty does not apply to products that have been improperly applied or improperly installed.

### **Making a warranty claim**

1. All claims must be accompanied by the part and the original sales receipt or other acceptable proof of purchase from the original owner.
2. All warranties must be accompanied with a Return Merchandise Authorization (RMA) number. (Contact High Lifter at 318-524-2270 or 800-699-0947 for an RMA number)
3. When shipping the damaged product:
  - a. Write the RMA number on the outside of the box.
  - b. Also include the RMA number, proof of purchase and any notes inside the box.
  - c. Please keep your tracking number and shipment information.
4. The customer is responsible for shipping the product to High Lifter--return shipping within the lower 48 states will be paid by High Lifter products. With all warranty claims, only standard shipping services apply.
5. High Lifter will process your order within 24 business hours of receiving the returned item.
6. **Ship to:** High Lifter Products, 780 Professional Drive North, Shreveport, Louisiana 71105