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Read before Installation

This product is designed for use on ATVs and/or RUVs for **extreme mud riding conditions**. Purchasers should be aware that use of this product **will** increase the frequency of required maintenance, part wear, **will** raise the center of gravity on your ATV and/or RUV, will increase stopping distance, will decrease turning radius and will increase 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 and about the added risks.

Adding or modifying any OEM or aftermarket part will usually void factory warranty. This product 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. It is up to the end user or installer to verify this product works in conjunction with all other accessories installed. 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 or RUV. Riders should be advised that the handling characteristics of a taller ATV or RUV are different and require extra care when riding, particularly on side hills, off-camber situations, turning and stopping. If you further raise the center of gravity by adding taller tires, heavy loads, or by any other means, the ATV 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 or RUV as a driver or passenger.

By purchasing and installing this product, 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. **Since this is an extreme product, the manufacturer specifically disclaims any liability for consequential damages or accidents injuries, or death, in connections with the use of this product.**

If this product is not what you expected, or is not consistent with your intended use, you should return the product immediately to the seller, before installation, for a refund of the purchase price; less any fees. After installation, product is warranted for one year for defects in workmanship and materials. Axles have a one year warranty for one break. Additional breaks will be charged a repair fee depending on the problem. High Lifter Products will warranty only parts provided by High Lifter Products. Any damage or problems with OEM housings, bearings, seals, or other manufacturer's products will not be covered by High Lifter Products. Parts and products will not be warranted if item was not installed properly, misused, or modified.

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 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 kit is installed.

Parts Diagrams

Heim Joint (2ea)
17D



Hi-misalignment (4ea) 13Y



P-Clamp (2ea)
WL-CLAMP-12



Spacer (8ea)
CCC



90 Grease Fitting (14ea) GF-1428-90



8" Zip Ties (12ea) T50RB



1/2" x 4-1/2" Bolt (2ea)
HC812412Z



10mm x 65mm Bolt (14ea)
MCS1065-10.9



10mm x 35mm Bolt (4ea)
MCS1035-10.9



1/4" x 1" Bolt (2ea)
HC5141Z



6mm x 20mm Bolt (2ea)
MCS620



1/2" Lock Nut (2ea) NLN12



10mm Lock Nut (18ea)
MLN10-1.5



1/4" Lock Nut (2ea) NLN14



6mm Lock Nut (2ea) MLN6-1.0



Jam Nut (2ea) LJN12F



1/2" Washer (2ea) FW12SAE



10mm Washer (20ea) MFW10



1/4" Washer (4ea) FW14Z



6mm Washer (2ea) MFW6



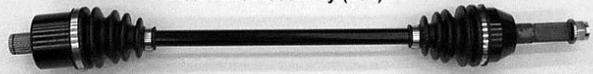
Logo Bracket (1ea) 21N



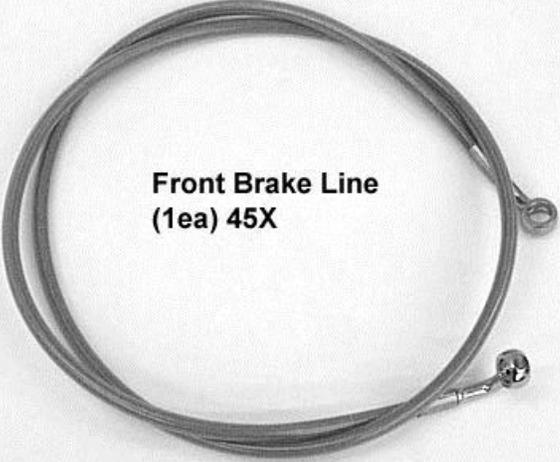
Front Axle Assembly (2ea)



Rear Axle Assembly (2ea)



Front Brake Line (1ea) 45X



Rear Brake Line Extension (2ea)



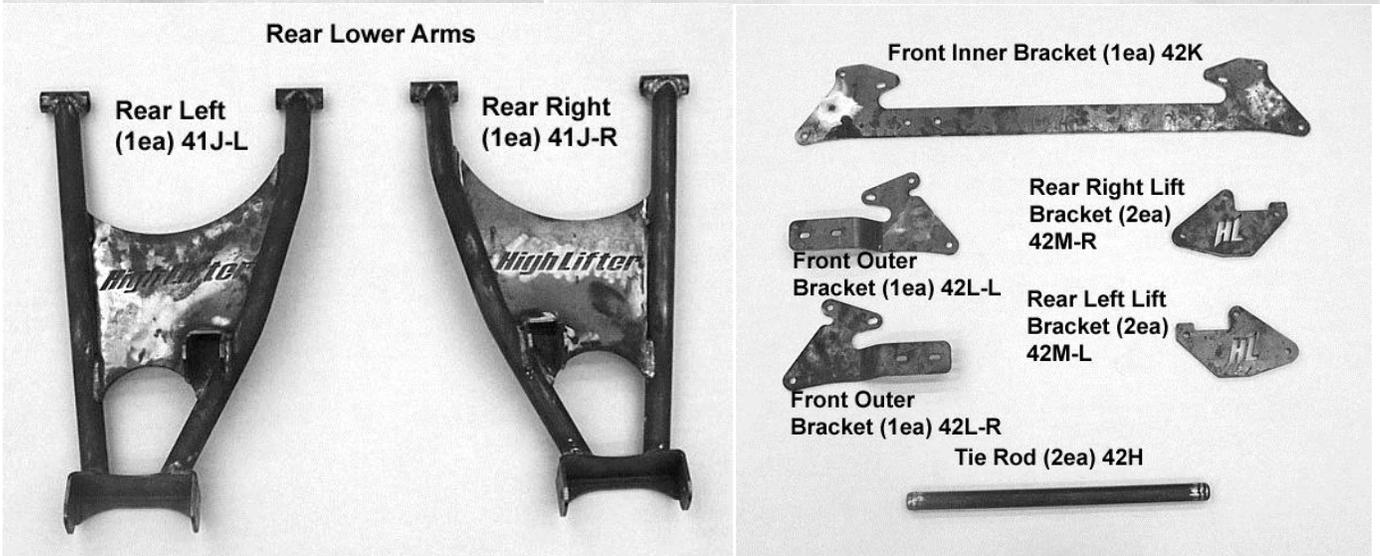
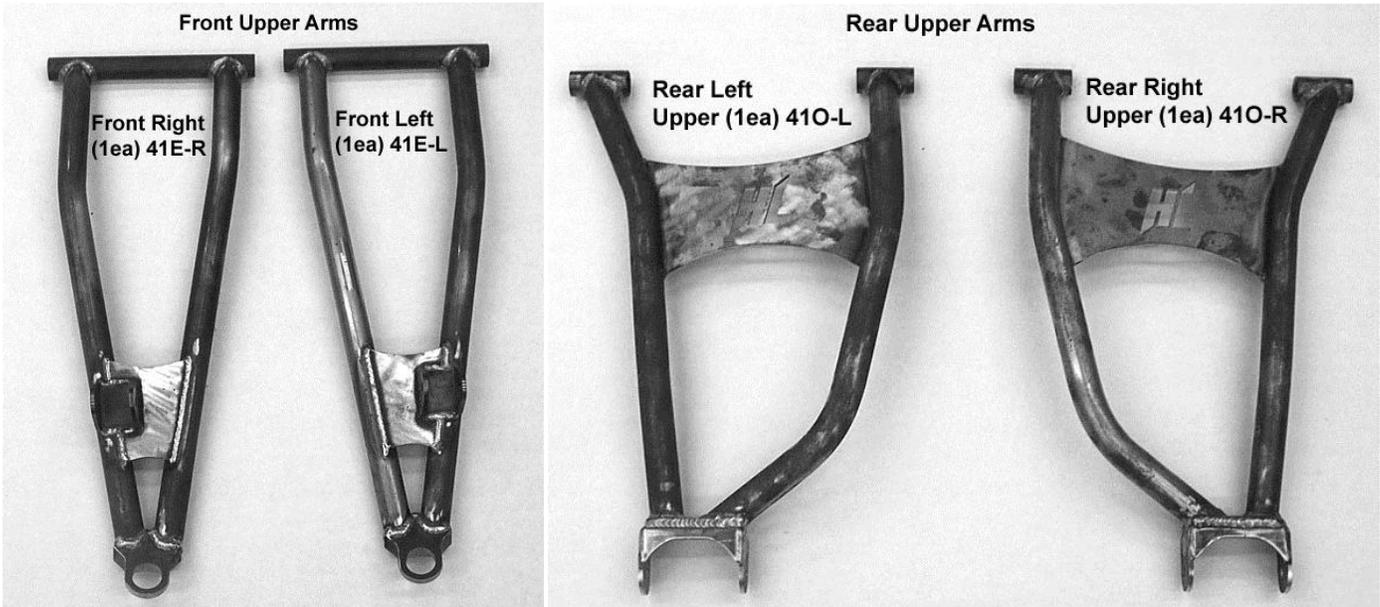
Front Lower Arms

Front Lower Left 1ea 41A-L



Front Lower Right 1ea 41A-R





NOTE: The High Lifter Edition Ranger Requires a Different Set of Tie Rods and Notes for installation. See addendum for High Lifter Edition Ranger Tie Rod Installation Steps!!!

Installation Instructions

When referring to left and right positions during the installation process, it is from the seated position!

Front Lift Installation

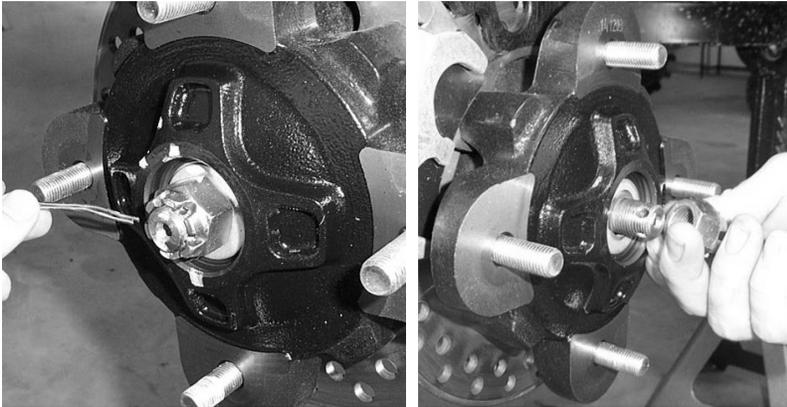
1. Place a jack under the center of the UTV front end until the front wheels clear the ground. Be careful to support it properly so that it is secure, but so that the a-arms and shocks can drop to full extension.

NOTE: Make sure that the jack is tall enough to raise the ATV high enough to reinstall the tires after the lift is installed.

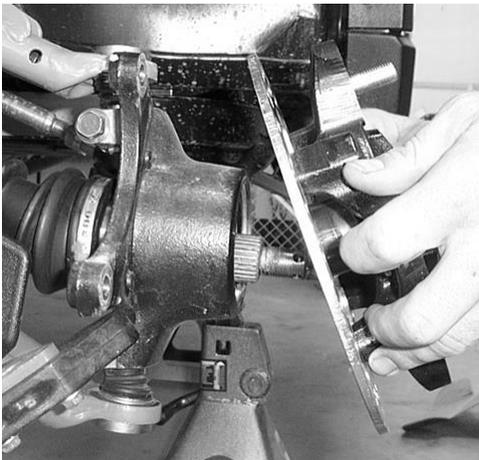
2. Remove the front wheels.
3. Disconnect the calipers from the knuckles and the brake lines from the a-arms, but do not disconnect the brake lines from the calipers at this time. Save all the stock hardware to reinstall the calipers. Zip ties are provided to reattach the brake lines to the new a-arms.



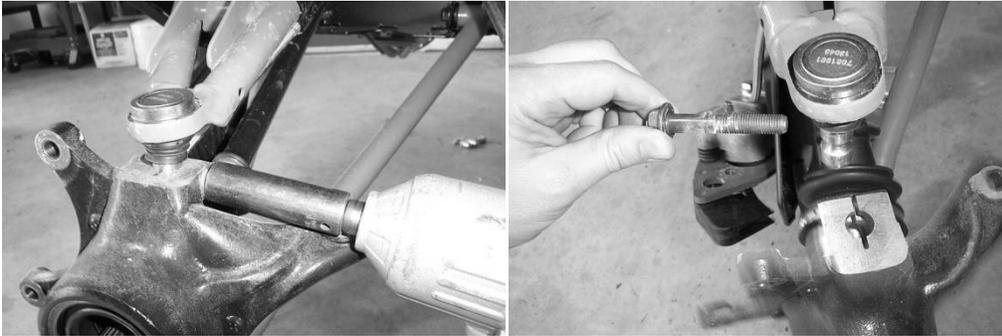
4. Remove the cotter pin and castle nut that secure the brake rotor and axle to the hub assembly.



5. Remove the brake rotor.



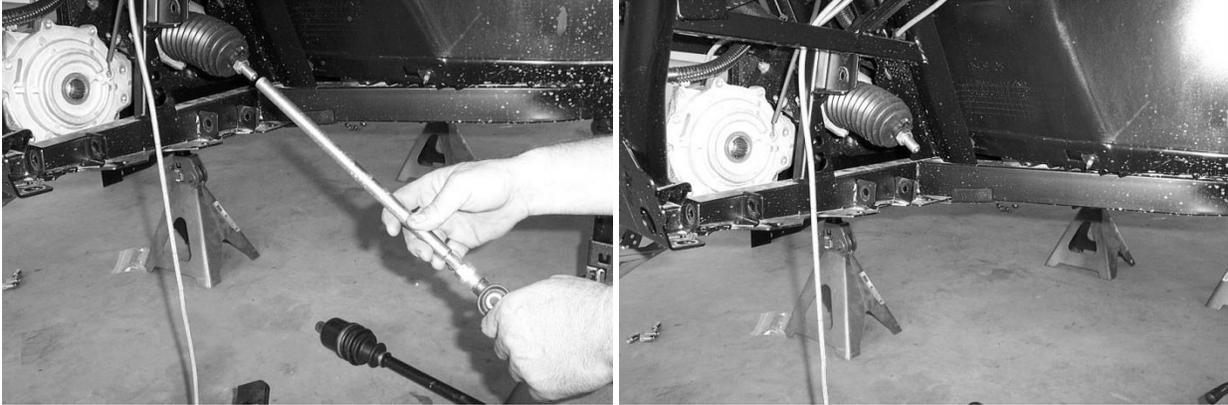
6. Disconnect the upper and lower arms and tie rods from the front hub assembly.
NOTE: You will need to reuse the bolts that connect the hub assembly to the new upper and lower control arms.



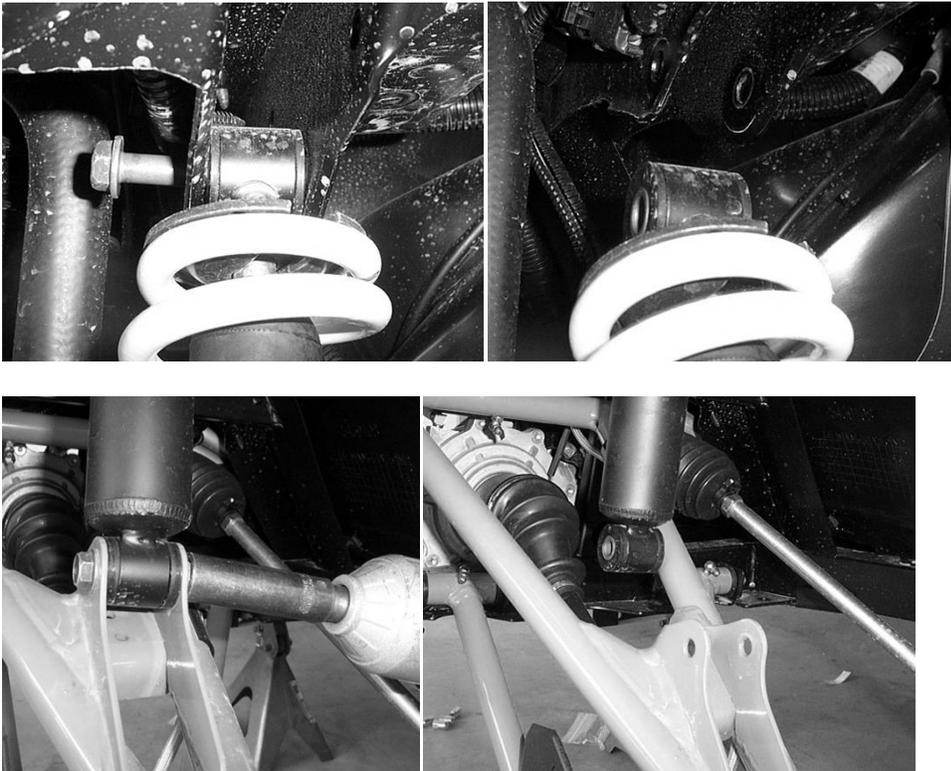
7. Pull the stock axles out of the differential.



8. Disconnect the tie rods from the rack and pinion. Make sure to leave the factory jam nut in place on the rack and pinion ends.



9. Disconnect the front shocks from the UTV.



10. Unclip the brake lines from the control arms. Tie the calipers up out of the way.



11. Remove the front bumper in order to remove the control arms. Disconnect the front bumper at this time.



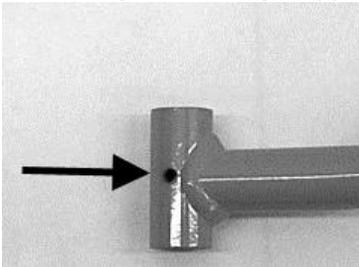
12. Remove the upper and lower control arms from the frame.



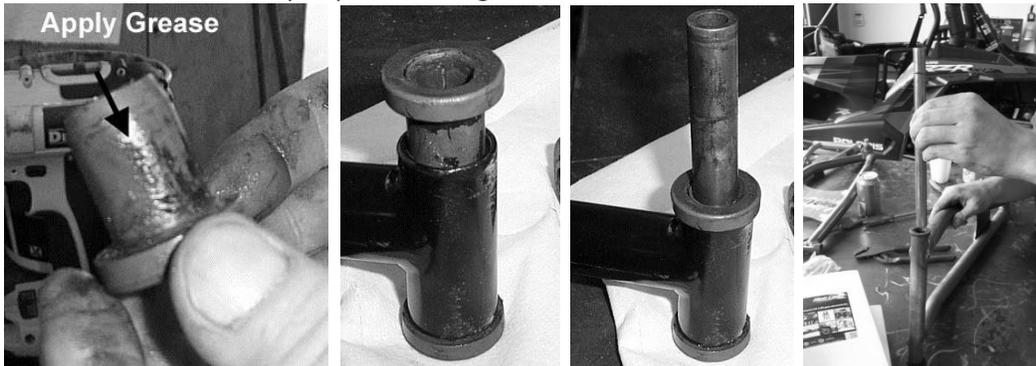
NOTE: You will need to reuse the factory bolts and nuts that connect the arms to the frame.

13. At this point you need to make sure both sides of the UTV are completely disassembled. Do this so that the installation will go easier.

14. Prepare the new front arms and shocks for installation.
15. You will need to reuse your factory bushings, sleeves, and ball joints. Make sure that you inspect your bushings and ball joints for wear. Replace them as needed.
NOTE: A press or a vise is suggested for removing and replacing the ball joints. Verify that the clip snaps into place after installing the ball joints into the new A-arm
16. Install the grease fittings supplied in the kit into all new arms, front and rear. **DO NOT OVER TORQUE FITTINGS!**



17. Once you have removed the stock bushings, sleeves, and ball joints from the factory arms install them into the new arms in the kit. . If you place some grease on them it makes the installations easier.



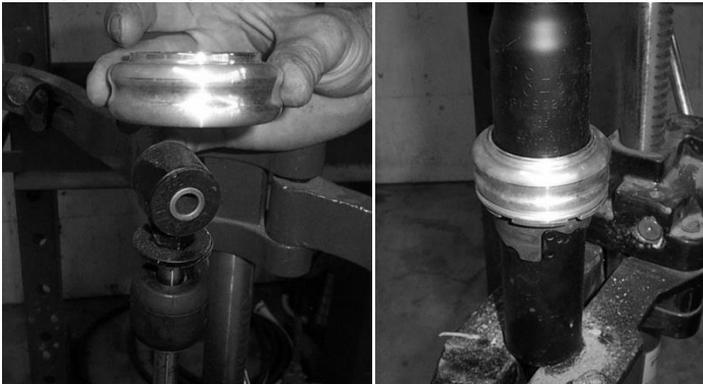
NOTE: A press is suggested for removing and replacing the ball joints. If you press in the ball joint crooked, DO NOT TRY TO FORCE IT IN! If you try to force it straight you can “egg” the opening. Press the ball joint out and reinsert it into the opening with a press. Verify that the clip snaps into place after installing the ball joints into the new arm. You should always double check the ball joint snap ring for proper fit. Even if you use snap ring pliers, it may not seat. You can use a flathead screwdriver and a hammer to tap the snap ring to ensure that it is seated into the groove.

18. You will need a **spring compressor** to install the spring stiffeners onto the factory shocks.

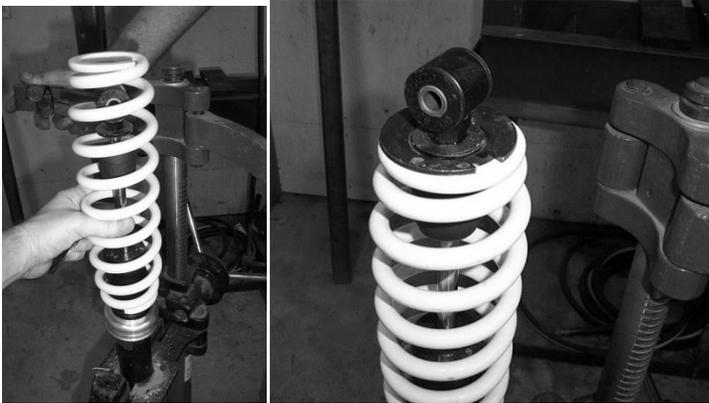
19. Using a spring compressor, remove the retaining clip and stock spring from the shock.



20. Next place the spring spacer onto the shock.



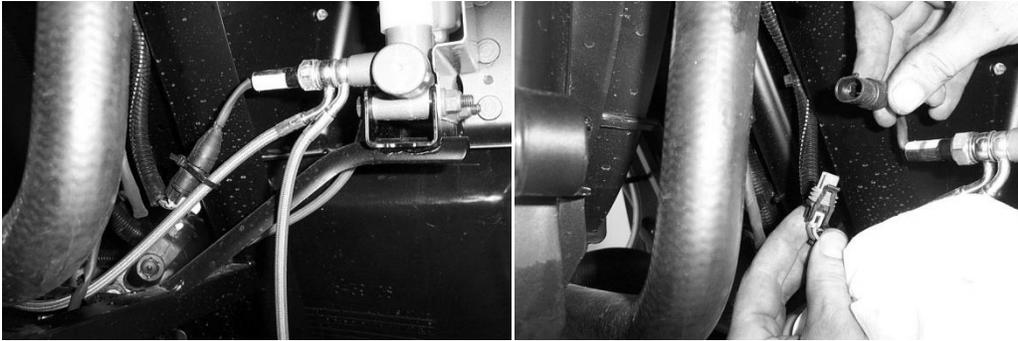
21. Place spring back on the shock, compress it, and then reinstall the retaining clip.



22. Before you install the new arms and shocks, install the new brake line on the front right side.

23. Disconnect the brake line from the caliper. Free the line from any retaining clips or ties that hold it in place on the right side.

24. Next disconnect it from the master cylinder. Make sure to save the washers from the factory that separate the two front lines. Remove the line from the UTV.



25. Now install the new longer line on the right side of the UTV. Connect it to the master cylinder using the factory hardware.



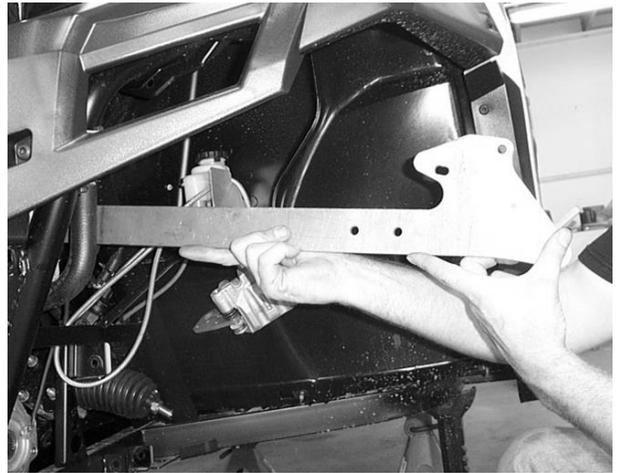
26. Reconnect it to the caliper using the factory hardware.



27. To install the new parts start from the top and work your way down to the control arms.

28. Before you insert the long lift bracket into the center of the UTV, you will need to unclip some wires that will be in the way of the installation.

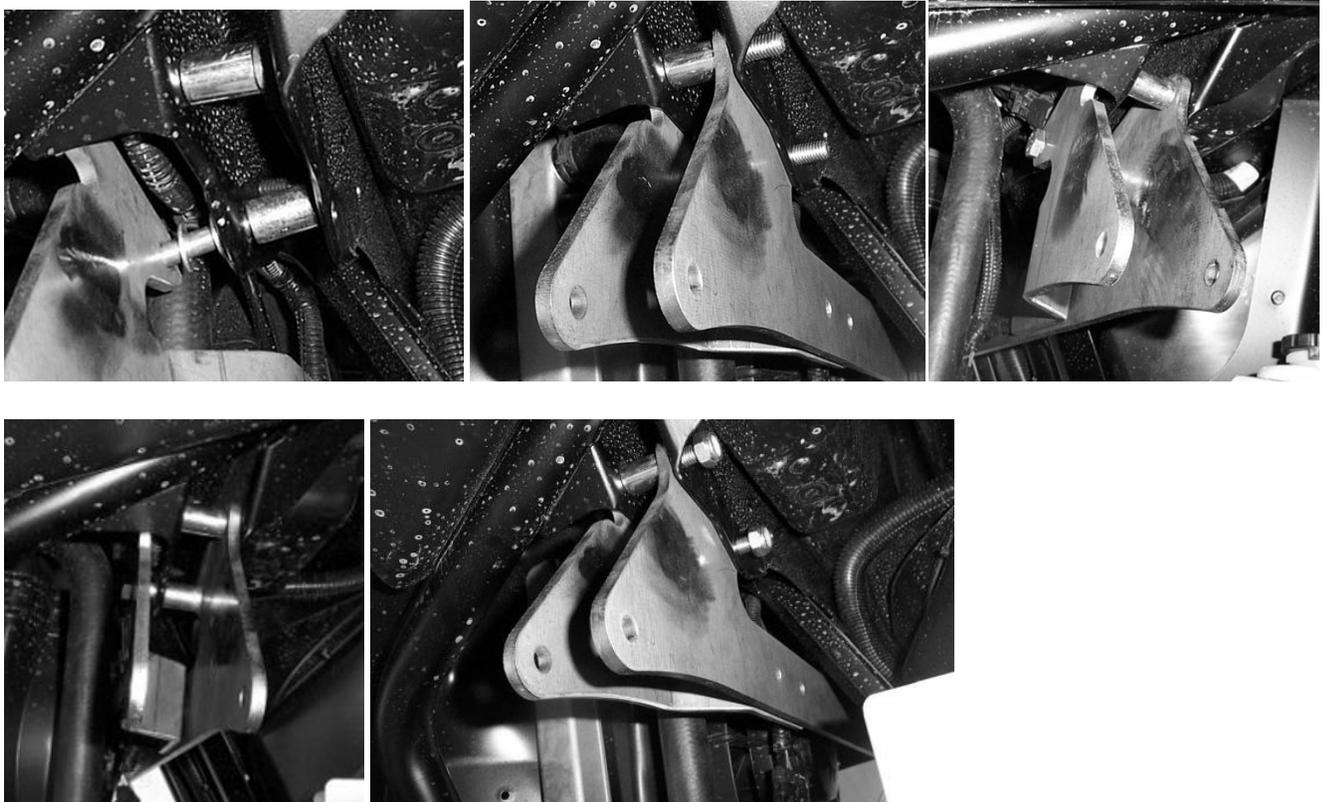
29. When you have unclipped the wires, insert the long lift bracket into the center of the two shock mount tabs on both sides of the UTV. Make sure to run the bracket behind the wires.



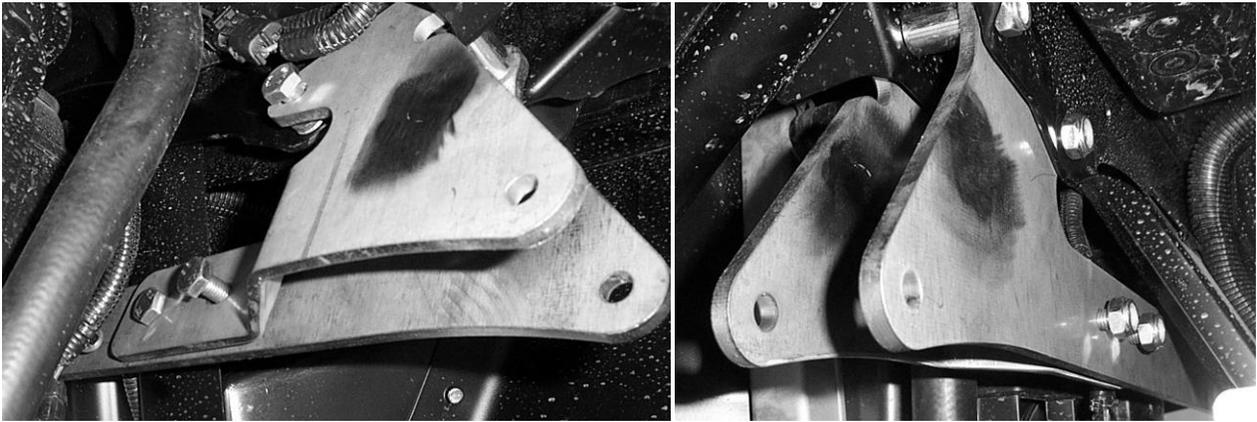
30. Depending on which side you are working on you will place either a left lift bracket or right lift bracket to the outside of the front shock mount. It needs to be on the side that faces the front of the UTV. Connect the bracket using two 10x65mm hex bolts and four 10mm flat washers. Insert the two bolts through the bracket, then place two washers on each bolt. Insert the bolts through the shock mount tabs.



31. Now insert a spacer on each of the bolts and the other front long lift bracket to the inside of the shock mount tab. Loosely fasten it with two 10mm lock nuts.



32. Use two 10mm x 35mm bolts to secure the short front lift brackets to the long front lift bracket.



33. Insert the bolts from the front to the back and fasten them with the 10mm lock nuts provided.

34. Do not connect the top of the shock at this time.

35. Repeat the steps for the opposite side.

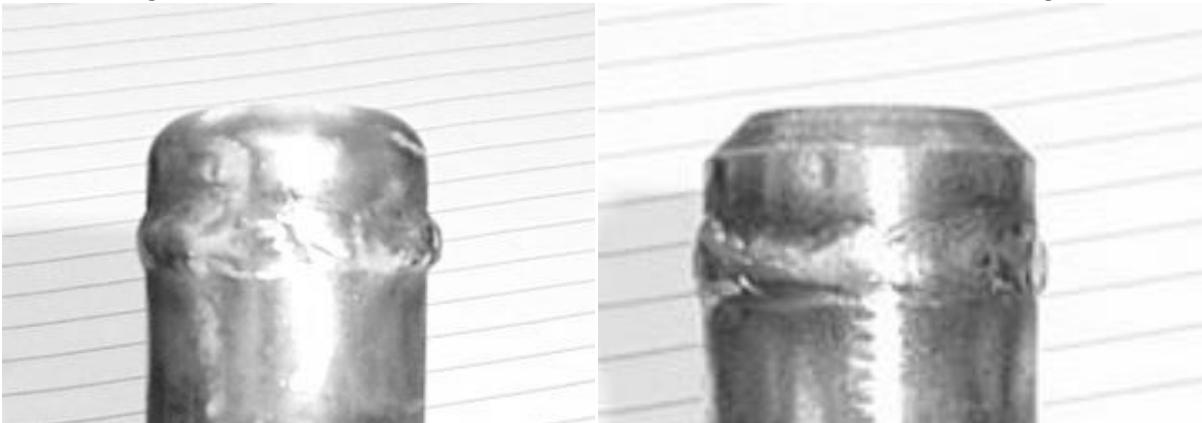
36. Once both sides are in place, fasten all hardware tight.

37. Now connect the new tie rod to the rack and pinion.

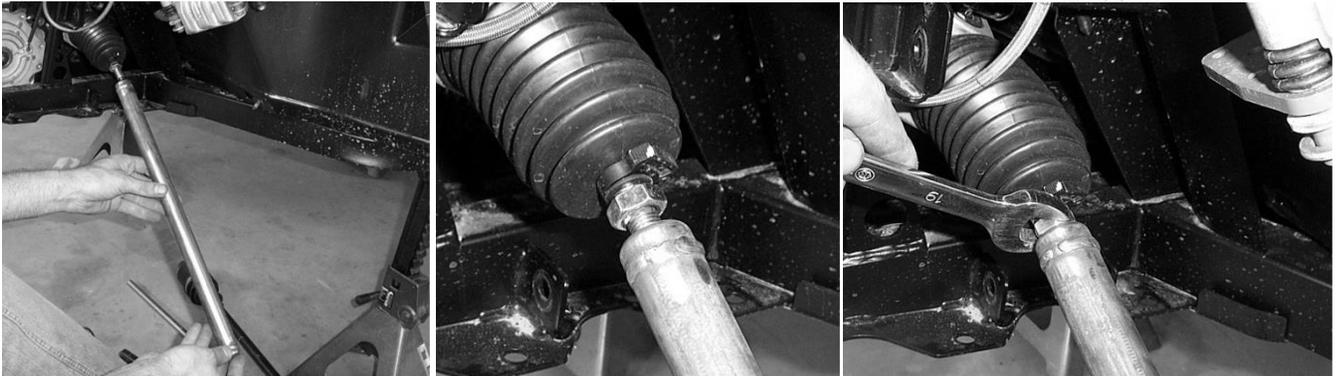
NOTE: If you are installing this kit on a High Lifter Edition Ranger you must have the correct tie rod and installation notes. See addendum for High Lifter Edition Steps!!!!!!

38. There are left and right hand threads on the rod ends.

Note: The right hand side of the rod has a rounded end and the left hand side has an angle cut.

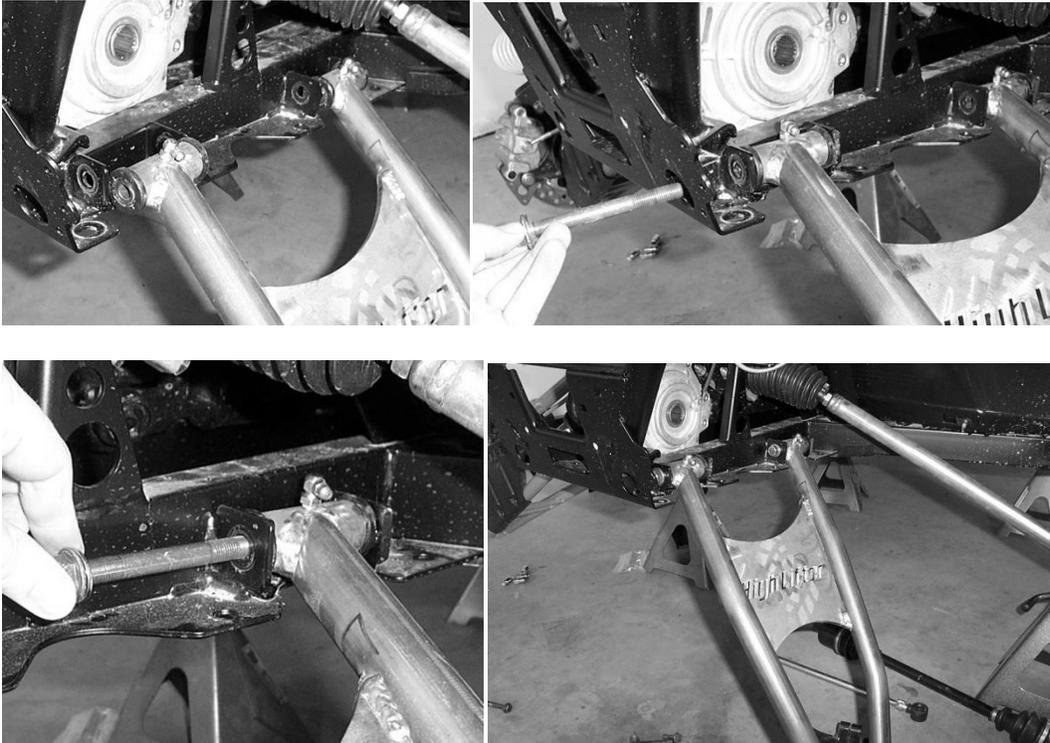


39. The right hand threads will connect to the rack and pinion ends. Secure them with the factory jam nuts.

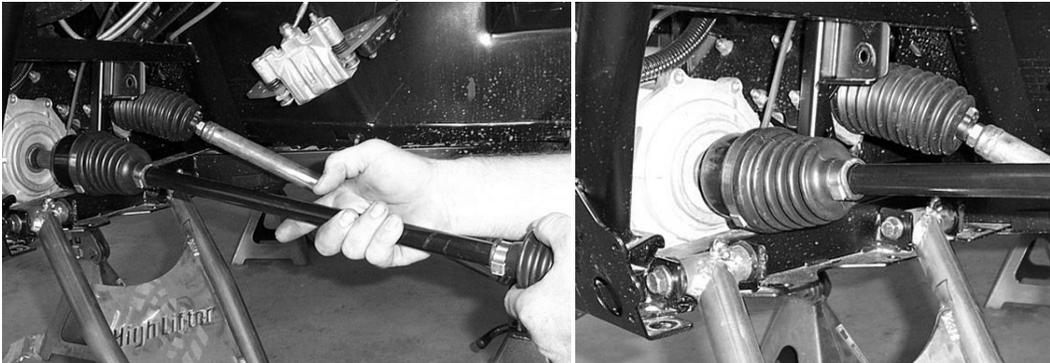


40. Once you have connected the rods on both sides connect the upper and lower control arms. You will use the factory hardware to connect the arms to the frame.

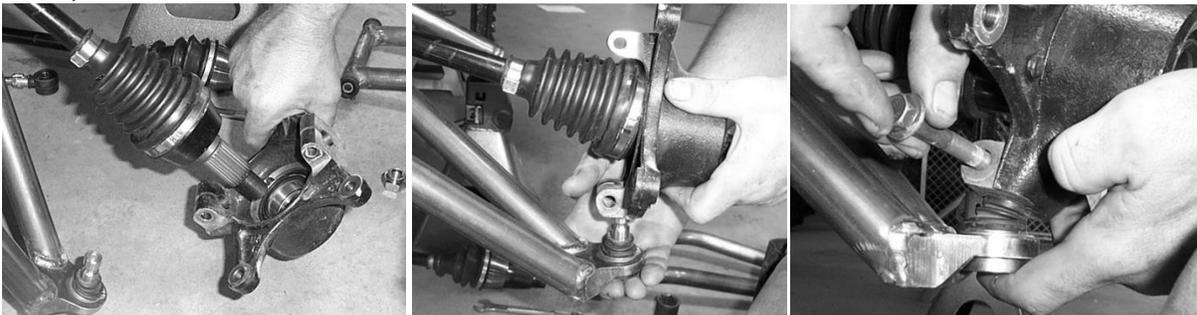
41. Connect the lower control arm first.



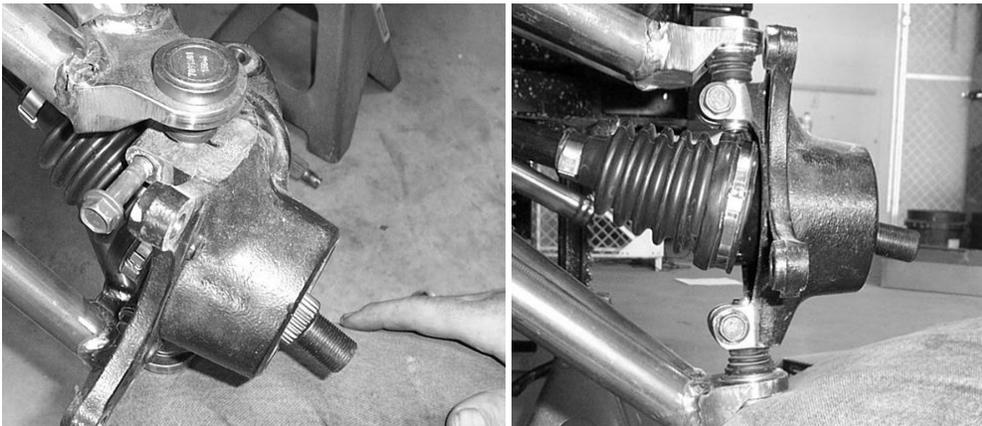
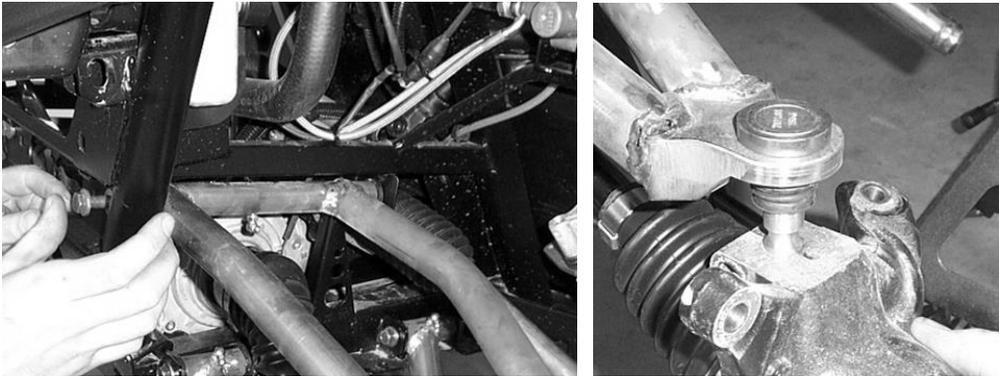
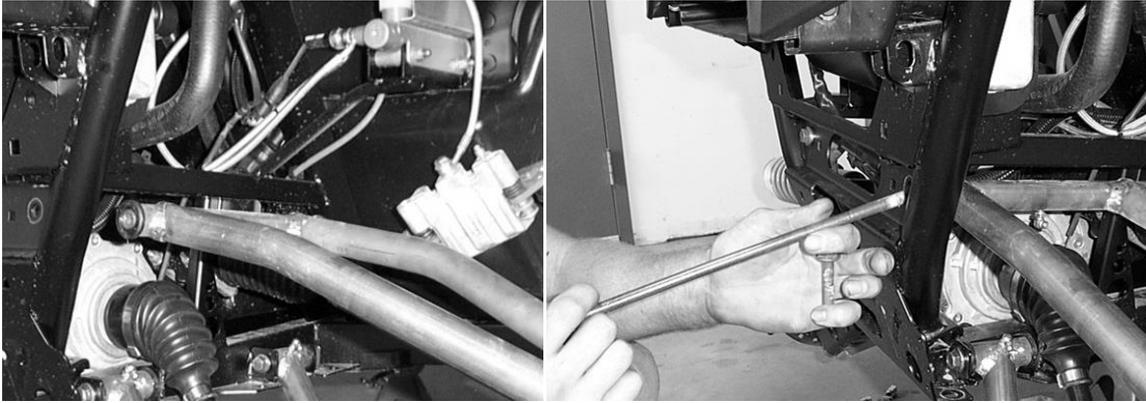
42. When you have the lower arm in place, insert the new front axles into the differential.



43. With the axles in place, slide the hub assembly over the axle and connect it to the lower control arm. Use the factory hardware.

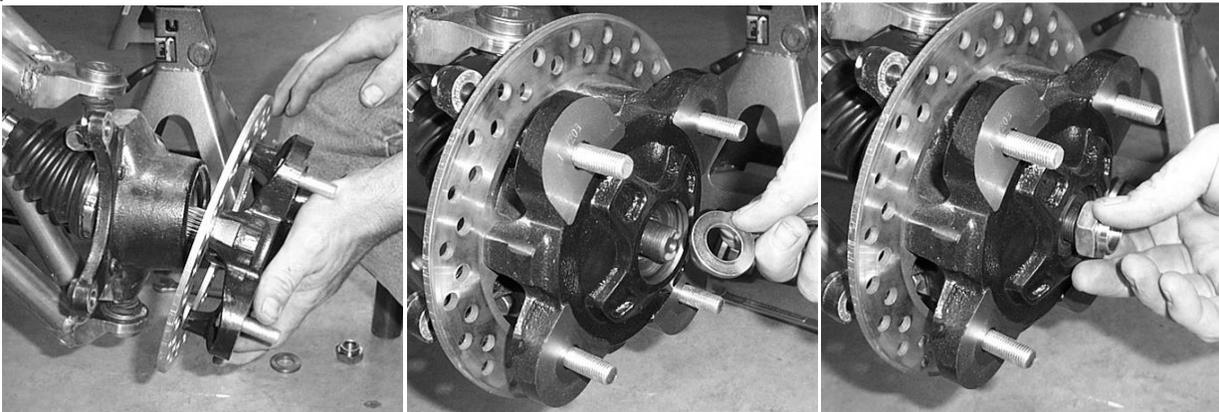


44. Next, connect the upper control arm to the frame and then to the hub assembly. Use the factory hardware.

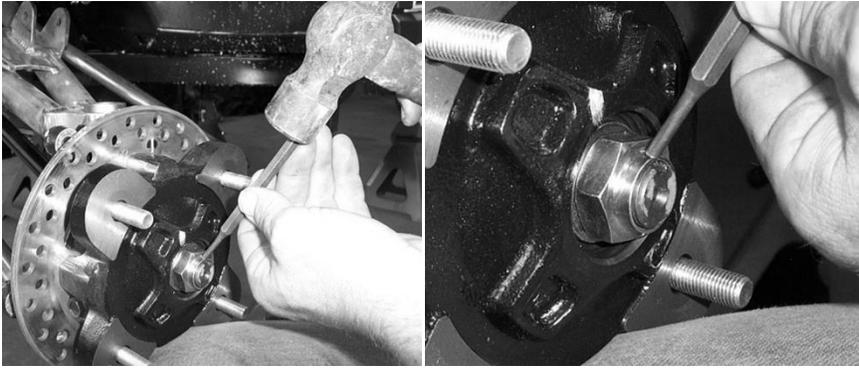


45. When you have connected all four front control arms, reattach the front bumper.

46. Place the brake rotor back on the hub and fasten it to the hub and axle using the axle spacer and axle nut provided.



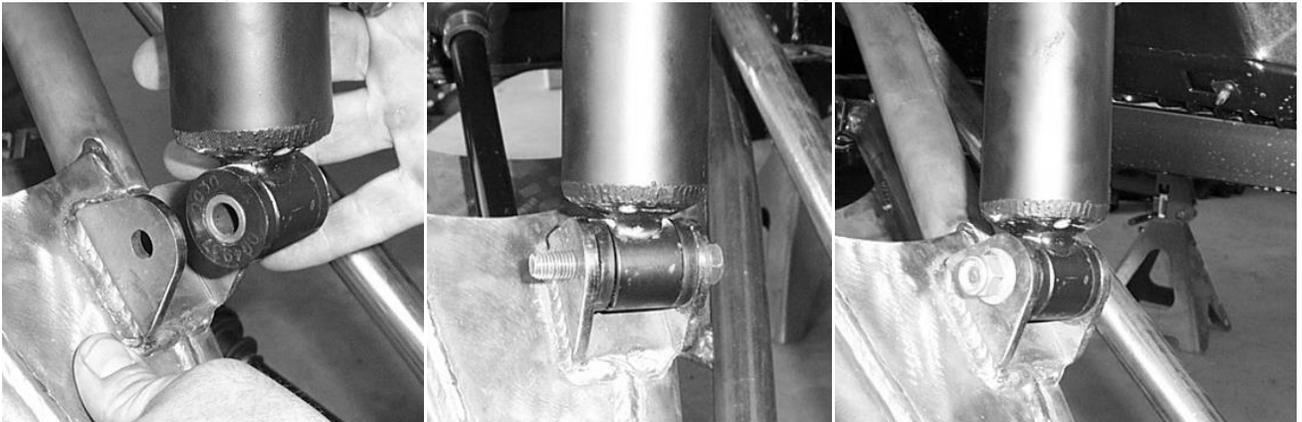
47. You must use a punch to secure the axle nut in place on the axle end when the axle nut is tight. If you do not use a punch to secure it in place it will back off the axle.



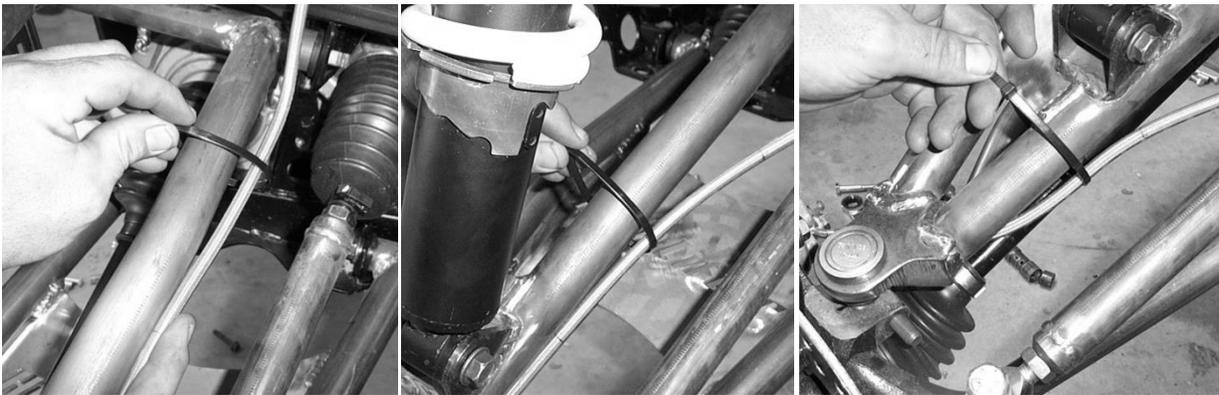
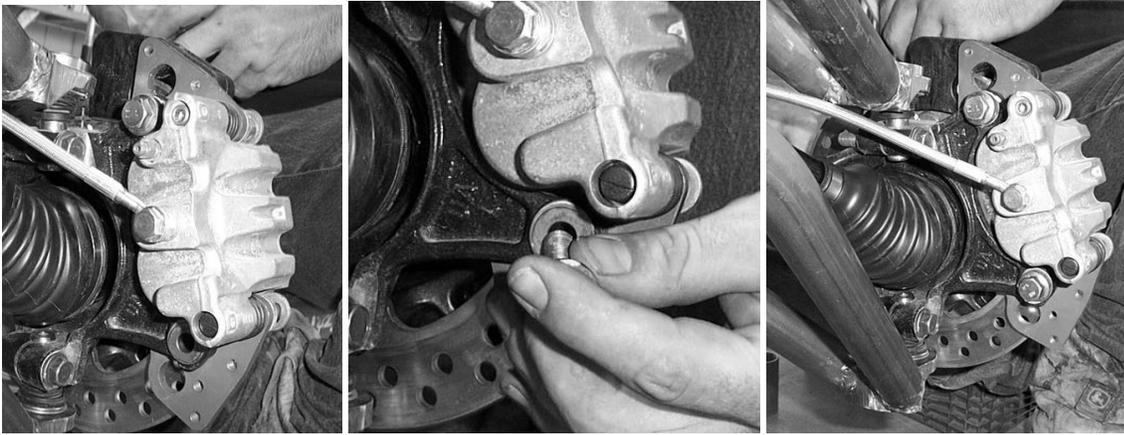
48. Now connect the upper portion of the shock to the lift brackets with the 10mm x 65mm bolt and 10mm lock nut provided. Place a 10mm washer in wither side of the shock eyelet, between the brackets.



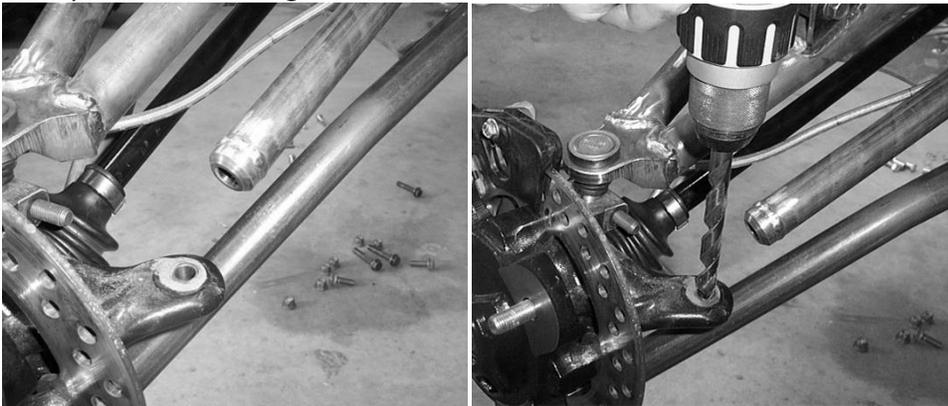
49. Connect the lower portion of the shock to the new control arm using the factory hardware.



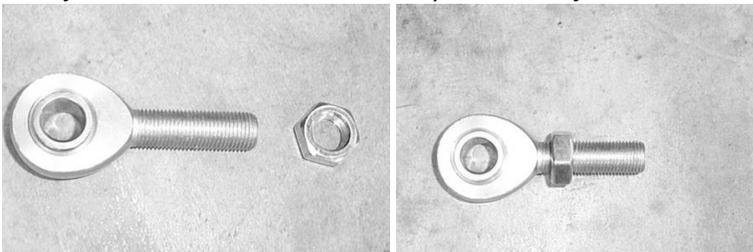
50. Connect the caliper to the hub assembly. Make sure that you reroute the brake lines so that they do not come in contact with moving parts and will not get pinched. Use the zip ties provided in the kit to secure the brake lines.



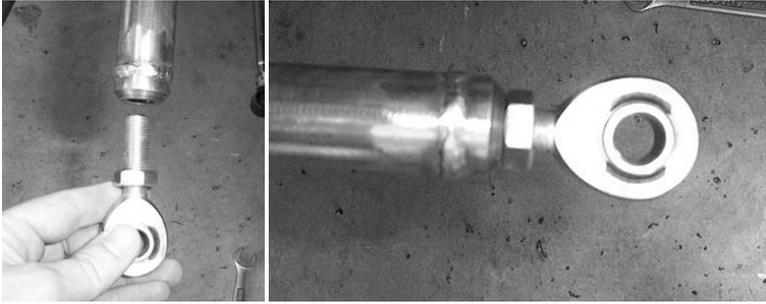
51. Now you will need to connect the tie rod to the hub assembly. You will need to use a 1/2" drill bit to drill out the factory hole with the original tie rod connected.



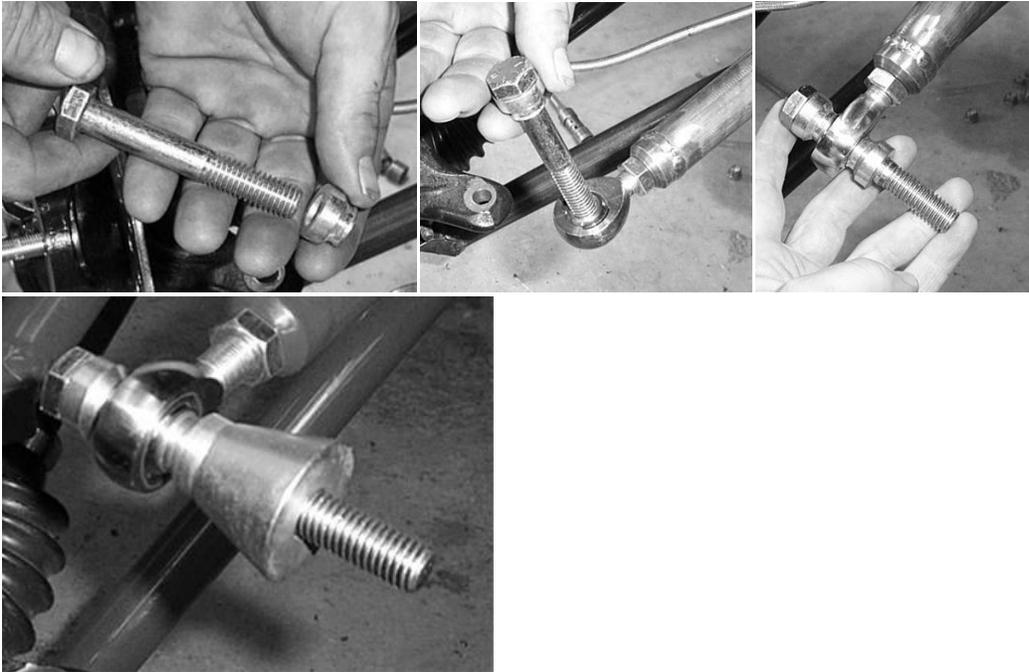
52. Provided in the kit is a new left hand heim joint that will connect to the tie rod. Place on the heim joint a left hand jam nut. We recommend that you run the jam nut all the way down the threads.



53. Now connect it to the tie rod.



54. Once you have drilled the hole, use the $\frac{1}{2}$ x 4-1/2" hex bolt and the two high alignment bushings, large cone and connect the heim joint to the knuckle.



55. Insert the new $\frac{1}{2}$ x 4-1/2" hex bolt. Slide the bolt through the alignment bushing, large cone then the heim joint and then through another alignment bushing. Insert the bolt through the knuckle assembly.



56. Place the ½" washer and ½" lock nut on the bolt and torque tight.



57. When you have completed the tie rod installation on both sides you will need to adjust to achieve the proper alignment.

58. Take a tape measure and measure the front and back side of the brake rotors.

They must both be the same distance. If they do not then you will need to adjust the rods in or out. This is setting the toe to zero.

NOTE: A slight toe out makes the steering less sensitive and the ATV more stable. After setting the toe to zero, you can adjust to your preference. When adjusting the toe, be sure to take the time to adjust both ends half the required distance.

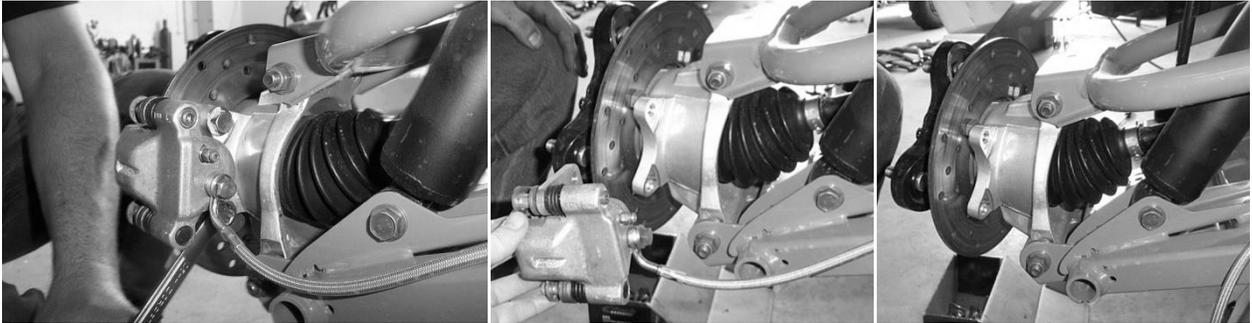
59. When you have achieved your desired setting, lock the tie rod in place with the jam nut.

60. Once you have done these steps, place the tires back on the ATV and torque lugs to factory specifications.

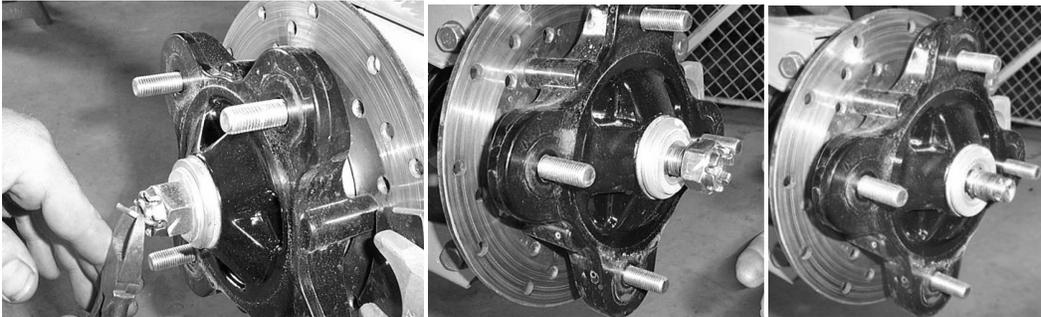
61. Make sure to check all nuts and bolts to ensure that they are all tight before you proceed to the rear installation.

Rear Installation

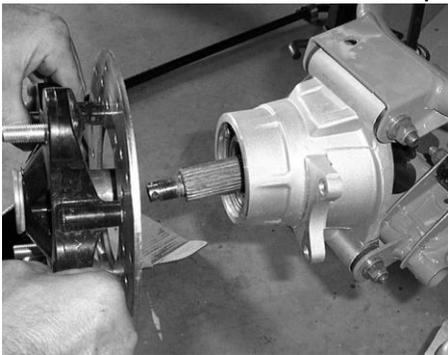
1. Place a jack under the center of the UTV rear end until the rear wheels clear the ground. Be careful to support it properly so that it is secure, but so that the a-arms and shocks can drop to full extension.
NOTE: Make sure that the jack is tall enough to raise the ATV high enough to reinstall the tires after the lift is installed.
2. Remove the rear wheels.
3. Disconnect the brake caliper from the hub assembly, leaving the brake line attached to the caliper. Unclip the brake line from the lower control arm and secure the caliper out of the way so it does not interfere with the installation process.



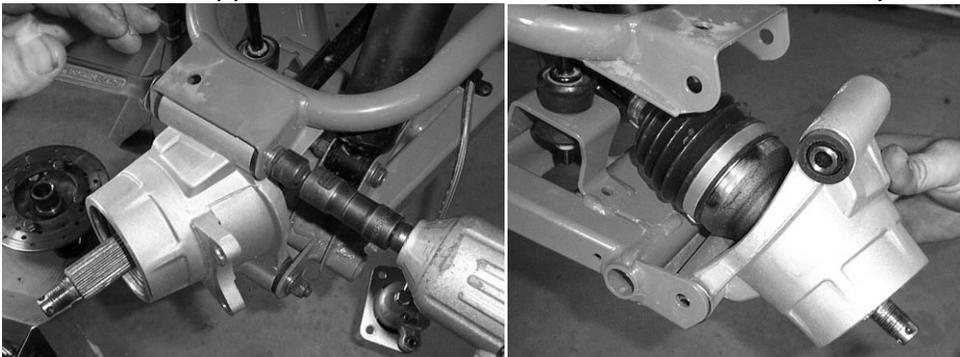
4. Disconnect and remove the factory cotter pin and castle on the rear axles.



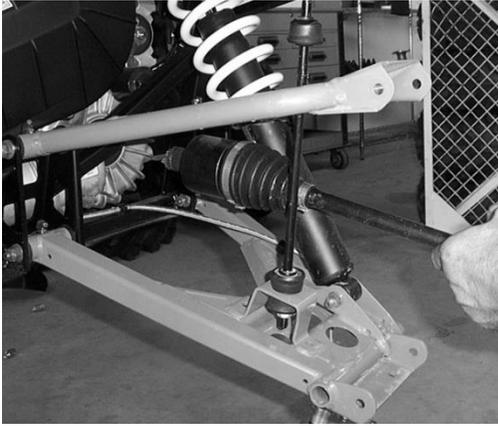
5. Remove the brake rotor assembly.



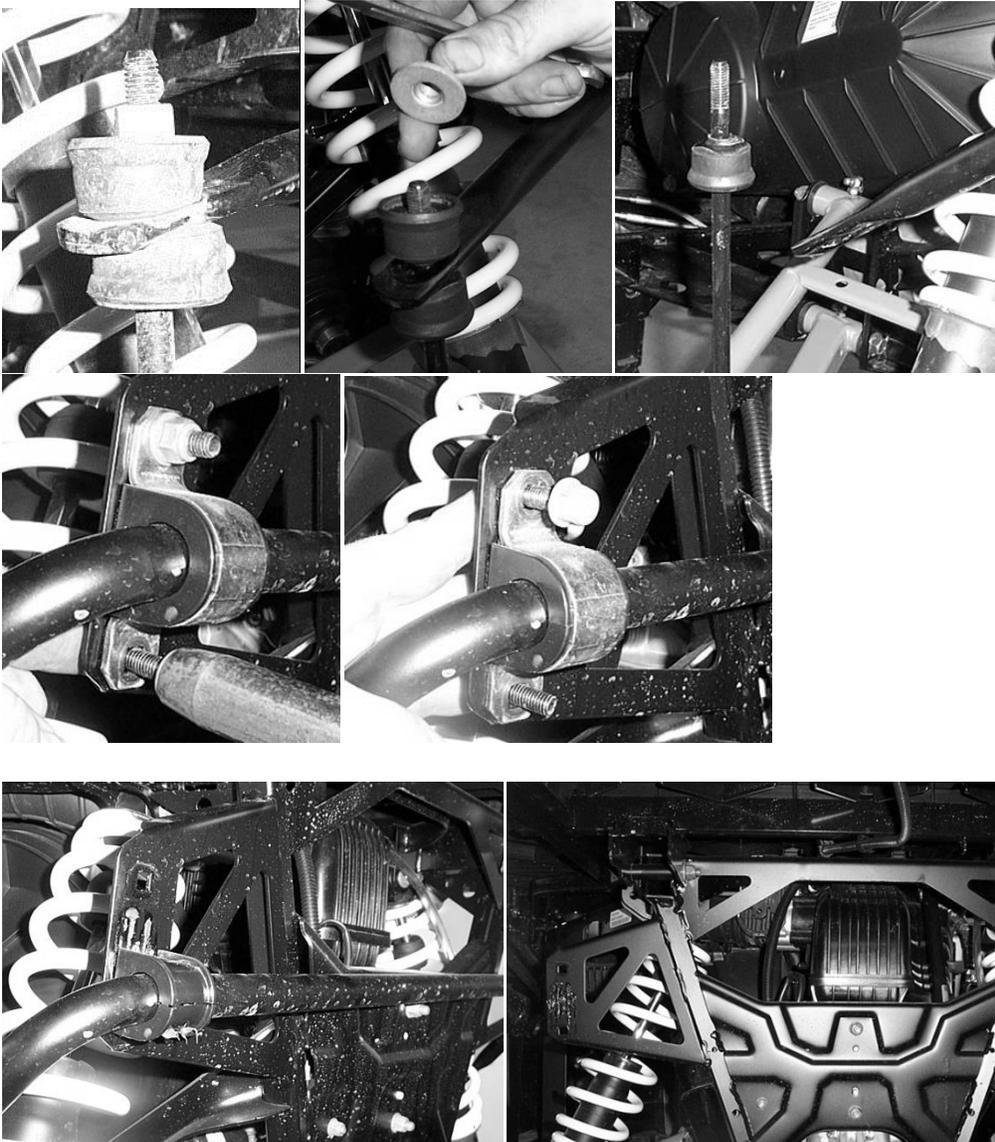
6. Disconnect the upper and lower control arms from the hub assembly and remove the hub assembly.



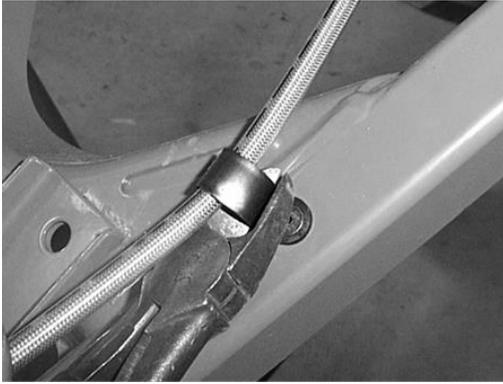
7. Pull the axles out of the differential.



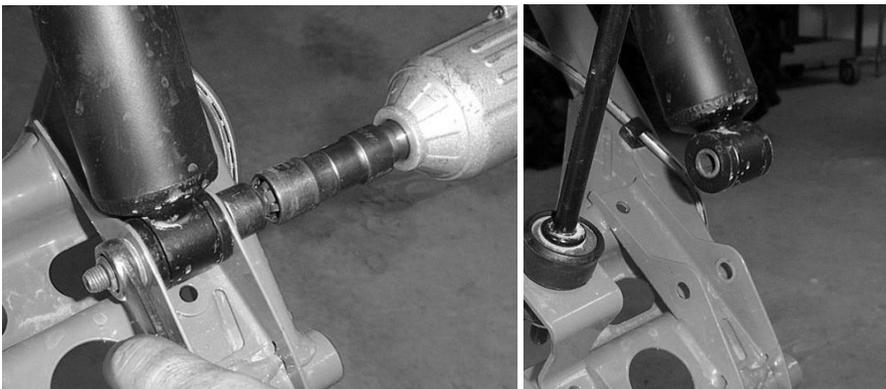
8. Remove the nuts that secure the sway bar to the sway bar rod. You will completely remove the sway bar, sway bar connecting brackets, and rods from the UTV. They are not used in conjunction with the big lift kit.



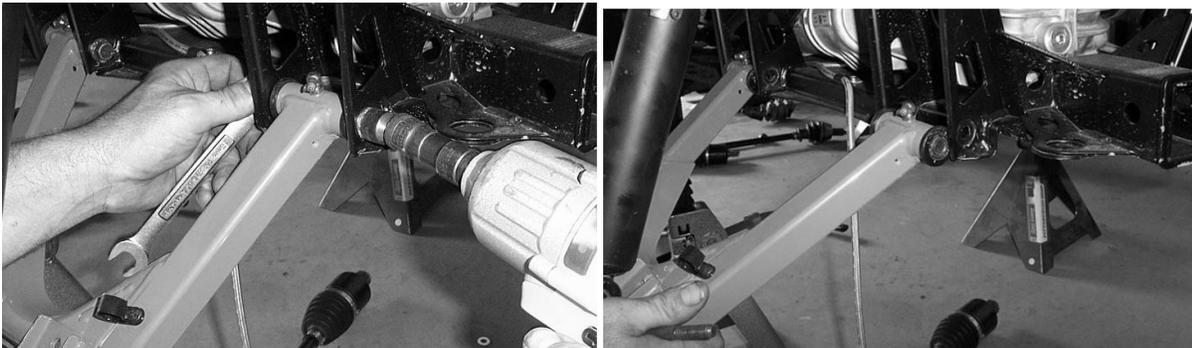
9. Unclip all brake lines from the control arms.

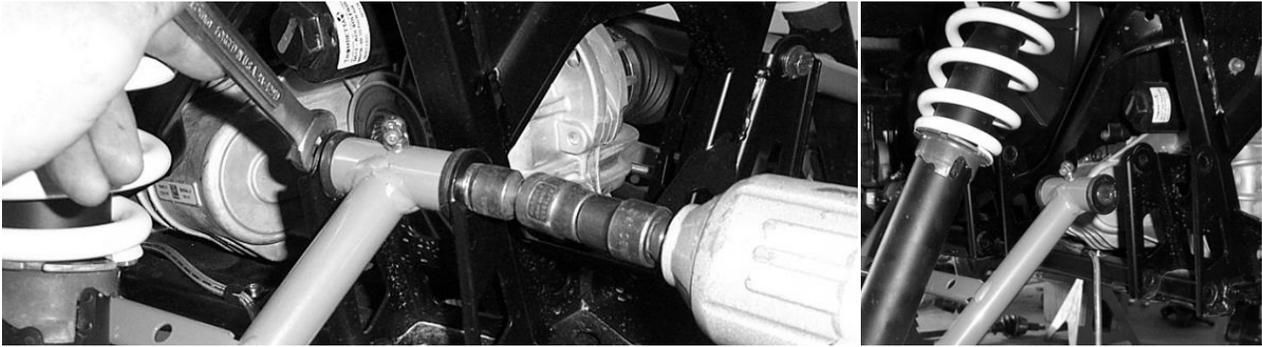


10. Disconnect the rear shock from the upper frame and control arms.



11. Remove the upper and lower rear control arms from the UTV. You will reuse the factory hardware to reconnect the new control arms to the frame.



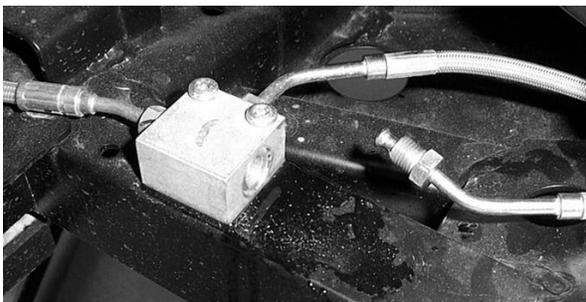


12. At this time it will be easier for you to extend the brake lines. Included in the kit are two 6" brake line extensions for the rear.

13. Locate the brake line junction fitting on the rear lower left side of the frame.



14. Disconnect the brake lines from the junction fitting. Connect the new extension to the brake lines at this time.



15. Reconnect the new brake extension lines to the brake line junction. You may need to do some re-routing at a later point to ensure that there is no pinching of the brake lines.

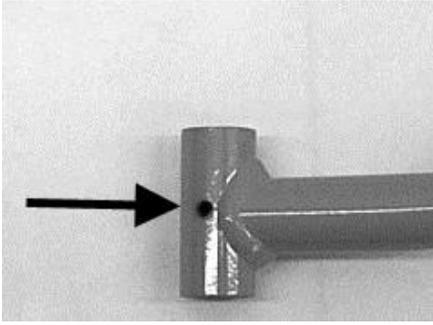


16. Now prepare the new arms for installation.

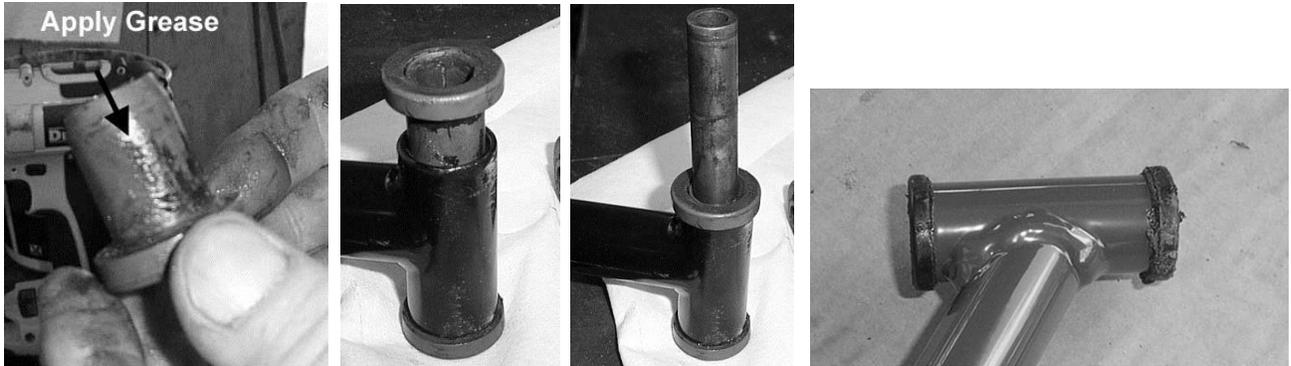
17. You will need to reuse your factory bushings, sleeves, and ball joints. Make sure that you inspect your bushings and ball joints for wear. Replace them as needed.

NOTE: A press or a vise is suggested for removing and replacing the ball joints. Verify that the clip snaps into place after installing the ball joints into the new A-arm

18. Install the grease fittings supplied in the kit into all new arms. **DO NOT OVER TORQUE FITTINGS!**



19. Once you have removed the stock bushings and sleeves from the factory arms install them into the new arms in the kit. . If you place some grease on them it makes the installations easier.

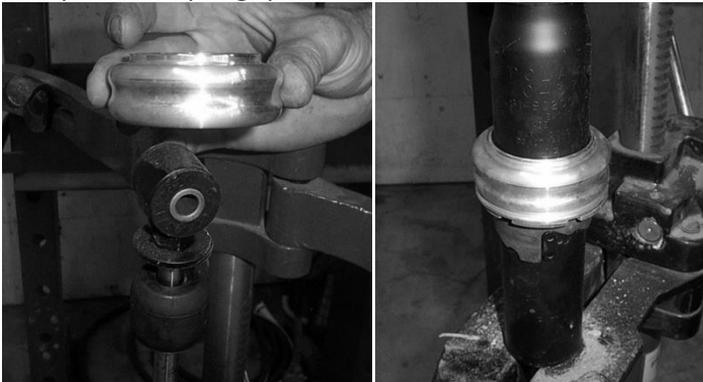


20. You will need a spring compressor to install the spring stiffeners onto the factory shocks.

21. Using a spring compressor, remove the retaining clip and stock spring from the shock.



22. Next place the spring spacer onto the shock.

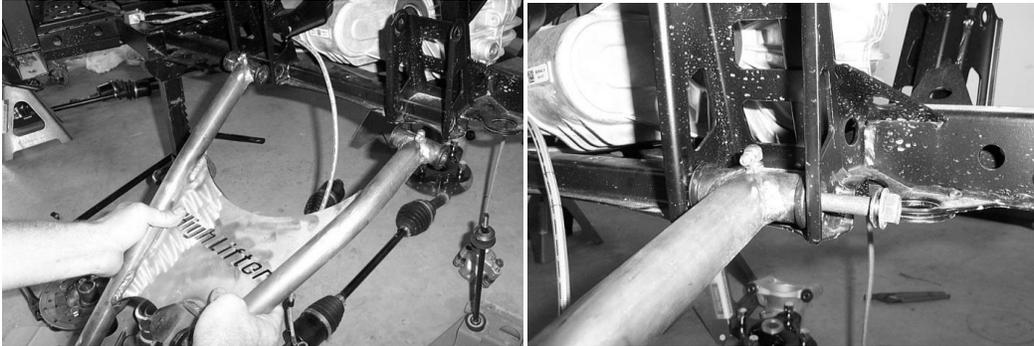


23. Place spring back on the shock, compress it, and then reinstall the retaining clip.



24. When you have prepared the arms, it's time to install. For the rear it will be best to start from the bottom and work your way up to the top.

25. Install the lower control arm to the frame, using the factory hardware.



26. Next install the rear axles into the differential.



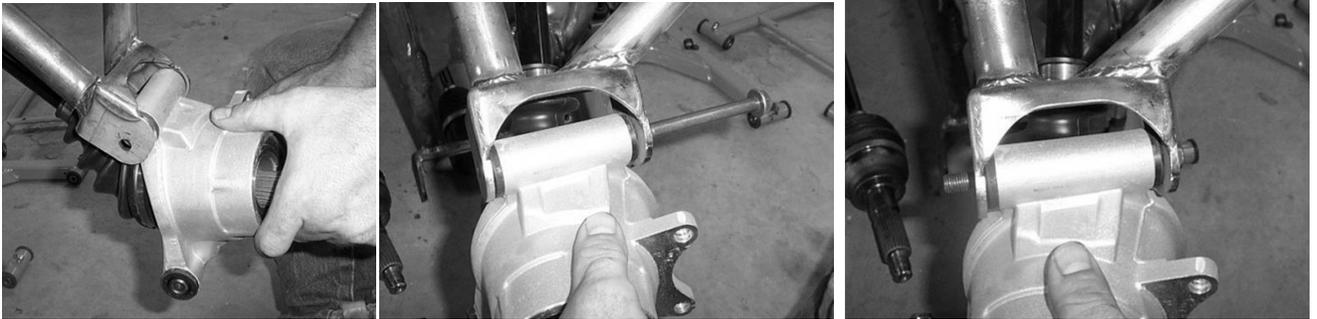
27. Install the upper control arm to the frame, using the factory hardware.



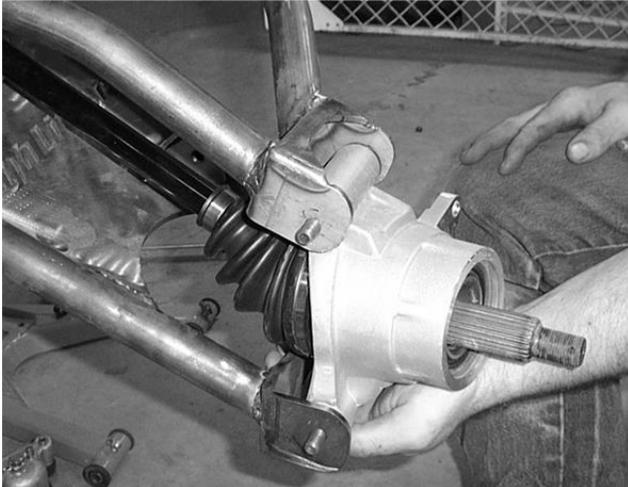
28. Now, slide the hub assembly over the axle end.



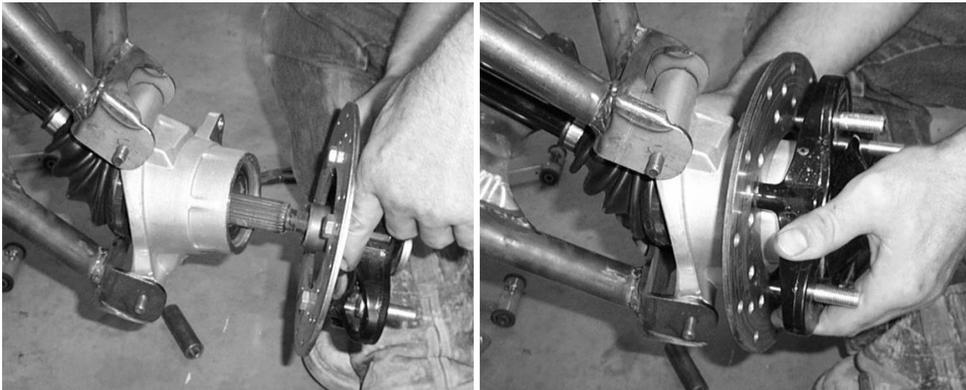
29. Connect the upper arm to the hub assembly using the factory hardware.



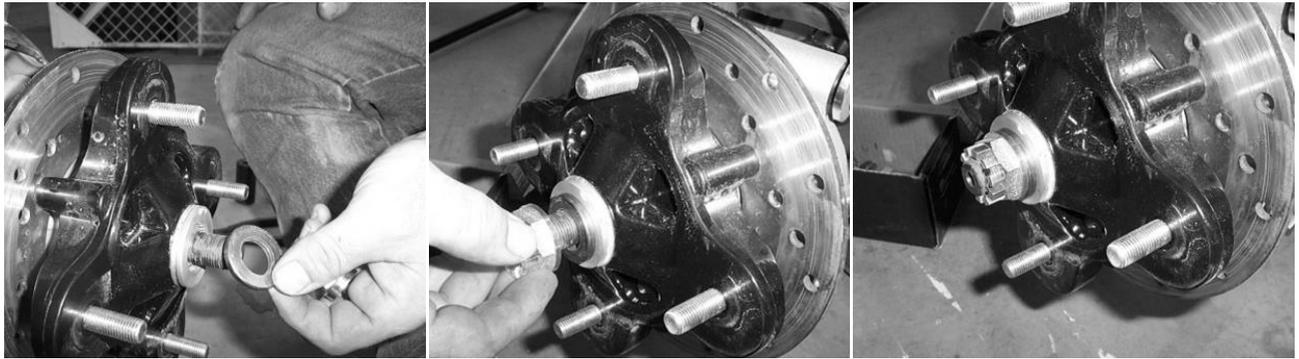
30. Connect the lower arm to the hub assembly using the factory hardware.



31. Place the rotor onto the hub and axle assembly.



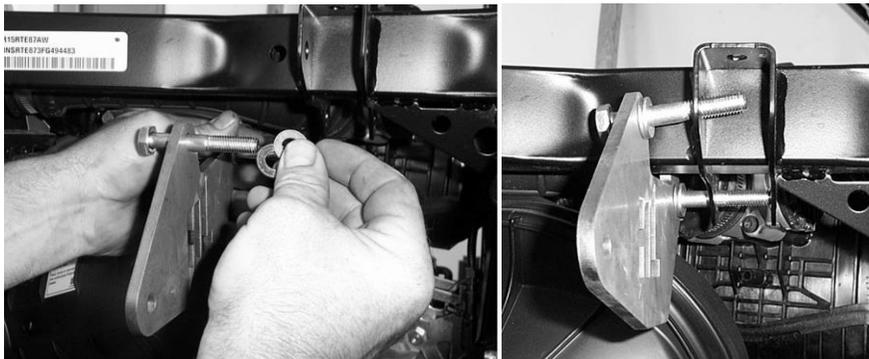
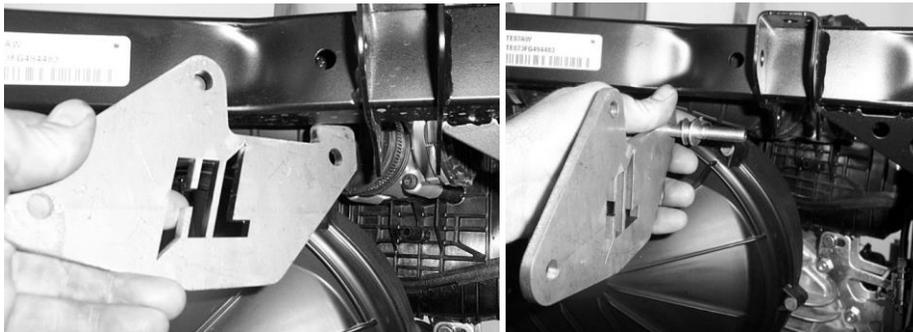
32. Fasten the rotor using the axle washer, castle nut, and cotter pin provided in the kit.



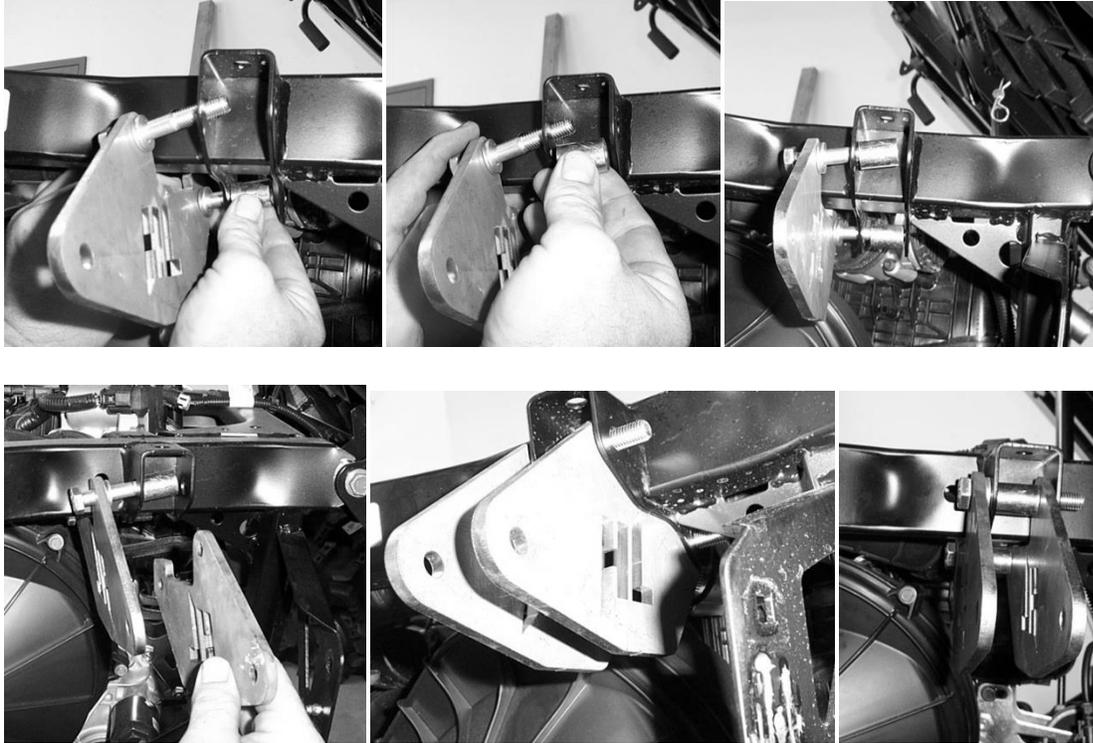
33. Repeat steps for the opposite side.

34. Next, install the rear upper lift brackets. There are left and right plates. From the rear, the logo should read from left to right.

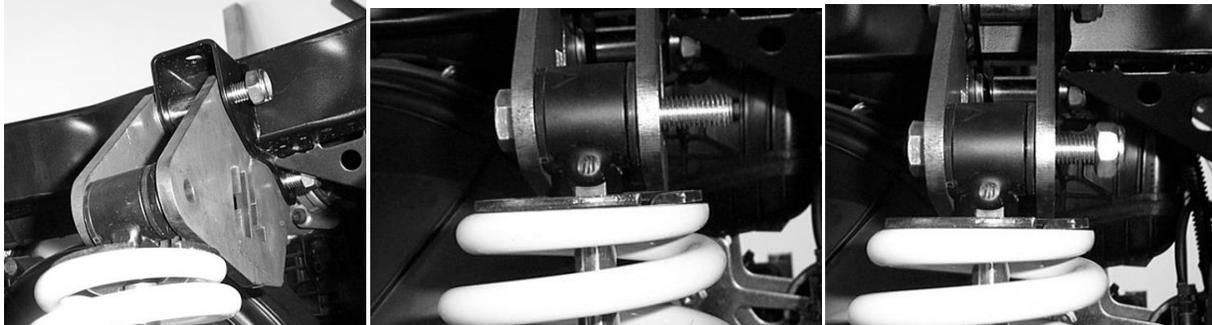
35. Place the one rear lift bracket to the outside of the rear shock mount. It needs to be on the side that faces the front of the UTV. Connect the bracket using two 10x65mm hex bolts. Place two 10mm washers on each bolt then insert the two bolts through the bracket. Insert the bolts through the shock mount tabs.



36. Now insert a spacer on each of the bolts and the other rear lift bracket to the inside of the shock mount tab. Loosely fasten it with two 10mm lock nuts.



37. Connect the top of the shock to the lift brackets using one 10x65mm hex bolt and 10mm lock nut.



38. Once all the bolts are in place fasten them tight. Repeat the steps for the opposite side.

39. Connect the lower portion of the shock to the control arm. Use the 10mm x 65mm bolt and 10mm lock nut provided.

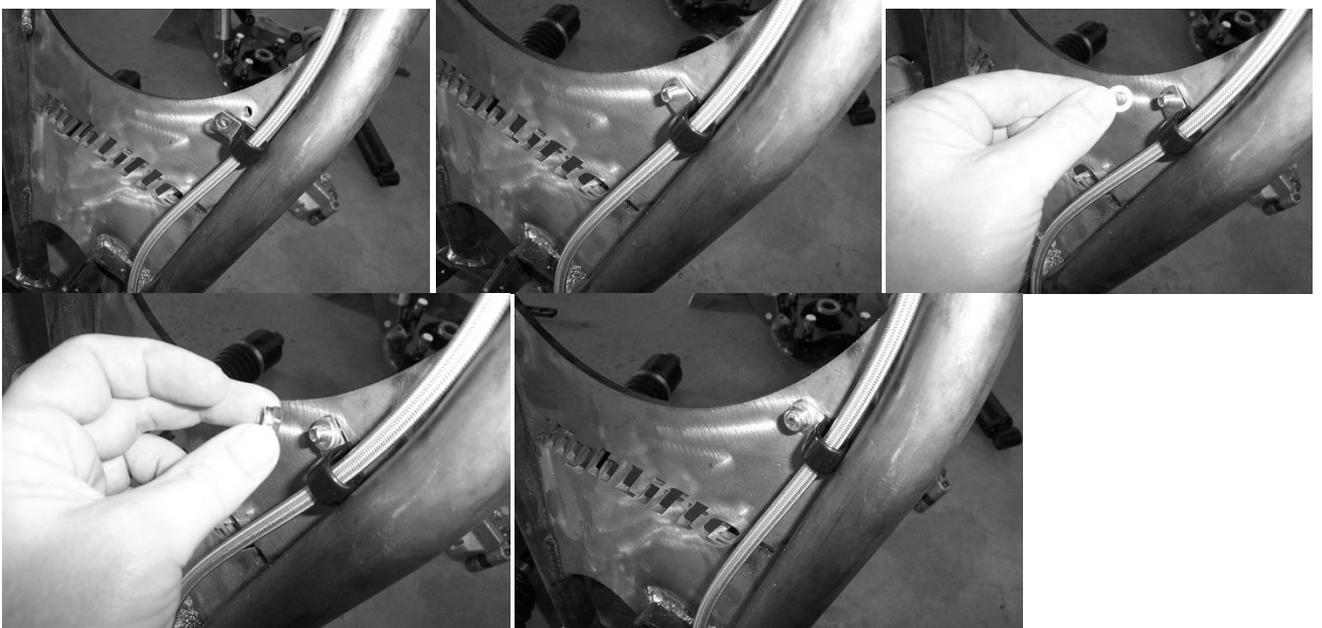


40. The caliper and brake lines need to be attached to the new control arms and hub.

41. Before you connect the caliper, make sure that you run the brake lines in a manner that they do not come in contact with moving parts and they do not become pinched.



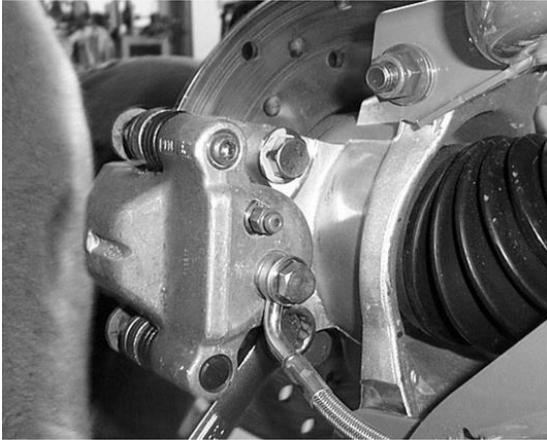
42. In the kit there is a P-clamp, 6mm x 20mm bolt, 6mm washer, and 6mm lock nut. You will fasten the brake line to the lower control arm using the P-clamp and hardware.



43. Uses zip ties provided to secure brake line.



44. Fasten the caliper to the hub assembly.



45. Repeat steps for the opposite side.

46. Once you have completed both sides place the wheels back on the Ranger and torque lugs to factory specifications.



This product has a dual warranty. The suspension components have a life time warranty and the axles have a limited replacement. Please see information on the following pages.



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

For axle warranty see additional information sheet!

High Lifter Outlaw RCV Big Lift Axle Warranty Program

Thank you for purchasing a High Lifter Products Big Lift equipped with a set of Outlaw RCV Big Lift Axles. Our axles have been engineered to provide superior performance for use on your ATV/UTV.

LIMITED WARRANTY:

HIGH LIFTER PRODUCTS, INC. warrants to the **ORIGINAL** purchaser of any High Lifter Big Lift equipped with 4-Outlaw RCV Big Lift Axles for a total of one (1) axle warranty claim or breakage per set of 4 axles (not (1) warranty claim or breakage for each individual axle) for a period of one (1) year from the original date of purchase. This warranty covers defects in materials or workmanship or failures in normal services. Repair services will be available after the warranty has expired for an additional cost (repair costs will be determined by the actual components that need to be replaced). If you need repair service for your Outlaw RCV axle please contact your High Lifter representative at 1.800.699.0947 for an estimate.

The limited warranty is subject to the following conditions:

- a) The product is properly installed.
- b) **HIGH LIFTER** is not liable for any incidental or consequential damages to anything other than the axle covered by this warranty, including labor costs to remove/reinstall, loss of use of machine, damage to housings, or damage to OEM supplied parts.
- c) If the axle has been disassembled or modified by a third party, or has OEM parts installed on the axle, the warranty is null and void.
- d) Any axle damaged in a collision is excluded from this warranty. However, they may be refurbished for standard costs pending authorization by the owner.
- e) Warranty is non-transferable from the **ORIGINAL** purchaser.
- f) **HIGH LIFTER** reserves the right to inspect the axle and determine any defects in installation to determine the validity of a warranty's claim. This may include the ORIGINAL purchaser providing photographs of the ATV/UTV and its installed lift kit.
- g) Boots damaged by CV joint failures are covered under this warranty. Boots damaged by punctures or tears from trail obstructions are not covered under this warranty. Boot inspection should be a part of regular ATV/UTV maintenance.

REFUSED SHIPMENTS/ORDER CANCELLATION:

Refused shipments are subject to a 25% restocking fee plus return freight. If a customer wishes to cancel an order (provided it is not a special order product), it is the responsibility of the customer to cancel the order prior to the product being shipped. If a customer cancels an order after product has been shipped, the refused shipment, cancellation, or return will be subject to a 25% restocking fee and any freight charges incurred. For orders outside the United States, any fees associated with customs or duties are non-refundable.

DAMAGED SHIPMENTS:

All claims for damaged shipments must be made within 72 hours of delivery to the point of destination. Any damage to package should be noted with carrier at the time of delivery if possible. We will not be responsible for damage claims made over 72 hours after delivery to the point of destination.

OBTAINING A WARRANTY CLAIM:

All returns for warranty must be pre-approved by calling 1.800.699.0947. After warranty approval has been granted and a Return Merchandise Authorization (RMA) number issued, the axle must be received by HIGH LIFTER PRODUCTS within 15 calendar days. The RMA number must be clearly displayed on the return box or the return will be refused. An RMA number does not imply a replacement or refund on any product, but only that we will inspect the axle for warranty claims. For orders outside the United States, any fees associated with customs or duties are non-refundable. All claims must be accompanied by the sales receipt detailing date and place of purchase, a written explanation of the problem, a

phone number, and e-mail address. A copy of this receipt must be included with the axle submitted for warranty repair or replacement. The purchaser is responsible for any freight charges on a warranty claim or repair service after the warranty expires, including incoming freight to High Lifter and return freight to the purchaser.