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***Rhino Long Travel Spindle Kit 2005-  
08 Yamaha Rhino  
FTR10072***

**PARTS LIST:**

QTY.	Part #	Description
1	FTS95061D	Rhino Spindle Driver
1	FTS95061P	Rhino Spindle Pass.
2	FT95195	Dust Shield
2	FTR10072i	Instructions
1	FTLOCK	Thread Lock compound
1	FTREGCAR D	Registration Card

**TOOL LIST:**

- Assorted Metric & Standard Wrenches
- Torque Wrench
- Floor Jack
- Jack Stands

**OPTIONAL COMPONENTS:**

**FTR10004BK/RW Front Bumper w/ overrider & skid plate**

**FTR10005BK/RW Rear Bumper**

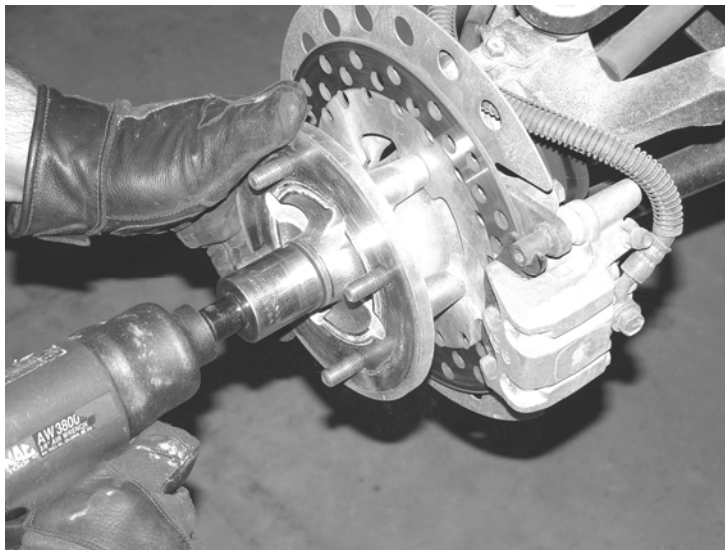
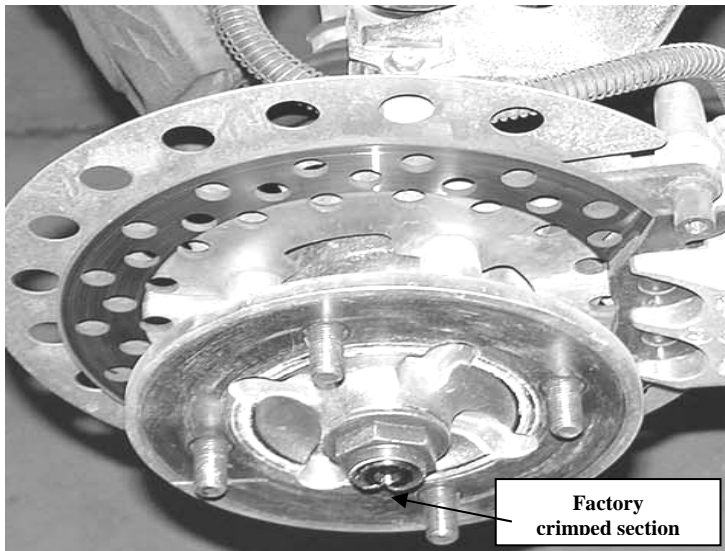
**FTR10006 Heavy Duty Tie Rod End System**

**FTR10009 Rear Differential Support Bracket**

**SPINDLES TO BE USED WITH FABTECH LONG TRAVEL KITS ONLY.**

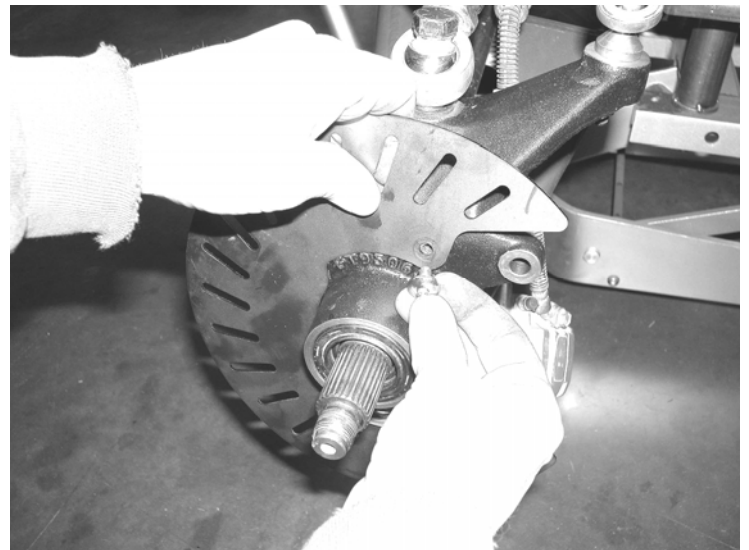
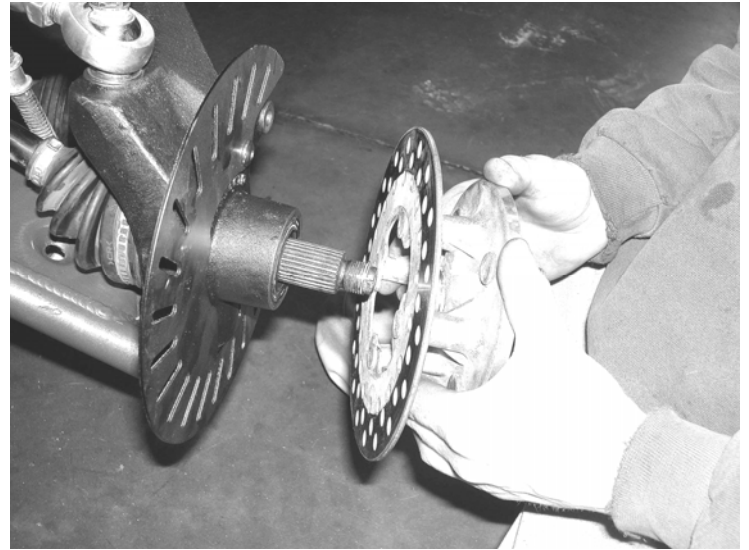
## **INSTALLATION INSTRUCTIONS:**

1. Disconnect the negative terminal on the battery. With the Rhino on level ground, set the emergency brake and block the rear tires. **Center the steering wheel, rack & pinion, and wheels and tires.** Jack up the front end of the Rhino and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Working from the driver's side, use a small center punch and a hammer and carefully lift the factory crimped section of the axle shaft nut from the axle shaft. Remove the axle shaft nut and save. SEE PHOTOS BELOW

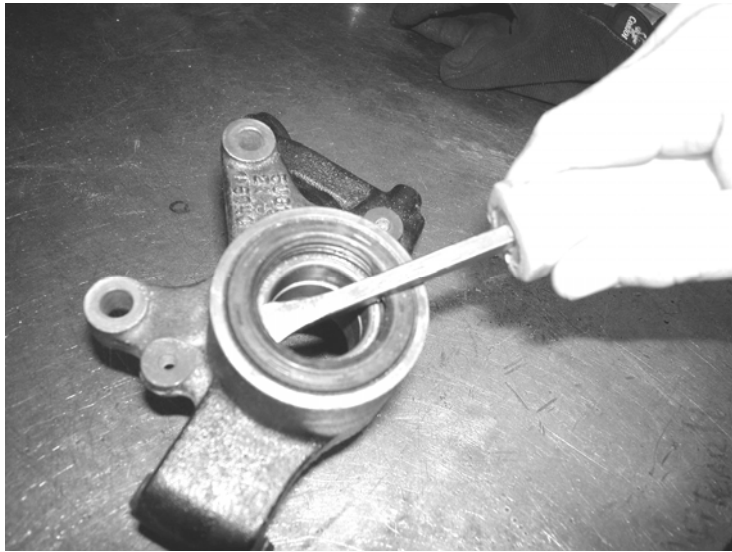


3. Remove the two 10mm bolts that attach the brake line to the spindle and the upper control arm and save the hardware. Remove the brake caliper and hang on the frame. **DO NOT LET THE CALIPER HANG BY THE BRAKE HOSE.** Remove the rotor and hub assembly and save. Remove the

brake rotor shield from the spindle and save with the hardware. SEE PHOTOS IN NEXT COLUMN



4. Remove the bolt from the outer tie rod end and the upper and lower ball joints and save. Save the hardware for the new knuckle. SEE PHOTO BELOW.
5. Once the stock spindle is off the Rhino, remove the outer seal with a small pry bar with a nice flat surface. Careful not to damage the seal as you will reuse with new spindles. SEE PHOTO ON NEXT PAGE.



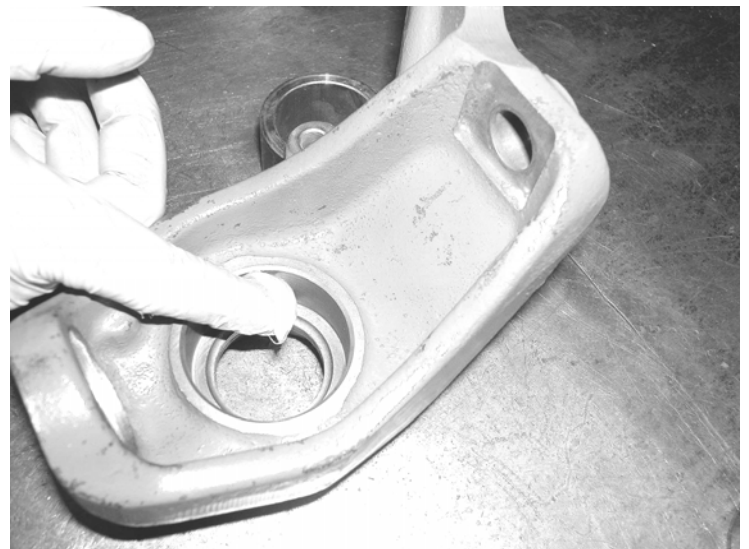
6. Take a punch with a flat end and tap out the outer bearing from the opposite side of the spindle. The bearing and inner spacer will both come out. These will be reused in the new spindle. SEE PHOTOS BELOW.

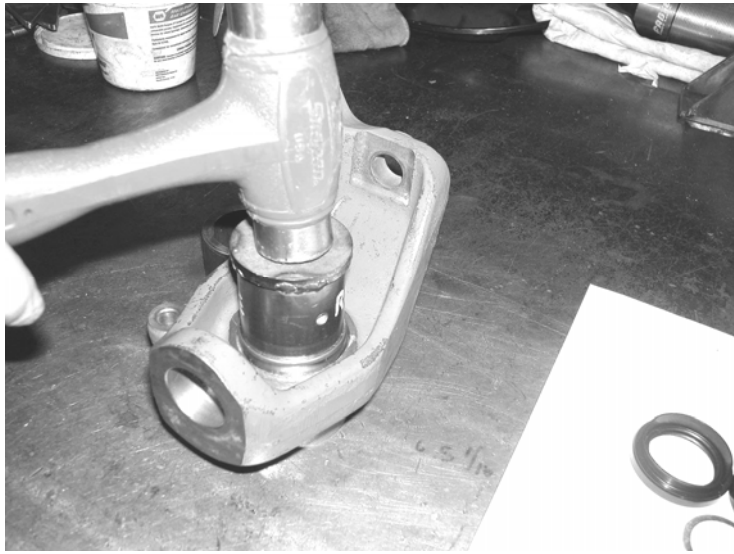


7. Flip the spindle over and tap out the inner bearing this will push the seal at the same time. These will be reused in the new spindle. SEE PHOTOS IN NEXT COLUMN.



8. Locate FT95159D and FT95159P. Apply grease to the bearing surfaces of the spindle. Start with the inner bearing and Tap evenly in to the new spindle using a large socket or piece of tubing that fits the outside of the bearing and inside of the spindle. SEE PHOTOS BELOW AND ON NEXT PAGE.

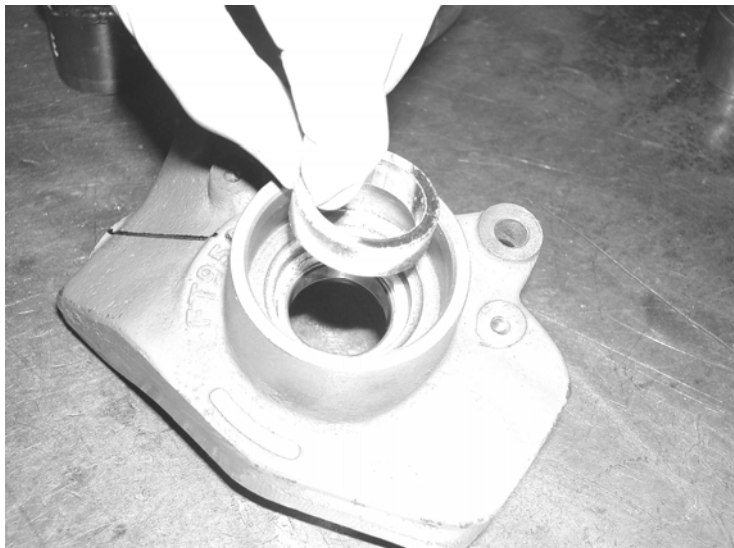




9. Reinstall the inner bearing seal that has the tall lip for the C.V. to sit in. Careful not to damage. SEE PHOTO BELOW.



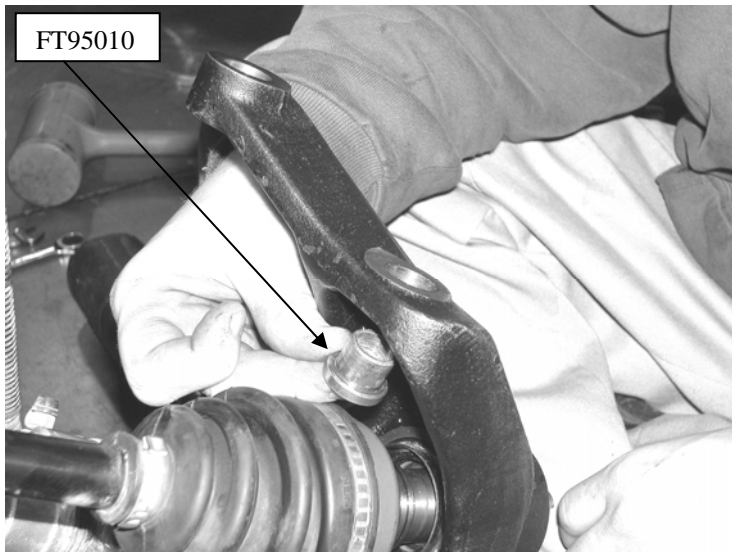
10. Reinstall the spacer and outer bearing using the method as on the inner bearing. SEE PHOTOS BELOW AND IN NEXT COLUMN.



11. Reinstall the outer bearing seal careful not damage it. SEE PHOTO BELOW.



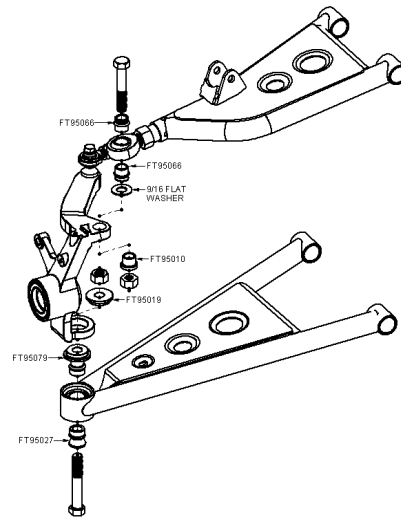
12. Locate FT95010 Upper Ball Joint Hat, FT95019 “**top**” Lower Ball Joint Hat, FT95079 “**bottom**” Lower Ball Joint Hat, and FT95021 Steering Arm Hat. Insert the upper ball joint hat up into the upper ball joint location. Insert the lower ball joint hats into the lower ball joint location (FT95019 in the top of the knuckle and FT95079 in the bottom of the knuckle) and the FT95021 steering arm hat into the tie rod location. (Use a rubber mallet only if necessary). SEE PHOTOS AND DIAGRAMS IN NEXT PAGE.



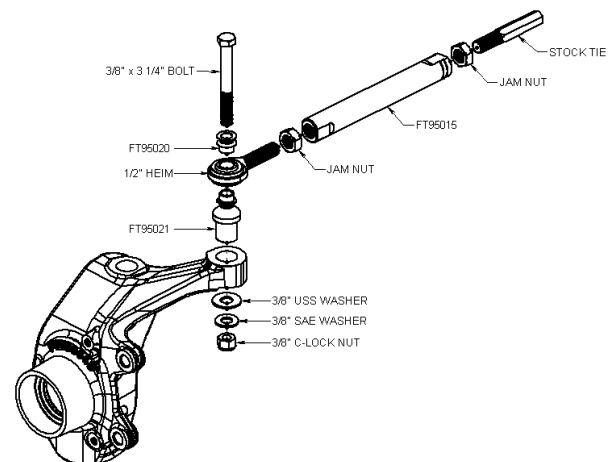
13. Install the knuckle assembly onto the CV shaft. Insert the supplied FT95027 7/8" mis-alignment up into the bottom of the uni-ball in the lower control arm and the FT95079 Mis-alignment down into the top of the uni-ball. Then attach the knuckle to the lower control arm with the supplied 9/16" x 3 1/2" hardware. Insert the FT95066 mis-alignments in the heim joint in the upper control arm and then attach the knuckle to the upper control arm using the supplied 9/16" x 3" hardware with a flat washer between the mis-alignment and the knuckle. The 3/4" heim and jam nut are set at just a starting point, final adjustment can be made during the toe set if necessary. (Use supplied thread-locking compound) Leave loose.

14. Locate FT95020 1/2" Short Mis-alignment and the supplied 3/8" x 3 1/4" hardware. Insert the mis-alignment into the top of the 1/2" heim in the new extended steering shaft followed by the 3/8" bolt. Position the 1/2" heim and hardware onto the FT95021 steering arm hat and through the knuckle. Place one of the supplied 3/8" SAE Flat Washers and one of the 3/8" USS Flat Washers on the bottom of the knuckle along with the 3/8" C-lock nut. Torque upper and lower control arm bolts to 32 lbs, the 9/16" hardware to 95 lbs, and the 3/8" hardware to 35 lbs (use supplied thread-locking compound).

**Tighten the jam nut on the pre-installed 3/4" heim on the upper control arm. SEE DIAGRAM AND PHOTO ON NEXT PAGE.**

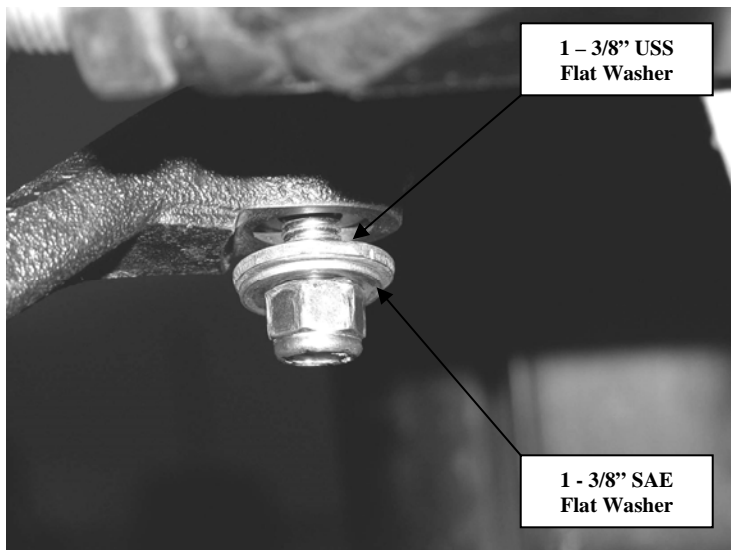
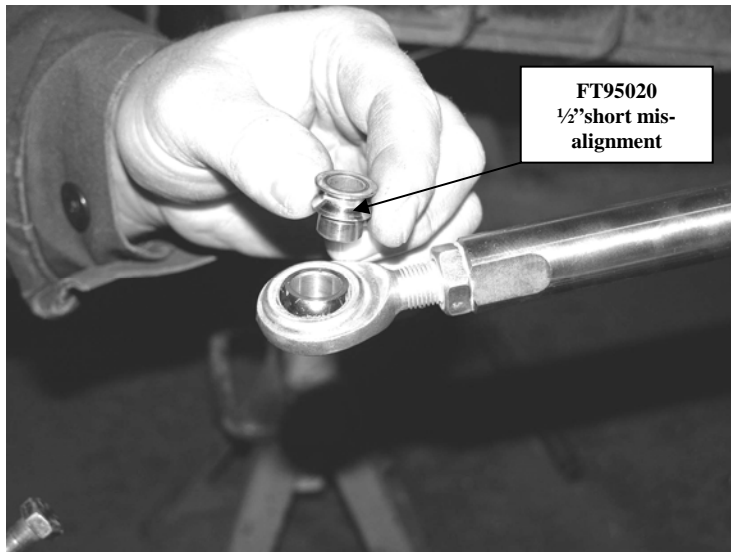


**Upper and Lower Control Arm @ Knuckle**

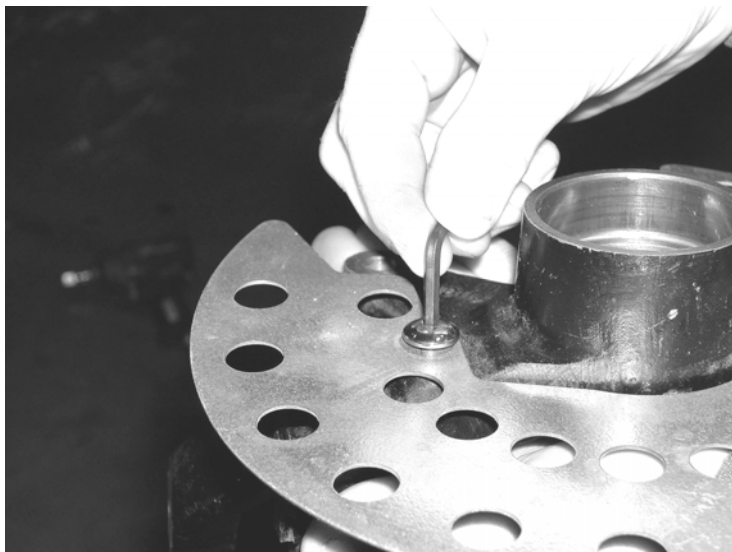


**New Tie Rod Assembly @ Knuckle**



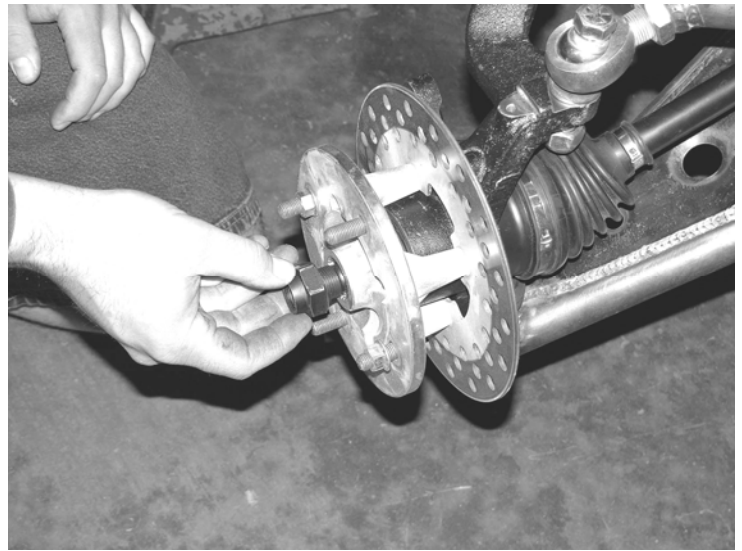


15. Using factory hardware install the new dust shield. Use supplied thread-locking compound on the bolts. SEE PHOTO BELOW

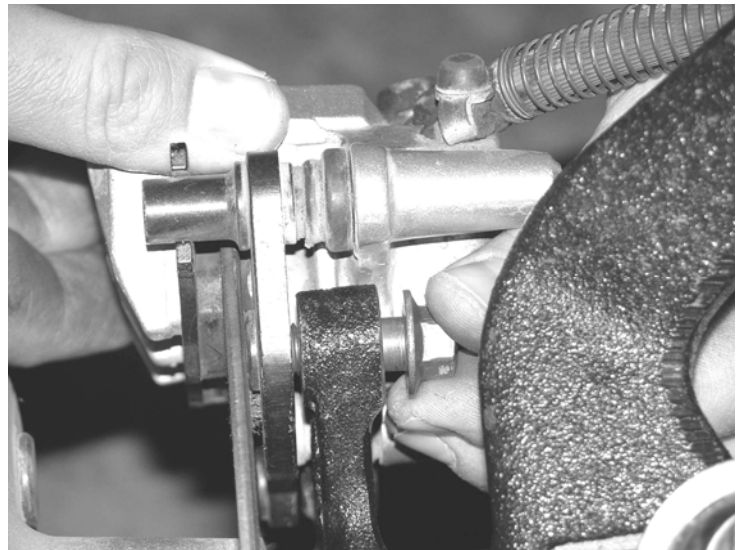


16. Locate and install the factory hub assembly onto the knuckle and axle shaft. Install the factory axle shaft nut and torque to 190 ft. lbs. Use a center punch and re-crimp the hub nut in

the key way of the axle. SEE PHOTO IN NEXT COLUMN.



17. Locate the 10mm brake caliper bolts and re-attach the rotor. Torque to 35 ft. lbs. (use supplied thread-locking compound) Locate the two of the supplied adel clamps and 1/4" hardware. Position the adel clamps over the brake hose and attach to the tabs on the upper control arms. Torque to 10 lbs. SEE PHOTOS BELOW.



## **RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.**

For technical assistance call: 909-597-7800

### **Product Warranty and Warnings-**

Fabtech provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following Fabtech items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Take apart shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Lifetime Warranty.

Fabtech does not warrant any product for finish, alterations, modifications and/or installation contrary to Fabtech's instructions. Alterations to the finish of the parts including but not limited to painting, powdercoating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping which is considered normal and is not covered under warranty.

Fabtech products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America.

Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death. Fabtech front end Desert Guards may impair the deployment or operation of vehicles equipped with supplemental restraining systems/air bag systems and should not be installed if the vehicle is equipped as so.

Fabtech makes every effort to ensure suspension product compatibility with all vehicles listed in the catalog, but due to unknown auto manufacturer's production changes and/or inconsistencies by the auto manufacturer, Fabtech cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in Fabtech's catalog are only a guideline for street driving with noted fender trimming. Fabtech is not responsible for damages to the vehicle's body or tires.

Fabtech's obligation under this warranty is limited to the repair or replacement, at Fabtech option, of the defective product only. All costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty. Fabtech is not responsible for damages and/or warranty of other vehicle parts related or non related to the installed Fabtech product. This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been subject to accident, negligence, alteration, abuse or misuse as determined by Fabtech.

Fabtech suspension components must be installed as a complete system including shocks as shown in our current catalog. All warranties will become void if Fabtech parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension parts may cause premature wear and/or product failure resulting in an accident causing injury or death. Fabtech does not warrant products not manufactured by Fabtech.

Installation of Fabtech product may void the vehicles factory warranty; it is the consumer's responsibility to check with their local vehicle's dealer for warranty disposition before the installation of the product.

It is the responsibility of the distributor and/or the retailer to review all warranties and warnings of Fabtech products with the consumer prior to purchase.

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