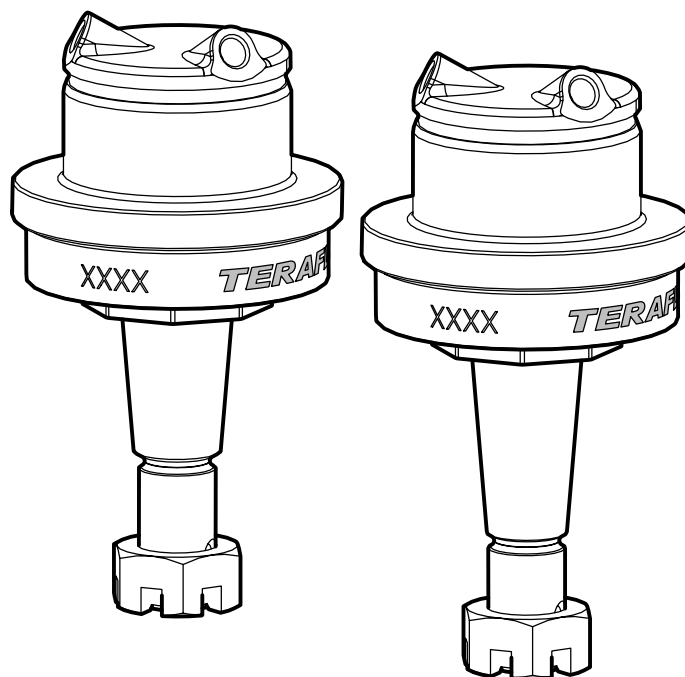




# Jeep JL/JT HD Ball Joint Instructions

# 3452010



## Important Notes:

Prior to beginning this install, or any installation, read the instructions thoroughly to familiarize yourself with the required steps. Evaluate if you are experienced and capable to personally perform these modifications. A factory service manual should be used in conjunction with these installation instructions.

This product will change the highway handling characteristics of your vehicle, exercise caution. After altering the suspension it is always advisable to have an alignment done by a competent 4 wheel drive shop or by an alignment shop that is experienced with lifted 4 wheel drive vehicles.

Refer to the parts list to ensure that all necessary components and hardware has been included. If any parts are missing please contact your local TeraFlex dealer for assistance.

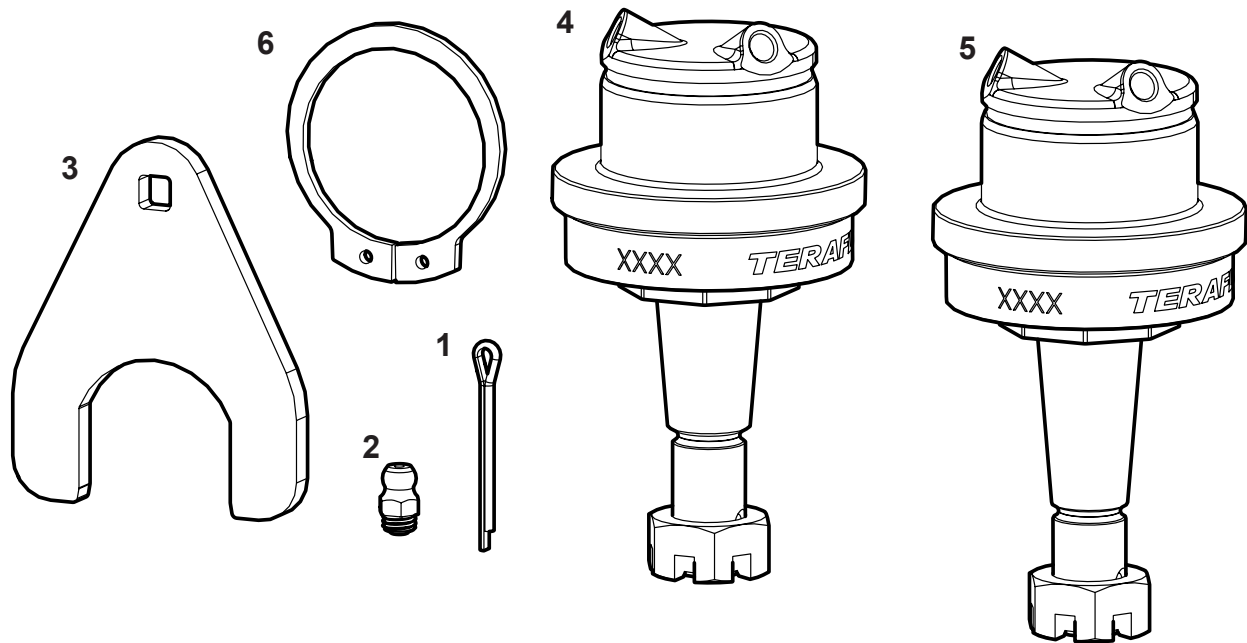
**When reinstalling OEM hardware, refer to the torque specs given in the Factory Service Manual.**

## Tools Needed:

- |  |                             |
|--|-----------------------------|
| - Metric Sockets and Open End Wrenches | - Factory Service Manual    |
| - Torque Wrench                        | - General Mechanics Tools   |
| - Ball Joint Press                     | - Large Hammer              |
| - Grease Gun / High Quality Grease     | - Blue Thread Lock Compound |

## Maintenance Note:

After the first 300 miles and every 3,000 miles after that, re-torque all the suspension components and bolts.

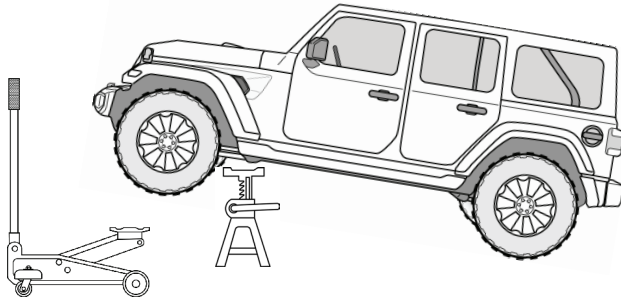


Item #	Part No.	Description	QTY
1	301	Cotter Pin 3/32" Diameter x 1.25" Long	4
2	308	Grease Zerk 1/4"-28 UNF Straight, Gold	8
3	31-02-001-006	Steering, HD Ball Joint, Jeep JL Wrangler, Adjustment Tool	1
4	31-02-001-101	Steering, HD Ball Joint, Jeep JL Wrangler, Upper Ball Joint Assembly	2
5	31-02-001-201	Steering, HD Ball Joint, Jeep JL Wrangler, Lower Ball Joint Assembly	2
6	43-06-02-001	Retaining Ring, 0.098" Thickness, 42.0mm Shaft Diameter	2

**ENGAGE 4 WHEEL DRIVE AND DRIVE JEEP A SHORT DISTANCE**

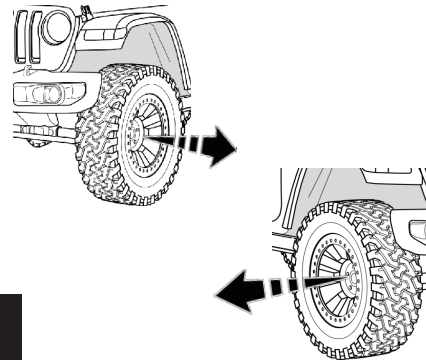
**1**

**LIFT AND SUPPORT AT FRAME**



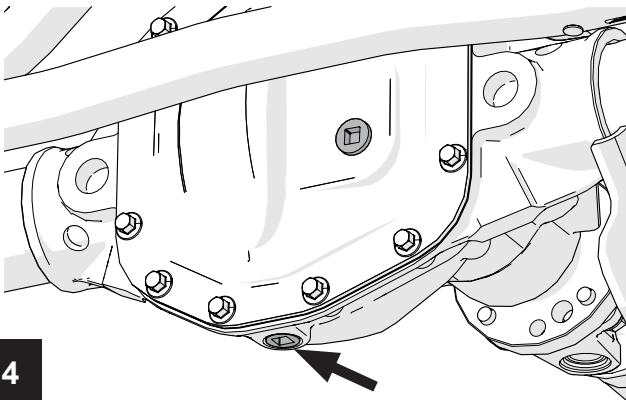
**2**

**REMOVE FRONT WHEELS**



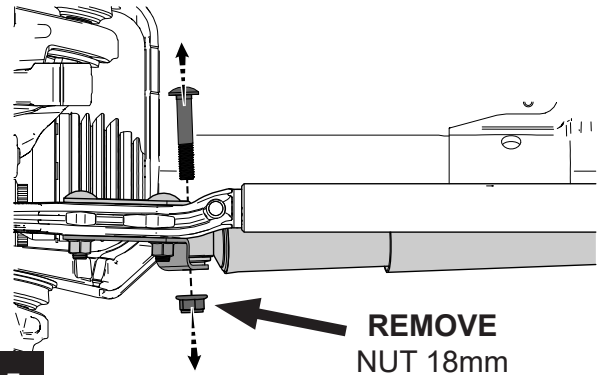
**3**

**DRAIN FRONT DIFFERENTIAL FLUID**



**4**

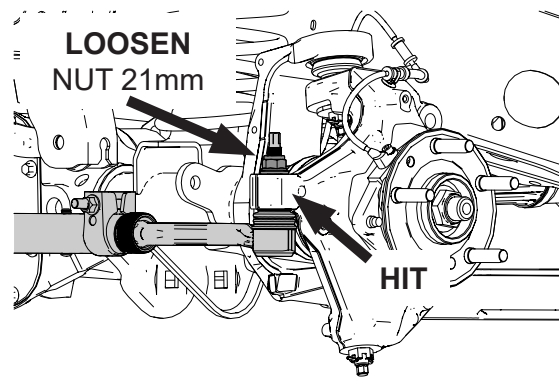
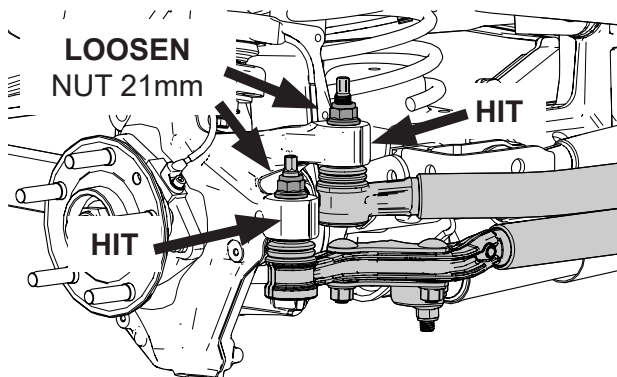
**REMOVE STABILIZER FROM TIE ROD**



**REMOVE  
NUT 18mm**

**5**

**DISCONNECT THE DRAG LINK AND TIE ROD FROM THE STEERING KNUCKLES**

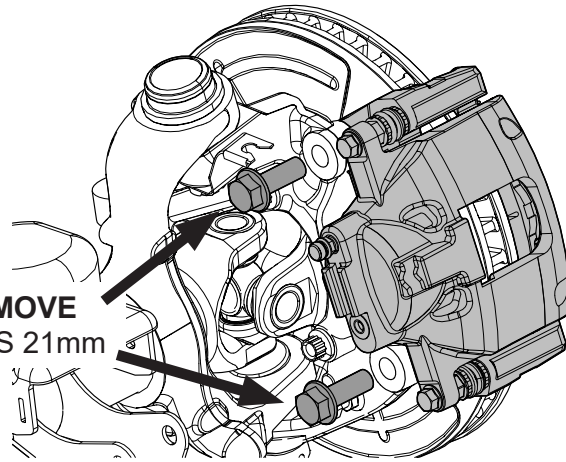


**6**

**ONCE DRAG LINK IS FREE REMOVE FROM KNUCKLE AND TIE UP OUT OF THE WAY.**

### REMOVE BRAKE CALIPER/ANCHOR ASSEMBLIES

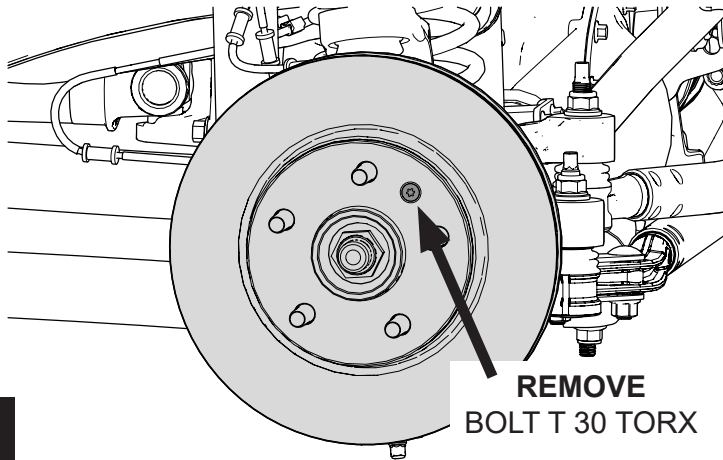
REMOVE  
BOLTS 21mm



7

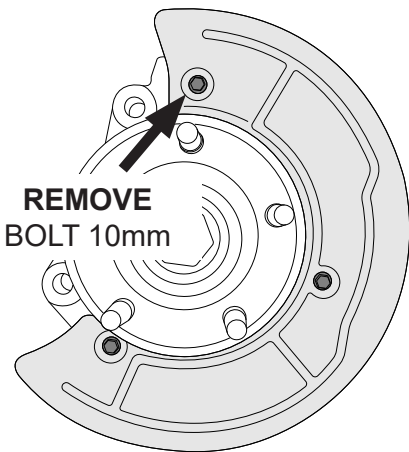
### REMOVE ROTORS AND SPLASH SHIELDS

REMOVE  
BOLT T 30 TORX



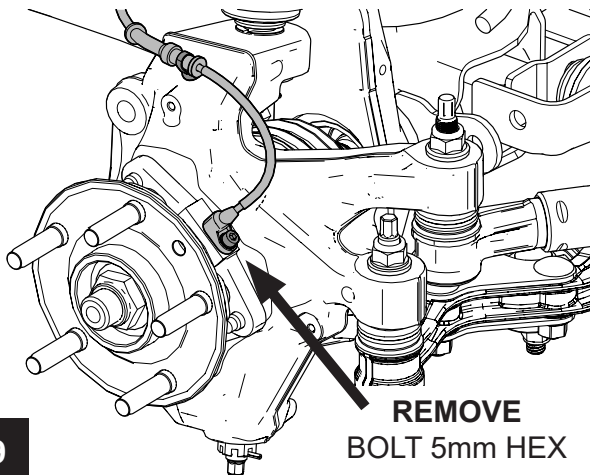
8

REMOVE  
BOLT 10mm



### REMOVE THE FRONT WHEEL SPEED SENSORS

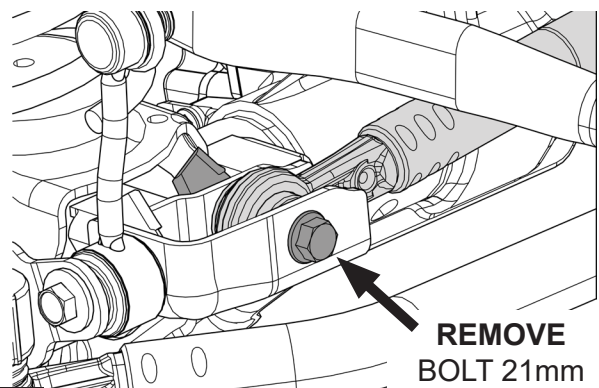
REMOVE  
BOLT 5mm HEX



9

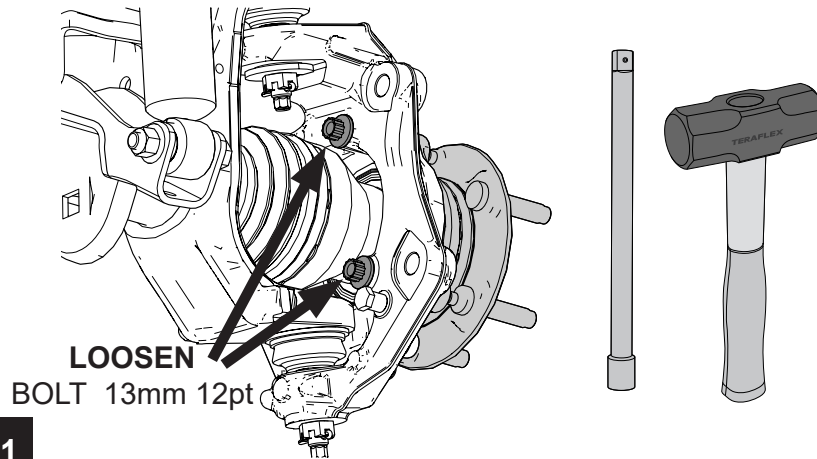
### REMOVE TRACK BAR AT THE AXLE

REMOVE  
BOLT 21mm



10

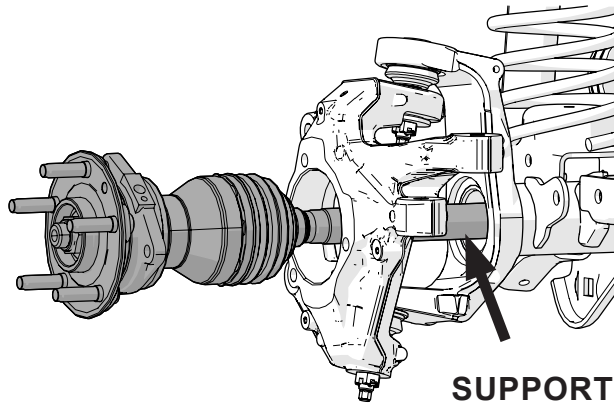
### LOOSEN THE THREE HUB BEARING BOLTS



**NOTE: HUB BEARING CAN BE SEIZED INTO KNUCKLE AND WILL NEED TO BE FORCED OUT. USE A LONG EXTENSION AND THE 13MM 12 PT SOCKET TO HAMMER ON THE HUB BEARING BOLTS UNTIL HUB BEARING BREAKS FREE.**

11

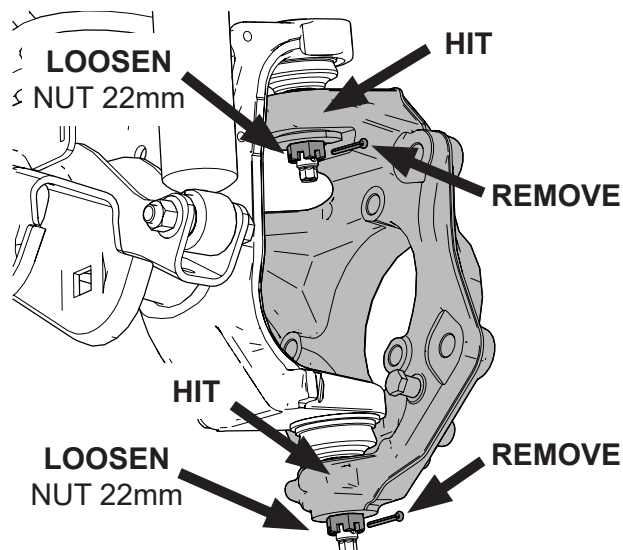
### REMOVE HUB BEARING AND AXLE ASSEMBLY



**SUPPORT THE INNER AXLE SHAFT SO THAT THE INNER SEAL IS NOT DAMAGED DURING REMOVAL.**

12

### LOOSEN BALL JOINT NUTS AND REMOVE KNUCKLE

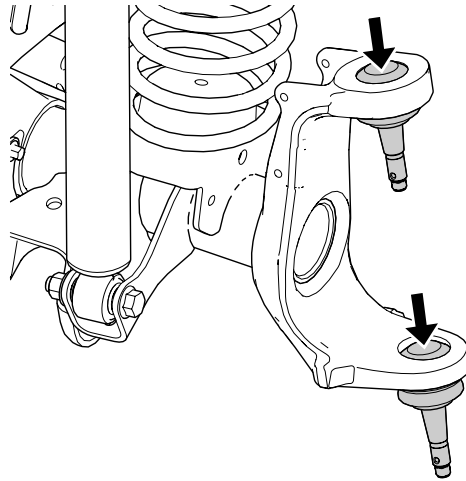


**REMOVE COTTER PINS AND LOOSEN UPPER AND LOWER BALL JOINT NUTS BUT DO NOT REMOVE.**

**USE A LARGE HAMMER OR AIR HAMMER TO REMOVE THE OUTER KNUCKLE.**

13

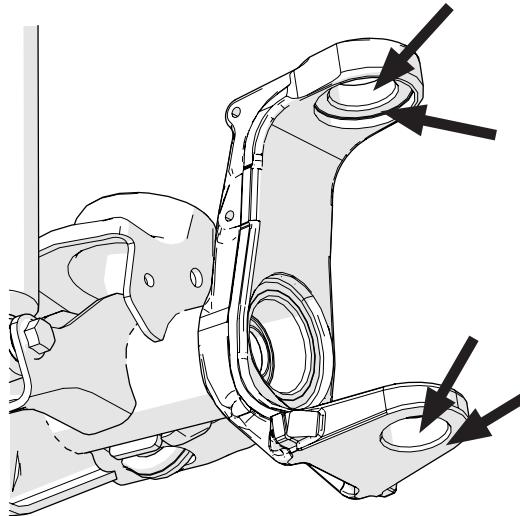
**REMOVE THE UPPER THEN THE LOWER BALL JOINTS**



**USING A BALL JOINT PRESS REMOVE THE UPPER THEN THE LOWER BALL JOINTS.**

**14**

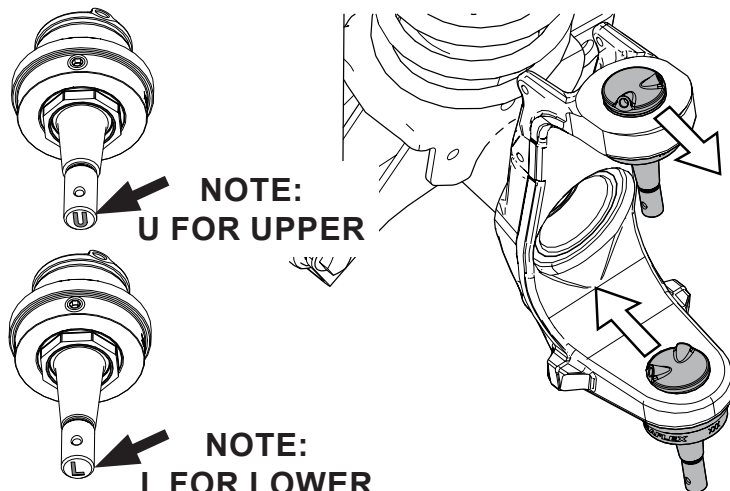
**CLEAN THE BALL JOINT BORES AS WELL AS THE MATING SURFACES**



**CLEAN BALL JOINT SURFACES AND APPLY A SMALL AMOUNT OF GREASE OR ANTI-SEIZE TO THE BORES TO AID IN INSTALLATION.**

**15**

**INSTALL THE LOWER BALL JOINT THEN THE UPPER BALL JOINT**



**NOTE:  
U FOR UPPER**

**NOTE:  
L FOR LOWER**

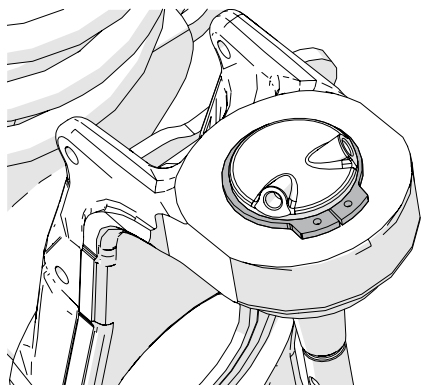
**INSTALL THE LOWER "L" BALL JOINT AND THEN THE UPPER "U" BALL JOINT.**

**NOTE: LOWER BALL JOINT ORIENTATION IS CRITICAL! RAISED GREASE PASSAGES MUST BE FACING THE AXLE.**

**NOTE: USE CARE WHILE INSTALLING LOWER BALL JOINT. THE TOOL CAN SLIP OUT OF POSITION AND CRUSH RAISED GREASE PASSAGES.**

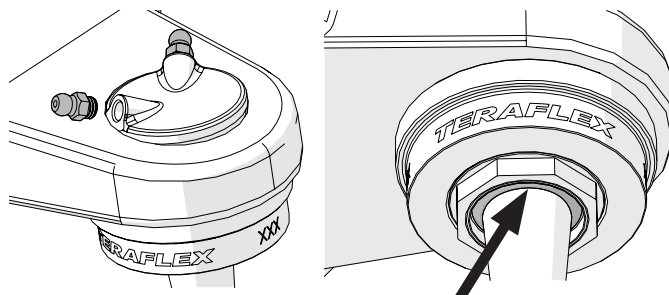
**16**

### INSTALL RETAINING RINGS ONTO UPPER BALL JOINT



17

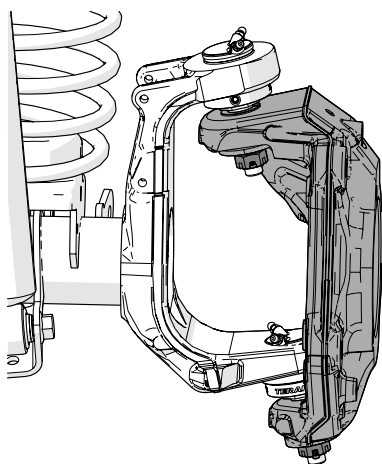
### INSTALL GREASE ZERKS AND GREASE BALL JOINTS



GREASE UNTIL A SMALL AMOUNT COMES OUT OF LIP SEAL

18

### REINSTALL OUTER KNUCKLE



19

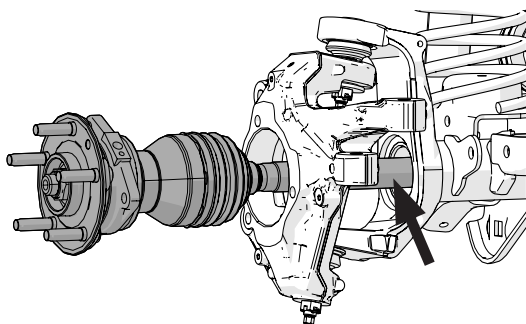
INITIALLY TIGHTEN LOWER BALL JOINT NUT TO 15 FT-LBS.

NEXT TORQUE THE UPPER BALL JOINT NUT TO 55 FT-LBS. AND INSTALL COTTER PIN.

FINALLY TORQUE THE LOWER BALL JOINT TO 33 FT-LBS. AND INSTALL COTTER PIN.

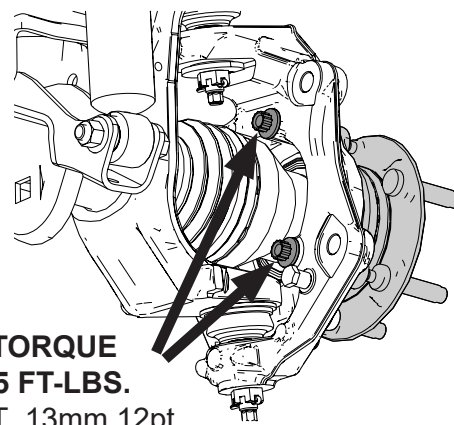
NOTE: IF COTTER PIN HOLE DOESN'T LINE UP TIGHTEN NUT TO NEXT CLOSEST SLOT.

### REINSTALL HUB BEARING/AXLE SHAFT ASSEMBLY



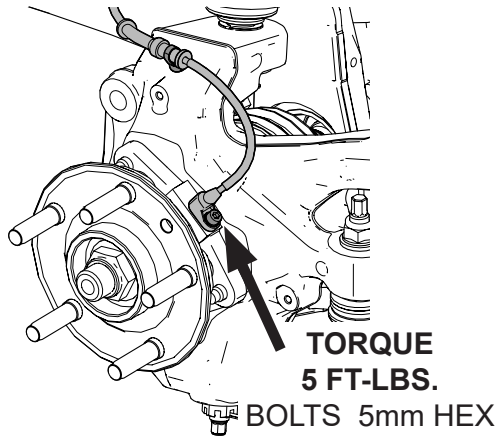
SUPPORT THE INNER AXLE SHAFT SO THAT THE INNER SEAL IS NOT DAMAGED DURING INSTALL.

20

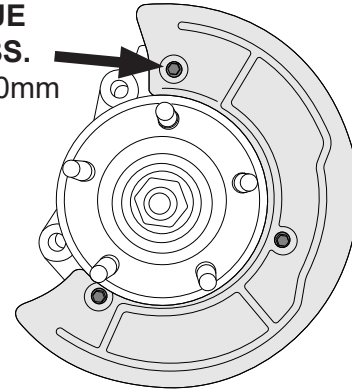


TORQUE  
75 FT-LBS.  
BOLT 13mm 12pt

## REINSTALL WHEEL SPEED SENSORS AND SPLASH SHIELDS

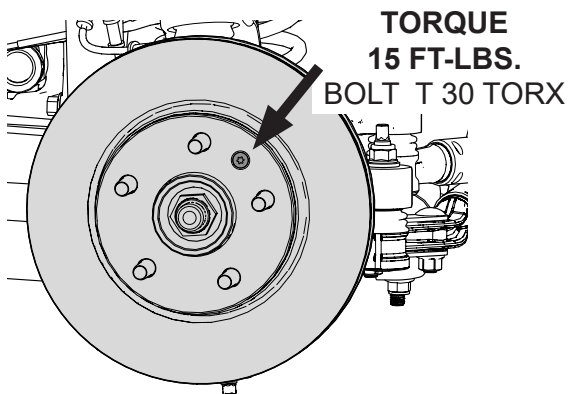


**TORQUE**  
**8 FT-LBS.**  
BOLTS 10mm



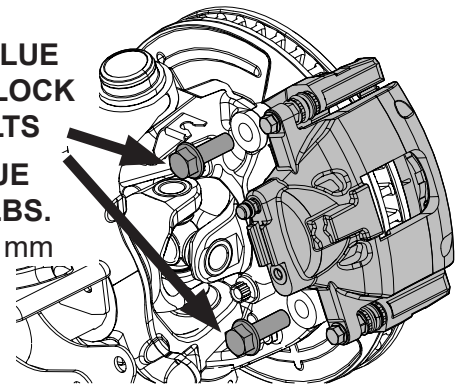
21

## REINSTALL ROTORS AND CALIPER ASSEMBLIES



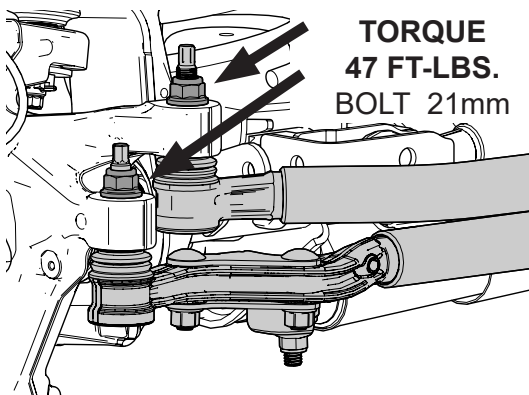
**APPLY BLUE**  
**THREAD LOCK**  
**TO BOLTS**

**TORQUE**  
**148 FT-LBS.**  
BOLT 21mm

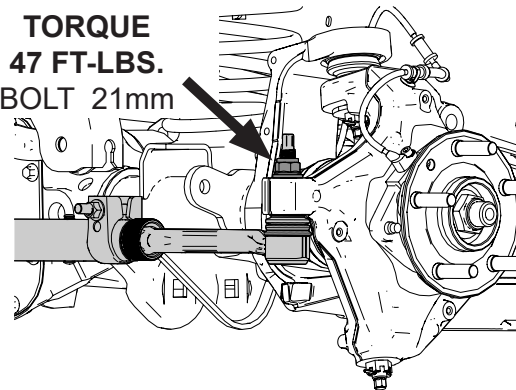


22

## REINSTALL DRAG LINK AND TIE ROD

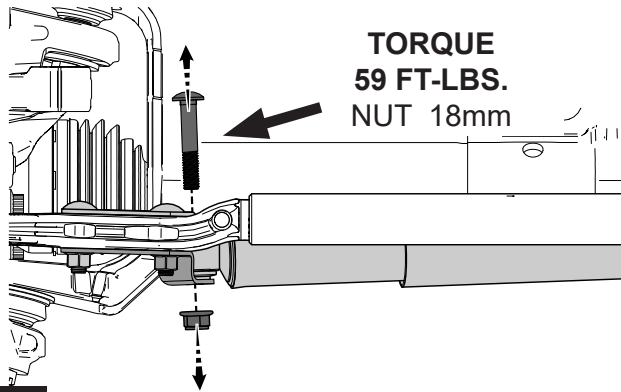


**TORQUE**  
**47 FT-LBS.**  
BOLT 21mm



23

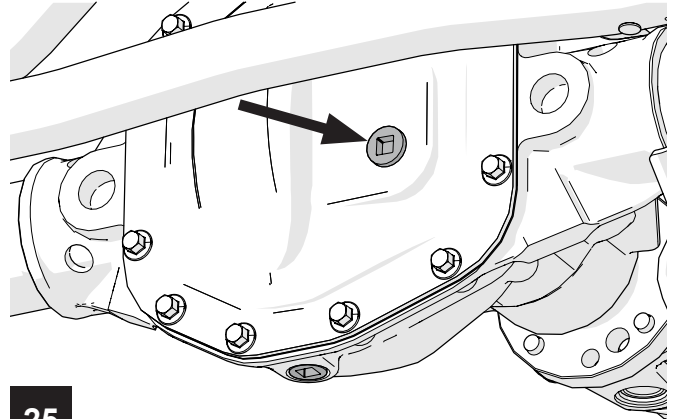
### REINSTALL STEERING STABILIZER



**TORQUE**  
**59 FT-LBS.**  
NUT 18mm

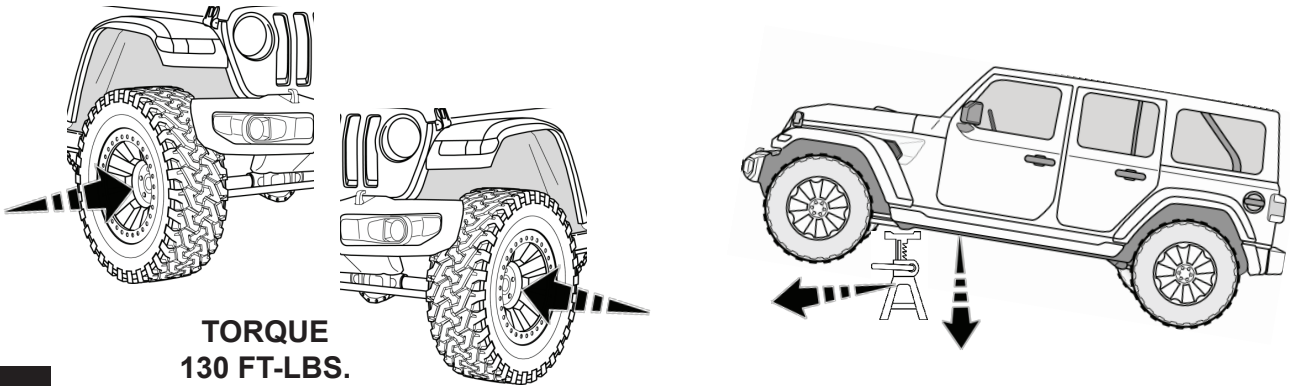
24

### REFILL DIFFERENTIAL



25

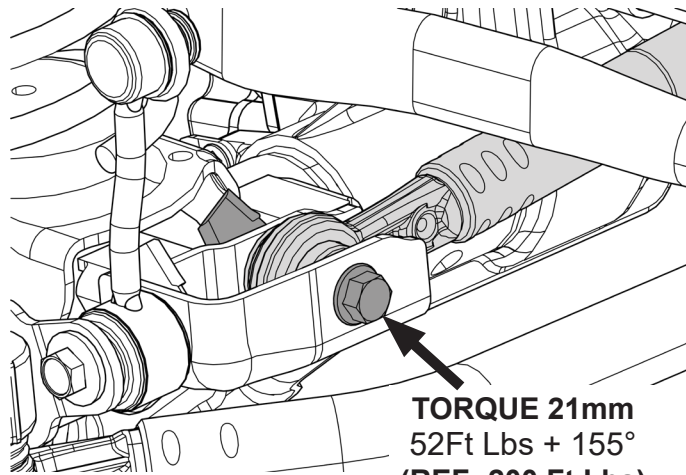
### REINSTALL WHEELS AND LOWER JEEP TO THE GROUND



**TORQUE**  
**130 FT-LBS.**

26

### REINSTALL TRACK BAR

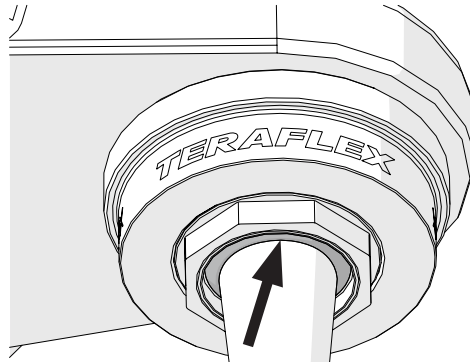


**TORQUE 21mm**  
**52Ft Lbs + 155°**  
**(REF: 200 Ft Lbs)**

27

## SERVICING HEAVY DUTY BALL JOINTS

### GREASING THE BALL JOINTS



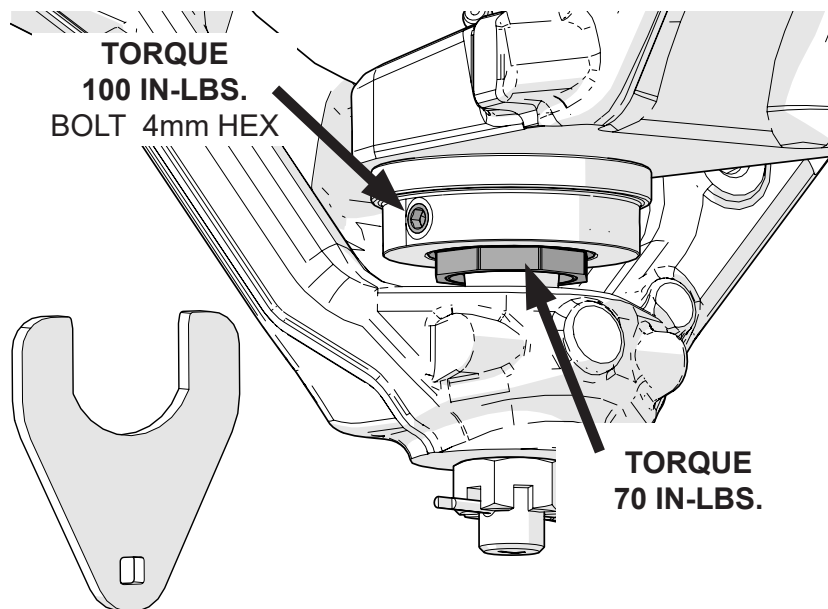
**NOTE: GREASE BOTH UPPER AND LOWER BALL JOINTS AT EVERY OIL CHANGE INTERVAL.**

**GREASE BALL JOINTS UNTIL A SMALL AMOUNT COMES OUT OF LIP SEAL.**

### SETTING BALL JOINT PRELOAD

**NOTE: IF WEAR CAUSES BALL JOINTS TO FALL OUT OF FACTORY SPECS (REFER TO YOUR FACTORY SERVICE MANUAL), USE THE FOLLOWING INSTRUCTIONS TO TIGHTEN THE PRELOAD.**

**NOTE: THIS PROCESS SHOULD BE DONE WITH THE BALL JOINTS UNDER LOAD, WITH THE WHEELS ON THE GROUND. REMOVAL OF WHEELS AND OTHER COMPONENTS ARE NOT NECESSARY.**



**LOOSEN SET SCREW AT BASE OF BALL JOINT.**

**USE SUPPLIED SPECIALTY WRENCH AND AN INCH POUND TORQUE WRENCH TO TIGHTEN BALL JOINT PRELOAD ADJUSTMENT NUT TO 70 IN-LBS.**

**TIGHTEN SET SCREW TO 100 IN-LBS.**