

ROUGH COUNTRY

SUSPENSION SYSTEMS®

JEEP 1997-06 TJ/XJ Front Axle HD Ball Joints

Thank you for choosing Rough Country for all your vehicle needs.

Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go.

If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product.

Check all fasteners for proper torque. Check to ensure for adequate clearance between all components.

Periodically check all hardware for tightness.

KIT CONTENTS:

Upper Ball Joint Assemblies x2
Lower Ball Joint Assemblies x2

TOOLS NEEDED:

Hammer
5mm Allen Wrench
12 Point 13mm Socket
7/8 Wrench
1 1/16 Wrench
1 1/8 Wrench
7mm Wrench
21mm Wrench and Socket
22mm Wrench or Socket
36mm Wrench or Socket
Grease Gun
Die Grinder
Ball Joint Press



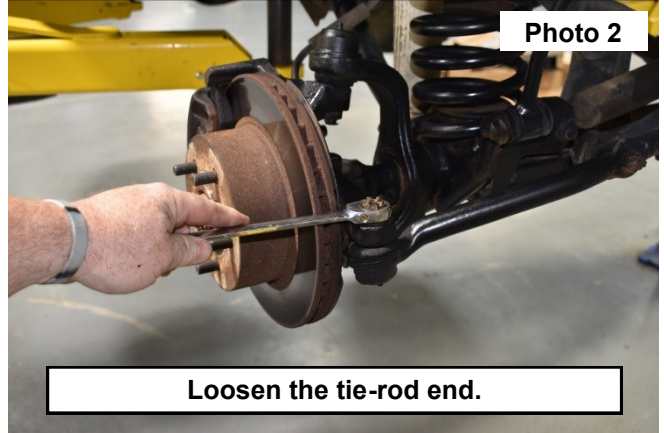
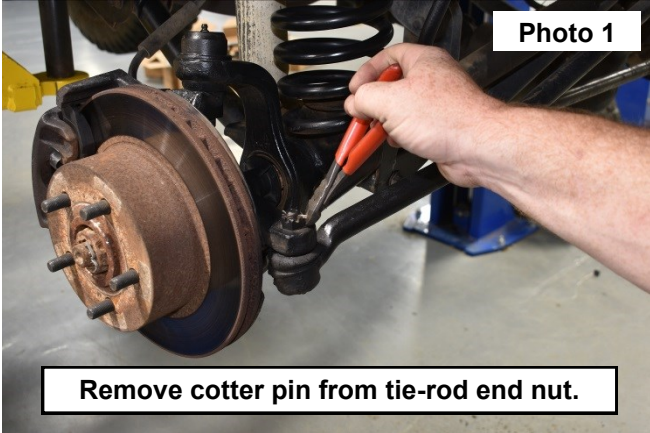
Torque Specs:

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16"	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8"	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16"	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2"	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16"	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8"	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4"	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs

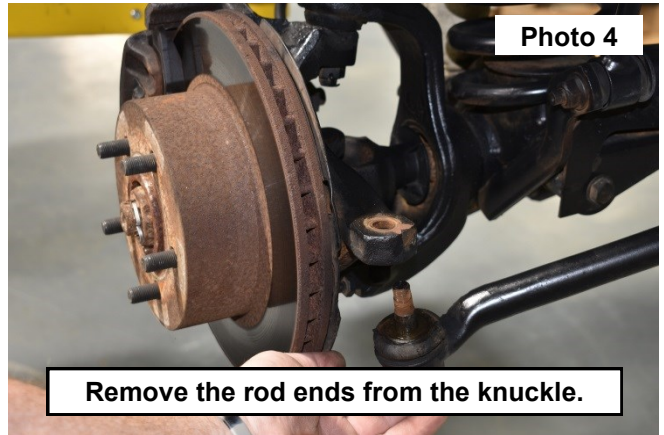


INSTALLATION INSTRUCTONS

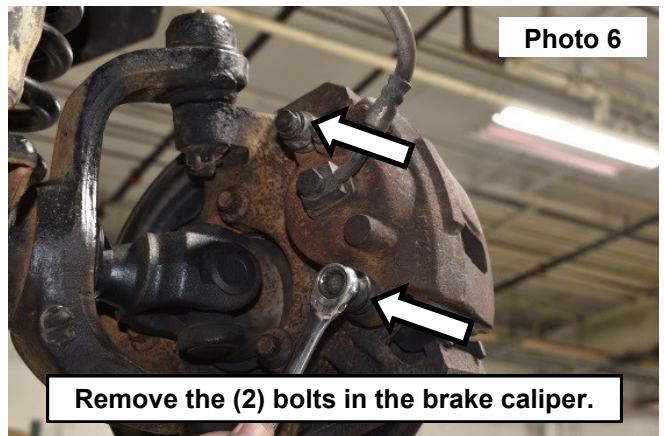
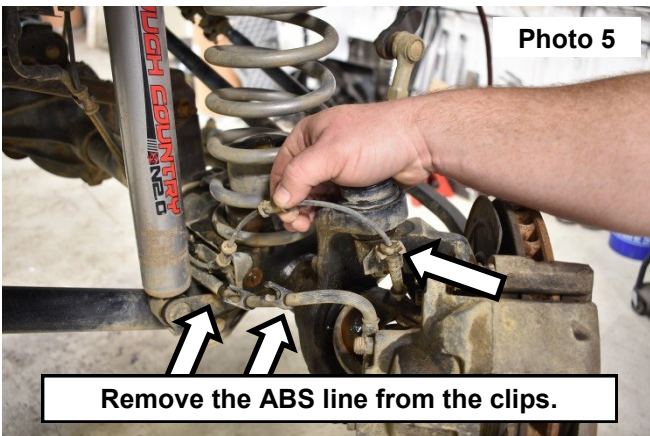
1. Jack up the front of the vehicle and place on jack stands. Remove the front wheels.
2. Remove the cotter pin from the nut on the tie-rod end. **See Photo 1.**
3. Loosen the nut on the tie-rod end using a 21mm wrench. **See Photo 2.**



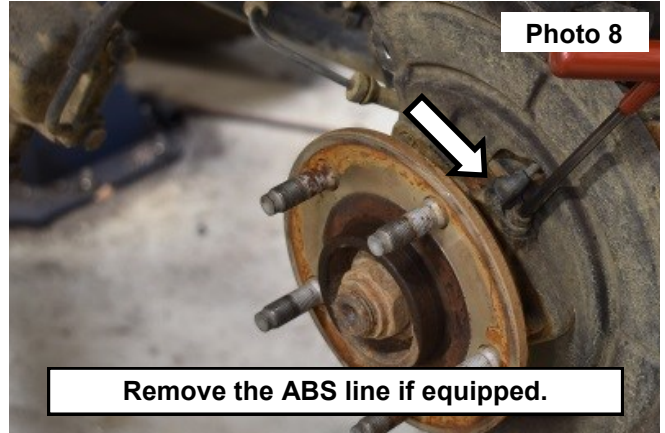
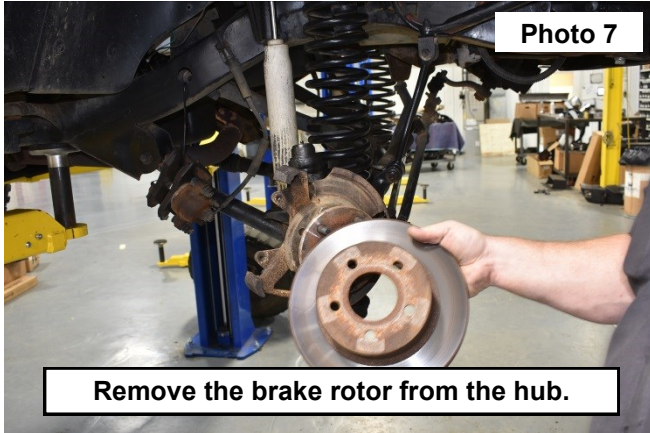
4. Use a hammer to dislodge the tie-rod and drag link ends. **See Photo 3.**
5. Remove the nuts from the tie-rod and drag link ends and remove from the knuckle. **See Photo 4.**



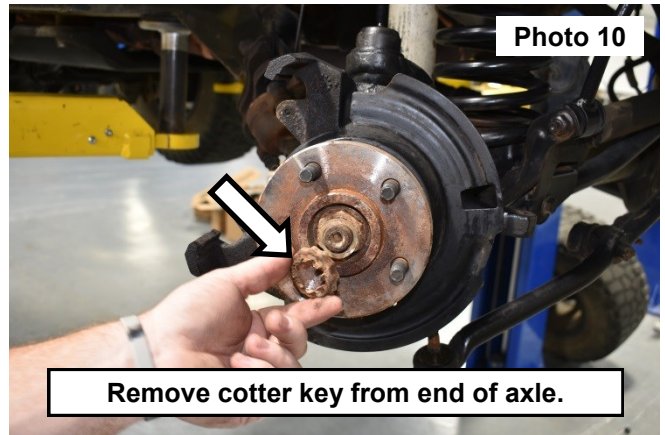
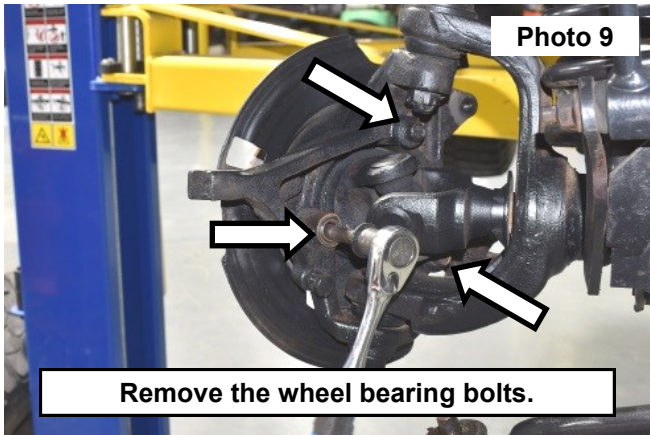
6. Remove the ABS line from the brake line clips. **See Photo 5.**
7. Using a 21mm socket, remove the (2) bolts from the brake caliper mount. Retain hardware. **See Photo 6.**
8. Remove the brake caliper and hang aside the frame in a safe place. **Do not hang from the brake line.**



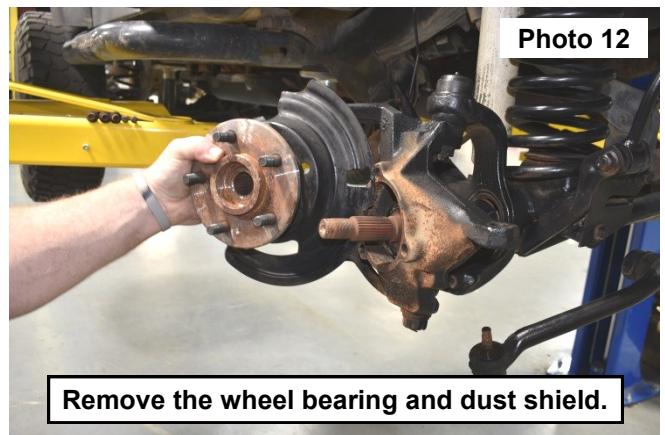
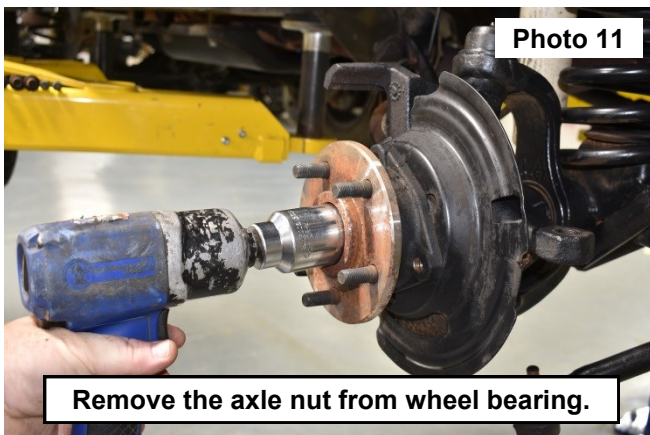
9. Remove the brake rotor from the hub. **See Photo 7.**
10. Remove the ABS sensor bolt from wheel bearing if equipped using a 5mm Allen wrench. **See Photo 8.**



11. Use a **12 point** 13mm socket to remove the (3) wheel bearing bolts. **See Photos 9.**
12. Remove the cotter key from the end of the axle. **See Photo 10.**

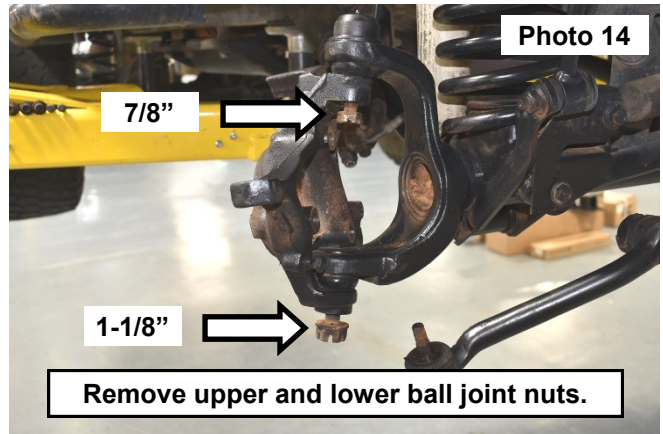
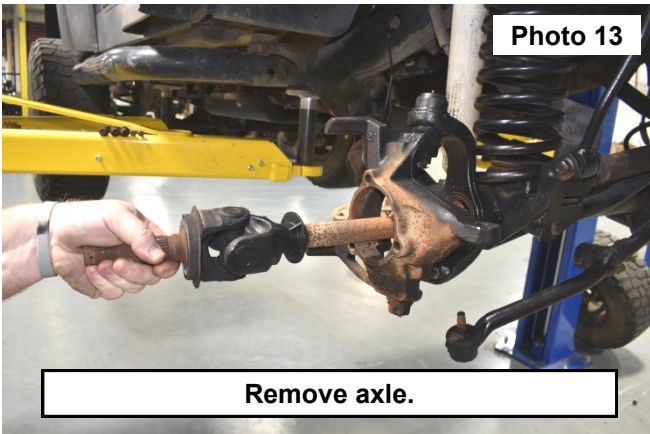


13. Use a 36mm socket to remove (1) axle nut from the wheel bearing. Retain hardware. **See Photo 11.**
14. Remove the wheel bearing and dust shield from the knuckle. **See Photo 12.**
15. Remove the axle from the vehicle. Set aside for later use.



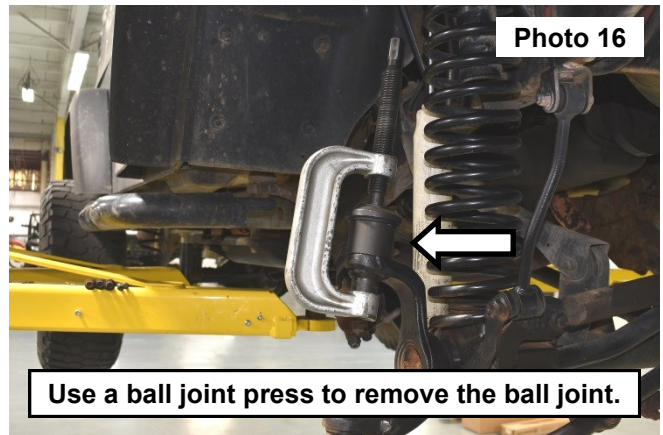
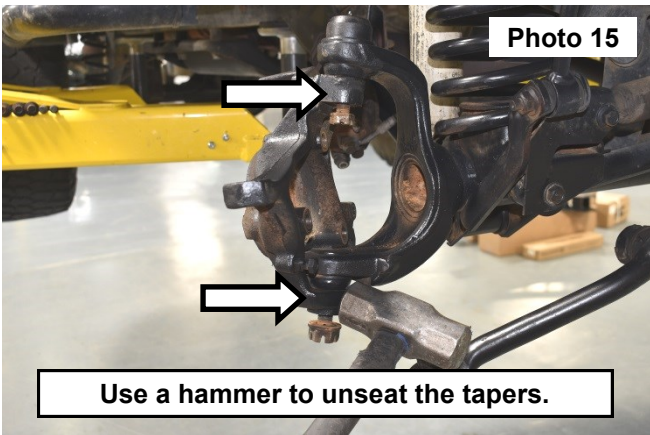
16. Remove the axle. **See Photo 13.**

17. Remove upper ball joint nut using a 7/8 wrench and remove lower ball joint nut using a 1-1/8 wrench. **See Photo 14.**



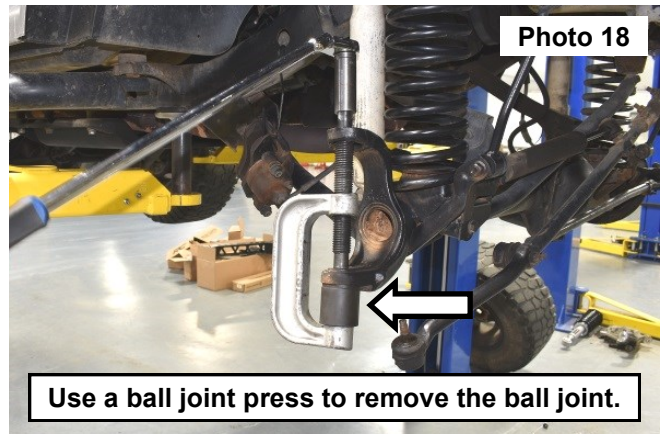
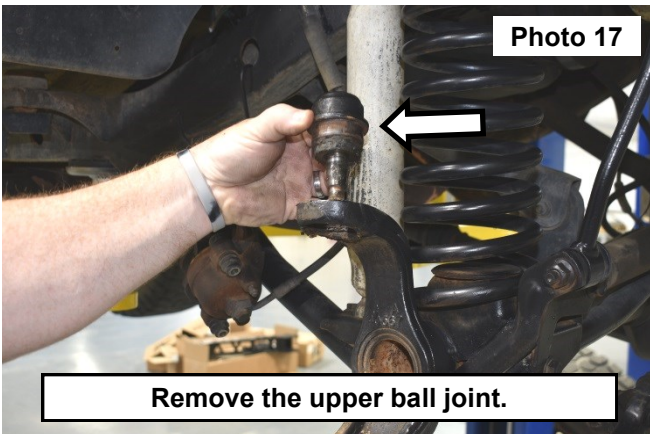
18. Use a hammer to unseat the upper and lower ball joint tapers. Then remove the knuckle from the vehicle. Retain knuckle. **See Photo 15.**

19. Use a ball joint press to remove the upper ball joint. **See Photo 16.**



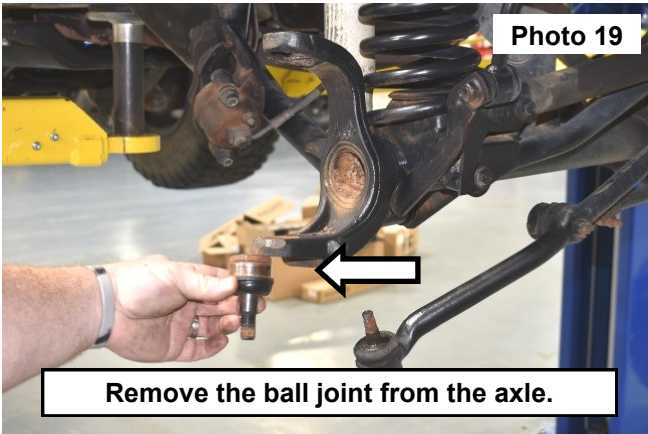
20. Remove the ball joint from the axle. **See Photo 17.**

21. Use a ball joint press to remove the lower ball joint. **See Photo 18.**



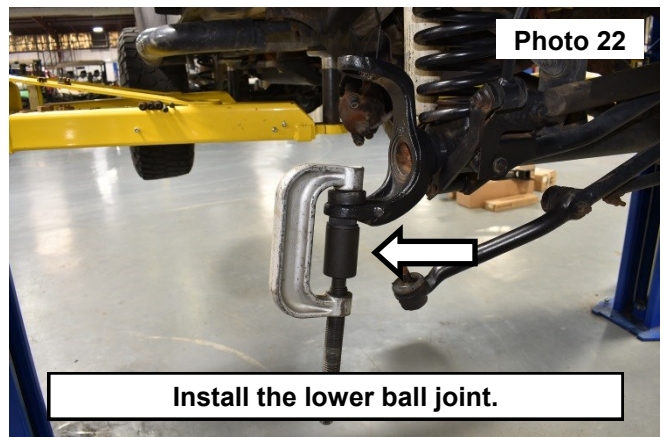
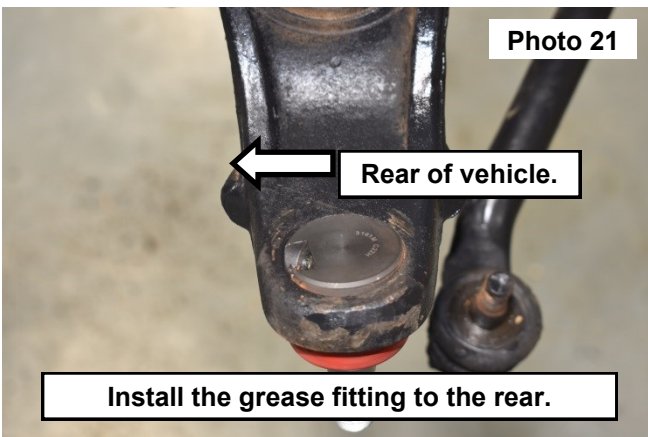
22. Remove the lower ball joint from the axle. **See Photo 19.**

23. Locate the lower ball joint. **See Photo 20.**

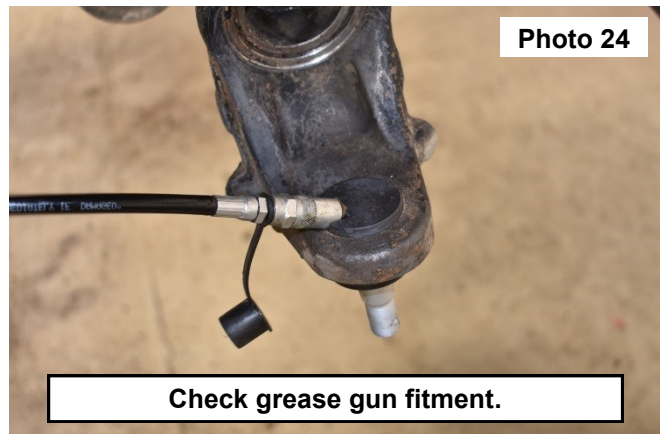
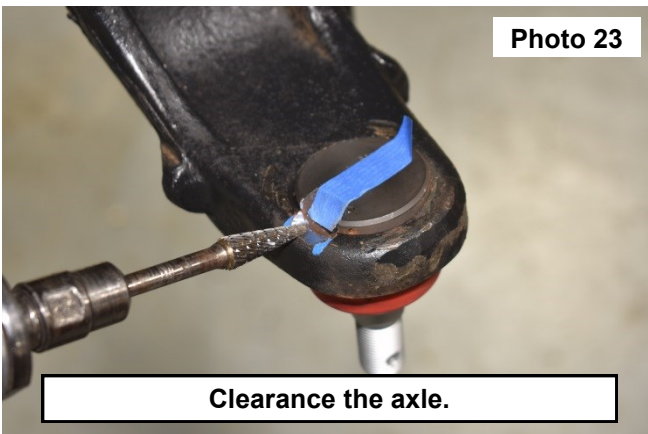


24. Install the ball joint so the grease fitting will be accessible from the rear of the axle. **See Photo 21.**

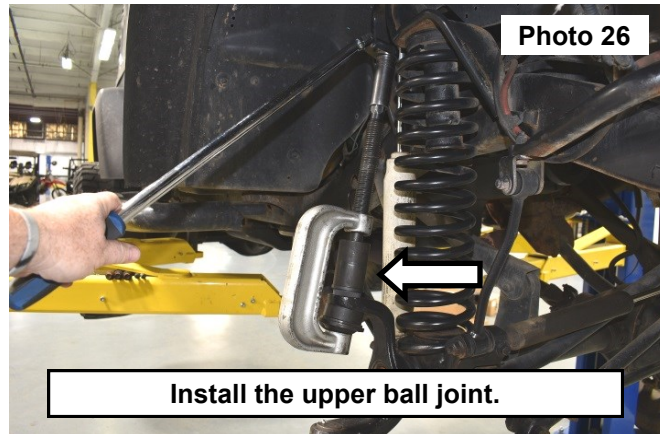
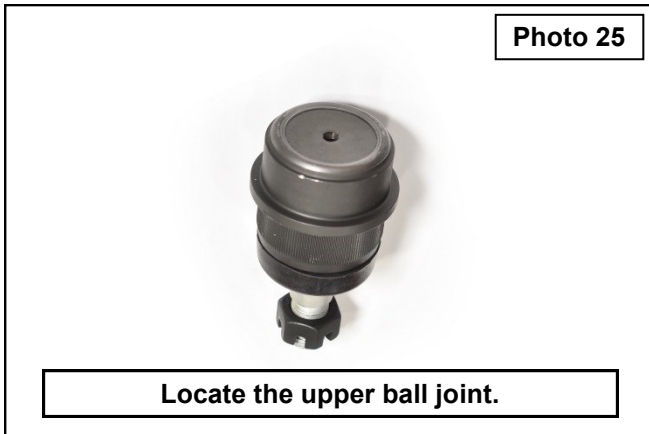
25. Install the lower ball joint into the axle using a ball joint press. **See Photo 22.**



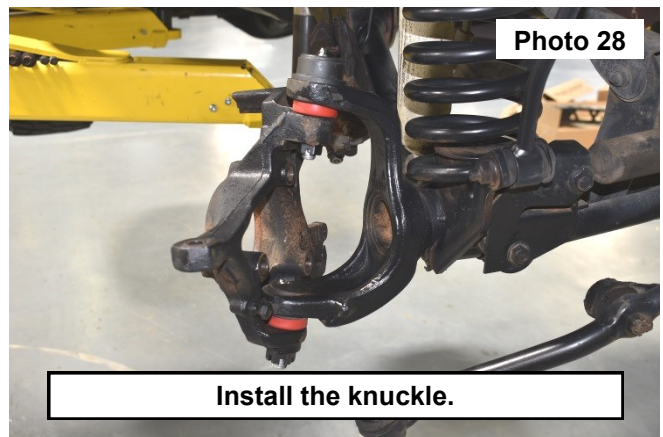
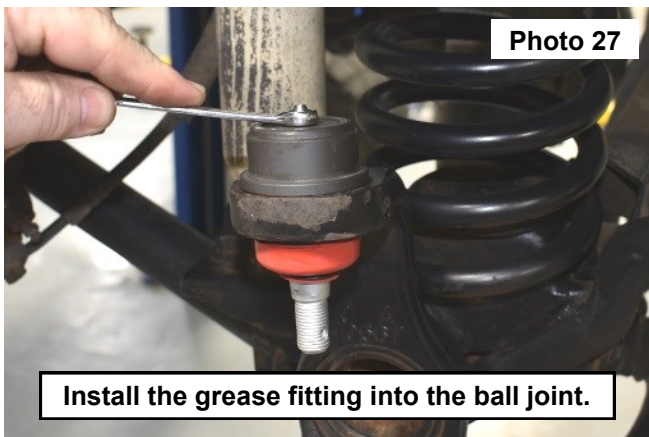
26. Depending on your grease gun check and make sure you can grease the ball joint. If not use a die grinder to clear-
ance the axle around the grease fitting. Install grease fitting using 7mm wrench and check grease gun fitment.
See Photos 23 and 24.



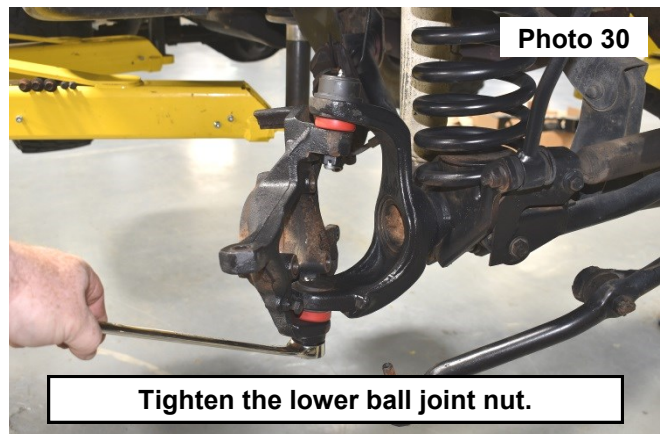
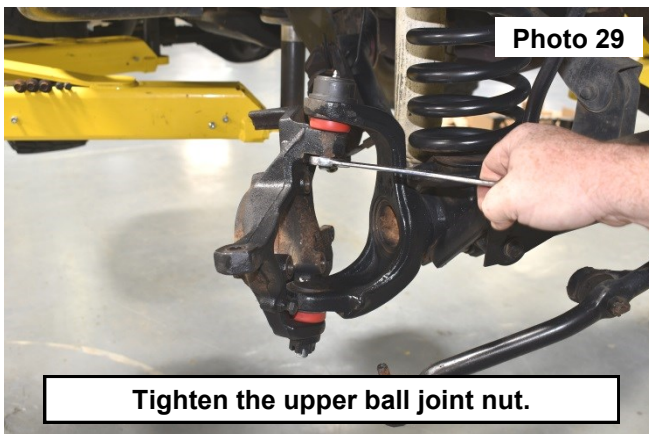
27. Locate the upper ball joint. **See Photo 25.**
28. Install the upper ball joint into the axle using a ball joint press. **See Photo 26.**



29. Install the grease fitting into the upper ball joint using a 7mm wrench. **See Photo 27.**
30. Install the knuckle onto the ball joints. Secure the knuckle using the supplied nuts. **See Photo 28.**



31. Tighten the upper ball joint nut using a 22mm wrench. **See Photo 29.**
32. Tighten the lower ball joint using a 1 1/16" wrench. **See Photo 30.**



33. Complete the assembly of the ball joint install by reversing disassembly steps.
34. Grease the upper and lower ball joints before driving and after 500 miles.

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