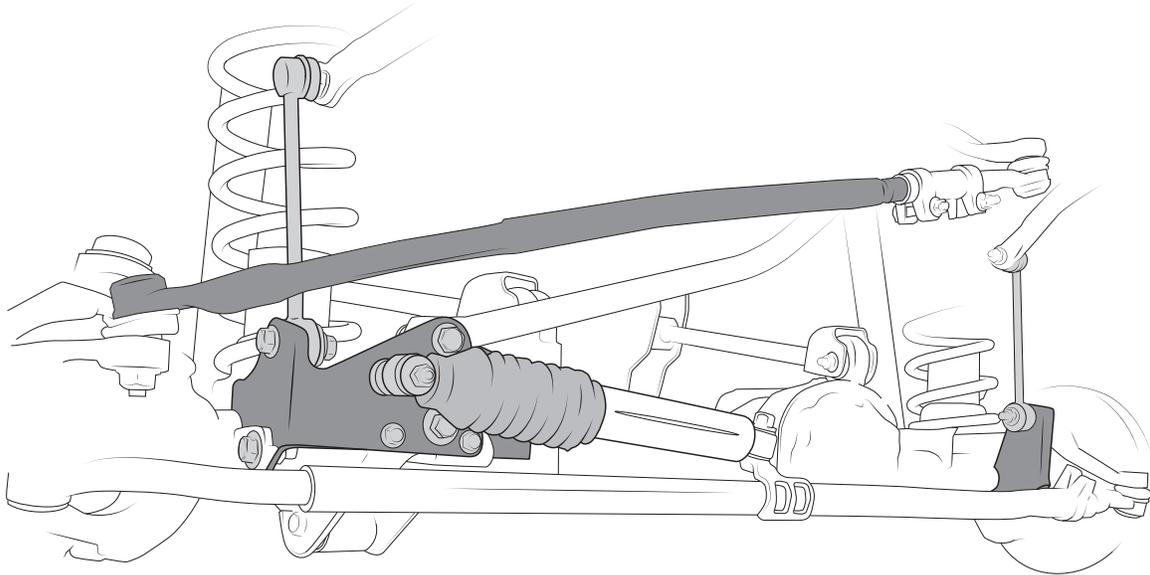




# HIGH STEER KIT

Designed for 2007–current Jeep JK Wrangler and Wrangler Unlimited models in all trim levels, including Rubicon, with at least 3.0” of suspension lift.





## PLEASE READ BEFORE YOU START

TO GUARANTEE A QUALITY INSTALLATION, WE RECOMMEND READING THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING ANY WORK. THESE INSTRUCTIONS ASSUME A CERTAIN AMOUNT OF MECHANICAL ABILITY AND ARE NOT WRITTEN NOR INTENDED FOR SOMEONE NOT FAMILIAR WITH AUTO REPAIR.

| INCLUDED PARTS                    | QTY | REQUIRED TOOLS                       |
|-----------------------------------|-----|--------------------------------------|
| Passenger-side Front Axle Bracket | 2   | Floor Jack and two Jackstands        |
| Driver-side Front Axle Bracket    | 1   | or Vehicle Lift with tall Jackstands |
| Draglink                          | 1   | Torque Wrench (ft-lbs)               |
| Steering Damper                   | 1   |                                      |
| Shock Doubler Bracket             | 2   |                                      |

### **These instructions assume you have the following factory parts installed on your JK:**

1. JK frame and front axle with all relevant brackets in tact.
2. Front track bar (aftermarket units will work ONLY if they can be adjusted to stock length.
3. Factory steering linkage (tie rod and part of the drag link will be retained.)
4. Rear stabilizer end links (or equivalent length) to use in front.



## I. REMOVE FACTORY COMPONENTS

1. Raise Jeep and support the frame using jack stands or a hoist, such that the front axle can be lowered enough to remove the springs. Support the axle by placing floor jack under the center of the axle. Remove the wheels (Fig. 1).

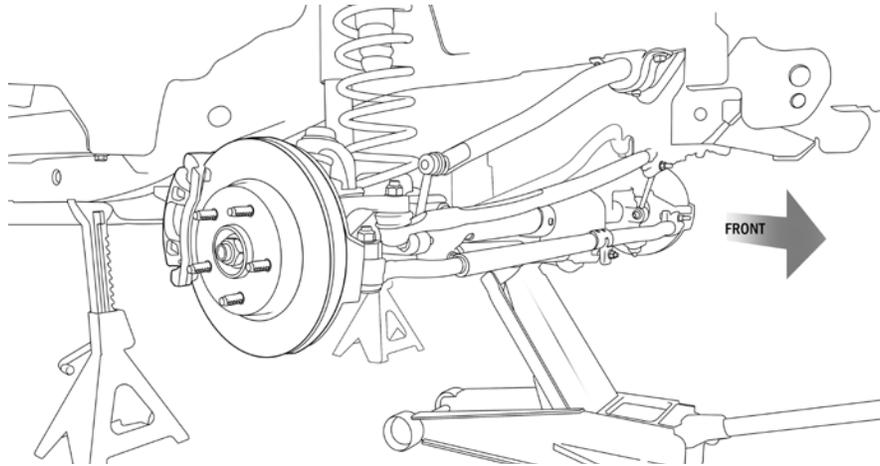


Figure 1

2. Remove the following parts:
  - Passenger front wheels/tires (needed for drilling access in step 6)
  - Steering drag link (coupler to knuckle portion only)
  - Steering damper
  - Tie rod
  - Sway bar end links
3. Also perform the following items only as indicated (not full removal as above):
  - Disconnect front track bar at axle side

## II. INSTALL PASSENGER-SIDE FRONT AXLE BRACKETS

1. Place bracket with “half moon” cutouts inside the original front track bar bracket and over the axle tube (Fig. 2-A). Insert two of the supplied  $3/8" \times 1.0"$  L bolts and washers through the small holes in the bracket and the corresponding holes in the stock bracket, then add nuts and hand tighten.

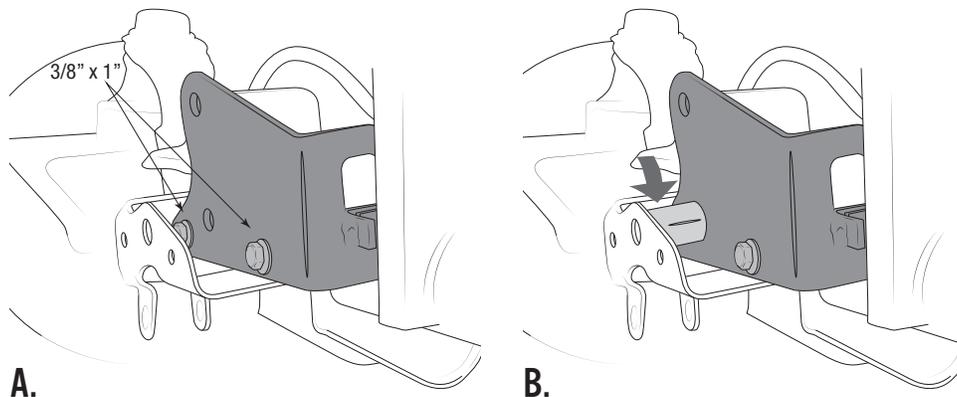


Figure 2



2. Add the supplied u-bolt and nuts (visible in Fig. 4).
3. Insert the supplied spacer tube between stock track bar bracket and new bracket (Fig. 2-B), lining it up with the original track bar bolt hole. (This may require slight prying or tapping with a hammer.)
4. Pre-assemble the second bracket as shown (Fig. 3) with the supplied bolt, washers, and free-spinning nut.

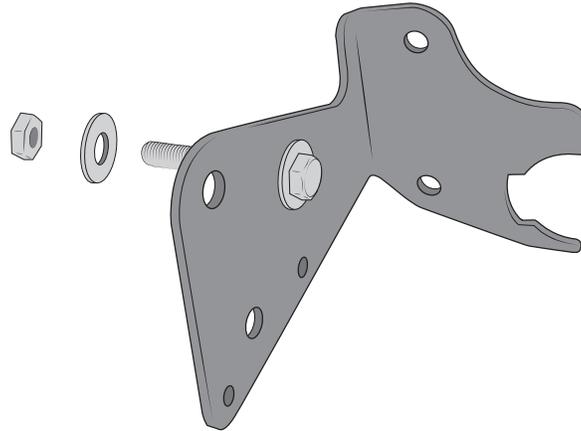


Figure 3

5. Install this bracket in front of the stock track bar bracket on the axle and line up the small holes with the corresponding ones on the axle bracket. Insert the remaining two 3/8" x 1.0" L bolts and washers from the front through the brackets, add nuts and hand tighten.
6. Insert the 1/2" x 1 1/2" L bolt through the factory stabilizer tab on the side of the axle and the corresponding bracket hole and add the locking nut.
7. Place 9/16" x 3 1/2" L bolt through original trackbar hole, both brackets, and supplied spacer tube.
8. You may now tighten all fasteners.

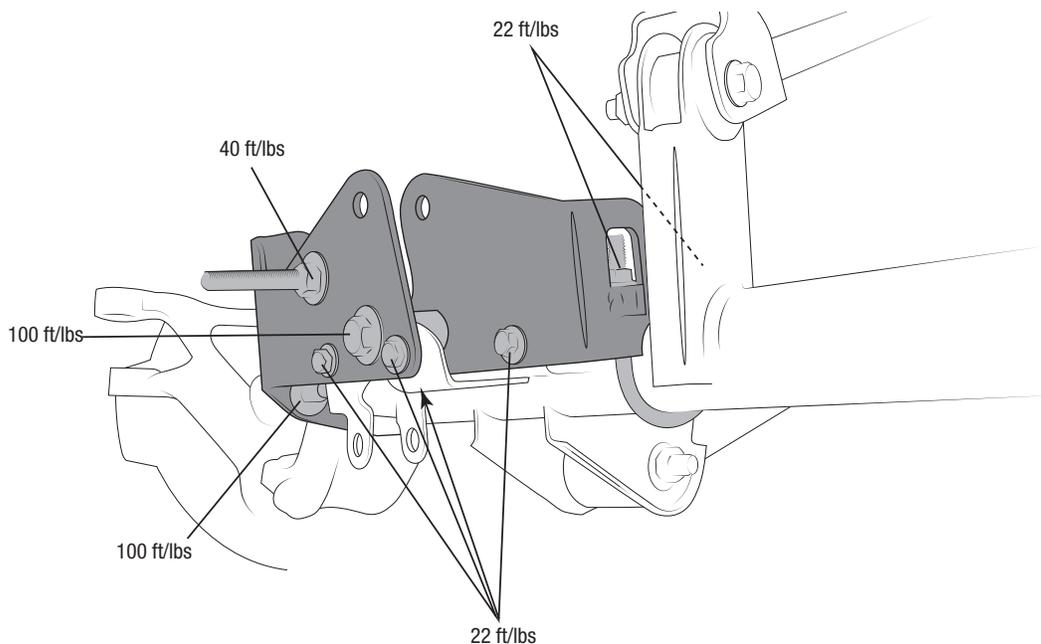


Figure 4



### III. INSTALL DRIVER-SIDE FRONT AXLE BRACKET

Position bracket over axle tube as shown (Fig. 5) Use supplied hardware to attach bracket to axle and tighten to 100 ft-lbs.

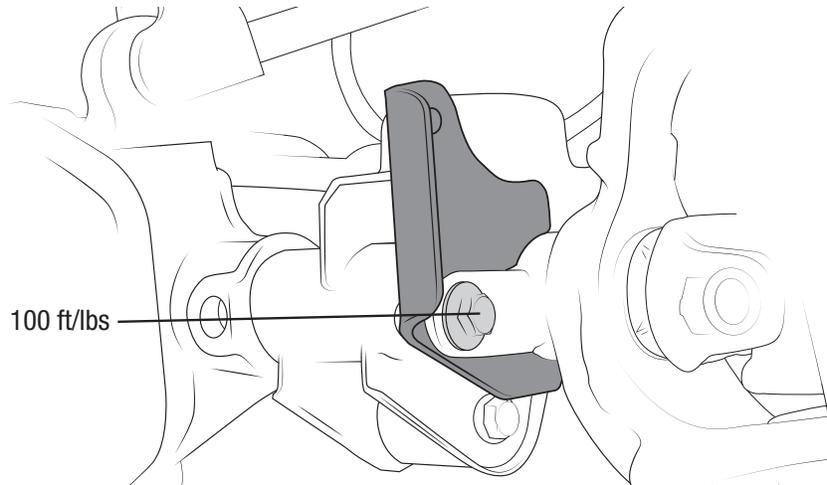


Figure 5

### IV. REATTACH TRACK BAR

1. Raise the axle until the axle-end of the track bar can be lined up with the uppermost holes in the new brackets (it may be necessary to pry the brackets apart to allow the track bar to drop in easily. TIP: We find that using a ratchet strap to move the axle over will help with aligning the holes).
2. Insert original track bar bolt and flag nut through passenger-side front axle brackets and track bar but do not tighten at this time (refer to Fig. 10).

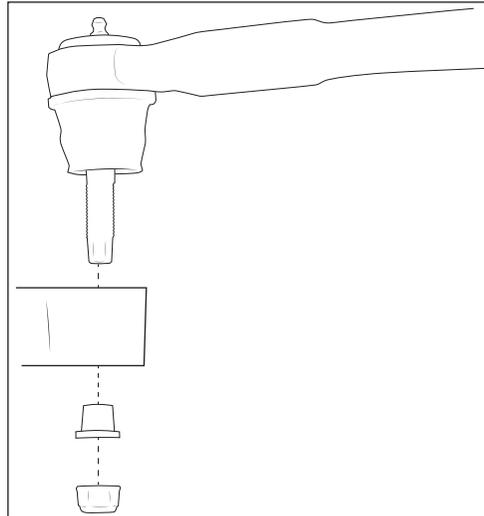
### V. INSTALL SWAY BAR END LINKS

- Replace with factory REAR end links or end links with the same overall length as factory rear JK or JKU end links.
1. For each side attach the upper end stud to the sway bar in the same manner as the original front links had been (nut on frame side of bar). NOTE: The upper stud has a different thread than the rest of the M12 fasteners in the suspension—it is a “normal” pitch versus a “fine pitch.” Tighten to 40 ft-lbs. (refer to Fig. 10 for proper orientation.)
  2. The lower ends of the links will attach to the inboard side of the new brackets on the axle using the original hardware. Torque to 40 ft-lbs.



## VI. INSTALL HIGH-STEER DRAGLINK

1. Apply anti-seize compound to the threads of the new draglink and thread it into the adjuster sleeve until the amount of thread showing is similar to the amount showing on the short side that is still attached to the pitman arm.
2. Twist the self locking tapered sleeve into the bottom of the knuckle mounting hole (the self-locking tapered sleeve is stored between the seal and the plastic seal shipping protective cover on the draglink outer end).
3. Install the top mount draglink into the knuckle hole from the top side and tighten the nut until the nylock on the nut engages.
4. Hold the hex, using a 10mm wrench, on the end of the ball stud to keep the stud from turning in the socket while tightening the ball stud nut using a 21mm wrench. Tighten until approximately 40 ft-lbs of torque is achieved. Once the 40 ft-lbs of torque is achieved, tighten to 125 ft-lbs using a 21mm socket.



5. Grease draglink socket through the zerk until grease purges around the boot seal; wipe off excess grease.

## VII. INSTALL NEW STEERING DAMPER

1. Loosen the clamp that holds the factory steering damper mount to the tie rod and slide it toward the driver's side several inches (out of the way for now).
2. Place the eye of the damper body onto the stud of the tie rod bracket, add the original nut and tighten.
3. Attach the damper to the new High Steer axle bracket orienting the hardware as shown (Fig. 7).  
NOTE: the Old Man Emu Steering damper includes a spacer sleeve for proper fitment on bolt. Rotate the black rubber boot on the damper so that the drainage holes are on the bottom.
4. To position the tie rod bracket properly, measure 19 1/4" from the edge of the tie rod tube to the center of the stud as shown (Fig. 8). Rotate the tie rod bracket until the stud is pointing just forward of straight up. Tighten the mounting bracket at this location. After the mounting bracket is tight, tighten the factory steering stabilizer to bracket nut, torquing to 37 ft-lbs.

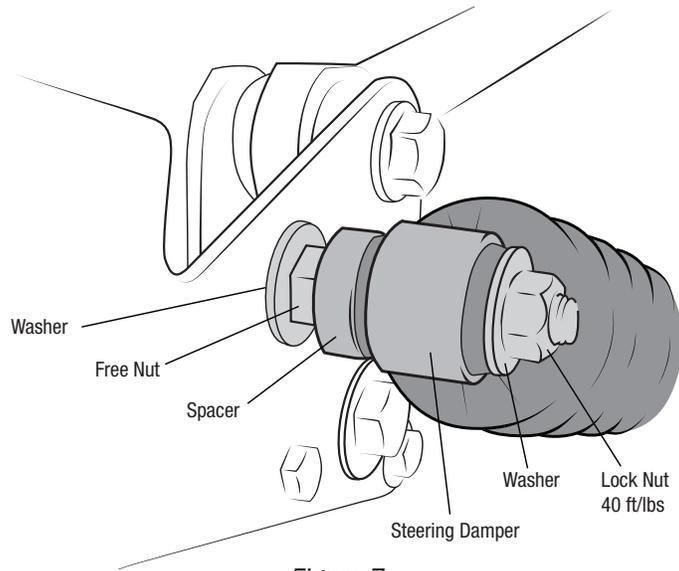


Figure 7

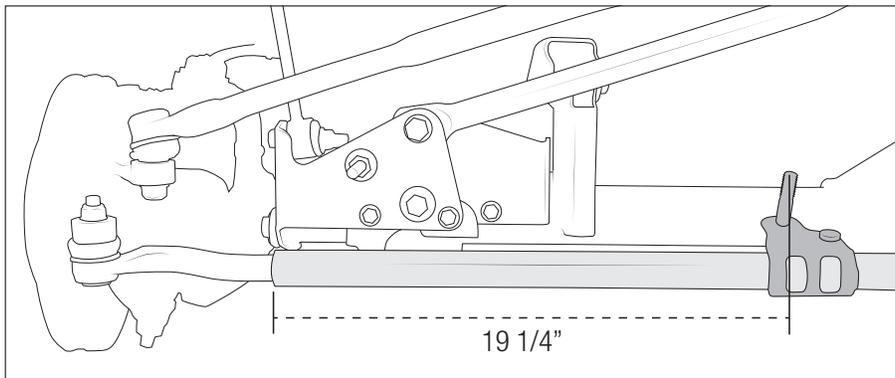


Figure 8

## VIII. SHOCK DOUBLER BRACKETS

1. Remove shocks at lower mount.
2. Install Shock Doubler brackets on both sides as shown using supplied hardware (Fig. 9).
3. Install shocks in Shock Doubler brackets as shown using supplied hardware (Fig. 9).

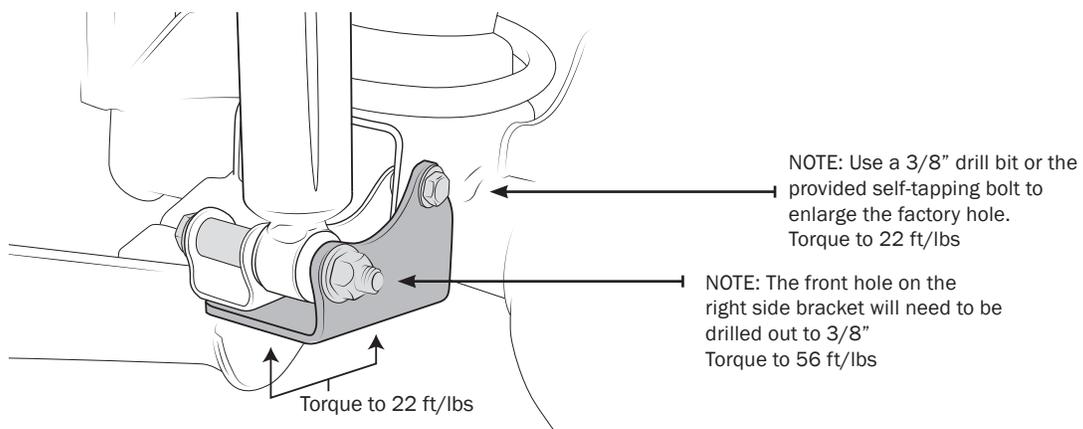


Figure 9



NOTE: On most late model JK and JKU, there is a cross member tube extending far enough out of the frame to interfere with the front sway bar. We recommend trimming this just outbound of the weld (Fig. 10). Remember to follow proper painting procedures to prevent corrosion.

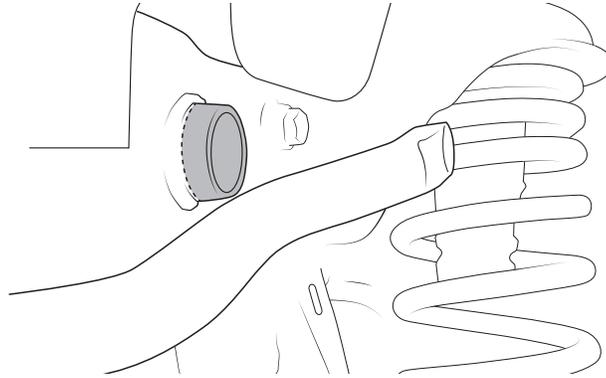


Figure 10

## IX. FINAL TORQUES\*

Now that the Jeep is fully assembled and sitting on its tires, you may re-torque all track bar and control arm bolts to factory torque specs. NOTE: This must be done with the vehicle resting on it's springs.

TIP: It is good practice to mark each major bolted suspension connection such as these with a paint pen. Draw a line that runs from bolt head or nut to the adjacent bracket material. This will allow a visual inspection to easily catch bolts that work loose. After approximately 100 miles, you should perform a complete visual inspection and re-torque any suspect bolts as well as your wheel lug nuts.

## X. ADJUSTMENTS AND PROCAL

Assuming the Jeep was properly aligned prior to this installation; the only alignment parameter that has been altered is steering wheel center. We recommend using the AEV ProCal (available separately or as part of our DualSport SC Suspension Kits) to accurately center the steering wheel. This operation should be performed on an alignment rack

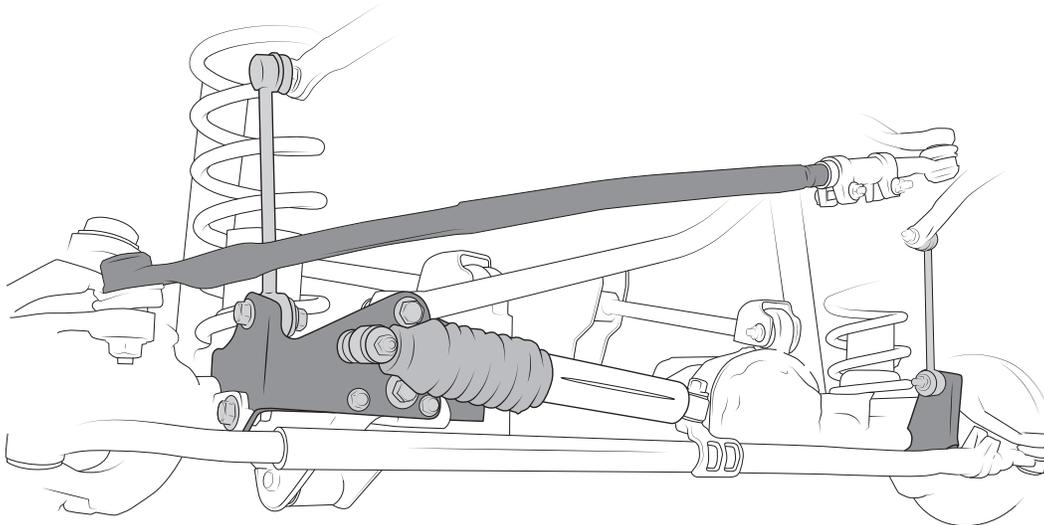


Figure 10

\*Refer to Appendix for all torque specifications.

# APPENDIX

## JK FACTORY TORQUE SPECIFICATIONS

\*nominal torque shown in ft. lbs.

| Front Suspension & Steering    |                   |              |
|--------------------------------|-------------------|--------------|
| UCA bushings                   | M12               | 75           |
| LCA bushings                   | M14               | 125          |
| Track bar bushing frame        | M14               | 125          |
| Track bar bushing axle         | M14               | 125          |
| Stabilizer end link top        | M12               | 65           |
| Stabilizer end link bottom     | M12               | 75           |
| Shock Absorber                 | upper M12 bayonet | 20           |
|                                | lower M12         | 56           |
| Steering gear                  |                   | 87           |
| P/S pump to engine             |                   | 21           |
| High pressure hose pump        |                   | 22           |
| Hoses to steering gear         |                   | 21           |
| Intermediate shaft, all points | M10               | 42           |
| Intermediate shaft toe plate   |                   | 100 in. lbs. |
| Steering damper                | axle M12          | 50           |
|                                | cross-link M12    | 50           |
| Pitman arm to gear             | 7/8               | 195          |
| Pitman to drag link nut        | M14               | 78           |
| Drag link to knuckle nut       | M14               | 125          |
| Tie rod to knuckle nut         | M14               | 63           |
| Tie rod clamp                  | M10               | 45           |
| Drag link clamp                | M10               | 26           |

| Rear Suspension             |           |     |
|-----------------------------|-----------|-----|
| UCA bushings                | M14       | 125 |
| LCA bushings                | M14       | 125 |
| Track bar bushing frame     | M14       | 96  |
| Track bar bushing axle      | M14       | 111 |
| Stabilizer bar sill bushing | M10       | 45  |
| Stabilizer bar to link      | M12       | 66  |
| Stabilizer bar link to axle | M12       | 75  |
| Shock Absorber              | upper M8  | 37  |
|                             | lower M12 | 56  |

| Cab Mounts |                 |    |
|------------|-----------------|----|
|            | M10 short bolts | 45 |
|            | M12 stud FESM   | 80 |

| Powertrain Mounts |                         |    |
|-------------------|-------------------------|----|
|                   | M10 bracket to block    | 45 |
|                   | M12 bracket to block    | 90 |
|                   | M12 Isolator to frame   | 85 |
| diesel            | bracket to engine       | 85 |
| diesel            | M12 Hydro mt to bracket | 65 |
| diesel            | M12 Hydro mt to frame   | 65 |

| Transmission Mount |                    |    |
|--------------------|--------------------|----|
|                    | M10 trans to mount | 40 |
|                    | M10 mount to frame | 40 |

| Wheels                        |               |     |
|-------------------------------|---------------|-----|
| (5" bolt circle/1.75" offset) | 5 x 1/2" stud | 105 |

| Driveline                   |               |     |
|-----------------------------|---------------|-----|
| T-case companion flange nut |               | 210 |
| Front driveshaft            | to front axle | 80  |
|                             | to t-case     | 22  |
| Rear driveshaft             | to rear axle  | 22  |
|                             | to t-case     | 22  |