

## INTRODUCTION

Installation requires a professional mechanic. Prior to beginning, inspect the vehicles steering, driveline, and brake systems, paying close attention to the suspension link arms and bushings, stabilizer bars and bushings, tie rod ends, pitman arm, ball joints and wheel bearings. Also check the steering sector-to-frame and all suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace all worn parts.

Read instructions several times before starting. Be sure you have all needed parts and know where they install. Read each step completely as you go.

NOTES:

- Prior to beginning the installation, check all parts and hardware in the box with the parts list below. If you find a packaging error, contact Mopar directly. Do not contact the dealer where the system was originally purchased. You will need the control number from each box when calling; this number is located at the bottom of the part number label and to the right of the bar code.
- Front end realignment is necessary.
- An arrow on diagrams indicates which direction is toward the front of the vehicle.
- A foot-pound torque reading is given in parenthesis () after each appropriate fastener.
- Do not fabricate any components to gain additional suspension height.
- Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged.
- After drilling, file smooth any burrs and sharp edges.
- Paint or undercoat all exposed metal surfaces.
- Prior to attaching components, be sure all mating surfaces are free of grit, grease, excessive undercoating, etc.
- A factory service manual should be on hand for reference.

#### Wheel and Tire Recommendations

**NOTE:** It is recommended that this lift be used in junction with 35" to 37" diameter and 12.5" wide tires with a 17" diameter wheel with a minimum of 5" back spacing, check for clearance with the rear stabilizer bar end links first. It is recommended that this kit be used with the Mopar flat top fenders flares (77072342) if 37" tires are being used for clearance.



**PARTS LIST** ... The part number is stamped into each part or printed on an adhesive label. Identify each part and place the appropriate mounting hardware with it.

PART NO.	<b>DESCRIPTION</b> (Qty if more than one)	NEW ATTACHING HARDWARE (Qty.)
🖵 68267717AA	(2) Coil spring, front, 4"	
🖵 68267715AA	(2) Coil spring, rear, 4"	
□ 77072357	(2) Shock absorber, Front	
□ 77072359	(2) Shock absorber, Rear	
□ 77072360	Steering damper	
<b>口</b> 77070105	(2) Jounce Bumper Pad rear	
68277305AA		
68267712AA (2) Rear Upper Control Arm		
□ 68267714AA	(2) Rear Lower Control Arm	
<b>77070104</b>	Bracket, Track bar, rear	
68101331		
□ 68041718AC	(2) Stabilizer bar link, rear	
□ 52089486AE	(2) Stabilizer bar link, front	
□ 77072354	Front 1310 Drive shaft	
□ 68271086AA	Front Yoke kit	
□ 52126058AD	Drag Link	
□ 68267705AA	Bracket, Track bar ,front	
□ 68267719AA	Brake Line, Left front	
□ 68267720AA	Brake Line, Right front	
□ 68267721AA	Brake Line, Left rear	
□ 68267722AA	Brake Line, Right rear	
□ 82214271AA	JPP Badge	



## FRONT DISASSEMBLY

**NOTE:** Save all factory components and hardware for reuse, unless noted.

#### 1) PREPARE VEHICLE...

□ Place vehicle in neutral. Raise front of vehicle with a jack and secure a jack stand beneath each frame rail, behind the front / lower control arms. Ease the frame down onto the stands, place transmission in low gear or "park", and chock rear tires. Remove front tires.

Desition a jack so that it supports, but does not raise, the front axle.

## 2) <u>STABILIZER BAR LINKS, SHOCK ABSORBERS, STEERING DAMPER AND DRIVE</u> <u>SHAFT...</u>

- Remove and discard the shock absorbers.
- Remove and discard the front drive shaft.
- **Q** Remove and discard the front stabilizer bar links.
- Remove and discard the front steering stabilizer.

## 3) BRAKE HOSES, WIRING, AXLE VENT HOSE ...

Detach the factory brake hose bracket (one per side) at the axle.

□ On each side, a clip attaches the ABS wire loom to the brake hose.

□ The upper end of the axle vent hose is clamped to the driver side frame rail. Leave the hose attached to frame; simply pull down approximately 4" of hose.

□ On Rubicon models, the wiring loom for the locking differential is attached to the axle-to-frame upper link. Remove and discard the clip.

## 4) COIL SPRINGS...

Lower the axle enough to facilitate removing the front coil springs. Remove the coil springs.

## FRONT ASSEMBLY



## 5) CAM BOLTS...

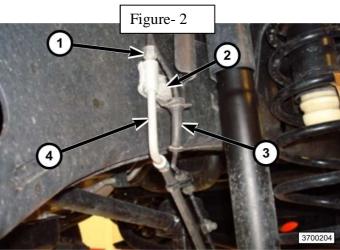
**NOTE:** If the vehicle has ever been realigned, it may already be equipped with cam bolts.

□□ One side at a time, remove the bolt securing the lower control arm-to-axle then remove the rear knock-outs that change the opening from a square hole to a slotted hole. A special tool is available for this, or use a die grinder with a small cutting wheel. Install the cam bolts from the outside. Rotate the cams so that the front axle is shifted as far forward as possible (the bolt head will be in its most rearward position). Snug-up the bolts; do not fully tighten at this time. (Figure-1)

# FRONT FRONT as viewed from driver side eccentric cam bolt in "positive" setting

## 6) BRAKE LINES... (Front Installation)

- Remove the wheel speed sensor wire (3) from all brake hose clips. Remove the two wheel speed sensor push in type retainers from the brake hose bracket.
- Remove the brake hose bracket bolt and free from axle.
- Remove the wheel speed sensor wire (3) from the brake hose to frame routing clip on the brake hose (4).
- □□ Remove the brake line tube nut (1) from the brake hose (4) at the frame.
- □□ Remove the mounting bolt (2) at the brake hose to frame routing clip to remove the brake hose



- D Position the new brake hose and verify that hose is not kinked or twisted.
- □□ Install the brake hose to caliper with **new copper washers** and tighten new banjo bolt to 31 N·m (23 ft. lbs.).

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- □□ Install the mounting bolt (2) for the brake hose to the frame routing clip and tighten to 20 N·m (177 in. lbs.).
- □□ Install the brake line tube nut (1) to the brake hose (4) and tighten to 12 N·m (105 in. lbs.).
- □ Attach the wheel speed sensor wire (3) to the routing clip on the brake hose to frame routing clip.
- **D** Repeat this for other side.

## 7) JOUNCE BUMPER PAD... [Figure 3]

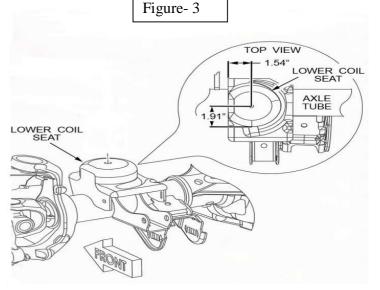
The jounce bumper pad installs on top of the coil spring's lower seat. Locate center for the hole to be drilled by using the dimensions in Diagram 2; note that the jounce bumper pad is installed

slightly outboard of seat center. Drill at the marked location using a 11/32" bit (Figure-3).

- □□ Hold the front bump stop and install the nut on the bottom of the spring perch and tighten to 28 ft-lbs
- **NOTE:** The jounce bumper pad must first be inserted into the coil spring before it is bolted to the coil seat; see next step.

#### 8) <u>COIL SPRINGS, SHOCK</u> <u>ABSORBERS...</u>

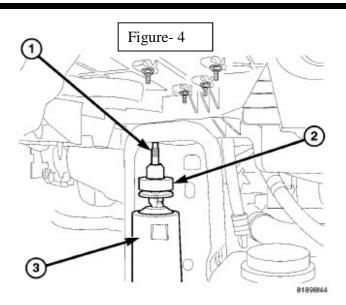
- **NOTE:** Perform step 7 one side at a time.
- Be sure the factory rubber isolators are still in place inside the upper coil tower.



Insert the jounce bumper pad into the bottom of the coil spring and hold it in place. Insert the coil spring into the upper tower first, followed by the lower seat. Be sure that the coils are indexed so they seat properly then raise the axle enough to hold the coil springs in place.
NOTE: Rotation of the spring and prying down slightly on the axle will aid in installation.

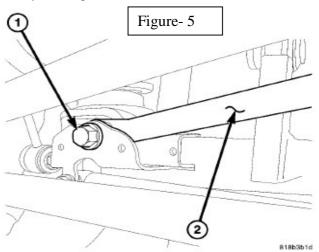


Install the shock absorber (3) . (Figure-4) Tighten the upper hardware until bushings swell slightly (make sure the shock isolator bushing (2) is installed correctly in the hole. Install the lower shock bolts by reusing the factory bolt, but do not tighten at this time. After the shock absorber installation is complete, the jack can be lowered and relocated to allow installation on the opposite side. Once vehicle is a flat surface you can tighten the lower shock bolts to 65 ft-lbs. and tighten the upper nut to 20 ft-lbs



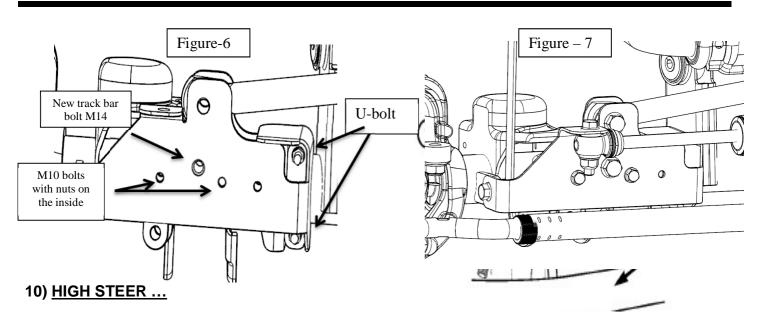
## 9) TRACK BAR RELOCATION...

- Remove the axle side track bar bolt (1) and save (figure -5).
- Install the new track bar bracket on the front axle by sliding it on the tube.
- Install the front track bar M14 bolt with the flag nut on the back side, leave this loose and install the outer two M10 bolts then (figure-6) install the passenger stabilizer bar link reusing the production fastener
- Torque the M14 bolt to 125 ft-lbs, then tighten the outer two fasteners to 47 ft-lbs (figure-6) leave the stabilizer bar link loose as this will be torqued once the vehicle is on the ground
- Locate the front U-bolt and hardware and fasten the bracket torqueing the U-bolt nuts to 50 ft-lbs. (figure-6)

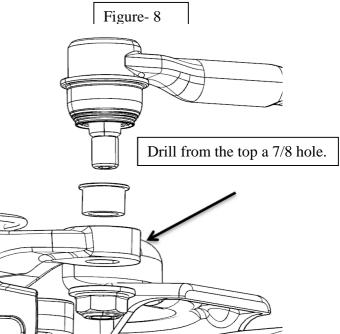


The upper track bar bolt can be reinstalled but will be torqued to 125 ft-lbs when the vehicle is on the ground. The stabilizer bars will be attached in the next step.





- Remove the drag link at the knuckle by removing the nut and then tap on the side of the knuckle with a hammer.
- □ Loosen the nut and bolt for the drag link adjustment sleeve and unthread the drag link from the adjuster sleeve.
- Install the high steer bushing by making a 7/8" hole in the knuckle (DRILL AS STRAIGHT AS POSSIBLE) It will also require to grind about 2mm off the top of the knuckle to get a flat surface for the bushing to sit flush on. Insert the bushing from the TOP as a small amount of pressure should be required to insert the bushing for a snug fit. (figure-8)
- □ Install the new drag link into the adjustor sleeve
- Install the new drag link into the knuckle, check the fit and make sure to install the new larger nut on the bottom and torque to 85 ft-lbs.



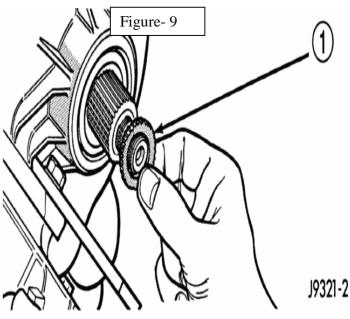


## 11) STABILIZER BAR LINKS...

□□ Install front stabilizer bar links (Figure-8) .on the front using the factory hardware. Make sure you have them in the factory location with the upper ball joint end at the top and the eye ring seats against the inboard side of the axle mounting tab. Reuse the factory nut at the top (2) and tighten to 66 ft-lbs, tighten the bottom bolt/nut to to 75 ft-lbs

## 12) FRONT DRIVESHAFT...

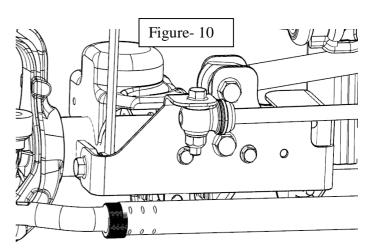
- Remove the transfer case front drive shaft companion flange and discard. Locate the new 1310 transfer case yoke, rubber star washer and nut. Install the rubber star washer (figure-9) on the output shaft (1), then slide the yoke over the shaft, install the nut and tighten (110 ft-lbs)
- Install the new replacement drive shaft; insert the double cardan into the transfer case yoke and align the bottom to the axle companion flange. Loosely install the bolts through the transfer case yoke, then reuse the factory bolts for the axle side companion flange.
- □ Tighten the transfer case yoke side to 20 ftlbs and tighten the axle flange to 89 ft-lbs.





## 13) STEERING DAMPER...

Install the new steering damper as shown. (figure –10) You will need to loosen and rotate the tie rod side of the damper attachment rotating it upward to attach the damper body to the tie rod end. Note – It is best to turn the steering wheel to complete lock on one side to mount the correct length of damper on the tie rod end, making sure there is a min of 15mm travel left in the damper. (check for steering travel after)



Reusing the production bolt/nut attach the damper to the new track bar bracket (figure -10) and tighten to 50 ft-lbs.

## 14) <u>TIRES / WHEELS...</u> (Figure-11)

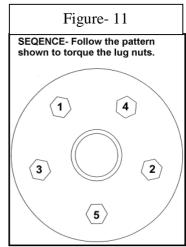
**I** Tighten the lug nuts in the sequence shown. Tighten to 122 ft-lbs

**WARNING:** When the tires / wheels are installed, always check for and remove any corrosion, dirt, or foreign material on the wheel mounting surface, or anything that contacts the wheel mounting surface (hub, rotor, etc.). Installing wheels without the proper metal-to-metal contact at the wheel mounting surfaces can cause the lug nuts to loosen and the wheel to come off while the vehicle is in motion.

**WARNING:** Retighten lug nuts at 500 miles after any wheel change, or anytime the lug nuts are loosened. Failure to do so could cause wheels to come off while vehicle is in motion.

## 15) INITIAL CLEARANCE CHECK, FRONT...

- With the vehicle still on jack stands, and the suspension "hanging" at full extension travel, cycle steering lock-to-lock and check all components for proper operation and clearances. Pay special attention to the clearance between the tires / wheels and brake hoses, wiring, driveshaftto-crossmember, etc.
- □ Lower vehicle to the floor. Final tightening and adjustments to the front suspension, and steering stabilizer installation will take place once rear lift is completed.





## REAR DISASSEMBLY

#### 16) PREPARE VEHICLE...

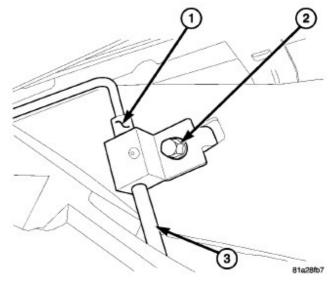
- Place vehicle in neutral. Raise rear of vehicle with a jack and secure a jack stand beneath each frame rail, just ahead of the rear / lower control arms. Ease the frame down onto the stands, place transmission in low gear or "park", and chock front tires. Remove rear tires.
- Desition a jack so that it supports, but does not raise, the rear axle.

#### 17) TRACK BAR AND SHOCKS ...

- Disconnect the factory track bar from its axle attachment points.
- **D** Remove and discard the factory rear shock absorbers

## 18) BRAKE HOSES AND WHEEL SPEED SENSOR WIRES...

- Located on the driver side upper frame rail, there are two clips that retain the wheel speed sensor wires. Disconnect the forward-most clip from the arm mount.
- Remove the banjo bolt from the rear caliper for the brake hose. Then remove the rear brake line from the hardline at the frame rail. Last remove the mounting bolt for the brake hose at the frame and remove the brake line.
- Locate the new brake rear brake line in the kit, making sure the correct brake line matches the correct side.
- Install the brake line to the mounting hole at the frame and install the mounting bolt. Tighten to 71 In-lbs
- □□ Install the brake line tube nut (1) to the brake hose (3) and tighten to 200 in-lbs.
- Iocate two new copper washers and install them on each side of the fitting and place a new brake banjo bolt through the fitting on to the caliper and tighten to 23 ft-lbs





## 19) PARKING BRAKE CABLE BRACKETS, DIFFERENTIAL WIRING...

- □ Locate the wire bracket securing the parking brake cables to the bottom of the rear floorboard, above and slightly in front of the rear axle. Unbolt the wire bracket.
- On Rubicon models, a wiring loom for the locking differential clips to a bracket bolted to the top of the differential cover. Un-clip the wiring loom then either remove the bracket, or use a mallet to flatten-out the clip side of the bracket. Failure to do so will cause the wiring loom to snag on the bracket during suspension articulation.

#### 20) COIL SPRINGS...

Lower the axle just enough to facilitate removing the coil springs. The driveshaft has a rubber boot on the transfer case end.

#### REAR ASSEMBLY

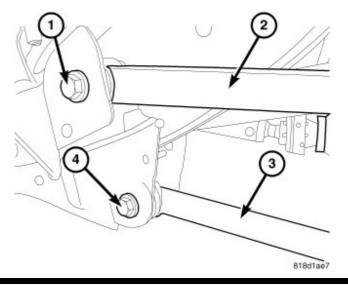
#### 21) CONTROL ARMS.. (Lower)

Start with the lower control arms and do only one side at a time.

- Remove the lower suspension arm nut and bolt at the axle bracket (4) and the flagnut and bolt at the frame rail.
- □□ Install the new lower control arm (3). Reusing the production fasteners hand tighten, the final torque will be completed when the vehicle is on the ground (125 ft-lbs).

## 22) CONTROL ARMS.. (Upper)

□ Remove the upper suspension arm nut and bolt at the axle bracket (1) and the flagnut and bolt at the frame rail.





□□ Install the new upper control arm (2), make sure the bend points inward and is closest to the axle. Reusing the production fasteners and hand tighten, the final torque will be completed when the vehicle is on the ground (125 ft-lbs).

## 23) JOUNCE BUMPER PAD SPACERS... [Figure - 12]

 Locate the Jounce bumper pad for the rear (1).
Using the existing holes on the rear axle pads attach using the supplied M8 bolts/nuts and tighten to 20ft-lb.

## 24) TRACK BAR BRACKET...[Figure-12]

- Position the Mopar track bar bracket over the factory rear track bar mount.
- Insert the supplied crush sleeve inside the factory track bar lower mount using the new supplied M14 bolt, factory track bar nut and tighten to 125 ft-lbs

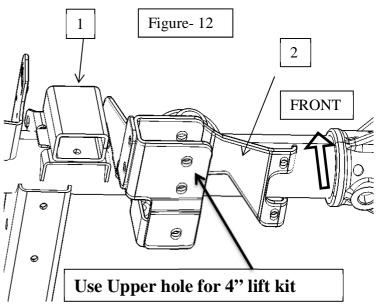
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Install the two supplied 3/8" x 3-1/4" "U-bolts that clamp the Mopar bracket to the axle. Install and tighten the 3/8" serrated flange nuts and torque to 40 ft-lbs.

## 25) COIL SPRINGS...

- □□ Install the new coil springs. Rotate the coils so that they seat properly in the coil buckets then raise the axle enough to seat the springs.
- **NOTE:** Rotation of the spring and prying down slightly on the axle will aid in installation.
- Reconnect the track bar using the factory hardware. The fasteners will be tightened when the vehicle is on the ground (125 ftlbs)



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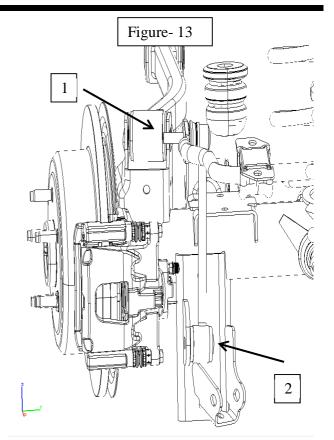


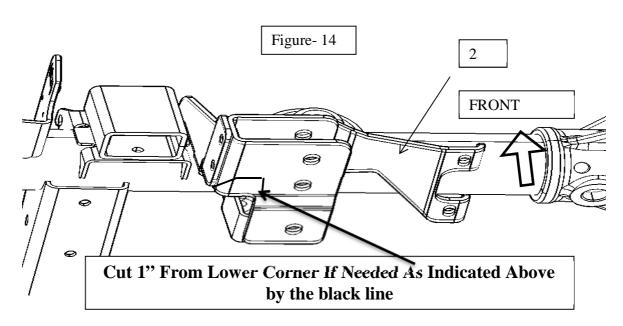
## 26) STABILIZER BAR LINKS... (figure-13)

□□ From the factory, the stabilizer bar links mount outboard of the stabilizer bar body with their upper studs facing inboard (1). The Mopar links install opposite; mount them inboard of the stabilizer bar body with their upper studs facing up and outboard and tighten to 66ft-lbs, reuse the factory hardware for the bottom (2) and tighten to 75 ft-lbs.

## 27) SHOCK ABSORBERS...

Install shocks using the factory hardware. With the vehicle on the ground tighten the upper fasteners to 42 ft-lbs and the lower bolts to 65 ft-lbs. Check shock clearance to track bar bracket. Depending on vehicle build tolerances about 1" of material may need to be removed from lower bracket for additional shock clearance. (figure-14) Mark the lower bottom corner and remove about a 1" section







## FINAL PROCEDURES

#### 28) TIRES / WHEELS...

□□ Install the tires / wheels and torque lug nuts as per step 14.

## 29) INITIAL CLEARANCE CHECK, REAR...

□ With the vehicle still on jack stands, and the suspension "hanging" at full extension travel, check all components for proper operation and clearances. Pay special attention to clearance between the tires / wheels and brake hoses, driveshaft, etc.

#### 30) HARDWARE TIGHTENING SEQUENCE ...

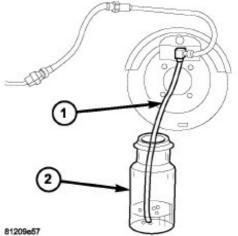
□ Remove jack stands and lower vehicle to the floor. The suspension is now supporting vehicle weight.

- □ Rear track bar, both ends (125).
- □ Front track bar, both ends (125).
- **Q** Rear / lower control arm bolts-to-axle (125).
- Rear / lower control arm bolts-to-frame (125).
- **Q** Rear / upper control arm bolts-to-axle (125).
- **Q** Rear / upper control arm bolts-to-frame (125).
- □□ Front / lower control arm bolts-to-axle (125). NOTE: Be sure that cam bolts are positioned as per step 5.
- □□ Front / lower link arm bolts-to-frame (125).
- □□ Front / upper link arm bolts-to-axle (75).
- □□ Front / upper link arm bolts-to-frame (75).
- □ All shock absorber lower bolts (65).



## 31) Brake Bleeding- Reference Service manual for more details....

- □ Remove reservoir filler caps and fill reservoir.
- open all caliper bleed screws. Close each bleed screw as fluid starts to drip from it. Top off master cylinder reservoir once more before proceeding.
- Attach one end of bleed hose (1) to bleed screw and insert opposite end in glass container (2) partially filled with brake fluid. Be sure end of bleed hose is immersed in fluid.



NOTE: Bleed procedure should be in this order (1) Right rear (2) Left rear (3) Right front (4) Left front.

- Open up bleeder, then have a helper press down the brake pedal. Once the pedal is down, hold the pedal down while closing the bleeder. Repeat bleeding until fluid stream is clear and free of bubbles. Then move to the next wheel.
- Before moving the vehicles verify the pedal is firm and not mushy.
- □ Top off the brake fluid and install the reservoir cap.

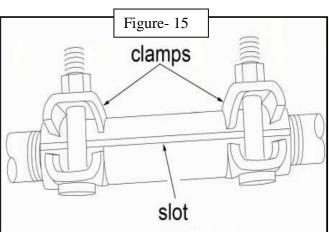


## 32) <u>CENTER THE STEERING WHEEL...</u>

**IMPORTANT:** The steering wheel must be centered p Stability C sensor may be activated resulting in a dash ignition key cycles to clear.

□ Start engine and turn the steering wheel so that tire drag link adjustment sleeve then rotate the sleeve unti

**IMPORTANT:** [figure-15] In order to achieve proper a



assemblies (found on the drag link and tie rod assemblies) must be positioned as shown. The open side of each clamp must align with the slot in the threaded adjustment sleeve. Improper positioning and bolt torque will promote linkage deflection, which may contribute to tire shimmy. Tighten clamp bolts . Also relay this information to the alignment shop that performs the final alignment.

## 33) FINAL CLEARANCE and TORQUE CHECK...

□ Cycle steering lock-to-lock and inspect the tires / wheels, and the steering, suspension, and brake systems for proper operation, tightness, and adequate clearance.

## 34) HEADLIGHTS...

□ Readjust headlights to proper setting.

## 35) ALIGNMENT...

Realign vehicle to factory specifications for the steering tow, Caster should be set to <u>3.2 degs of</u> <u>caster</u>. A precise alignment, including the centering of the steering wheel, is required in order for the vehicle's Electronic Stability Program to function properly. A laser alignment is recommended.

## Important Maintenance Information

It is the ultimate buyer's responsibility to have all bolts / nuts checked for tightness after the first 100 miles and then every 1000 miles. The steering, suspension and driveline systems, plus wheel alignment should be inspected by a qualified professional mechanic at least every 3000 miles.