

## **"DROPPED" PITMAN ARM** INSTALLATION INSTRUCTIONS

#### 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, anti-sway 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:

- This part is intended to decrease drag link angle, in relation to the tie rod.
- A special tool is required to remove the pitman arm from the sector shaft. This tool can be rented from most auto-parts stores.
- 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 attaching components, be sure all mating surfaces are free of grit, grease, undercoating, etc.
- A factory service manual should be on hand for reference.
- Use the check-off box "□" found at each step to help you keep your place. Two "□□" denotes that one check-off box is for the driver side and one is for the passenger side. Unless otherwise noted, always start with the driver side.

**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 PAINT DAUB I.D. APPLICATION \*\*LIFT MIN. / MAX. (inches)

1103green	
1104red	
1109yellow	

## POWER STEERING ONLY

- \* Installing arm on 1976 and 1977 models requires converting drag link and tie rod assembly to the 1978-79 type linkage. This linkage is available from Superlift, Ford and various auto parts stores.
- \*\* If used with taller lifts, stud bind may occur, which can result in drag link end failure. Shorter lifts can cause the drag link to make contact with the tie rod.

## INSTALLATION PROCEDURE

#### 1) PRE-INSTALLATION INSPECTION...

- With tires on the ground the full vehicle weight on the suspension, move the steering wheel left to right, and check the following for looseness, slack and wear: steering sector-to-frame attaching points, steering sector main (output) shaft, drag link and tie rod ends, trac-bar mounting points and bushings, radius arm and C-bushings.
- With the tires off of the ground, check for improper wheel bearing preload and ball joint wear.

**NOTE:** IT IS IMPORTANT that all steering related parts are in proper working condition. If any problems exist, repair before proceeding.

## 2) PREPARE VEHICLE...

Put the transmission in neutral. Position a floor jack under front axle and raise vehicle. Place jack stands under the frame rails, a few inches behind the radius arm brackets (on Jeeps, place behind spring hangers). Ease the jack down until frame is resting on the stands. Keep a slight load on the jack. Put vehicle in gear or park, set emergency brake, and chock rear wheels to prevent any possibility of movement.

#### 3) REMOVE FACTORY PITMAN ARM...

Remove the cotter pin and nut from the drag link end where it attaches to the pitman arm. Dislodge link with a tie rod end remover tool or a pickle-fork.

**NOTE:** Replace the link if any stud looseness is detected or if you can twist the stud in its socket with your fingers.

Remove the pitman arm from the steering sector output shaft using a puller tool. Inspect the shaft splines for excessive wear, repair if needed.

## 4) DROPPED PITMAN ARM INSTALLATION...

- The arm and shaft splines should be clean and free of grit. Install new arm, lock washer and nut. Torque (170-230) using the value specified in the factory service manual.
- Attach the cleaned drag link stud to the pitman arm. Torque castle nut to factory specifications and install cotter pin.
- □ If the drag link end stud is tightened in a position other than the straight ahead position or allowed to twist in the adjustment collar, a vehicle drift to the left or right could result.

## 5) DRAG LINK INSPECTION...

Check for over extension (stud bind) as follows: To achieve the greatest possible linkage angle, have the truck frame resting on jack stands with the front axle hanging at full extension travel. Check drag link ends, with the steering wheel turned full lock in both directions, to be sure the studs still have some pivot capability.

## 6) TURNING RADIUS STOP ADJUSTMENTS...

- Reposition floor jack under front axle. Put a slight load on jack; the truck is to remain on jack stands.
- □ Locate the stop bolts. The stop bolts (found only on some models) are generally found at approximately the center of the front axle knuckles and can be either on the front or back side of the knuckles.
- □□ Perform this step one side at a time. Loosen the jam nut and screw the stop bolt all the way in. Have someone turn the steering wheel all the way in that direction. Either the end of the sectors turning capability or tire-to-radius arm / leaf spring contact will limit turning. Adjust the stop bolt out until it limits turning at least 1/2" before contact or the end of sector radius does. Use the same procedure to adjust the other side.

**NOTE:** The amount of adjustment may differ slightly. Longer grade 8 bolts may be needed.

**IMPORTANT:** If a tire makes contact with a radius arm or leaf spring, tire damage may occur. This can also increase the possibility of vehicle roll-over. If the steering sector is at full lock and receives a blow (rut, curb, etc.), steering linkage and/or steering sector main shaft failure may occur.

#### 8) FINAL PROCEDURES...

- Raise truck, remove jack stands, lower truck to ground. Check for adequate linkage clearances while turning steering wheel lock-to-lock. Re-torque everything that has been touched and double check for cotter pins.
- Have toe-in adjustment set to factory specs.

## Limited Lifetime Warranty / Warnings

Your Superlift<sup>®</sup> product is covered by the Limited Warranty explained below that gives you specific legal rights. This limited warranty is the only warranty Superlift<sup>®</sup> makes in connection with your product purchase. Superlift<sup>®</sup> neither assumes nor authorizes any retailer or other person or entity to assume for it any other obligation or liability in connection with this product or limited warranty.

**What is covered?** Subject to the terms below, Superlift<sup>®</sup> will repair or replace its products found defective in materials or workmanship for so long as the original purchaser owns the vehicle on which the product was originally installed. Your warrantor is LKI Enterprises, Inc. d/b/a Superlift<sup>®</sup> Suspension Systems ("Superlift<sup>®</sup>").

What is not covered? Your Superlift<sup>®</sup> Limited Warranty does not cover products, parts or vehicles Superlift<sup>®</sup> determines to have been damaged by or subjected to:

- Alteration, modification or failure to maintain.
- Normal wear and tear (bushings, tie-rod ends, etc.). Scratches or defects in product finishes (powdercoating, plating, etc.),
- Damage to or resulting from vehicle's electronic stability system, related components or other vehicle systems.
- Racing or other vehicle competitions or contests. Accidents, impact by rocks, trees, obstacles or other aspects of the environment.
- Theft, vandalism or other intentional damage.

**Remedy Limited to Repair / Replacement.** The exclusive remedy provided hereunder shall, upon Superlift's inspection and at Superlift's option, be either repair or replacement of product or parts covered under this Limited Warranty. Customers requesting warranty consideration should contact Superlift<sup>®</sup> by phone (1-800-551-4955) to obtain a Returned Goods Authorization number. All removal, shipping and installation costs are customer's responsibility.

If a replacement part is needed before the Superlift<sup>®</sup> part in question can be returned, you must first purchase the replacement part. Then, if the part in question is deemed warrantable, you will be credited / refunded.

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- This Limited Warranty gives you specific rights. You may also have other rights that vary from state to state. For example, while all implied warranties are disclaimed herein, any implied warranty required by law is limited to the terms of our Limited Lifetime Warranty as described above. Some states do not allow limitations of how long an implied warranty lasts and / or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you.

#### Important Product Use and Safety Information / Warnings

As a general rule, the taller a vehicle is, the easier it will roll over. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall". Many sportsmen remove their mud tires after hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as feasible to enhance vehicle stability. We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll bar and cage system. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performance and capabilities are decreased when significantly larger / heavier tires and wheels are

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used. Take this into consideration while driving. Also, changing axle gear ratios or using tires that are taller or shorter than factory height will cause an erroneous speedometer reading. On vehicles equipped with an electronic speedometer, the speed signal impacts other important functions as well. Speedometer recalibration for both mechanical and electronic types is highly recommended.

Do not add, alter, or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Superlift product purchased. Mixing component brands is not recommended.

#### SUPERLIFT SUSPENSION SYSTEMS

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