



# Shackle Installation Instructions

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| Typical Bill Of Material |      |   |      |
|--------------------------|------|---|------|
| Greaseable Shackles      |      | Non Greaseable Shackles                               |      |
| Description              | Qty. | Description   | Qty. |
| Shackles                 | 2    | Shackles  | 2    |
| Bolts                    | 4    | Bolts   | 4    |
| Nuts                     | 4    | Nuts  | 4    |
| Bushings                 | 8    | NOTE: Not all greaseable kits come with steel sleeves |      |
| Steel Sleeves            | 4    |   |      |

## **DO NOT COMBINE WITH ANY OTHER SUSPENSION KIT**

**CAUTION: BEFORE BEGINNING INSTALLATION, READ ALL INSTRUCTIONS CAREFULLY AND COMPLETELY.**

1. Park vehicle on level work area and set emergency brake. Block tires opposite of the ones being lifted. Lift one end of the vehicle using the floor jack until the wheels clear the ground about 3". Place jack stands under frame rail behind inner spring perch. Lower vehicle onto jack stands with axle supported by floor jack.
2. Carefully remove upper and lower spring shackle mounting hardware, left, and right shackle plates. Lower axle carefully until the wheels touch the ground. Make sure that the brake line and the vent line is not over stretched.
3. If installing a Greaseable Super Shackle, remove the spring eye bushing/steel sleeve assembly from the spring eyes. See figure 1. Some of the frame shackle bushings need to be burnt out leaving the steel outer shell in the frame. Do not damage the outer shell. Clean with a wire brush or sandpaper.
4. Install the corresponding bushings into the spring eye and into the frame and lubricate with silicon or Teflon lubricant. Daystar Lubrethane Poly Lube is recommended. See figure 2 and 3. Install the steel sleeves if provided.
5. Install the shackles onto the frame. Shackles with the off-center tube, install the long end up towards the frame and the short end down goes towards the spring. The center support is designed to eliminate shackle flex. (When going to longer shackles, you are raising the center of gravity, which tends to make the vehicle over-steer. By welding a center tube in the shackle, it eliminates the sway and spring roll improving the handling characteristics and side flex for off road purposes.)
6. Install the upper bolts. Tighten the nuts so the shackles swing freely. **DO NOT OVER-TIGHTEN THE NUTS OR THE SHACKLE will bind causing a stiff ride and limiting suspension travel.**
7. Using the floor jack raise the rear axle until the spring eye aligns with the shackle. Insert the bolt. Tighten the nut. **DO NOT OVER-TIGHTEN BOLTS AND NUTS!** Damage to shackle could result!  
 (Note: Daystar includes a Nylock nut that limits the nut from coming loose.)
8. You will not need to worry about driveline vibration due to changing pinion (driveline) angle. You are working on a fulcrum so as you lift, you pivot the pumpkin-differential and pinion (driveline) at the same time. If you have a drive-shaft vibration first check the universal joints for wear. If the universal joints are good, on taller lifts you might need to install degree shims between the axle housing and the spring to change your pinion (driveline) angle. On many vehicles you can drop the transfer case down from the frame which will also change the pinion (driveline) angle.
9. On greaseable shackles, grease the shackle bolts with silicon or Teflon lubricant. Daystar Lubrethane Poly Lube is recommended after installation.



Fig. 1



Fig. 2



Fig. 3



### **WARNING**

This vehicle has been modified to enhance its performance. The steering, braking and handling of this vehicle will differ from standard passenger cars and trucks, This vehicle handles differently from an ordinary vehicle in driving conditions which may occur on streets, highways and off road.

Avoid unnecessary abrupt maneuvers, sudden stops, sharp turns and other driving conditions that could cause loss of control, possibly leading to a roll over or other accident that could result in serious injury or death to driver and passengers. If larger tires are installed the speedometer will read lower than the vehicles actual speed.

**Do not combine with any other suspension kit.  
 This kit should be installed by a professional mechanic.**

