



## SHACKLE INSTALLATION INSTRUCTIONS

### ⚠WARNING

Read and understand all instructions, warnings, cautions, and notes in this sheet and in your owners manual before you begin the installation of this shackle kit.

### ⚠WARNING

Proper installation of a Performance Accessories shackle kit requires knowledge of the factory recommended procedures for disassembly and assembly of original equipment components. We recommend that the factory shop manual and any special tools necessary to your vehicle be on hand during the installation. Installation of this shackle kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of your vehicle. We strongly recommend that a certified mechanic familiar with the installation of similar components install this shackle bushing replacement kit.

### ⚠WARNING

Ensure that your vehicle tires are properly blocked and secured before you begin installation of this shackle bushing replacement kit.

### ⚠CAUTION

It is the customer's responsibility to ensure that all mounting hardware is correctly tightened before, during and after use of spring shackle lift. DO NOT EXCEED manufacturer's load specifications for your vehicle. Always operate your vehicle in a safe manner. If your vehicle is equipped with any type of extra duty suspension or special towing package, this spring shackle kit may not fit properly. If your vehicle is equipped with any type of aftermarket springs, lift kits, or bushings, this spring shackle lift kit may not fit properly.

### ⚠WARNING

This shackle kit should only be installed on vehicles in good working condition. Before installation, the vehicle should be thoroughly inspected for evidence of corrosion or deformation. This shackle kit should not be installed on any vehicle that is suspected to have been in a collision or misused. Failure to observe this warning may result in serious personal injury and/or severe damage to your vehicle.

### ⚠WARNING

To ensure the Supplemental Restraint System (SRS, or air bag) is not accidentally deployed during shackle bushing kit installation, always ground yourself and the vehicle. Do not use power or pneumatic tools. Exercise extreme caution while working near SRS sensors and wiring. Do not allow anyone near air bags during kit installation. Accidental deployment can result in serious personal injury or death.

### ⚠WARNING

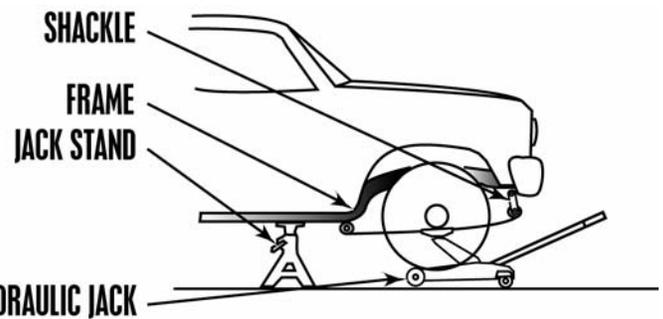
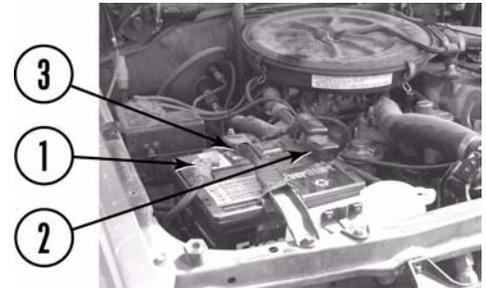
Always wear eye protection when operating power tools.

## A. Before you start.

### ⚠NOTE

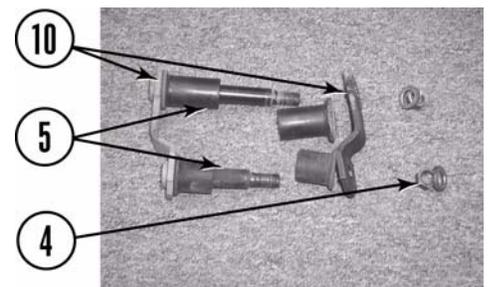
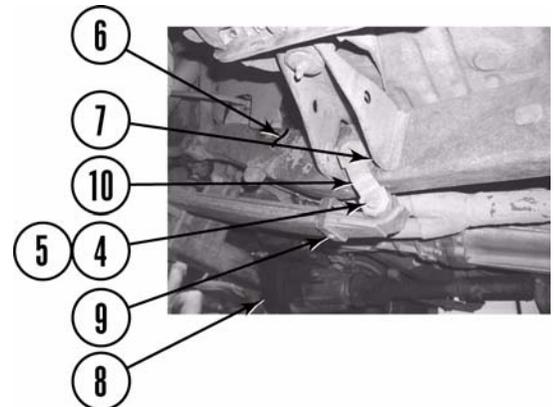
Keep track of hardware quantity and position. Kit parts are prefaced by the word *kit* in italics.

1. Read all warnings and instructions completely and carefully before you begin.
2. Check to make sure the kit is complete (refer to the Parts List, Section E).
3. Only install this kit on the vehicle for which it is intended. If anytime during the installation you encounter something different from what is outlined in the instructions, call technical support at (928) 636-7080.
4. Park the vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
5. Disconnect both battery cables. Disconnect the negative cable (1) first, then the positive cable (2) from the battery (3).



## B. Get ready to install the kit.

1. Lift vehicle.
  - a. Loosen four nuts (4) from front shackle bolts (5).
  - b. Using a hydraulic jack, slowly lift front of frame (6) so that front tires are an inch to three inches off of ground. Position jack stands under frame rail just behind inner frame shackle perches (7). Lower frame onto jack stands.
  - c. Using a hydraulic jack, slowly lift front axle (8) just enough to release leaf spring (9) tension from shackle bolts (5).
  - d. Remove two nuts (4) and shackle bolts (5) from front shackle (10) and upper frame shackle perch (7).

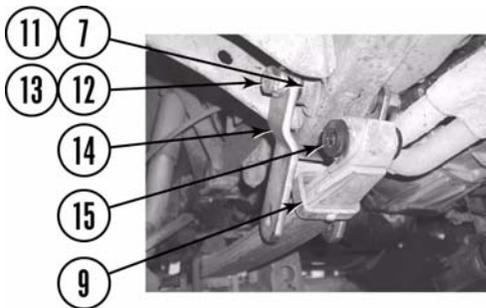


2. Examine shackle perches and bushings for damage.

**△NOTE**

If any damage is noted, damage must be repaired to new condition before spring shackle kit can be installed.

- a. If installing a greasable shackle kit, upper and lower shackle bushings (11) will not be reused. However if upper shackle bushings are in good condition, reuse upper and lower shackle bushings with non greaseable shackle kits.
- b. Examine front upper frame shackle perches (7) for cracks and bending.
- c. If upper frame shackle perches (7) are worn or damaged, repair upper shackle perches according to manufacturer's specifications.
- d. Examine front upper shackle bushings (11) for damage or excessive wear.
- e. If upper shackle bushings (11) appear to be undamaged; no cracks, breaks, or tearing, insert *kit* bolt (12) through bushings. If *kit* bolts fit snug through bushings, upper shackle bushings are o.k. to reuse.
- f. If upper shackle bushings (11) are equipped with reducer sleeves (13), insert *kit* bolts (12) through reducer sleeves. If *kit* bolts fit snug through reducer sleeves and the reducer sleeves are snug in the shackle bushings, upper shackle bushings are o.k. to reuse.
- g. If *kit* bolts (12) or reducer sleeves (13) are loose, upper shackle bushings (11) must be replaced.



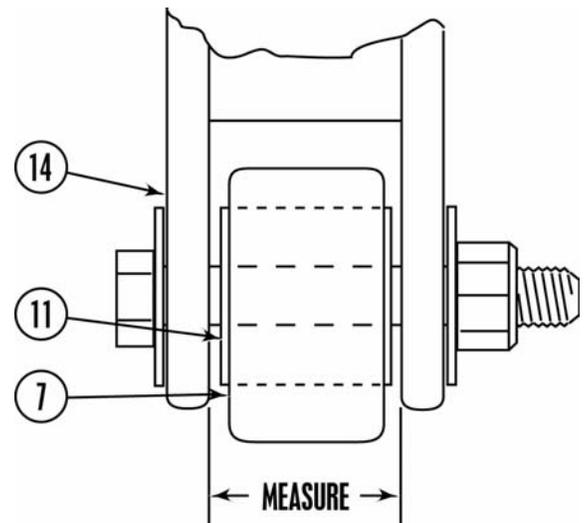
3. Measure bushings.

- a. Measure upper shackle bushings (11) in the spring perch (7) from side to side. Record measurement.
- b. Measure the inside distance from side to side of *kit* spring shackle (14). Record measurement.
- c. Measurement from step B.3.a. should be the same as step B.3.b.

**△CAUTION**

Be careful not to over-file bushings. Do not force any oversized bushing into spring shackle.

- d. If the upper shackle bushing (11) in the spring perch (7) is 1/16" to 1/4" greater than measurement of *kit* spring shackle (14), file each side of upper shackle bushing equally. File until measurement of upper shackle bushing is the same as measurement of *kit* spring shackle.
- e. If upper shackle bushings (11) are more than 1/32" under size, bushings must be replaced.



4. Examine leaf spring and bushings for damage.

- a. If installing a greasable shackle kit, spring bushings will not be reused. However if spring bushings are in good condition, reuse spring bushings with non greaseable shackle kits.
- b. Examine the leaf spring (9) and spring bushings (15) the same way as in steps B.2.a. through B.3.e.
- c. If leaf spring (9) and spring bushings (15) are worn or damaged, leaf spring and/or spring bushings must be replaced.

## C. Install the kit.

1. Install *kit* shackles on front axle.

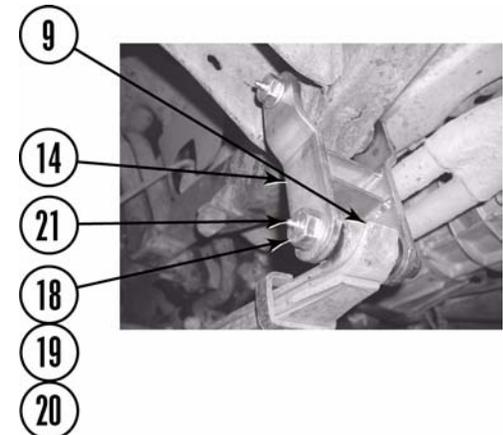
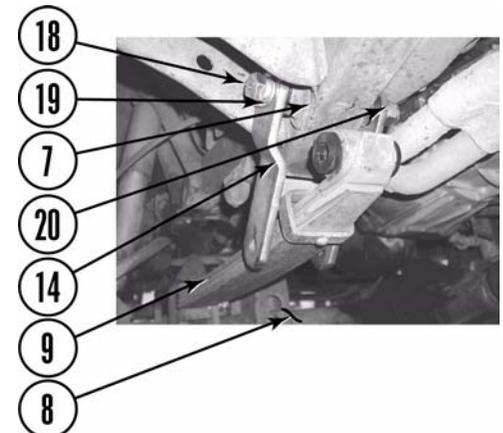
### ⚠CAUTION

If bolt hangs up and will not go through both sides of *kit* shackle, adjust hole alignment by lifting or lowering axle and spring with floor jack, or reinsert bolt and washer from the opposite side. DO NOT POUND bolt through the holes.

### ⚠NOTE

Installation of a greasable shackle kit requires the replacement of all bushings. New greasable bushings are provided along with new greasable shackle reducer sleeves.

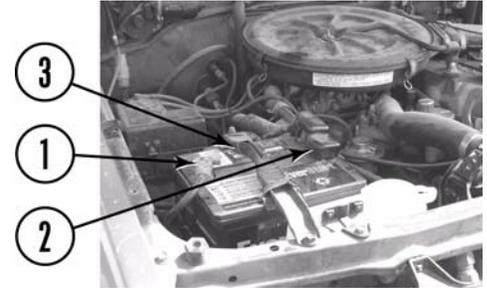
- a. If applicable, install *kit* greasable shackle bushings (16) and *kit* greasable shackle reducer sleeves (17) on front passenger side leaf spring (9) and spring perch (7).
- b. Install *kit* spring shackle (14) on front passenger side spring perch (7) with *kit* bolt (18), two *kit* washers (19), and *kit* nylock nut (20). Do not tighten.
- c. Lift or lower axle (8) just enough to position *kit* spring shackle (14) on leaf spring (9).
- d. Install *kit* spring shackle (14) on front passenger side leaf spring (9) with *kit* bolt (18), two *kit* washers (19), and *kit* nylock nut (20). Do not tighten.
- e. Repeat steps B.1.d through C.1.d. for driver side.
- f. Lift vehicle just enough to remove jack stands and lower vehicle to ground.
- g. Tighten *kit* bolts (18) to 55 lb-ft.
- h. If applicable install *kit* grease fittings (21) in *kit* greasable bolts (18).



2. Install *kit* shackles on rear axle.
  - a. Repeat step B.1.a. through C.1.h. for rear axle.

#### D. After installation is complete.

1. Connect both battery cables to the battery (3). Be sure to reconnect the positive cable first (2), then the negative cable (1).
2. Double check the vehicle.



#### ⚠CAUTION

Re-torque all fasteners after 500 miles. All components should be visually inspected and fasteners re-torqued during routine vehicle servicing.

- a. Check all mounting hardware to ensure it is properly tightened.
- b. Test drive vehicle in all gears and 4 wheel drive ranges. Pay close attention to all vehicle systems. Check all hardware again in 500 miles and as part of your regular maintenance schedule.

#### ⚠NOTE

All warranty information and instruction sheets regarding the installation of this product must be retained by the vehicle owner. Information contained in the instructions and on the warranty card is required for any warranty claims. Failure to provide the customer with this information can result in damage to the vehicle and severe personal injury.

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