



## INSTALLATION INSTRUCTIONS

6592

### REAR HANGER & SHACKLE KIT

**DODGE RAM 2500 / 3500**

**Congratulations! You were selective enough to choose a BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation.**

**Note:** Confirm that all of the hardware listed in the parts list is in the kit. **Do not** begin installation if any part is missing. Read the instructions thoroughly before beginning this installation.

**Warning:** **DO NOT** work under a vehicle supported by only a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

**Warning:** **DO NOT** drive vehicle until all work has been completed and checked. Torque all hardware to values specified.

**Reminder:** Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!

**Note:** It is very helpful to have an assistant available during installation.

#### **RECOMMENDED TOOLS:**

- Properly rated floor jack, support stands, and wheel chocks
- Combination wrench set
- Torque wrench: *0-75 lb ft. range*
- Ratcheting socket wrench and socket sets
- Air Chisel / Die grinder W/ cut off wheel
- C-Clamp / or similar clamp
- Safety Glasses

#### **KIT INSTALLATION**

1. Open the hardware kit and remove all of the contents. Refer to the part list (Page 3) to verify that all parts are present.
2. Place the vehicle on a level solid surface. We recommend concrete or asphalt. Installation may be eased by removal of the bed. If the bed is too removed, be sure to plug any open fuel lines or vents. As there may be some grinding and drilling during hanger installation, this will reduce the possibility of sparks or chips entering the fuel system. Be sure to disconnect all wiring harnesses and ground straps.
3. Block the front wheel and raise the rear of the vehicle using a hydraulic floor jack rated for this load under the center axle. (PHOTO 1)
4. Install jack stands rated for this load on both sides of the vehicle so that they support the chassis just forward of the rear spring forward hanger. (PHOTO 2)
5. Remove the rear wheels.

6. Raise the floor jack until it is just touching the rear axle. Raise the jack another 1/8" – 1/4" to remove as much tension as possible from the leaf spring. Supporting the spring end, remove the leaf spring eye bolt and allow the spring to come clear of the hanger. **CAUTION: Spring may still be under tension. Use caution when removing spring.** (PHOTO 3)
7. Remove the rear lower shackle bolt (PHOTO 4) and jack up the rear end to lift the spring out of the rear shackle mount. (PHOTO 5)
8. Supporting the leaf spring pack, remove the U-bolt nuts and support plate. (PHOTO 6)
9. Remove upper shackle bolt, remove stock shackle (PHOTO 7), and re-install Belltech shackle using original hardware. (PHOTO 8) DO NOT tighten shackle hardware at this point; leave hardware loose enough to allow the shackle to rotate when the weight of the vehicle is applied during the final step.
10. Using a cutting wheel or similar tool, cut a slot through each rivet head on the OEM spring hanger. (PHOTO 9) **CAUTION: Always wear eye protection when using power tools.** If cutting wheel is not available, drill a 1/16" pilot hole in the center of each rivet, then drill a 3/8" hole. Either method will ease rivet head removal. Remove the rivet heads with a chisel or air hammer. (PHOTO 10) Remove rivets from the factory frame using a punch or air hammer. **CAUTION: Be careful not to damage any electrical, fuel or brake lines that may be present on the backside of the frame rails. Cut hanger brace located on the top of the factory spring hanger using a cutting wheel or similar tool.** (PHOTO 11) **CAUTION: Be careful not to cut or damage the factory frame rail when removing this brace.** Remove factory spring hanger.
11. Install Belltech front spring hanger onto the factory leaf spring using the factory hardware. (PHOTO 12) NOTE: Do NOT tighten hardware at this time. Re-install spring hanger assembly into the vehicle using the 1/2" kit supplied hardware. (PHOTO 13) It may be necessary to temporarily loosen the straps holding the fuel tank to facilitate mounting the driver side hanger. Torque hanger mounting hardware to 120-125 ft-lbs. Tighten fuel tank straps to return fuel tank to its original position.
12. To provide sufficient clearance for the Belltech rear shackle, notch the bed support rail directly above the shackle location. (PHOTO 14) A notch of approximately 4" will be adequate. **CAUTION: Always wear eye protection when using power tools.**
13. Install the Belltech shackle into the rear hanger. (PHOTO 15) Once again, make sure the hardware is secure, but do not tighten at this time.
14. Clamp the leaf spring pack together using C-clamps or a suitable clamping device. Remove the factory leaf spring center bolt. (PHOTO 16)
15. Remove and discard the factory overload spring and spacer on 3500 model trucks.
16. Install the kit supplied spring center bolt into the leaf spring center hole, making sure the bolt head is on the bottom of the spring pack. Install the kit supplied nut and torque to 55-60 ft-lbs. Using a cutting wheel or similar tool, cut the center bolt to the proper length. (PHOTO 17)
17. Repeat steps 5-15 for the other side of the truck.
18. Install the kit supplied 4° shim on top of the rear axle tube spring pad, making sure the thickest part of the shim is facing forward. (PHOTO 18) Raise the rear axle housing until the spring center bolt seats into the hole in the axle pad. Re-install the U-bolts (NOTE: 3500 model trucks must use the kit supplied U-bolts while the 2500 models reuse the OEM U-bolts), nut and support plate and torque the U-bolts to 110-120 ft-lbs.

19. Re-install wheels; remove jack stands and floor jack.

20. After the vehicle is back on pavement, use a 7/16" socket and 5/16" box end wrench and torque both front leaf spring pivot bolts and all rear shackle bolts to factory specifications. (PHOTO 19 & 20)

21. Be sure to recheck all hardware for proper torque after 100, 500, 1,000 miles.

### PART LIST FOR 6592 REAR LOWERING KIT

PART No.	DESCRIPTION	QTY.
6590-100	Shackle	2
6588-001	Front Hanger, LH / RH	2
110413	Leaf Spring Center Bolt 1/2"-20 x 6	2
110405	Leaf Spring Center Nut 1/2"-13 x 1-1/4"	2
4915-001	Bump Stop	2
4977-001	4° Pinion Shim	2
110409	1/2"-20 x 1-1/2" Grade 8 C/s ZP	8
110402	1/2"-20 Grade C L/N ZP	8
110660	1/2" A325 FW	16
110670	9/16" A325 F/W	8
110453	9/16"-18 Nylon L/N	8
6592-007	9/16-18 x 3-1/8" x 9 U-Bolt	4





