belltech SPORT TRUCKS

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INSTALLATION INSTRUCTIONS

5540
DODGE RAM REAR ANTI-SWAY BAR
(5540-888)

Thank you for being selective enough to choose our high quality BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation.

In order to properly equip your truck and maintain predictable handling characteristics, we recommend installing high-quality ***Belltech*** Anti-sway Bars in matched sets **ONLY**. While upgrading Anti-sway bars, we also suggest installing ***Belltech*** **Nitro-Drop®** or **Nitro-Active®** shock absorbers to further improve your vehicle's handling and performance.

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 THE 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. IF POSSIBLE, THE FOLLOWING PROCEDURE SHOULD BE CONDUCTED WITH A SMALL AMOUNT OF FUEL IN THE TANK.

WARNING: DO NOT DRIVE VEHICLE UNTIL ALL WORK HAS BEEN COMPLETED AND CHECKED. TORQUE ALL HARDWARE TO VALUES SPECIFIED.

RECOMMENDED TOOLS:

- Properly rated floor jack, support stands and wheel chocks
- Combination wrench- 5/8", 9/16", 15mm
- Torque wrench- 10-75 ft. lb. range
- Ratcheting socket wrench and sockets- 9/16", 14mm
- Socket Head Hex Wrench (Allen™ Wrenches)- 6mm
- Tape measure
- Electric or Pneumatic hand drill
- Quality Carbide drill bit-5/16", 3/8"
- Round File or De-burring tool
- Safety Glasses

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

SAFETY REMINDER: PROPER USE OF SAFETY EQUIPMENT AND EYE/FACE/HAND PROTECTION IS ABSOLUTELY NECESSARY WHEN USING THESE TOOLS TO PERFORM PROCEDURES!

KIT INSTALLATION

1. Open the hardware kit and remove all the contents. Refer to the part list (Page 4) and **Photo 1** to verify all parts are present.

2. Park the vehicle on a smooth, level concrete or seasoned asphalt surface and activate the parking brake. Block the FRONT wheels of the vehicle with appropriate wheel chocks; making sure the vehicle's transmission is in 1st gear (manual) or "Park" (automatic).

3. Using a properly rated floor jack, lift the rear wheels of the vehicle off the ground. Place support stands, rated for the vehicle's weight, in the factory specified locations. Refer to the vehicle Owner's Manual. Prior to lowering the vehicle onto the stands, make sure the supports will securely contact the chassis.

ⓘ It is very important that the vehicle is properly supported during this installation to prevent personal injury and chassis damage! Make sure that the supports stands are properly placed prior to performing the following procedures. We do not recommend using wheel ramps while performing this installation.

4. Slowly lower the vehicle onto the stands and, before placing the vehicle's entire weight on them, again check that they properly and securely contact the chassis as described above. Check for possible interference with any lines, wires, cables, or other easily damaged components. Remove the rear wheels.

5. Locate the rear bump stop on the bottom sides of the frame rails just in over of the axle and remove it (**Photo 2**). Prepare the frame rails using a rag and solvent; thoroughly clean the area behind the bump stop hole. Using tape measure, mark the location of the hole to be drilled by measuring approximately 6 1/4" behind the rearward most edge of the bump stop hole (**Photo 3**). Measuring in from the out side of the frame rail make a mark 3/4" in (**Photo 4**). Confirm the proper location prior to drilling in the following steps.

6. Before drilling the holes, use a punch and hammer to accurately mark the holes to be drilled on the left and right side frame rails (**Photo 5**). Use a 3/8" drill bit and drill motor to make the required holes in the frame rail (**Photo 6**). Thoroughly de-burr the holes with a small round file or de-burring tool. Check the hole spacing by using one of the **End-link drop down bracket** as a guide (**Photo 7**). If the spacing is not accurate, the holes may need to be slightly enlarged. Resize the holes just enough to allow proper fit. Blow out or vacuum the metal chips before continuing.

7. Using the 3/8"-16 x 1 1/4" and a 3/8" flat washer, place the bolts in the frame rails with the threads protruding downward (**Photo 8**). Place the drop down brackets onto the frame **with the end-link holes towards the rear** (**Photo 9**). Fasten the brackets to the studs using the 3/8" lock nuts and a 3/8" flat washers. Carefully align the brackets so they are parallel with the frame rails. Torque the hardware to 34ft. lbs

8. Lift and locate the fuel tank back into its' original position. Reinstall the two fuel tank straps and bolts. Tighten and torque the fuel tank straps bolts to 36 ft-lb.

9. Fasten the “dog bone” end links to the drop down brackets using the 3/8”-16 X 2¾” HHCS’s, flat washers and lock nuts (**Photo 11**). The HHCS’s should be positioned with the hex head facing out. Torque the lock nuts to 34ft.lbs.

10. The emergency brake cable guide bracket and cable must be moved up to allow additional clearance for the new rear anti-sway bar. Remove the bracket located on the outer surface of the driver side shock mount (**Photo 12**). Carefully pry the bracket open and remove it from the brake cable (**Photo 13**).

11. Fasten the original 5/16” HHCS to the bracket with the 5/16” nut supplied in the kit (**Photo 14 and 15**). This will prevent the bracket from slipping while drilling a new index hole. Measure ½” down from the original hole and mark with a punch. Place the bracket in a vise and use a drill motor equipped with a 5/16” drill bit to make the new hole (**Photo 16**).

12. Install the bracket in the reverse order of removal. Fasten the bracket and cable in place using the original HHCS and the new hole (**Photo 17**).

ⓘ When installing the new *Belltech* anti-sway bar, it is best to attach the anti-sway bar to the vehicle by the end links first and then to the axle.

13. Attach the ASB to the “End-Links”. Using the hardware provided (**Photo 18**).

14. Thoroughly lubricate the **inside** of the new polyurethane bushings using the grease provided (**Photo 19**). Locate the bushings on the *Belltech* anti-sway bar. Once located, rotate the bushings slightly to evenly spread the lubricant.

ⓘ WD-40™ is recommended to help remove excess lubricant. Re-greasing the pivot bushings should be performed at regular intervals. Climate and driving conditions will govern the time between services. Remember to check all hardware while performing bushing maintenance.

15. Now install the U-bolts and flanges onto the axles, in between the differential and the shock brackets (**Photo 20**). Be careful to avoid damaging brake lines or other components. Place the pivot bushing brackets that are provided with the kit onto the new bushings. Install the anti-sway bar onto the U-bolts and loosely thread the hardware into place (**Photo 21**). Shift the bar side-to-side and front-to-back to center on the chassis. Torque hardware to 19lb.ft..

16. Check that all components and fasteners have been properly installed, tightened and torqued.

17. Reinstall the rear wheels. Tighten and torque the lug nuts to the Manufacturer’s specifications.

18. Check brake hoses, cables, lines and other components for any possible interference.

19. Lift vehicle and remove support stands. Carefully lower vehicle to ground.

20. Immediately test-drive the vehicle in a remote location so that you can become accustomed to the revised driving characteristics and handling. Be aware that the vehicle will handle substantially different now that it has been modified.

21. Installation is complete. Check <u>all</u> of the hardware and re-torque at intervals for the first 10, 100, 1000 miles.

ⓘ **We highly recommend installing the appropriate matching *Belltech* front Anti-sway Bar to maintain proper handling characteristics and performance.** See the current ***Belltech Application Guide*** or contact you nearest ***Belltech Dealer*** for the appropriate part number for your application.

PART LIST FOR 5540 ANTI-SWAY BAR HARDWARE KIT

PART #	DESCRIPTION	QTY
113165	Urethane pivot bushing	2
114020	Pivot bushing bracket	2
114050	"Dog bone" end link	2
114035	End link drop down bracket	2
110255	3/8"- 16 lock nut	12
110625	3/8" flat washer	20
112110	3/8"- 16 X 2 3/4" HHCS	4
112094	3/8”-16 x1 1/4" HHCS	8
112518	3/8” USS flat washer	4
55000-10	Grease pack	2