

McGAUGHYS

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2019+ DODGE RAM 2500 8" LIFT KIT PART# 54414

STOP! READ THIS FIRST!

****READ THESE ENTIRE INSTRUCTIONS BEFORE STARTING ANYTHING****

NOTE:

- The factory wheels and tires WILL fit on the front of the vehicle once the lift kit is installed if they are 18" or larger.
- If you alter the powder-coating or finish of any of the provided parts or stock components like the zinc plating or chroming, which can damage the strength and structure of the metal, any warranties will be null and void.
- If any parts are ground on or modified in any way then no returns will be accepted.
- NO welding is required to install any part of this lift kit. Do not weld any components.
- Oversized tires and heavier rims can cause premature ball joint, tie-rod, and idler arm wear. You may need to install new components sooner than factory recommendations based on the tires and rims you choose.

8" LIFT KIT (COIL SPRING REAR)



FRONT INSTALLATION:

Before starting this installation, we recommend loosening the factory front shocks with the truck on the ground. Once the vehicle is in the air, it is extremely difficult to access the upper shock nuts and they have a significant amount of tension on them. Loosen the top nut with a 21mm wrench but **DO NOT** remove it all the way off since it holds up the front suspension. (Photo 1)



Always use the proper tools and consult the factory service manual for recommended torque values and procedures. With the parking brake set and chocks behind the rear tires, use a jack and lift the front of the vehicle and place jack stands under the frame on each side. Remove the front tires and wheels.

1. Using a 13mm wrench, unbolt the brake line brackets (L&R) from the frame. Also, unbolt the brake line bracket from the front axle for extra maneuverability. (Photo 2)

2. Support the front driveline with a suitable strap and remove the four front driveshaft flange bolts using a 15mm socket (Photo 3)



3. Remove the driver's side drag link to pitman arm nut using a 21mm socket. Use a tie-rod removal tool to avoid damaging you stock tie-rod ends. (Photo 4)

4. Remove the pitman arm-to-steering box nut using a 46mm socket. (Photo 5)

5. Using a pitman arm puller, remove the pitman arm from the steering box output shaft. (Photo 6)

6. Remove the sway bar end link top nuts (L&R) using a 18mm socket. Separate the sway bar from the end links. (Photo 7)





7. Remove the sway bar mounting bolts from the frame using a 15mm socket. (Photo 8)

8. Remove the sway bar.

9. Support the front axle and remove the front shock top nuts.

10. Remove the front shock lower mounting bolt using a 21mm socket. Remove the shocks from the vehicle. (Photo 9)

11. Lower the front axle until the front coil spring tension is released.

12. Remove the coil springs. (Photo 10)



13. Use a cut-off wheel to remove the front bump stop mounts (L&R) from the frame. **NOTE: The frame mounts will be reused so do not destroy them, cut the factory weld only.** (Photo 11)

14. Clean the remaining weld material from the frame using an abrasive disc or flap wheel. Clean and paint the bare metal. (pic 12)

15. Use provided tap on the existing holes that were located under the factory bump stop cup on the frame. (pic 13)

16. Clean the remaining weld material from the factory bump stop cup that was removed from the frame. Use an abrasive disc or flap wheel. Paint any bare metal on the cup.



17. Install the bump stop cups on to the new bump stop brackets. Use the provided 3/8" buttonhead allen bolts.

18. Install the original bump stops back into the bump stop cup. This will take some force. (pic 14)

19. Next, install the new bump stop assemblies into the vehicle using the supplied 7/16"x3/4" bolts. (pic 15)



20. Install the new track bar drop bracket using the original hardware. Place the 3 laser cut 16 gauge washers on top of the new track bar bracket over the original hardware before installing the new track bar bracket. Bolt into the original location. (pic 16 & 17) Once you have started the 3 bolts, use the last two original bolts and install them into the side of the original frame mount through the new track bar bracket. Use the provided 14mm locking nuts. Now tighten all five bolts, starting with the highest up bolt in pic 17. Then moving to the next two bolts going up into the frame. Lastly will be the two side mounted bolts in pic 18. Torque all bolts to factory specs.

21. Remove the upper radius arm to axle bolts using a 27mm socket. Remove the lower radius arm to axle bolts using a 24mm wrench.

22. Remove the radius arm to frame bolts using a 27mm socket. And remove the factory radius arms from the vehicle.



23. New radius arm drop bracket will slip over the outside of the original radius arm mount on the frame. Use provided spacer and place it in between the original radius arm mount. Use provided 18mm x 130mm bolt. (pic 19)

24. With radius arm drop bracket held in place, mark the two holes on the underside of the frame. You can use a 1/2" drill bit to mark both holes to keep them centered. Once both holes are marked, remove radius arm drop bracket and drill both holes out to 11/16". Use provided rivet tool to install the frame rivets. Two per side. (pic 20-21)

25. Reinstall radius drop bracket over original mount. Install sleeve spacer in original radius arm location. Use 18mm x 130mm bolt passing through the frame and sleeve. Now use the 1/2"-13 x 1 1/4" bolts into the rivet nuts installed onto the frame. Torque these two first to 70 ft lbs, then torque the 18mm x 130mm bolt to 90 ft lbs. (pic 22 & 23)





26. Attach the new McGaughy's radius arm to the radius arm drop bracket using 18mm x 130" bolt. (pic 24)

27. Use factory hardware for the front radius arm. Install both arms then center cam bolts and tighten both sides. (pic 25 & 26)

28. Tighten up factory upper bolt on both side next. On the rear radius arm bolts, do not tighten yet. Leave those snug until truck is on the ground. Torque to factory specs.



29. Track bar alignment cam must be used in the position shown. Place cam in front and behind track bar bracket so that the bolt can pass through with no obstruction. (pic 27 & 28)

30. Install the track bar into new track bar drop bracket using supplied 18mm x 90mm bolt, cams, and locknut. Torque to factory specs. (pic 29)



31. Install new McGaughy's lift coil. Be sure to use the factory coil isolators in the factory location. Tighter windings face up and the more open windings face down. (pic 30)



31.



32.

32. Install the new shocks using the supplied upper hardware and the factory lower hardware. (pic 31 & 32)



33.



34.



35.

33. Install supplied brake line drop brackets on the frame using the stock hardware. Next, install the factory brake line bracket to the new drop down bracket with the supplied 5/16" x 3/4" hardware. (pic 33-35)

34. Be sure to re-attach brake line brackets to the axle.

MAKE SURE THAT THE ORIGINAL BRAKE LINE ISN'T RUBBING AGAINST ANYTHING THAT COULD CAUSE FAILURE.



36.



37.

34. Before installing new drop pitman arm, clean the factory splines and threads so there is no debris or oil. Clean the threads on the nut as well. Now install new drop pitman arm. Apply the supplied red thread locker to the factory pitman retention nut and tighten to factory specs. Make sure you install it the same way it came off the vehicle lining up the four alignment channels. (pic 36-37) Torque to factory specs.



38.



39.

35. Using 18mm, loosen drag link clamp. (pic 38)

36. Loosen and remove drag link adjuster (hex head nut between drag link clamp and tie rod) by turning the nut clockwise while holding the tie rod in place so not to spin. (pic 39)



40.



41.

37. Make sure to note where position of tie rod is when removed from drag link. (pic 40)

38. Now remove drag link adjuster from tie rod. (pic 41)



42.

BEFORE



43.

AFTER

39. Once drag link adjuster is removed, you must grind down flat the hexagon sides of the tie rod. Grind up to the threads. DO NOT grind any threads. When grinding the end of the tie rod, the goal is to extend the hexagon shaft right to the end of the threads, making sure it is the same size from one end to the other. Be sure to stop at the end of the threads. You do not want to grind too much away. (pic 42-43)



44.



45.



46.

40. After grinding the tie rod sides flat, reinstall the drag link adjuster on to the tie rod. The tie rod must sit about 1/8" down inside the adjuster. (pic 44)

41. Now install the tie rod in to the drag link with the tie rod now facing up. (pic 45)

42. Once installed, tighten drag link clamp. Torque to factory specs. (pic 46)



47.



48.

43. Mount the new sway bar drop brackets on the frame in the original location. Use factory hardware. Mount brackets so that they are angled away from the axle. (pic 47-48)



44. Attach the sway bar to the new drop down brackets using the supplied 3/8"x 1-1/4" hardware. (pic 49)

45. Install sway bar end link and tighten to factory specs. (pic 50)



46. This kit requires a transfer case reclocking ring. You will need to remove the original transmission crossmember from the frame. Once you have supported the transmission, one of the bolts on the passenger side cannot be removed because it will hit the exhaust. Remove the nut and push the bolt back through, exposing the head of the bolt. Cut the head of the bolt off and pull it back through the opposite way. (pic 51) We provide a new replacement bolt to use.

47. Install the provided transmission shim before installing the new crossmember. (pic 52)

48. Install new transmission crossmember. Use the three remaining factory bolts and the one new bolt to replace the bolt that had to be cut. Tighten to factory specs. (pic 53)



49. Install wire loom relocating bracket on driver side rear of transmission crossmember. Use the factory plastic clip to hold the wire loom in place. The clip will snap into the new loom bracket. (pic 54) Now torque all bolts to factory specs.

50. Make sure you open the factory clip inside the original drive line before installing it over the factory splines or the transfer case. Once the drive line is pushed all the way into place, the original clip will close locking on to the transfer case splines. Make sure you use the original rubber boot clamp from the transfer case to the drive line. This is to prevent debris from getting in. (pic 55)

51. Apply the supplied thread locking compound to the drive shaft flange retaining bolts. Align the drive shaft flange to the axle flange and thread in the bolts. Torque to factory specs. (pic 56)

Now, with the truck on the ground, tighten up the radius arm bolts on the frame that were left snug. Torque to factory specs.

REAR INSTALLATION: (COIL REAR ONLY)

52. Support the rear axle and remove the parking brake cable retainer bracket nut. (pic 57)

53. Remove the top shock nut using a 18mm socket.

54. Remove the bottom shock hardware using a 21mm socket and 21mm wrench. (pic 58)

55. Remove the shock absorber. (pic 59)



56. Repeat steps 50 through 53 for the opposite side.

57. Remove the sway bar end link upper mounting hardware. (pic 60)

58. Remove the sway bar end link lower mounting hardware. (pic 61)

59. Remove the sway bar end link.

60. Repeat steps 54 through 57 for the opposite side.

61. Remove the panhard bar to axle hardware. (pic 62)

62. Lower the rear axle until spring pressure has been safely released.

63. Remove the rear coil springs. (pic 63)

64. Open the existing hole in the factory lower track bar bracket with a 1/2" drill bit as shown. (pic 64)



65. Install the new track bar bracket into the lower track bar mount. Insert the original bolt through the lower hole, going through the brackets. (pic 65)



66. Using the $\frac{9}{16}$ " bolt, place the track bar reinforcement brace in front of the track bar mount and place new bolt through the hole that runs through the track bar bracket and through the track bar brace. (pic 66)



67. Place $\frac{3}{8}$ " washer ($\frac{1}{4}$ " thick) under the track bar brace and insert $\frac{3}{8}$ " x $1\frac{3}{4}$ " NC bolt through the brace, washer, the original hole in the spring pad, and through the track bar bracket. (pic 67) (Do not use $\frac{1}{4}$ " washer in rear if you have a $4\frac{1}{2}$ " coil spring spacer because the bracket sits on top of the mount.)



68. Mark two holes in the track bar brace. Drill the hole on the side facing outward, to $\frac{1}{2}$ " and install the new $\frac{1}{2}$ " x $1\frac{1}{2}$ " NC bolt (pic 68). Drill the front hole facing inward to $\frac{3}{8}$ " and insert the $\frac{3}{8}$ " x $1\frac{1}{2}$ " bolt. (pic 69)



69. Insert the $\frac{1}{2}$ " x $1\frac{1}{2}$ " NC bolt and nut through the hole under the rear lower track bar bracket you drilled out to $\frac{1}{2}$ " (pic 70)



70. Remove the $\frac{9}{16}$ " bolt from the track bar bracket and track bar brace (used for alignment) and reinstall track bar into the new track bar bracket and brace. (pic 71) Tighten all the bolts.



71. Remove the factory bumpstops using a 15mm socket. (pic 72)

72. Install the McGaughy's rear bump stop extension to frame using the factory hardware. Repeat for opposite side.

73. Mount the bumpstops to the spacers using the supplied 3/8" x 1 1/4" bolts, washers, and locknuts. (pic 73)



74. Install the new sway bar end links using the supplied 1/2" x 2 1/2" bolts, washers, and locknuts. Install these with the larger washer outside and the standard washer inside. (pic 74)

75. Install the new shock body down using the factory hardware. (pic 75)

76. Set the rear at ride height then proceed to tighten the panhard bar to the McGaughy's extension bracket. Torque to factory specs.

77. **IMPORTANT:** Double check all of the front and rear fasteners and components, making sure everything has been properly torqued as outlined in these instructions to factory specifications. This **MUST** be done prior to operating the vehicle. We recommend periodically checking all of the front suspension and lift kit components and fasteners to be certain they are tight and in proper working order.