

STEER AND SWAY

WE INSTALL NEW STEERING LINKAGE AND A SWAY BAR ON OUR 1964 CHEVELLE



If there's one thing that Chevrolet learned since the muscle car era, it is how to engineer a steering system that offers performance and comfort. The steering and suspension systems from the 1960s are notorious for being sloppy and sluggish, which takes away from the overall driving experience. This is especially true if you're accustomed to driving a modern vehicle with rack-and-pinion and then slide behind the wheel of a 50-year-old Chevy with sloppy manual steering. Even when new, these cars didn't handle nearly as well as our modern daily drivers, and worn components certainly add to the ill-handling characteristics.

Our classic Chevy example is a 1964 Chevelle, which came from the factory with manual steering. The car was maintained through the late 1960s but it has retained all of its original steering and suspension components since then. The car drove all right but a steering overhaul was long overdue. We sourced the steering components (PN 6467SLK-CP, kit) from Classic Performance Products (CPP) to complete the job. The kit consisted of a new pitman arm, idler arm, centerlink, inner and outer tie rods, and billet adjuster sleeves. All of the components are heavy-duty items with zerk fittings for easy maintenance. While we had the front end torn apart, it was a good time to replace the original sway bar

with a 1 1/8-inch unit (PN CP883U) also from CPP.

We performed the steering system overhaul with a selection of handtools, but we also needed a three-jaw puller and a 1 5/16-inch socket (for the pitman arm nut) to get the job done. The sway bar install was straightforward, simple, and affordable, and it only required a few handtools to make the swap. To replicate our efforts, you can expect to spend a few evenings in the shop and about \$350 on parts. After we buttoned it up and sat the car on the ground we had the front suspension professionally aligned and set off to enjoy the benefits of better steering performance and handling in our 1964 Chevelle daily driver.



1 After jacking up the Chevelle we secured it on jack stands and started the disassembly process. The cotter pin on the outer tie-rod ends are removed and we loosen the castle nut with an 11/16-inch wrench.

2 With the castle nut loosened but not removed, we strike the spindle steering arm (not the tie-rod end) with a mini sledgehammer. This joint normally breaks loose without a major fight, but a pickle fork is sometimes necessary for removal.

3 After the tie-rod end is broken loose from the steering arm we can loosen and remove the endlinks for the sway bar. The bushings are the originals and they are beyond their intended service life. The long bolt requires a 9/16-inch wrench on one side and a socket on the other.

4 With the endlinks removed, we can remove the four bolts that secure the sway bar to the framerails. A 1/2-inch socket fits the original bolts, which thread into a welded nut inside the frame. The CPP sway bar kit comes with new hardware.

5 We planned to drop the steering linkage as a complete assembly to keep from breaking all of the steering joints loose. We removed the two bolts and nuts that hold the idler arm in place. You will need a ratchet with an extension to reach the bolts on the other side of the framerail. Thankfully, Chevrolet provided easy access holes to the bolts.

6 The pitman arm is a little more difficult as it requires a puller for removal. The steering shaft features a tapered spline so it is a tight fit. After removing the 1 5/16-inch retaining nut, we attached our three-jaw puller, which made easy work of the pitman arm.

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Our 1964 Chevelle originally had 13/16-inch pilot holes for the steering linkage, while 1965-'67 featured 7/8-inch holes. The CPP kit (PN 6467SLK-CP) includes the pitman arm, idler arm, centerlink, inner tie rods, outer tie rods, and billet sleeves. Chevrolet went back to the 13/16-inch equipment for 1968-'72, but the centerlink is 3/4-inch wider. We are replacing the entire steering assembly so 7/8-inch is fine with us.

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It's important to note that the shaft on the steering box is larger on a power steering box than it is on a manual box. Here, you can see two pitman arms side by side—the manual pitman arm fits a 1-inch shaft, while the power pitman arm fits a 1 1/8-inch shaft. CPP offers both sizes, we opted for the 1-inch version for our manual box.



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The pitman arm has notches in the spline, which allows you to easily index the arm. Then, once it is started on the splines, you can use the nut to drive the arm onto the shaft. This normally isn't the best way to install a "press fit" item, but since this is a tapered shaft, it is the suggested method. Our trusty shop manual calls for torque values between 120 and 150 ft-lb.

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The idler arm is next, and it bolts into place with the original hardware, consisting of two bolts that pass through the framerrail and two nuts that tighten against the arm. You may find it easier to install the idler arm and centerlink as an assembly, as the clearances are a bit tight.

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We tighten the castle nut that attaches the centerlink to the idler arm, and then tighten the castle nut that attaches to the pitman arm. New cotter pins are installed. Remember to grease all of the joints before driving the car.

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The inner and outer tie rods are connected by a billet adjuster sleeve, which is provided in the CPP kit. We took a few measurements of our stock assemblies and got it pretty close with our new equipment so the toe would be somewhere in the ballpark.

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The 11/16-inch castle nuts on the inner tie rod tighten against the centerlink. We swap our ratchet wrench for a torque wrench and tighten the nuts to 35 ft-lb. If the nut then needs to rotate more to install the cotter pin, you may tighten it further—never loosen a nut to line up a cotter pin hole.



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14 Now, we can move to the outer tie rods. The joints can be a little stiff, and we'd suggest moving them around by hand a little before installing them. These castle nuts also torque to 35 ft-lb and get a cotter pin.

15 Moving on to the driver-side tie-rod assembly, we repeat our steps of ratchet/wrenching the castle nuts and then using a torque wrench to tighten the nuts to a minimum of 35 ft-lb. The front suspension will need to be professionally aligned so we didn't sweat the details on the toe measurements.

16 With the steering linkage installed we can button up our upgrades with the new CPP 1 1/8-inch front sway bar. We start the process by applying the supplied grease to the plastic bushings. Then we slide the bushings onto the bar.

17 Installing a sway bar can be tough by yourself, so you might need a hand getting the bolts lined up. After all four bolts are started, you can make sure the bar is centered and that the endlinks will line up properly.

18 The supplied sway bar bolts are tightened, but CPP suggests inspecting the welded nut for thread damage. If the bolt doesn't want to bite, you will need to drill it out and install larger bolts.

19 Finally, we assemble the endlinks and bolt them into place. The car must be sitting at ride height for the bolts to be aligned, and keep in mind that with new bushings, the bolts might not seem long enough until you apply a little downward force to seat the series of bushings and cups.

SOURCES:

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