SUSPENSION SHOWCASE

CPP’s complete front suspension kit for Tri-Five Chevys allows For Daily Driving And Not Just “Daily Driving.”

*In the July ’09 issue we slapped on a set of Hotchkis swaybars on this otherwise-stock ’57 Two-Ten to help our 3,500-pound classic stay flat through the corners. Unfortunately, they did nothing to help suspension sloppiness in potholes, over railroad tracks, or through traffic. On top of that, this 5-7 hadn’t been aligned in a few decades so when you let go of the wheel, you might as well flip a coin to see which direction she’d go. The stock springs were showing their age and the shocks were just about all that was holding the frame off the ground.

Luckily, Classic Performance Products knew exactly how to fix our problems and sent out its complete front suspension kit for the ’55-57, complete with upper and lower tubular control arms, 1.5-inch drop springs, and Doetsch shocks. Adding five degrees of caster, CPP’s tubular upper control arms are 1.25-inch thick and provide superior strength over the factory stamped steel. The bushings are made of a patented plastic that self-lubricates and is guaranteed not to make any noise on the road. The lower control arms are built to match using the same machining process and high strength tubing.

The design of the upper control arm on the Tri-Five Chevy is very similar to that of the Camaro, Nova, and Chevelle, and mounts in almost the exact same fashion. The main difference is the mounting of the lower control arm, which is bolted flush to the bottom of the frame and does not have two mounting arms that fall into pockets. This makes installation very quick, and do-able for the average hot rodder. The most difficult part of the entire installation was getting the factory spring loose and installing the aftermarket spring.

With our front suspension upgrade, we completely changed the characteristics felt behind the steering wheel. Both sides proved to provide the approximately five degrees more caster, and upon exiting a turn, this assists the steering to bring the car back to center. The front end of our Tri-Five dropped approximately 1.5-inches and gave our owner the exact look he wanted. Handling is also vastly improved, the car now actually goes where it is pointed. The owner claims the steering is tighter and the ride firmer.

CPP also has many options for the rear of our ‘57, including shocks, springs, and four-link kits if we choose to turn this baby into an even better handler. Follow along as we ease into some suspension resurrection. 

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We're going to take you from start to finish on this build, making sure we don't leave anything out. Our '57 had 4-wheel manual drum brakes, a problem that we needed to remedy. One of the many added bonuses of a kit such as this is the ease of maintenance to the suspension and brake systems.

First, we ripped off the wheels and got hacking on the drums. I first removed the cotter pins holding the spindle nut on and loosened it until it came off. At this point, the drum may fall off the spindle, but in the likely scenario that it does not, a few smacks of the hammer on the outside rim will knock it loose.

The factory drum brakes were completely shot, so our timing could not have been better. (See our upgrade story on page 52 to see how we added front discs.) Next, I removed the springs holding the pads in place, which simply allowed much of the assembly to fall off. Now is a great time to unbolt the dust shield from the spindle, as we will have to remove it later. Having it and the spindle mounted to the control arms provided leverage to loosen the rusty 52-year-old bolts.

We then used a fork to separate the control arms from the spindle. Make sure to leave at least five threads still on the bolt while hitting the fork with a hammer. If there aren't enough threads left, the control arms may separate, sending the factory spring across the room or through anyone standing in the way.
I then disconnected the shock from the upper mounting location but left it bolted to the lower control arm as a precaution. Next, using a block of wood and a jack, I supported the weight of the suspension and took out the upper control arm bolt. NEVER stand or sit square in the fenderwell while performing this step. I stood in front of the car, placed a long socket wrench on the upper control arm bolt and slowly loosened till the spring came free.

At this point, you can simply unbolt the shock, spindle, and control arms from their mounting locations. Take caution not to strip or break these bolts, as they will need to be reused. I had a bottle of Gum Cutter sitting around and hit every bolt before loosening.

Check out our CPP upper and lower control arms next to the factory set. The strength of 1.25-inch tubular control arms will add rigidity to the suspension, give it five degrees of added caster, and improve ride quality tenfold. Also, the thick mounting/pivot arms on both the upper and lower mounts use the existing hardware. Try not to lose the shims that came out of the upper control arm from the last alignment. Shops will have these but it's good to know how the car was set up before hand.

First, I tackled the upper control arm and made sure to grease all of the joints, mounting holes, bolts, and nuts prior to installation. The upper arm can be installed from the top of the car or from the bottom. I chose to go in from the bottom as my 5-foot 6-inch frame could barely see into the engine bay, let alone do any work. I tightened the bolts without any shims, but didn't tighten them as hard as I could knowing we will going in later for an alignment. Upon final tightening, make sure your shop gives these control arms a good turn.
The lower control arm mounts flush to the underside of the frame and simply get tightened using four bolts and lock washers. Try to tighten these bolts at the same time ensuring that the control arm mounts flush. If you were to tighten one side and then the other, you run the chance of it getting kinked and ultimately coming lose down the road.

At this point, our control arms are in place. Already installed by CPP, the new ball joints come pre-greased and provide a noise and vibration-free ride. Also, the kit comes with all the castle nuts, cotter pins, and dust boots to finish the job. As a precaution, use a grease gun to make sure they do not need any more lubrication. Better to be safe than sorry here.

Check out the CPP 1.5-inch drop spring next to the one from the factory. Installing the spring took more time than expected because the spindle mounts underneath the control arm and makes it difficult to get a jack in there. Also, make sure that when you are installing the spring, it sits in the factory bucket in the frame. The last thing you want is to take all the time getting the spindle bolted in place, only to have it take it all apart again. Much the same as when we took the old spring out, never stand directly in front of the compressed spring while installing. They have been known to travel up to 100 feet upon evacuation.
At this point, we can install the Doetsch shock from the bottom. It uses the factory hole in the frame and comes with hardware for the lower control arm. Once again, grease all nuts and bolts and make sure the spring is in place. Usually, if the front spring is not sitting in its pocket, the shock will not go into place. I’ll admit it—that is exactly what happened to me.

Once set in place, I bolted the spindle in place and backed the nut off to the closest cotter pin hole. Make sure the spindle goes through the entire range of steering smoothly before you put the cotter pins in place and call it a day.

Last but not least, I reinstalled the sway bar, and that completed the installation of the front suspension. Once I bolted the front disc brakes into place, we headed over to the Hillcrest Exxon alignment rack where Bob Twynam made the necessary changes to get the car rolling properly. We showed 5.2 degrees of caster on both sides, and spent a great deal of time setting the toe and camber.

Check out the stance of our ’57 now, and the beautiful lines. We all should be so lucky.

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800/522-5004
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