

# STOPPING A STAMPEDING IMPALA

Installing rear brakes on a '61 Chevy hardtop



The '59-'62 Chevy rear brake kit features Dynalite calipers, rear internal drum brake units with built-in caliper brackets, rotors that work with the internal drum brake mechanism, BP-10 Smart Pads and all of the hardware required to finish the installation. The standard kit number is 140-11828 but with the red calipers and drilled and slotted rotors the number is 140-11828-DR.

Chevrolet was going through many changes in the mid to late-'50s with regard to styling and engineering. In 1955 the company released the first Chevy that was so nice that a Chevy buyer would quickly become an enthusiast. Before the '55 Chevys were released and successful, the management wanted another completely new model to be released that was larger, had a four-wheel coil spring suspension and higher horsepower engines. The car took longer than expected to be ready for release, so the two year cycle was altered and the '57 Chevy became an extension of the '55-'56 Chevy line. In 1958 the new car was released and it was a big departure from the previous Chevy. It did have many features including a high horsepower 348ci V8, but it was competing against the finned Ford and Chrysler products, so management blamed the lack of fins for the car's marginal sales. In 1959 the body was radically changed with wild fins and many mechanical improvements. Management was finally pleased with the car and it sold quite well. The 1960 Chevy was similar to the '59, but the fins were more angular. Back on a two-year cycle, the new '61 Chevy was slightly smaller and lighter than the '60 model and a new 409 engine was released to compete in the new NHRA Super Stock drag races.

Today the '61 Chevys are very popular with performance enthusiasts, because the cars are nicely styled and have plenty of performance potential. The fellow who owns this '61 Chevy kept the body original, but he wanted to give it the

Pro-Touring appearance with a lowered stance and large diameter wheels with low profile tires. After installing the large diameter wheels you could plainly see the small original drum brakes that were only providing marginal stopping power, so he decided to install large diameter Wilwood brakes on the front. When he found out that Wilwood just released rear disc brakes for '59 through '62 Chevys he wanted a matching set of rear brakes. Since the owner only lives a few blocks away from Wilwood's Camarillo facility, the new rear brakes were installed in the Wilwood tech center by Tony Porto; Wilwood's chief technician. The new rear kit part number 140-11828 features Dynalite Calipers, a rear internal drum parking brake mechanism with built-in caliper brackets, rotors that are designed to work with the parking brake unit, BP10 Smart Pads and all of the hardware required to finish the installation.

This new Wilwood disc brake kit is designed for '59-'62 Chevys that are still equipped with the original rear axle and suspension components. This is a direct bolt-on kit and doesn't require any intricate machine work to complete. Wilwood Engineering recommends persons experienced in the installation and proper operation of disc brake systems should only perform the installation of this kit. A hobby builder can install this kit if he has good mechanical ability, car building experience and a good assortment of tools. In order to complete this installation you need a floor jack and jack stands, an assortment of standard wrenches and line wrenches, a socket set and a ratchet wrench, an

impact gun and a foot-pound torque wrench.

Before the installation begins, it would be a good idea to spread everything out so you can make sure that all of the parts are included in the kit. Check the

items in your kit with the parts list on the instruction sheet. We are going to show you the installation to give you a chance to decide whether you want to install the system on your car or have a professional do it for you.



Here is the '61 Chevy with the large 20-inch five spoke rear wheels. The open spokes in the wheels clearly show the little rear drum brakes. In this Chevy's case the brake installation will not only be a performance improvement, it will also be an appearance enhancement.



The Chevy was safely elevated so that the wheels and tires could be removed. Using an impact gun and the appropriate size socket, the lug nuts were disconnected from the attractive five-spoke wheels.



After the lug nuts were disconnected, the wheels and tires were removed from the car.



The brake drum was moved side-to-side to release it from the centering ring. After it was loose, it was removed from the car.



The four nuts and bolts that connect the bearing retainer and backing plate to the axle flange were disconnected. Here the bolts are being loosened with a breaker bar.



After the four nuts were disconnected, the axle was removed from the differential case. This might require an axle-puller.



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Here Tony is removing the axle from the car. He wipes the excess axle grease off of the axle as it's being removed.



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Before the backing plate can be removed from the axle, the brake line has to be disconnected from the wheel cylinder.



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After the connection to the wheel cylinder was disconnected, the backing plate was removed from the axle.



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After the backing plate was removed, the axle flange was cleaned with a wire brush. The grease seal in the axle was in good condition so it was retained for this brake installation.



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The bolts in the bearing retainer were removed because new bolts will be used for this installation.



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The kit comes with this bearing spacer that fits snugly inside of the axle tube.



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The parking brake mechanism was placed against the axle opening to make sure the boltholes line up properly.



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The parking brake assembly was installed on the axle and the bearing retainer holes were lined up with the parking brake mechanism as the unit was slid into place.



Four of these bolts will be used to install the parking brake mechanism and bearing retainer plate to the axle flange. The bolts are installed from the backside of the axle flange as shown here.



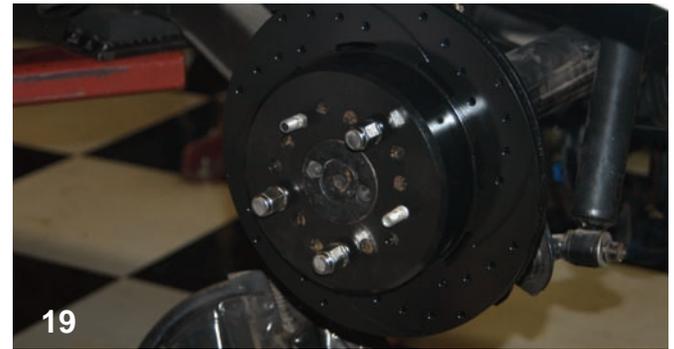
Peeking through the opening, you can see the nut on the bolt. Before the nut was installed, a small flat washer was placed on the bolt. This is a tough area to reach, so you will have to be tricky to get the nut connected to the bolt. Tony used a magnet tool to get the parts started.



All four bolts were tightened with an open-end wrench on the outside and a socket wrench on the backside. The connection should be very tight, so double-check the connection.



The black E-Coated rotor was placed on the studs and was slid back until the opening in the rotor was firmly against the axle flange centering ring. Notice the additional holes that are used to line up with other lug bolt configurations.



The lug nuts were installed to hold the rotor firmly against the axle flange, so the rotor to caliper centering can be checked.



The inlet fitting threads were covered with PTFE Thread Tape and then the fitting was screwed into the caliper.



It was determined that only one shim washer was required to center the caliper and rotor. Here the attachment bolt was being coated with Loctite prior to installing the caliper.



The caliper was placed over the rotor and the connections were aligned with the bracket holes. The bolts were connected finger tight to start with.



After the caliper mounting bolts were connected finger tight, they were tightened with a socket wrench. After the bolts were tight, the caliper was centered over the rotor.



The BP-10 Smart Pads were installed in the calipers as seen here. They drop in from the top, which makes brake pad changes easy.



After the pads were in place, the long cotter key was installed to secure them.



The original rear axle brake line was connected to the fitting in the caliper. Only a small amount of bending was required.



The original emergency brake cable will no longer be used. The cable has to be released and the cable has to be removed from the frame bracket.



Here is the rear cable after it was disconnected from the main parking brake cable.



The parking brake cable bracket is attached to the axle strut with a small bolt. Here the bolt is being removed. The small bracket can be used to secure the new cable that will be installed.



Using a Wilwood universal brake cable kit, a new brake cable mechanism was installed.

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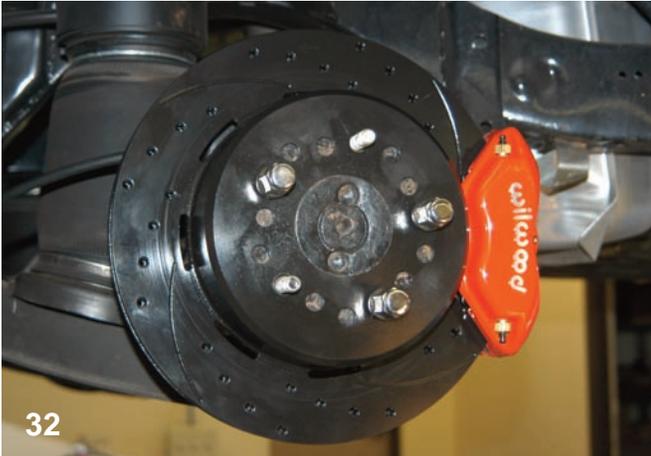
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The other end of the universal brake cable hooks to the bracket on the parking brake mechanism and to the arm that activates the system.



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Here is the finished brake assembly ready for action. The Dynapro caliper will work perfectly with the front brake and will provide a good front to rear brake bias. The black rotor face will turn to bare silver metal after a few brake applications are made.



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With the new Wilwood brakes installed, the large diameter wheel looks fantastic with the brakes showing through. Like we mentioned earlier, this is a performance improvement and it also improves the car's appearance.