

BIG BRAKES

Installing a Wilwood six piston brake system on a '34 Ford



Whoa power is just as important as go power on the roads today. This '34 Ford will have more than enough go power because it's equipped with a 502 horsepower 502ci Chevy big-block engine. The vehicle's original suspension was upgraded to an Art Morrison independent front suspension with airbags and GM-style brakes. The owner felt that the disc brakes, although a good setup on many street rods, could be improved to correspond to his heavy right foot. When he is hauling down the highway he wants to be able to stop just as quick as that Porsche in front of him.

After doing some research, he found that Wilwood Engineering just released a Superlite Six Big Brake Front Hub Kit part number 140-10739. The system features 13-inch diameter cross-drilled rotors, six-piston calipers, mounting brackets for Mustang II spindles, and all of the hardware needed to make the conversion. This system was the perfect addition to the Ford to provide sports car stopping power. What made this kit even more attractive was the system's ease of installation. Anyone with basic mechanical ability can make the conversion and all you need is normal hand tools such as a floor jack and jack stands, an assortment of hand wrenches and sockets, an inch-pound torque wrench, a foot-pound torque wrench, an impact gun and safety wire pliers. In a matter of a few hours you can install the kit and dramatically

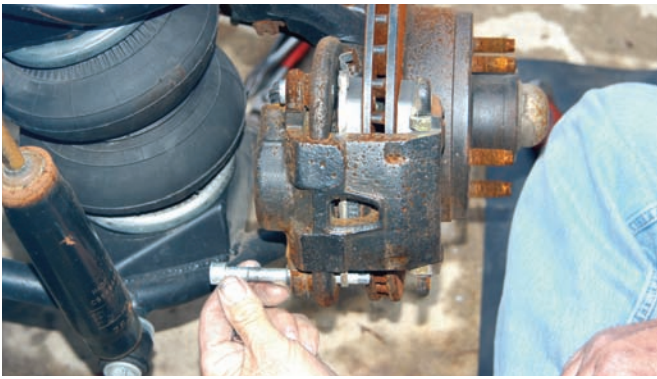
The Wilwood part number 140-10739 front brake kit comes complete with the six-piston calipers, caliper brackets, brake pads, hubs, rotor adapter plates, rotors and all of the hardware required to complete the installation.

improve your stopping power.

We must mention that Wilwood recommends persons experienced in the installation and proper operation of disc brake systems should only perform the installation of this kit. If you are thinking about improving your street rod brakes, we will show you how it was done on this Ford. Since a majority of street rods with independent front suspension systems are based on the Mustang II you will find that this brake installation will apply to them as well. Follow along as this installation is done to see if it is something you are capable of doing or if it would be better to have a professional install the kit for you.



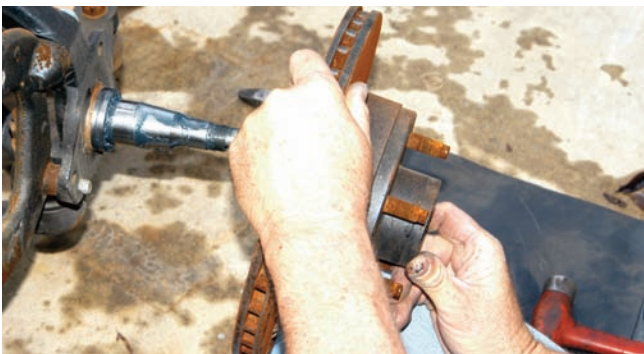
This '34 Ford was equipped with an Art Morrison independent front suspension system with airbags and GM disc brakes. The GM brakes are effective in most situations, but since this rod is powered with a 502 horsepower 502ci Chevy big-block engine, the owner wanted superior stopping power.



The old system was removed first and that began by disconnecting the two large Allen bolts that secure the calipers to the brackets.



The calipers are being removed from the brackets. Remember to disconnect the brake lines before this is done.



The one-piece 11-inch rotor was removed from the spindle. Save the rotor and caliper because they could be used on another car or sold at the local automotive swap meet.



The two bolts securing the caliper bracket to the spindle were removed. These will be very tight so you might want to loosen them up with a little WD40 or JB80 penetrant.



The Wilwood caliper bracket was installed at this point, but before it was, the mounting bolts were coated with Loctite Anti Seize.



The brackets were installed on the Mustang II-style spindles with the three high-strength Allen bolts and the machine washers that came in the kit.



This system uses a hub and hat assembly so the hub has to be installed first. The procedure began by coating the lug nuts with Loctite Anti Seize.



There are two lug patterns in the hub assembly so the lug nuts have to be installed in the one that applies to your vehicle's wheels. This car is running a Ford 5 on 4 1/2-inch lug spacing. The best way to install the lug nuts is with an impact gun because it will get them tight enough to stay in place. If you try to do this with a wrench, the lugs won't be tight enough and will back out later. After using the impact gun, the lug nuts should be tightened to 77 ft-lbs using a torque wrench.



The large rear wheel bearings are installed first. Since all of the bearings have to be packed with high temperature disc brake bearing grease, all four bearings were packed using this bearing packer.



The greased bearing was installed in the rear of the hub making sure it was facing in the correct direction. The bearing race comes installed in the hub assembly.



The kit comes with a grease seal, so it was installed with this seal installation tool. A few good whacks and the seal bottoms out in the hub.



The hub was installed on the spindle and then the small bearing was installed.



After the hub was on the spindle and the bearing was loaded, the large washer was installed followed by the large spindle nut. The nut was tightened with channel lock pliers but it could also be done with a large jaw Crescent wrench. The nut should be snug but not too tight, because an over tight nut will burn out the bearings.



Since the nut can't be torqued down to keep it tight, it is necessary to keep it in place another way. Here the nut is equipped with a castle-style cap that works in conjunction with a cotter key.



After the hub was installed, it can be finished off with the screw-on hub cover.



Wilwood uses a two-piece rotor that features an aluminum hat that connects to the steel rotor. One reason for the two-piece arrangement is the large 13-inch rotor can be adapted to hats for a wide variety of applications. This hat has holes for the Chevy and Ford lug patterns.



After the holes were lined up, the rotor was installed to the hat assembly with the high strength 1/4-inch Allen bolts supplied in the kit. The rotor bolts were tightened to 85 in-lbs using an inch-pound torque wrench.



The bolts are designed with safety wire holes to make sure they don't back out. Here the safety wire is being connected.



Here are the bolts with the safety wire installed. All of the bolts will need safety wire but you can install the wire to two or more bolts at a time. The only special tool you will need is a safety wire pliers.



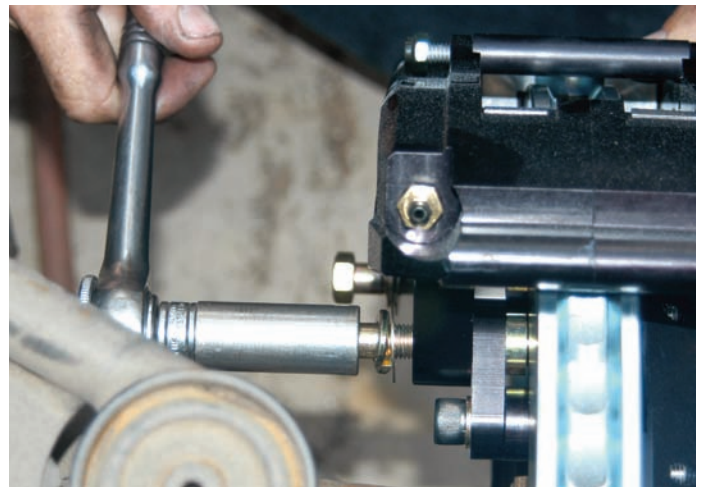
After the safety wire job was completed, the large 13-inch rotor could be installed on the hub.



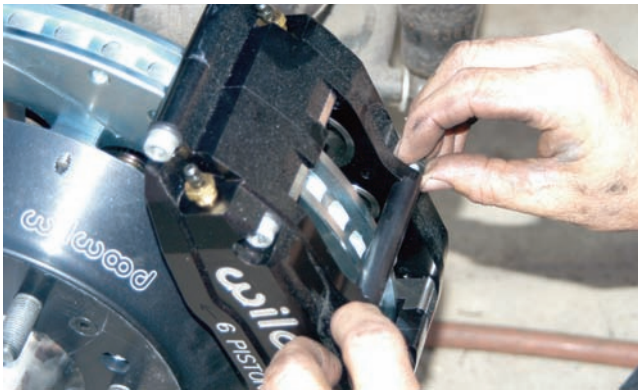
There are three small screws that secure the rotor to the hub assembly. These small screws do not take the braking force, the lug nuts does that.



After the rotor was secured to the hub, the calipers were installed. Before they were installed the mounting bolts were coated with Loctite Anti Seize. Notice that the bolts are also equipped with a lock washer and a flat washer.



Two high-strength bolts secure the large six-piston caliper to the bracket assembly. In this application black anodized calipers were used but Wilwood also offers red and polished units. After the caliper is installed, the rotor has to be centered and adding shims between the caliper and caliper bracket can make fine adjustments. After the rotor is centered, the caliper bracket bolts should be coated with Loctite 271 and then tightened to 30 ft-lbs using a foot-pound torque wrench.



The calipers feature a bridge bolt and aluminum tube to keep the pads in place. Here the bolt is being removed so that the pads can be installed.



The pads are installed from the top making the installation very easy. They were dropped in place after the alignment was perfect.



After the brake pads were installed, the bridge bolt and tube were screwed back in place. It is important to make sure the connection is tight.



Here is the finished brake assembly with the large 13-inch rotor and six-piston caliper. It will work great to stop this powerful Chevy street rod and it is also a very attractive addition.

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