

PARKING BRAKE OPTIONS

Q I've noticed throughout the months that you jump at the chance to talk about brakes, so I thought I would ask you this question. I'm putting together a road race or Pro Touring-style '66 Ford Falcon and wanted to see what was out there as far as parking brakes go. I could bring a 2x4 around with me to ensure the car's position when it's parked, but that seems a little cheap and unreliable. I'm planning to use disc brakes, but I'm not sure what style to use.

Michael Smarts

Bowling Green, Kentucky

A What a cool build! You don't see many '66 Falcon racers out there. With your curvy-track theme, you absolutely must go with a rear disc brake setup; this gives you three options for a parking brake. The first and most popular option is the internal drum-style parking brake. The Pro Touring crowd uses them nine times out of 10 because of their clean look, and because they work really well. From the outside it just looks like a disc brake, but there is a mini drum brake built into the hub section. The rotor and hub are one piece that slips over the parking brake drum and axle assembly. Many auto manufacturers use this type of system on their mass production cars and trucks. Wilwood makes a rear brake kit to work on practically any GM, Ford, or Mopar with this internal drum setup. A kit with 12-inch rotors, four-piston calipers, pads, brackets, hardware, and everything else you'll need to install the brakes goes for about \$650 for a Ford 9-inch rearend, which is what I'm assuming you have. You'll have to get the clevis kit from Lokar to adapt your parking brake cables; they're about \$30.

Option number two is what Wilwood calls a "stop caliper." It



OPTION 1: Internal drum with four-piston caliper



OPTION 2: Stop caliper adapted to current disc brake setup



OPTION 3: Single-piston hydro-mechanical caliper kit. You can see how much smaller the hub section is for tight-clearance areas.

sounds like what it is: a small caliper whose only duty is to hold the rotor from moving from a stop. It's intended for cars that have a disc brake setup in the rear, but don't have a parking brake integrated like the internal drum setup. The caliper itself is only \$60, and it's a universal design intended to be built into many different brake systems. This means that it's the responsibility of the

owner to build a bracket and the system to actuate it. This would be a good option if you found a donor rearend with brakes already installed on it, and you were just lacking a parking brake.

The final option really isn't an option yet, but it will be. Wilwood tested the domestic market for one of their latest caliper designs. The '94-and-newer Mustangs have hit hard in the aftermarket, so that's the type of car they started making these special brakes for. Here's Wilwood's explanation: "Combination hydro-mechanical parking brake calipers use hydraulic pressure from the master cylinder for stopping power, and an internal mechanical lock within the caliper for a parking brake. CPB kits are built primarily for front-wheel-drive vehicles, and select rear-wheel-drive axles that are not well suited for internal shoe-style parking brakes. Depending on application, the calipers are coupled with a 12.19-inch diameter one-piece iron rotor and hat assembly, or 11.00- to 12.88-inch diameter two-piece rotor assemblies with aluminum hats. All include high-friction BP-10 compound pads. CPB kits provide the correct balanced brake performance and matching style to complement front big brake upgrade kits." To us, that means parking brake ability in a smaller package. It's the most expensive of the options at \$1,300 for the various post-'94 Mustang kits. If space is an issue, these are your best bet because they don't need the thicker hub.

RESIDUAL PRESSURE

Q I've been following the magazine for a long time, since before you were born Liz, and I've got a question for you. I've heard my street rodder friends talk about the use of residual pressure valves, but I haven't gotten the nerve to ask them about it. They assume I know pretty much everything, and I don't want to give them any reason to think otherwise.

Mr. X

Lincoln, Nebraska



A Your secret is safe with me, and I've removed your name just in case! A residual pressure valve retains brake line pressure to eliminate excessive pedal travel and is mounted in-line between the master cylinder and the caliper or drum brake wheel cylinder. The 2-pound valve is usually used in disc brake applications where the master cylinder is mounted below the horizontal plane of the calipers and fluid drain back occurs from gravity and vibration, thereby causing excessive caliper piston retraction and a longer brake pedal stroke. The minimal 2-pound residual pressure prevents fluid from flowing back without causing the brakes to drag. In the case you are using drum brakes all around or just on the rear, a 10-pound valve is used to compensate for return spring tension in the drums. Wilwood's residual pressure valves are made from billet aluminum and color coded for easy identification. You would probably know if you needed one on your own car by now, but if you find that you do they are available through any speed shop and go for about \$18 each. **PHR**

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