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Classic Performance Products
1956 Ford F100 Dual Master Power Brakes Install
By John Gilbert

There's "old-school engineering" as in the way trucks came equipped from the factory over 50 years ago, and then there's '80s old-school in the vein of classic trucks customized to conform to the latest in '80s technology trends. In the 21st century, the task of upgrading with the right products and getting them to work in the right way on a truck outfitted with '80s trends is not all that hard-provided one knows the right places to look.

A prime example to illustrate a classic '80s-style chassis configuration is the '56 Ford F-100 rolling chassis I picked up for \$800 from a guy who had moved on to what I believe is the ultimate solution when it comes to upgrading a classic truck: buying a brand-new frame with 21st century technology from one of today's custom chassis builders.

That said, not everyone has the money or time to uproot their '53-'56 F-100's body, pluck the frame out from underneath it, and then go to town. Returning the focus to my chassis, it's a good case in point because the modifications were all done in the '80s and then the truck was hardly driven. A quick glance at the suspension and brakes, and it's easy to find room for improvement in the way things were engineered back when whoever it was set it up. At the heart of the brake's hydraulics, the original '56 Ford single master cylinder is still in place, which presents two potential problems. The first is: If there is a failure in a single system, there will be a complete loss of hydraulic pressure-whereas a dual master cylinder will retain half of its braking capabilities. The second problem, and it can be equally disastrous when it comes to the truck's ability to stop, is that disc brakes require a greater storage capacity (more volume) for brake fluid than drum brakes.

The fact that this is a four-wheel disc brake system makes the possibility of a brake fluid-related failure with this chassis' brake setup twice as likely. Digging deeper into the braking setup on this particular chassis, another potential problem is the use of rear disc brake calipers of an almost equal size to the Volare disc brakes up front. The odds are good that the rears will lock up as soon as any kind of demand is placed on them, but that's a problem we'll deal with in an upcoming issue. In this first installment, our focus is on eliminating the stock, unboosted single master cylinder with the stock clutch and brake pedal assembly, and replacing it with Classic Performance Products' dual master cylinder/power-brake booster kit, in conjunction with Classic Performance Products' '53-'56 F-100 clutch-pedal eliminator kit.



We started with a '56 F-100 frame that was missing the stock, single-brake master cylinder, with a clutch and brake-pedal assembly. Note the 1-inch hole provided for the stock clutch pedal.



To install Classic Performance Products' dual master cylinder/power brake the first step was to reattach the stock Ford single master cylinder mounting bracket.



The stock Ford single-brake master cylinder mounts directly to the side of the bracket, and uses a short pushrod connected to the stock Ford brake pedal.



With the stock Ford clutch pedal eliminated from the pedal assembly,



For mock-up purposes we mounted the stock Ford brake pedal without installing the cotter key.



Truly a "complete kit," CPP included all of the special Grade 8 hardware that was necessary to mount the CPP dual master cylinder and booster. The CPP mounting bracket attaches to the inner framerail and stock Ford master cylinder bracket.



We paid special attention to the fact that there are 3/8 fine thread bolts, and 3/8 coarse thread bolts included in CPP's kit.



To ensure that the CPP mounting bracket would properly line up, we first double-checked to see that the stock Ford bracket was tightly bolted



Before drilling the two 3/8-inch holes required to mount the CPP bracket to the frame, we used C-clamps and the CPP bracket as a drill template.



After the pilot marks were made, we withdrew the CPP bracket away from the frame before drilling. This was to avoid accidentally "hogging-out" the CPP bracket.



These two were the only additional holes needed to mount the CPP dual-master / brake-booster to the Ford F-100 chassis.



The best procedure we found to easily bolt the CPP bracket into place was to progressively tighten each of the bolts a little at a time until all were completely tight.

the shaft for the clutch linkage isn't needed.



We removed the shaft, and left the Ford stock brake pedal mounted on the stock master cylinder mount.

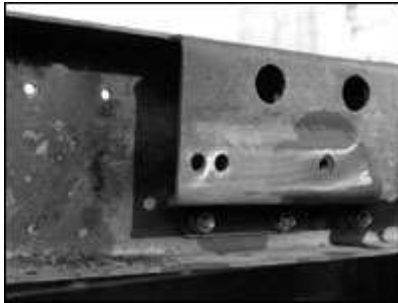


CPP's clutch pedal eliminator kit consists of a special, hardened 7/8-inch shaft with a hole drilled for a cotter key, and a castellated nut.



Throughout assembly we used liberal amounts of Royal Purple's Maxifilm on threaded hardware (nuts and bolts) and to lubricate moving parts that were frozen from years of neglect.

flush to the frame and fully seated into place.



The inner frametail was scraped clean, along with the mounting surface on the stock Ford bracket. Note that one hole on the Ford master cylinder bracket contains 3/8 fine threads-we used it to place our first bolt and tack the CPP bracket into place.



A test fit of the CPP bracket revealed that years of use had changed (bent) some of the original dimensions of the Ford chassis. Using a body grinder, we ground off the front of the Ford bracket.



This overhead shot illustrates how grinding the front of the Ford bracket allowed the CPP bracket to sit flush against the Ford bracket and inner frametail.



Notice how a slight bend in the frametail affects how the bracket will fit. We straightened the rail, and then the CPP support bracket bolted right up.



The CPP pushrod was attached to the lower hole in the stock Ford brake pedal using special Grade 8 hardware included in CPP's kit.



Paying close attention to how well existing Ford holes, and the CPP mounting bracket, lined up paid off with a real clean installation. Now that we have the right dual master cylinder and power-brake booster in place, we can move on to the right setup for the rear discs.

