NO-NONSENSE NOSTALGIA

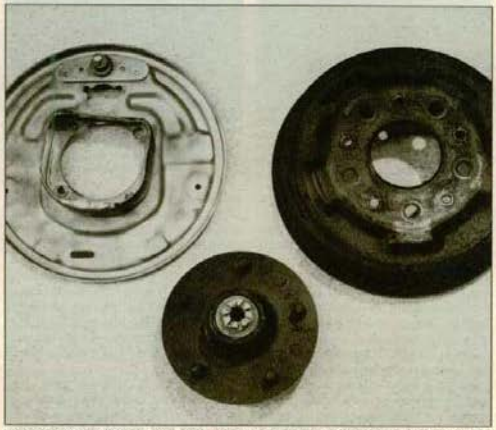
INSTALLING F-100 BRAKES ON EARLY-FORD SPINDLES



The nostalgic look with acceptable performance: F-100 brakes on early-Ford spindles. Bolt pattern of the F-100 hub is the same as early-Ford too, a 5 on 5-1/2-in. circle.

Nostalgia cars are hot, particularly among seasoned rodders. Sort of a 10W-40 version of the waters from the fountain of youth, early-style rods keep us in touch with the soul of hot rodding. But as neat as they are, building and driving an old-time hot rod does require compromise; you've got to be willing to swap modern efficiency for vintage charm, or to give up period-perfect accuracy for the sake of improved performance. That was our dilemma when selecting brakes for the front of our '50s style, flathead powered, quick change equipped Model A pickup.

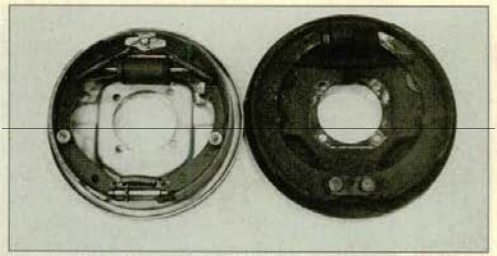
Certainly disc brakes are the best choice for a hot rod in terms of performance, and with all the kits available they're affordable and easy to install. But contemporary disc brakes would look out of place on this particular rodney. On the other hand, honkin' down the highway with borderline brakes (read early-Ford) isn't our idea of a good time. What we needed was a compro-



The F-100 parts necessary: Backing plates, hubs, and drums. Check the hubs to make sure

a common swap: F-100 brakes on early-Ford spindles.

The advantage of this installation is that, even though early Fords and F-100s both use drum brakes, the design and operation of the later stoppers is much more effective. F-100 brakes are self-energizing; unlike the early Ford configuration, which uses an attachment point at the bottom of each brake shoe, self energizing shoes are hooked together at the bottom by a spring and adjuster and are held to the backing plate by a pin, spring, and retainer.

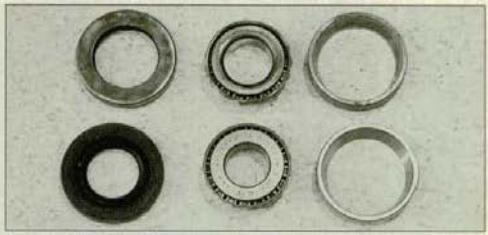


This is what this swap is all about. Early Ford brakes (right) have a pivot to position each shoe, F-100 brakes (left) are held to the backing plates with pins and springs allowing the brakes to self energize.



PHOTOGRAPHY BY RON CERISOMO

Note the difference in the length of the linings. When self-energizing brakes are applied the short front lining wraps into the drum and tries to rotate with it. The bottom of the short shoe pushes on the long rear shoe helping to apply it.



Stock F-100 inner seal, bearing, and cup (top) compared to the pieces necessary for the swap. Replacement bearing and seal have smaller inside diameter to fit the early-Ford spindle.

Mounted this way they are free to move slightly on the backing plate.

When self-energizing brakes are applied the front brake shoe makes contact with the revolving drum and tries to rotate with it. That movement is transferred through the adjuster to the rear shoe, pushing it into the drum with increased force. So even though the F-100 and early Ford brakes are similar in size (11-in. by 2-in. vs. 12-in. by 1-3/4-in. respectively) the difference in braking efficiency is dramatic.

Installing the later pickup components on early spindles is a simple task. Other than substituting the pickup pieces for the originals and doing a little grinding, no other changes are necessary. A master cylinder adequate for the early Ford brakes will work just fine with the F-100 units, and boosters or proportioning valves will not be necessary.

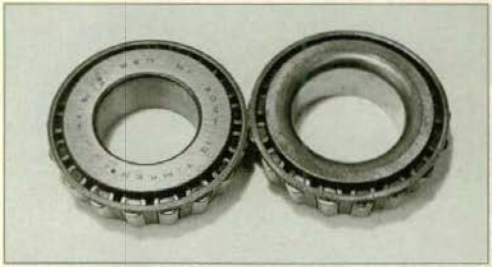
The parts needed for the update are 1/2-ton Ford pickup drums, hubs, and complete backing a 1955, but any from '53 to '56 will work (drums are the same on '53 through '63 but there are differences in the later backing plates, however they may work with some modification). The only additional parts required are new inner bearings and seals.

Early Fords and F-100s use the same outer bearings and cups (Timken 09067 bearing, Timken 09195 cup) but the inner wheel bearings are different; F-100 spindles are larger in diameter in the area of the inner bearing, so for this swap a bearing with the smaller early-Ford inside diameter is required. The necessary bearing is Timken number 14116; it has the inside diameter of the early Ford spindle and the outside diameter of the F-100 hub. The stock F-100 inner cup (Timken 14276) is used along with a Victor seal 49195, or National 450461.

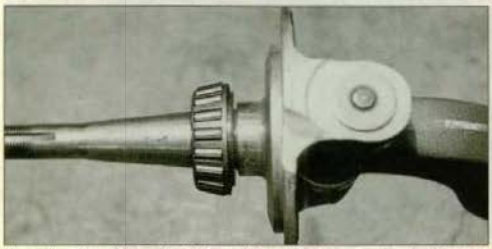
(On the subject of bearings, here's something to stash away in the memory bank. All tapered bearings tem, which means the same bearing, in this case a 14116, can be found in Timken, Bower/BCA, NAPA, KOYO, or any of the other brands under the same part number. This standardization does not apply to ball bearings or seals, tapered bearings only.)

Mounting the backing plates is a no brainer, even the bolt holes line up. The only modification necessary is a small amount of grinding on the top of the spindle to provide clearance for the wheel cylinder. To determine where the material has to be removed, slide the backing plate on the spindle and mark the area of interference, then use a body grinder to massage the spindle until the backing plate fits flush.

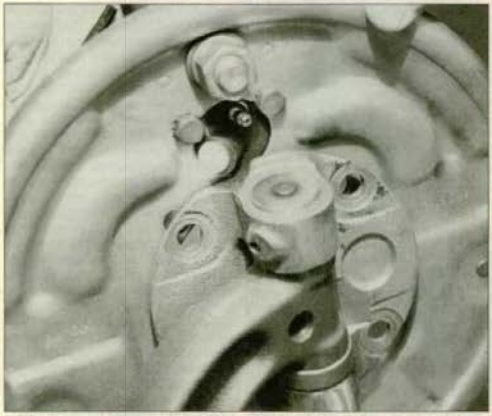
Now comes the trick part. Although the new inner bearing is the correct diameter for the early spindle, the radius of the inner race and the radius at the base of the spindle are just enough different that it creates an interference problem. Rather than seat on the base of the



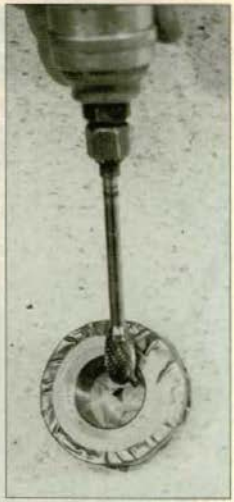
Although the new bearing (left) is the correct diameter for the early-Ford spindle, the radius on the inner race is different than the original bearing (right).



The smaller radius of the new bearing keeps it from bottoming out on the spindle (note the gap). Forcing it on will possibly distort the bearing and make the hub difficult to remove.



A little grinding prevents interference between the top of the spindle and the F-100 wheel cylinder, too. With the spindle massaged the backing plate should fit tight against the



Use a small grinding stone or burr to enlarge the radius until the bearing slides on the spindle all the way. Wrap the bearings in duct tape before grinding to prevent contamination, then wash them thoroughly.

will wedge itself on the radius and the next time the hub is removed the bearing and seal stay stuck on the spindle, and often it's very difficult to get them off.

The cure is to use a die grinder and increase the radius of the inner race ever so slightly. Remove just enough from the radius to allow the bearing to slide on the spindle, bottom out, and slide off again easily. During the grinding procedure, protect the bearing by sealing it with duct tape, leaving only the inner radius exposed. But no matter how careful you are, after grinding clean the bearings thoroughly.

Granted, F-100 brakes may not be the latest in hi-zoot rodding technology, but they're a real improvement over the early Ford design, and no machine work or kits are required. They're a cheap and easy means of having the old timey look of drum brakes with better operating efficiency than real vintage components. Now that's my kind of nostalgia.



PHOTO BY BRIAN BRENNAN

Cool Scoops might even offer a performance enhancement by keeping the binders cool. While the functional advantage may be debatable, we know for sure they look good.



Mounting Cool Scoops to early-Ford backing plates is simple: Just locate and drill a few holes.



Trimming the back of the scoop eliminates the interference on the later piece. Also, the edge of the F-100 plate is more rounded than the early-Ford, leaving a gap between the scoop and backing plate. Filler strips were welded in place. We'll powder coat the backing plates red and polish the scoops.

GETTIN' THE SCOOP ON DRUM BRAKES

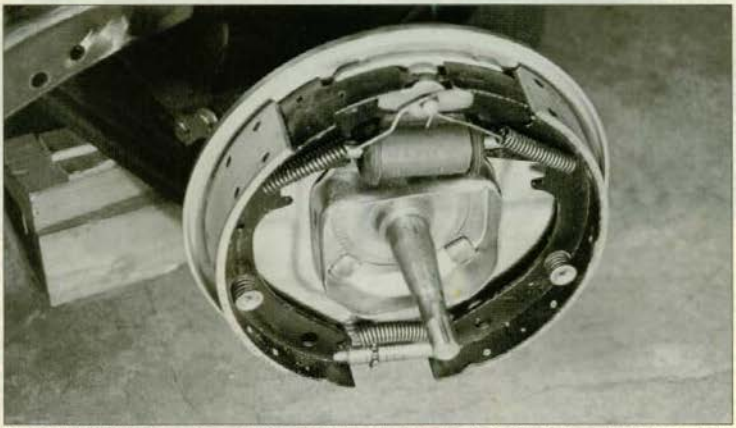
COOL SCOOPS FROM BUMPERS BY "BRIZ"

Just about everyone on the planet has seen the nifty nerfers from Bumpers by Briz. But the boys at Briz have another product that's just about as neat, albeit not nearly as well known. They're called Cool Scoops.

Designed to fit early-Ford backing plates, Cool Scoops are simple to install, and at the $15 a piece asking price, they're a bargain to boot. We just had to have a set for our Model A pickup project. Trouble was, we're using F-100 brakes, not early Ford. But then nothings ever been made that a true hot rodder can't cut up. "Oh yeah, we have guys modifying these things for all kinds of cars, some even put 'em on disc brakes" say the guys at Briz.

Attaching Cool Scoops to early Ford backing plates is easy, it's simply a matter of locating and drilling six holes. Our installation was slightly more complicated, but not much. A little cutting and trimming, filing, and sanding was all it took. We did, however, go to a little extra effort and built up a flat spot on the backing plates for the ends of the scoop to rest on, but that probably isn't necessary in most cases. Take a look at the photos and see how easy it is to get the the scoop on drum brakes —*RC*

SOURCE
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When installing the brake shoes make sure the short shoe is towards the front of the car; backwards will prevent the brakes from self-