

## Floor Shift Conversions

There were two aftermarket floor shifters available for the Selector-style transmissions manufactured by DragFast and Ansen. Both shifters are very hard to come by today.

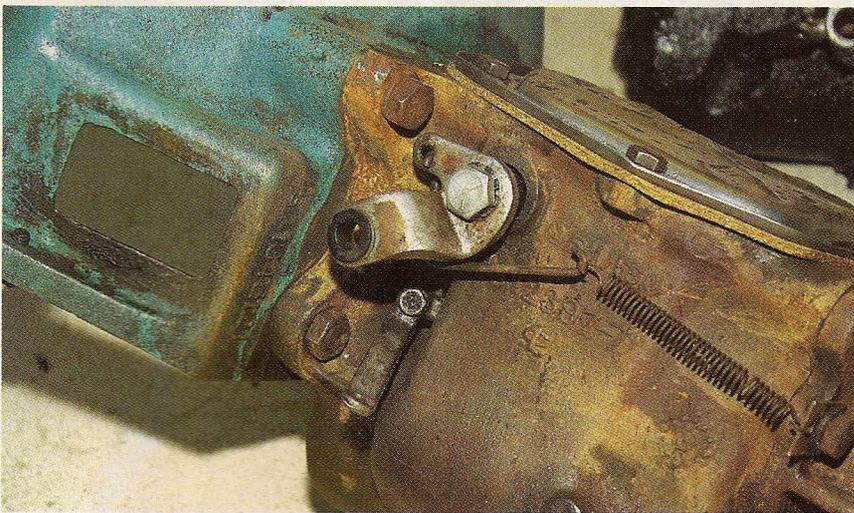
We found an Ansen ad in a '61 HOT ROD that emphasized "Now Available" for the Buick, Olds, Pontiac, and Chrysler Selector-style trans. It may have been available sooner, but we don't know. The instructions for our DragFast indicate it was for five-bolt transmissions in '39 to '60 Buicks, '39 to '50 Oldsmobiles, and '39 to '55 Pontiacs, and for six-bolt transmissions in '39 to '60 Buicks, '51 to '62 Olds, and '56 to '67 Pontiacs. That does not match with what we know about the availability of five- and six-bolt transmissions, but the aftermarket was not always correct with its model-year ranges. We have no idea

when the DragFast hit the market, but we talked with a guy who drag raced with one in the '50s.

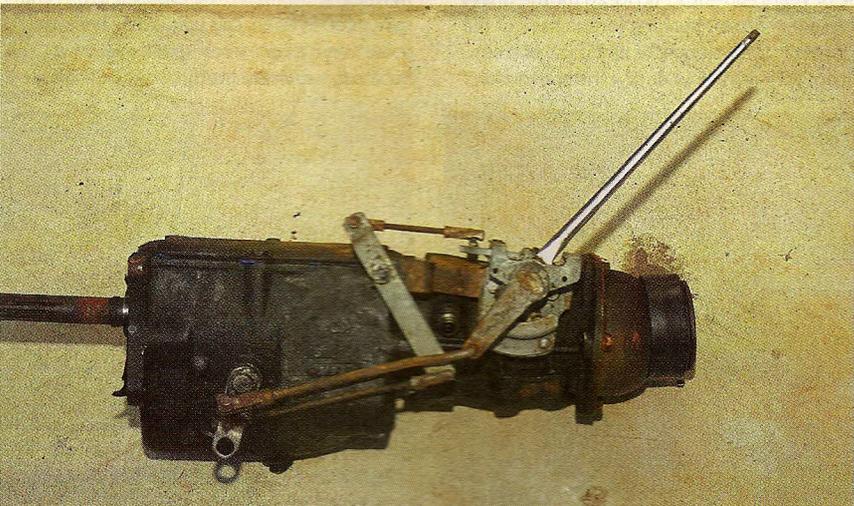
The Selector-style trans uses a pivoting arm, like a conventional transmission, and a fore/aft sliding arm to engage gears. They work in conjunction with one another while selecting gears. When the slider arm is in one position, the pivoting arm engages Reverse and First. When the slider arm is in the other position, an internal mechanism moves the pivoting arm outboard to engage the Second and Third gearsets. Ansen designed its linkage to control both mechanisms, while the DragFast design ignored the slider altogether and simply used a Heim-style joint as a fulcrum to move the pivoting shaft in and out (which was normally the slider's function),

while the shift arm rotated with forward/rearward movement of the shift handle, just like a more modern three- or four-speed.

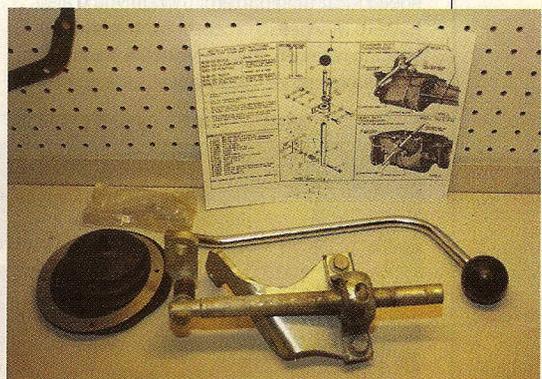
The downside to the DragFast setup is a backward H-pattern: Away from the driver and down is Reverse, away and up is First, toward the driver and down is Second, and toward the driver and up is Third. Snatching the 1-2 shift was a simple matter of yanking the shifter back and toward the driver, while Third was straight up. Confusing on the street, but a pretty efficient and intuitive design for the strip. One old timer told us it let his girlfriend sit a little closer to him going down the highway, too, because the shifter was up toward the dash by his knee rather than down near the middle of the bench seat by her . . . knees.



> The shifter rails on the OE boxes are simple but unusual. The lever on the top controls all four gears: Reverse, and 1-2-3. The slider on the bottom selects which gear cluster the top lever is going to engage: Reverse/First or Second/Third. When the slider is moved forward, the top lever moves outward, engaging the Reverse/First cluster. When the slider is moved back, the top rod slides farther into the trans, engaging Second and Third.



> This Ansen shifter is fairly complicated. Ansen developed the mechanism to engage the slider and engagement lever, giving the shift arm a traditional three-speed H pattern.



> Here's the N.O.S. DragFast shifter we picked up. The mounting plate for the Heim-style bearing is different for the five-bolt and six-bolt boxes. Each mounts to the top cover bolt holes, and the five-bolt stands up off the trans (which could be an issue for floor clearance), while the six-bolt style goes down along the side of the trans.



> We picked up this six-Bolt Buick trans a few years ago, complete with a homemade shifter that mimics the DragFast design. The pivot acts as a fulcrum: When the shift handle is pushed toward the passenger side, it pulls the shaft out from the trans to engage First and Reverse. When the shifter handle is pulled toward the driver, the shaft slides into the trans to engage the Second and Third cluster.

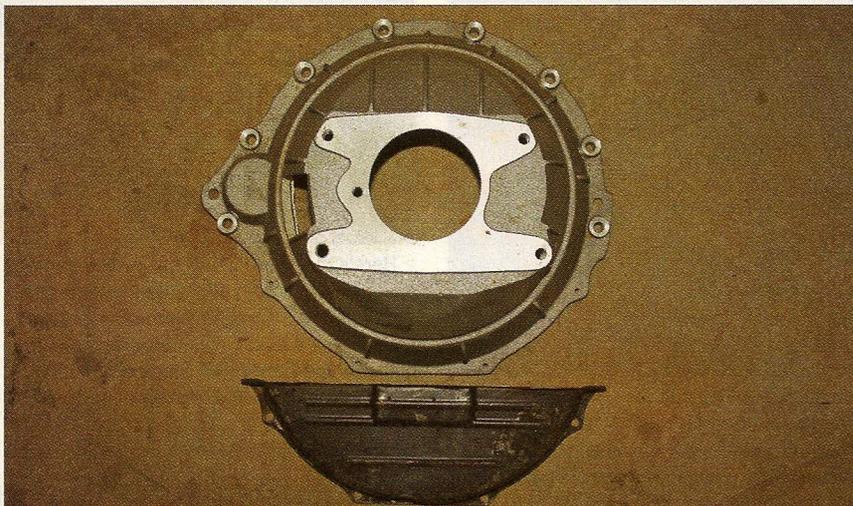
## Bellhousings

There are two bellhousings available from the factory, though they carry the same part number. There aren't any new aftermarket bellhousings, but there were several choices back in the day, including Cragar, Trans-Dapt, (TD) and Offenhauser. We've also seen a couple of adapters on Ebay with no names or markings, though they look just like the Cragars and TDs.

> On top is the factory six-bolt trans bell, on the bottom is a factory five-bolt bellhousing from a 264. The only difference we can see is that the six-bolt bell is drilled across the bottom for two different bolt patterns, while the five-bolt bell has a single bolt pattern. With a drill and tap, you can make the five-bolt work with your six-bolt trans. We've heard people have drilled for a more modern GM four-speed mounting pattern, though you'd also have to machine the center for the later pilot bearing retainer, and we've never heard that mentioned, so we're skeptical.



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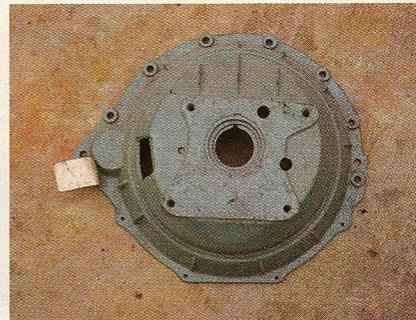
> We picked up this N.O.S. Trans-Dapt unit a couple of years ago—it's PN HC-26 for the Chevy truck transmissions. It came with instructions and an adapter pilot bushing for the back of the Dynaflo crankshaft. What we like about the TD adapter is the bolt bosses along the bottom half for the flywheel dust shield, which is retained from your Dynaflo during the conversion.



> The ID number for TD bells is typically found on the starter boss and is hard to read even on a perfectly clean example.



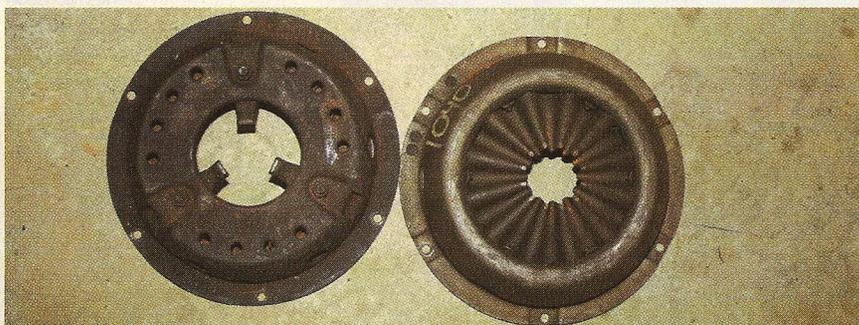
> This is a Cragar adapter for pre-'64 Ford three- and four-speed transmissions. It uses the Ford clutch fork. Note that it doesn't have any provision for mounting a dust shield on the lower portion of the bellhousing, allowing the flywheel and clutch to be exposed to dirt and rainwater. Even so, this unit is nice because you can run a Ford three-speed overdrive behind it, which is a pretty common trans.



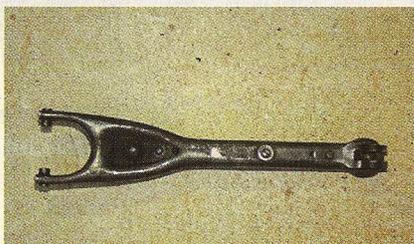
> This Trans-Dapt PN HC-37 is for a Cad-LaSalle trans. Note that it also has the register hole for a bearing retainer sleeve—the Buick piece doesn't fit that hole. Don't confuse it for a Buick-to-Buick adapter.



> Our Trans-Dapt bellhousing came with a large-diameter aluminum doughnut with a bronze pilot bushing to convert the Dynaflow crank for use with a manual trans. The bronze bushing on the right is an N.O.S. Oilite bushing for the back of manual cranks, though we found a roller bearing in our '54 Special crank (it eventually failed, killing the input shaft of our five-bolt trans).



> The '54 to '56 Specials had a diaphragm-style pressure plate, while the 322 engines used a finger-style pressure plate.



> The stock clutch fork will work with either style of factory bellhousing. The spring-steel fingers that hold the pedal rod to the end of the fork are typically broken or rusted off. The Cragar adapter uses a Ford fork, while the TD shown uses a standard Chevy fork.

> We've looked at a 264 flywheel and a couple of different 322 versions and can't see any difference other than an extra balancing hole, but we don't know if it's a standard balancing hole required to balance that particular flywheel or if it was required on all for the lighter 264 pistons. Have the balance checked at a machine shop, balance the rotating assembly with the flywheel, and it should be fine. Big Chevy trucks from '57 to '59 used the 322 Nailhead, so if you spot one in a junkyard, grab the clutch and flywheel from it. Aluminum flywheels pop up somewhat frequently on eBay and other sites, but we're always skeptical of vintage aluminum flywheels—the technology wasn't there, and they had a tendency to explode. Besides, an aluminum flywheel isn't ideal on the street, especially in a heavy car. Currently, there aren't any new flywheels available for the 322 or 264—we've heard the limiting factor is a compatible ring gear.

## Crank, Flywheels, Clutches, and Hardware.

Our vintage interchange manual says flywheels break down like this: '53 Super (322ci), '54 to '55 Special (264ci), '54 to '55 Super and Century (322ci), and '56 Special (322). We've never been able to find out what the differences are between them, but we do know that the clutches and pressure plates are different. We suspect it's an issue of balance between the 264 and 322, but the crank flanges are the same for each. With as hard as factory flywheels are to come by, we would just plan on getting the flywheel rebalanced and call it good.

Crankshafts interchange between the 264 and 322. In '53, the Dynaflow trans became an option, and cranks were drilled for a pilot bushing and used an adapter for the Dyna's flexplate. After that, Buick machined the cranks specifically for Dynaflow or Synchro-Mesh trans. Better than 90 percent of the cranks are for Dynaflow, requiring an adapter for use on stick transmissions.



## Trans-Dapt Adapter Bellhousing Chart

Trans-Dapt used an alphanumeric code to designate what engine and what transmission its adapters mated together. The first two letters indicated the engine, the last digits indicated the trans. For '53 to '56 Buick 264s and 322 Nailheads, the Trans-Dapt code is HC. What follows is a chart with codes for the transmissions.

- 4 Ford '32 to '48 eight-bolt-mount trans
- 5 Ford '49 to '64 four-bolt trans
- 5K Same as 5, but includes a steel rear mounting plate
- 6K Ford pickup, '53-up, T-89 trans with side-shift cover
- 8K Ford truck, three- and four-speed heavy-duty and five-speed light-duty
- 11K Ford products, '65-up, All T&C transmissions
- 22K Chevy and GM trucks, '37 to '47, top holes threaded
- 23 Chevy and GM trucks, '37 to '47, all mounting holes threaded
- 23K Same as 23, but includes a steel rear mounting plate
- 25 Chevy and GM passenger car, '55-up
- 26 Chevy and GM trucks, '48 to '67, three mounting holes threaded
- 26K Same as 26, but includes a steel rear mounting plate
- 27K Chevy and GM trucks, '48 to '67, top holes threaded
- 28K Chevy and GM trucks, '48 to '67, without threaded mounting holes
- 37 Cad/LaSalle, '37 to '53, all standard-shift transmissions
- 37K Same as 37, but includes a steel rear mounting plate.
- 52K Chrysler products, '60 to '67, all sixes
- 53K Chrysler products, '64 to '65, four-speed
- 54K Fury heavy-duty three-speed, '57 to '66
- 93 Civilian Jeep and Scout, '46-up, T-90 three-speed 4WD

**“There aren't currently any new 264/322-specific bellhousings, so it takes some research and digging.”**