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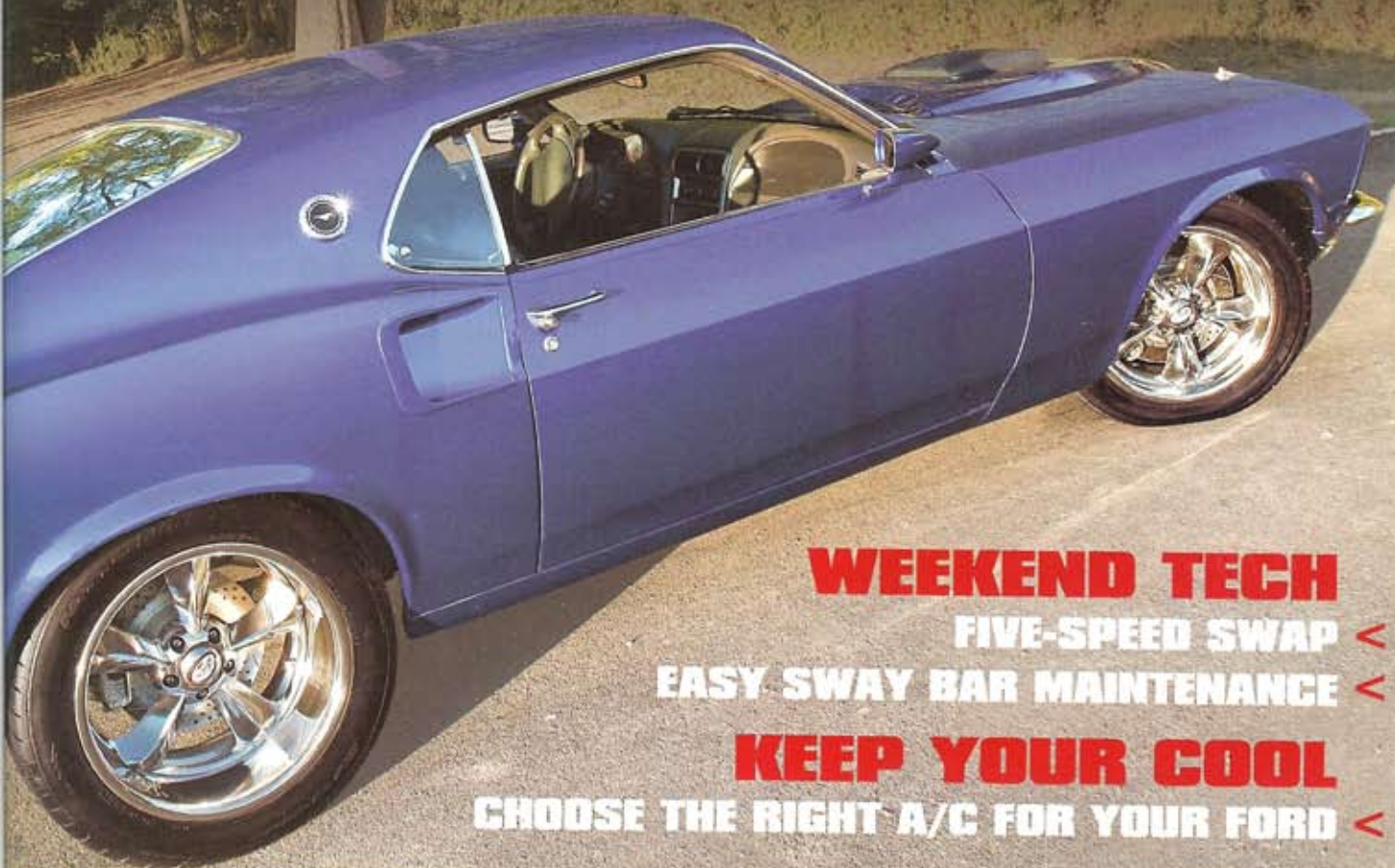
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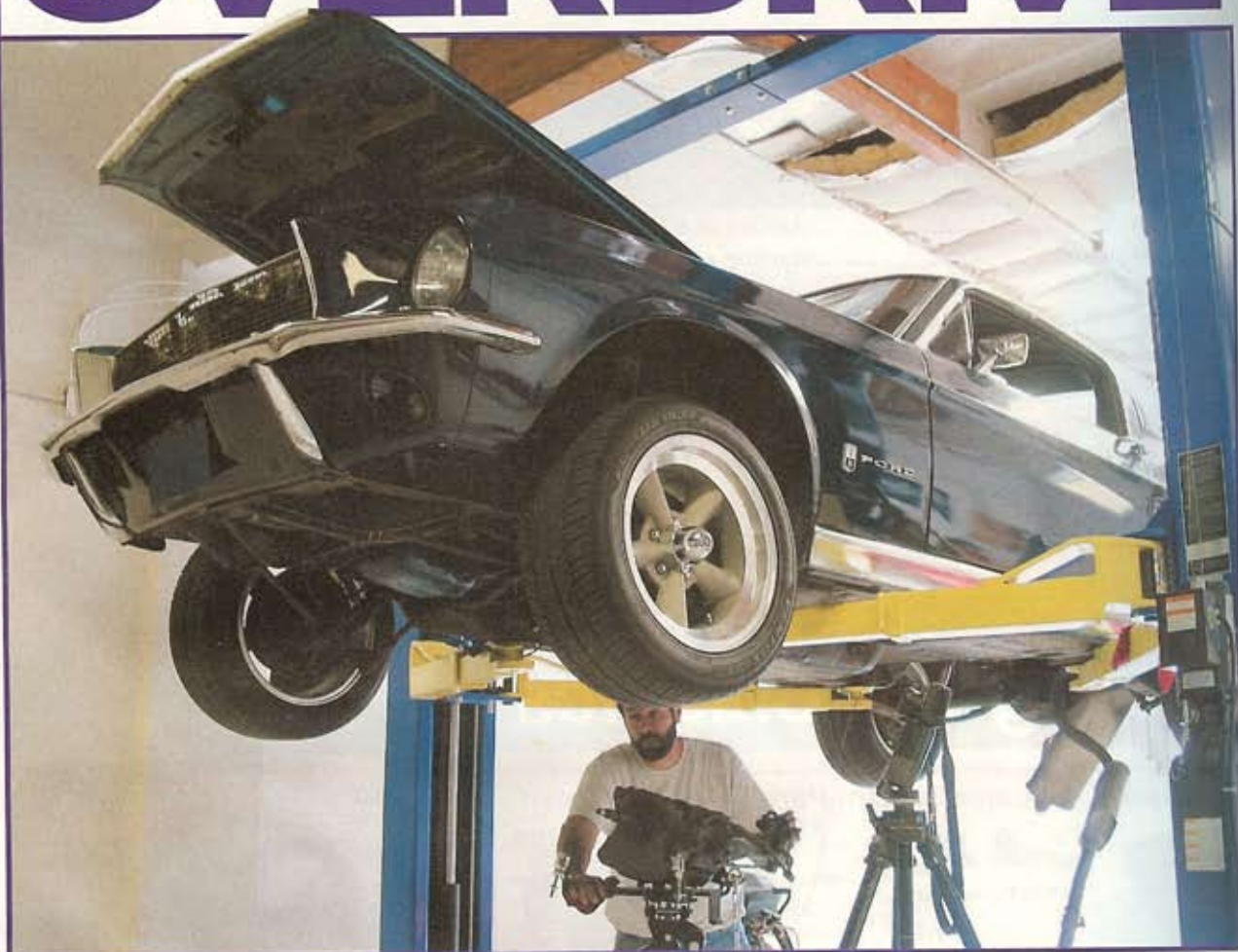
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MAXIMUM OVERDRIVE

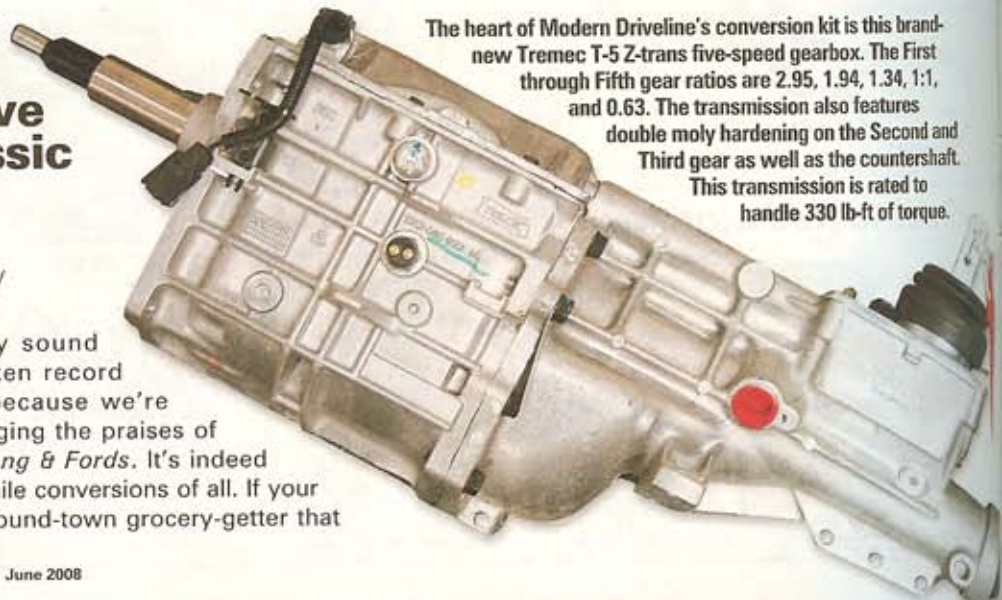


Let Modern Driveline Put Overdrive in Your Classic Mustang

Text and Photography by
WAYNE COOK

We probably sound like a broken record to some because we're always singing the praises of Overdrive here at *Mustang & Fords*. It's indeed one of the most worthwhile conversions of all. If your classic Mustang is an around-town grocery-getter that

The heart of Modern Driveline's conversion kit is this brand-new Tremec T-5 Z-trans five-speed gearbox. The First through Fifth gear ratios are 2.95, 1.94, 1.34, 1:1, and 0.63. The transmission also features double moly hardening on the Second and Third gear as well as the countershaft. This transmission is rated to handle 330 lb-ft of torque.



makes it to an occasional cruise night on the weekends, then a final drive ratio of 1:1 likely doesn't bother you.

On the other hand, if you believe your Mustang was born to run on the open roads, then the addition of Overdrive will convert your classic Ford from a freeway buzz bomb into a quiet, smooth vehicle that can accomplish a 500-mile day with ease. If you've never experienced a classic Mustang with a Fifth gear, you should definitely try out a friend's conversion because it will seem almost miraculous as the transmission slips into Fifth and the tachometer drops from 3,000 rpm to 2,000.

One of the more interesting cars in M&F's stable right now is a '67 T-5 fastback. It's a perfect candidate for a five-speed conversion, as we're

Modern Driveline is a recognized leader when it comes to classic-Mustang manual-transmission conversions

reluctant to drive it far from home because of the 1:1 final drive ratio. Just one hour on California's 405 freeway—with the tach pegged at 3,300 rpm trying to keep out in front of the trucks blowing by—gets old fast.

We were about to park the car in the back corner of the garage when Modern Driveline of Caldwell, Idaho, came to our rescue. Modern Driveline is a recognized leader when it comes to classic-Mustang manual-transmission conversions. Owner Bruce Couture has painstakingly engineered the Modern Driveline T-5 Overdrive kits to install easily

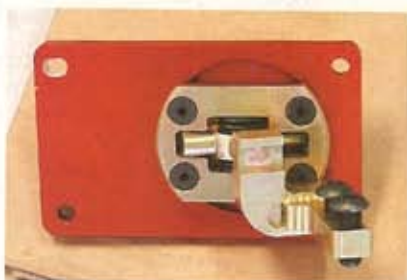
and fit right the first time. Only the most reliable components are used in their creation. Join us as we show you how to install one in your car.



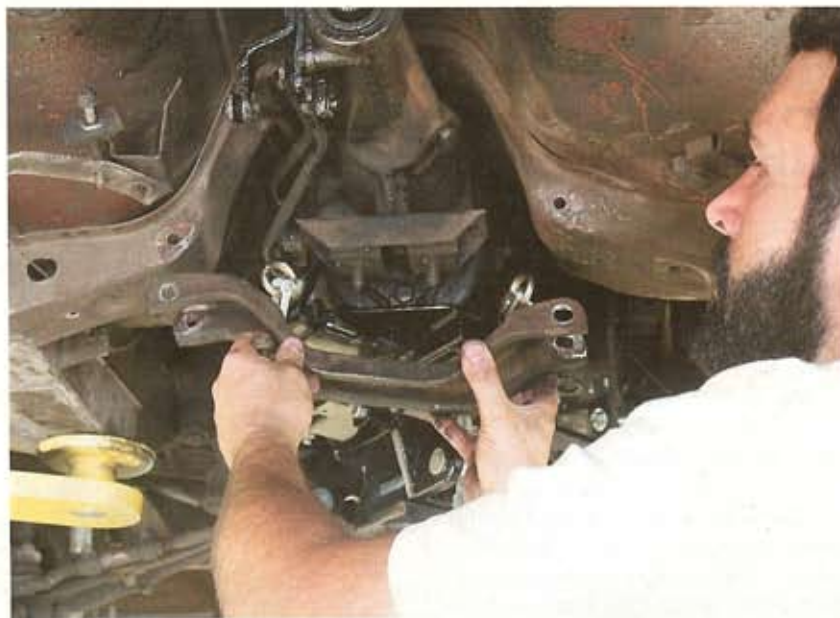
This Quick Time steel bellhousing is also an upgrade from the standard T-5 bellhousing, which is an aluminum casting. The QT piece is far stronger and SFI-certified at 6.1. The QT housing saves 20 pounds of weight when compared to a conventional scatter-shield. The rings at the bottom of the photo are adapters that allow the bellhousing to be used with several different transmissions. Available at Modern Driveline as PN MD-401-6065, the bellhousing includes a block-off plate and has an over-the-counter price of \$430. However, you can add the QT piece for only \$112.



We used Modern Driveline's optional kit that features a capacity of 450 hp. It upgrades the project with a Kevlar clutch kit and a lightened billet flywheel. This photo shows both, as well as the transmission conversion crossmember, transmission mount, speedometer cable, and shift-lever components. At the upper left is the clutch cable, cable-housing support plate, and pedal-conversion bracket. The 450hp kit costs \$3,176.35. As our car was originally equipped with a manual transmission, we didn't have to worry about pedals. If you're converting an automatic car, then Modern Driveline has manual transmission pedals for '65-'70 Mustangs, too.



Although the new transmission comes with a shifter, we wanted to upgrade to this billet Slick Stik unit (PN MD-82-303-034103). This shifter moves the lever rearward by 1 inch, thus allowing installation without cutting the floor. This shifter is much stronger than the OE part and offers smoother shifting and a shorter throw, at a price of \$250.



Modern Driveline's owner Bruce Couture came to our facility to perform the installation personally. He begins by removing the driveshaft and exhaust system. Here, the original T-10 gearbox is supported by a transmission jack while Couture removes the stock crossmember.



The cable support plate is installed. Determine the correct orientation by lining it up with the master-cylinder bolt holes. With the plate in the correct position, mark the firewall where the clutch cable will pass through. We used a hammer and a center punch to dimple the spot.



Before going any further, we checked inside the car to be sure we wouldn't damage anything, such as wiring, when we create the required opening. Using the center punch mark, we drilled a pilot hole. Next, using a stepped bit, we opened the hole to the final diameter of 1/2 inch.



This is what the cable installation looks like with the plate installed behind the master cylinder. This is a durable arrangement because the steel used in making the cable support plate is of a much heavier gauge than the stamped steel used to make the vehicle firewall. The cable assembly is long enough so that the curve going back toward the bellhousing is a gentle one.



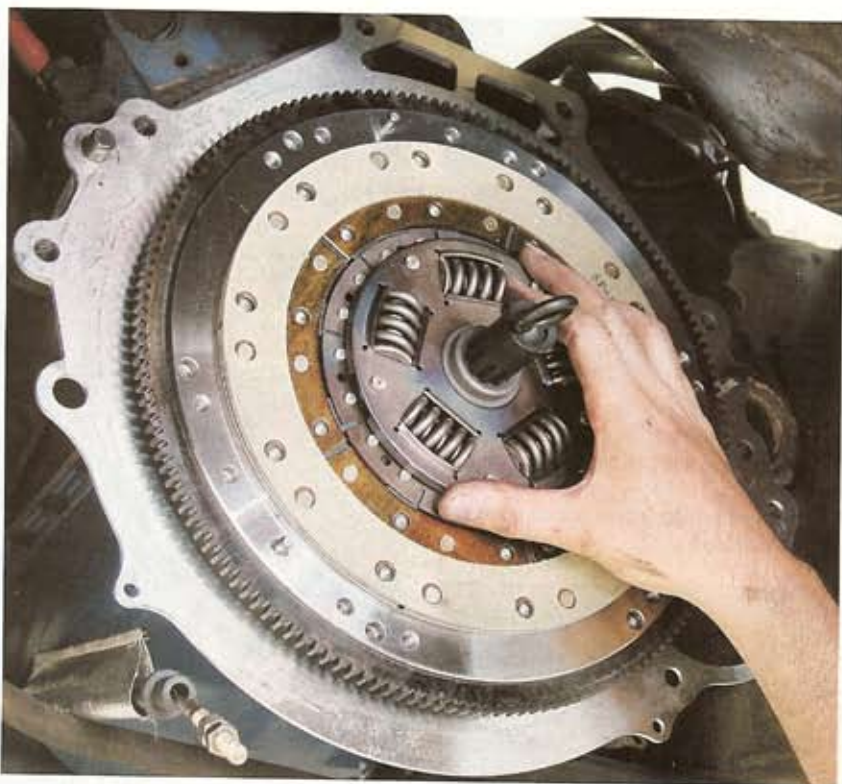
The OE transmission is lowered out of the car. The transmission jack will come in even more handy when it's time to install the new gearbox. Next, the bellhousing, pressure plate, and flywheel were removed. We also pulled the old pilot bushing out of the crankshaft using a puller specifically designed for that purpose.

Turning our attention underhood, we see that the master cylinder has been moved away from the firewall but left connected to the brake lines. This allows for the installation of the clutch-cable support plate. The brake pushrod between the pedal arm and master cylinder was also removed.





The original clutch linkage used a pushing movement with the pushrod attached to the pedal arm below the fulcrum. Since the new cable setup requires a pulling motion, the cable must attach to the pedal arm above the fulcrum. Looking at the pedal from below, it's possible to see how the adapting bracket is bolted to the side of the factory pedal arm using one fastener.



The new block plate and flywheel are installed. The Kevlar clutch disc is shown being supported with a clutch-alignment tool.



The adapter is bolted in place to the upper end of the pedal arm. The cable end is equipped with an eye that attaches to the adapter at the top using a pin and cotter key.



Back underneath the car, it's time to install the new pilot bearing into the crank. Unlike the original bushing, this part is a true bearing that uses needle bearings to support the transmission input shaft. Care must be used installing the bearing because it can be easily damaged.



We made sure the alignment tool wasn't drooping when we began to tighten down the pressure plate fasteners. We torqued down the pressure-plate fasteners to the prescribed value, which is 25 ft-lb. The torque wrench was also used when installing the flywheel.



Install the release bearing onto the new clutch fork. Before the fork is installed into the bellhousing, the ball stud will receive a small coating of heavy grease. Don't use too much as you don't want excess grease getting into the clutch.



It's much easier to fill the transmission before it's installed, and the Amsoil automatic transmission fluid is included with the kit. Unlike a Top-Loader or a T-10, the World Class T-5 gearbox must use automatic transmission fluid. Regular-weight gear oil will ruin a T-5 because the viscosity is too high to allow cold circulation to needle bearings and other small moving parts.



We're moving right along as the prepared bellhousing is installed onto the back of the engine. The QT part looks cool and adds safety with its SFI rating.



We've already removed the shifter that was supplied with the transmission, and here the Slick Stik unit is shown being installed in place of the original. We didn't use a gasket but rather a carefully applied bead of silicone sealer.



It's the moment of truth as the new gearbox is carefully balanced on the transmission jack. The transmission is raised and moved forward toward the bellhousing in small increments. We would say that from a safety standpoint the transmission is too heavy to do this step by hand, although we've seen it done many times.



Because we were so careful installing the clutch, the transmission seated up against the bellhousing without a struggle. Here, the conversion crossmember goes into place. It's a perfect, no-hassle fit.



The heat-jacketed clutch cable housing is secured with an Adel clamp to one of the oil pan bolts on its way to the bellhousing. We're well clear of exhaust heat or any moving parts.



The cable casing is anchored to the bellhousing with a C-clip. At the top of the photo, the threaded end of the cable shows, and this is where any clutch adjustment takes place. Once the correct adjustment is reached, a jamb nut will be installed to lock the setting into place.

SOURCE

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With our exhaust back in position, we've completed the gearbox installation. The next step is to reinstall the driveshaft, which we had shortened by 1 inch. While the shaft was out of the car, we also installed new U-joints. Everything fit perfectly, and the crossmember looks as though it will allow plenty of clearance when we upgrade our exhaust.



In the interior, two fasteners are used to install the shift handle. The boot will be secured to the floor with four small sheetmetal screws. The Slick Stik shifter clears the hole so nicely that we didn't need to enlarge the opening. The downside of not enlarging the opening is that the shifter can't be removed without dropping the transmission. Now to try out the 405 again. **M&F**