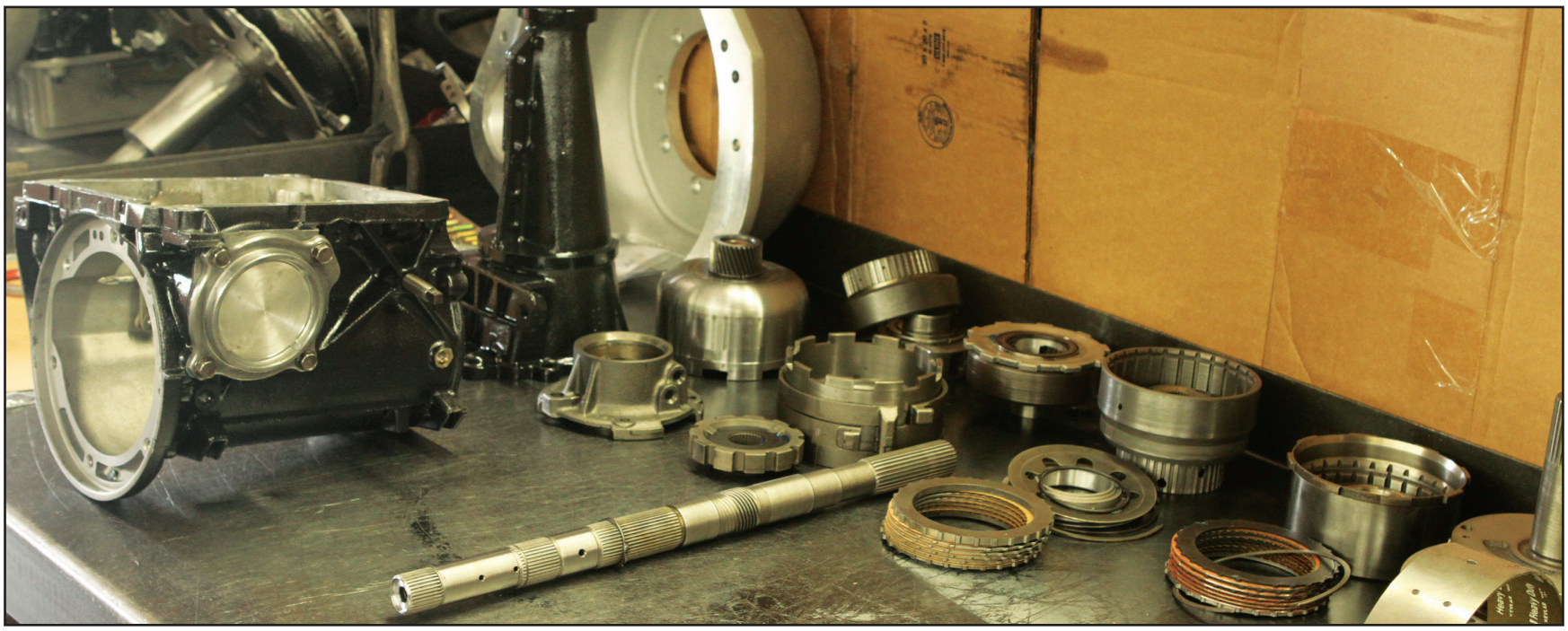
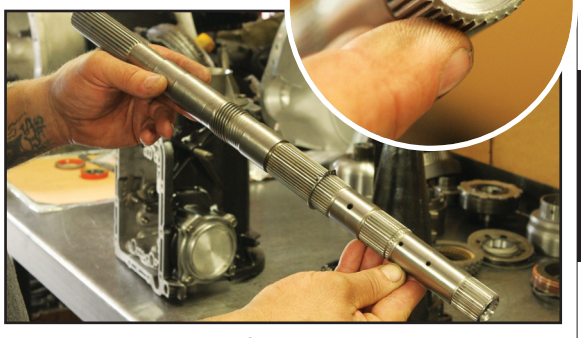
written by michael galimi > photos by the author

Getting in Gear for Street & Strip

>> INSIDE LOOK AT A DYNAMIC RACING TRANSMISSION MIGHTY MITE M2 C4 AND TCT CONVERTER



One of the most impressive racing categories in the Mustang world is Edelbrock Renegade. The category has been a part of NMRA drag racing since the inaugural season in 1999 and it continues to be relevant today. The reason for its success and survivability has been its basic premise of representing the hardcore street/strip crowd. The cars are certainly on the higher end of the spectrum when compared to its street-worthy brethren but for the most part, the components used on Renegade racecars are very similar to ones found on today's upper echelon of street/strip Mustangs. Of the dozens of parts and pieces that make up a Renegade racecar, a mainstay in the category has been the C4 transmission with its three-forward speeds.



>> The OEM output shaft gets checked on the lathe for straightness and once the team determines it is an acceptable shaft, it is machined for clearances. All of the bushing areas are polished and the end (inset image)—where the output shaft meets the input shaft—is machined down to eliminate the shafts from beating each other up.

>> The first component to be installed in the C4 case is the reverse band. Dynamic uses a Kevlar one for durability.

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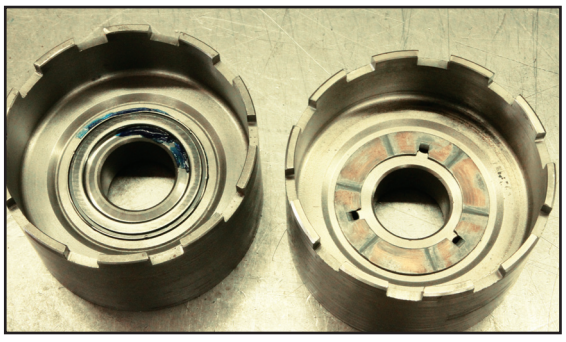
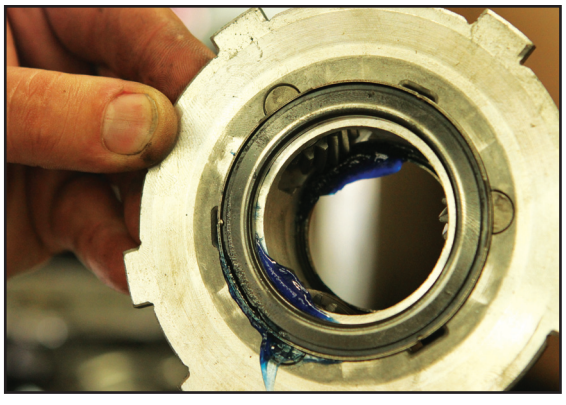
The original rules called for Ford-only automatic transmissions and while some racers opted for the heavier C6, the lightweight C4 dominated the competition. The C6 gobbled up too much horsepower in order to be effective in the category. But initially the C4 had its issues, namely durability. That all ended when the aftermarket ramped up R&D to build better and stronger C4 transmissions to keep the racers in the game. One company that has been on the frontlines of



>> Dynamic replaces all thrust washers (right) with Torrington roller bearings (left). This helps efficiency and durability in high-performance applications. It requires a significant amount of work on a lathe to trim and modify the internals to accept the Torrington bearings.



>> Here you can see the rear planetary is modified with a roller bearing on both sides, which is unique to Dynamic's upper-level C4 packages.