

Converting a front U-joint



The ball-and-trunion joint ("Detroit style") was used through 1965 on A-bodies. It combines an angular flexibility with a longitudinal flexibility, in a single compact package. Starting in 1966, the much more familiar cross-and-roller ("Spicer type") joint was employed, along with a slip joint in the back of the transmission tail housing to allow for fore-aft motion of the driveshaft. (The yoke slides in and out of the tranny on splines, and this motion is needed because the rear axle tends to "wind up" when power is applied.)

Original Ball and Trunion U-joint

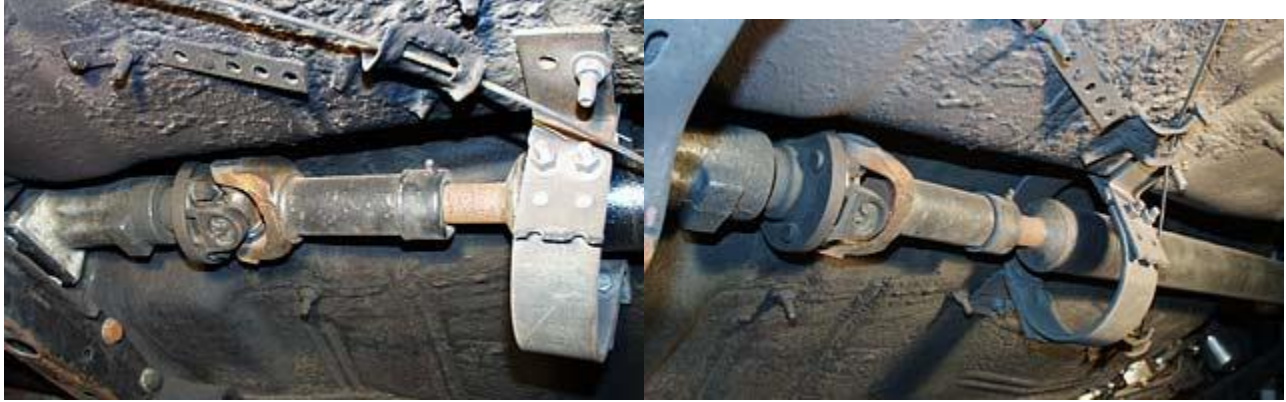


Photo courtesy of Clif Winters

There's nothing particularly wrong with the design of the old style U-joint... it could handle the torque of even big hemi motors, and it seems to last several decades with no maintenance whatsoever. But eventually, grease dries out, and rubber boots crack. Repair parts are scarce for these 40-year-old wonders, and many mechanics have never worked on one or maybe even seen one. Compared to a rebuild, the cost of converting to a modern system isn't much different. And since metal fatigue is an issue you don't want to experience firsthand, it would be an excellent time to replace the old driveshaft, especially if your car has seen a lot of quick shifts behind a 4-speed.

The conversion seems easy, right? Just find a Spicer yoke to bolt on to the flat flange of the old tailshaft... But wait a minute, you need a slip joint somewhere, unless you're planning on updating the transmission at the same time, in which case this entire article is moot. Besides, if your car is an automatic, you'll need to keep the old-style (cable shift) tranny if you want to retain your pushbutton shifter, unless you want to do a whole lot of re-engineering. For what it's worth, the main advantage to updating the tranny would be an easier time finding

speedometer cables, and a vastly superior availability of speedometer cable gears. (In which case, save your old ones... the purist restorers will want them!)



Note that Charlie runs with a driveshaft safety loop, since he doesn't want to do any pole-vaulting accidentally!

Your local driveshaft shop should be able to build and balance a new unit for you, by welding together a new yoke, slip joint, and tube. The part numbers are shown here, along with photographs of the finished result.

Here are the Spicer part numbers for the B&T conversion.	
Flange	2-2-349
U-joint	5-153x
Slip yoke	2-3-800kx
Spline	2-40-1711
Tube	2 1/2 dia / .083 wall

Voila! Now you're ready for many more years and thousands of trouble free miles. As an added bonus, you won't see mechanics scratching their heads in puzzlement when they look under your ride, wondering what that old boot-covered Ball and Trunion joint is on the front of the driveshaft.

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