

Z31 300ZXT CV Half Shaft Conversion

Ok, so you have decided that the stoutness of your driveline shouldn't end at your differential. Good idea. The stock Datsun U-Joints aren't worthless by any means...but if you are going to put enough power to the wheels that you feel an upgraded differential is in order, CV's are the way to go. There are many benefits in upgrading to CV's, such as...they are Stronger (DUH!) and there is No Servicing Required. Plus, Modern MotorSports LTD. makes it easy to put them in an early Z car! If you order there adapters, its a snap!

I ordered the Billet adapters From Ross at Modern MotorSports. These adapters are designed to mate with the 280Z stub axles (27 spline). If you order them, they will also send you instructions that will allow you to easily shorten the Z31T half shaft for proper geometry. (easily a 30 min job for both!). Its then a simple matter of installing the half shaft into the differential and bolting the half shafts to the adapters with the supplied hardware.

First off, you will need a pair of 300ZXT CV Half Shafts that are in good condition.

YOU NEED 300ZX TURBO HALF SHAFTS FOR THIS SWAP! NON TURBO SHAFTS WILL NOT MATE TO ROSS' 300ZX ADAPTERS!

NOTE: ALL 84-89 300ZX TURBOS HAD THE 4 BOLT TURBO HALF SHAFTS. (Stay away from the white '88 VLSD half shafts unless you have the VLSD in your car. Those shafts will only mate to that differential) ALL 84-89 300ZX NON TURBOS HAD THE 6 BOLT HALF SHAFTS. YOU NEED THE 4 BOLT TURBO HALF SHAFTS FOR THIS SWAP!

I got mine remanufactured from [Auto Parts Giant](#) for \$60 a piece (plus a \$75 core each). You can get a pair from your local junkyard also. Just be sure to check the splines and confirm that the rubber boots are in good shape. Rebuilding a pair pulled from a junkyard is also a good idea. The car will need to be up on jack stands to do this work.



Notice how the Half Shaft on the top is shorter than the half Shaft on the bottom. The drivers side shaft is supposed to be shorter than the passenger side! Do not mix these up or you will have problems.

I ordered the kit from Modern MororSports. I feel it was well worth the \$400 I paid, plus shipping. These pieces are well machined and are a perfect fit. Included with the adapters to bolt up the half shafts too are all the bolts! You get high grade hardware for mounting CV shafts and stub axle nuts, this includes OEM 280ZXT stub axle nuts which are preferred (no peening required) and all other high grade hardware for the install .



As you can see, these are top quality billet adapters. They will function perfectly in the swap.

Note: These adapters are machined to mate with the 280Z 27-spline stub axle. They will not bolt up to a 240Z 25-spline stub axle. 240Z owners can swap in used 280Z stub axles (all 70-78 rear bearings/seals are the same) or Modern Motorsports Ltd [Billet Stub axles!](#) Stub Axle swap is covered in a separate PDF article.





First you have to make sure that the new inner seal is seated all the way down, otherwise the silver part of the adapter will press up to it and cause it to rub when it is bolted on. Then, install the spacer that you got with the 280Z stub axles (the thin one that was made of copper that was between the stub axle flange and the ball bearing), you can use the 240Z spacer, but you will have to make the inside hole a bit bigger to fit over the larger spline diameter. Slide the spacer over the splines (I covered mine in grease), then install the adapter flange.



The kit includes new stub axle locking nuts and washers. Using the supplied hardware, bolt the flange in place. This nut needs to be **TIGHT!** The Factory Service Manual (FSM) says to torque these bolts to 180-240 ft-lbs. I went to 220 ft-lbs. Once that is completed, you are now ready to install your CV half shafts! First, install the splined section of the CV shaft into the differential. Notice how one shaft was longer than the other. The longer one goes on the passenger side. It snaps onto place, once it is in the differential hole, give it a firm shove to snap it in. I found that the best way to bolt up the CV shaft to the adapter was to use a jack and lift up the suspension arm until the flange was parallel with the differential. Line up the mounting holes and bolt the CV shaft to the adapter using the supplied hardware. Notice how the adapters are threaded. I first tightened the bolts to the adapters using 50 ft-lbs or torque, then put the nuts on and just tightened them as tight as I could. Tighten these in a criss-cross pattern.





You now have a 300ZXT CV half shaft installed! Do the same to the other side and your done!

