

Replacing The TR7 Prop-shaft CV Boot

By Norm Hall

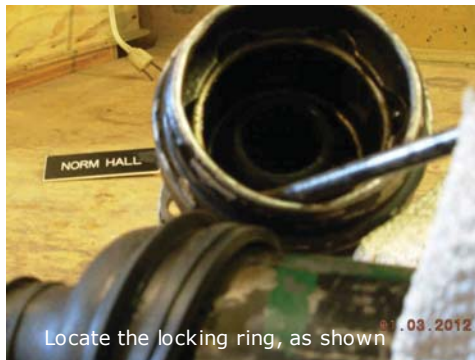
I recently took apart the constant velocity joint on my TR7 to replace a torn boot. Although the steps below do not rebuild the CV joint itself, if your CV joint is in good shape and you only need to replace the boot, this procedure will save you a few dollars over the price of a rebuilt prop-shaft. This may or may not be the proper way to complete this task, but it worked for me. If you wish to try this, use this guide at your own risk.

Raise your car up to where you can access the rear of the car. Assuming you don't have a lift, make sure that you block the front wheels securely so that when you raise the rear and remove the shaft, the car doesn't roll away and fall on top of you. Make sure you mark BOTH ends of the shaft in relation to the transmission and the differential, then remove the bolts, and set them aside. These bolts tend to see a great deal of stress, so it might be wise to replace them. If you do, make sure you use Grade 5 or higher bolts.

Take the drive shaft and place it CAREFULLY into a vise. Use a material such as a non-skid carpet mat to prevent the shaft from moving without putting excessive pressure on the shaft. If you bend the shaft, you'll have to replace it. To prevent having to tighten the vise too much, place a board or something similar on the far end of the shaft to support the shaft's weight. Cut away all the old CV boot rubber, then clean out all the grease inside the joint so that you can see inside the joint and locate the components inside.

Inside, where the shaft connects inside the bearing cage of the CV joint, there is a black rubber band around the shaft, presumably there to act as a bumper.

Place a blunt drift on the metal edge just in front of the rubber band noted above. Take a hammer, and drive the CV joint off the shaft. Once the CV joint is removed, look inside the joint and locate the retaining spring.



Locate the locking ring, as shown

Remove the locking ring / retaining spring from the CV carrier. The ring is shown in the photo below, after removal.

Once the ring is removed, extract the bearing cage, ball bearings, and races, and then clean and dry them thoroughly.

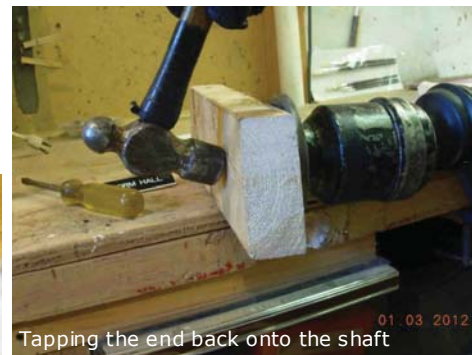
Place the new boot on the shaft by sliding it over the splined end. Tie the boot with the tie included in the boot kit, then turn the boot inside out over the shaft.



Locking ring removed from the CV joint, new boot installed

Once you have the boot on the main shaft, it's time to reassemble the CV joint. Grease all the bearing races, the bearing cage, and bearings with the grease supplied in the CV joint boot kit. Place them back into the CV joint housing, and replace the retaining spring.

Align the splined shaft carefully on the shaft to the female end of the CV joint. If you do not align the spline correctly, you can destroy the shaft. Slide the CV carrier onto the shaft as far as it will slide. Grab the joint CV carrier, and



Tapping the end back onto the shaft

twist it to be sure that it is seated properly.

Place a block of wood on the mounting end of the CV carrier, and tap the carrier onto the shaft until it is fully seated. Depending on the shaft, this might require a bit more than a tap, but you want the carrier to seat against the rubber bumper that you noted previously before you removed the CV joint.

Once the shaft is fully seated into the CV carrier, turn the boot right side

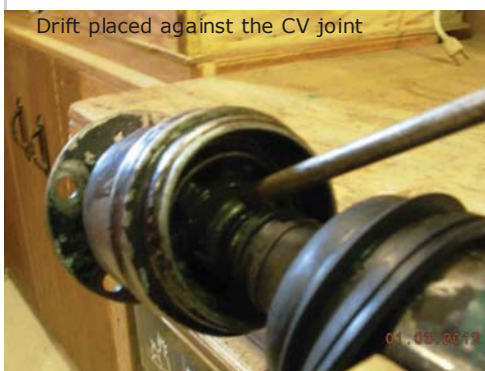


The completed shaft and boot

out, and attach it to the CV carrier with the tie supplied in the kit. That's all there is to it. While not difficult, it is something that can be tricky. To replace the boot, I used a kit for the Classic Mini. The kit is available from various vendors.

I would like to extend my thanks to Brian at kddpower center for giving me the information that I needed to complete this job.

Editor's Note: It has been rumored that oversized bearings from the Mazda 323 can be used if you need larger bearings in your CV joint. I have not confirmed this, however any bearing supply shop can supply oversized bearings if needed.



Drift placed against the CV joint