

Triumph TR4-6 Steering Improvements

by Joel Justin

When I first purchased my TR4 (gosh, it's been 9 years now!), the steering was a bit sloppy. The steering wheel also wobbled. Over the years, I rebuilt the rack as well as the entire front suspension. I also added new steering column bushes. What a PITA that was! You not only have to remove the column, which is no small chore, but then getting the old bushes out and the new ones in was a real challenge.

The bushes are Teflon or Delrin on the inside with a steel tube around that for support and rubber around that does a tight fit in the steering column (<https://mossmotors.com/bush-steering-column?assoc=79338>). The rubber also has two round protrusions on either side to position it in the column. There's one bush near the steering wheel just behind where the turn signal lever is and a second one at the other end where the upper steering shaft comes out into the engine compartment.

Anyway, I don't know if the bushes I installed wore out or were never that tight to begin with, so my steering wheel still wobbled and occasionally squealed when turning due to the hub rubbing against the column housing. Both were very annoying, so I started looking for a better solution.

I had more bushes in my inventory, and since the steering wheel and upper shaft comes out rather easily, I pulled them and tried fitting several other bushes on the steering shaft. One set seemed reasonable tight, but two other sets I had were pretty loose. I saw Moss offered updated bushes (<https://mossmotors.com/bearing-steering-column-updated?assoc=79339>) so I thought I'd give them a try. They were just as sloppy. I did use a micrometer to make sure my steering shaft wasn't worn, but it measured 0.750" both where the bushes were and weren't.

So then I started doing some Googling and found an article on a person's TR6 website (<http://tr6.danielsonfamily.org/SteeringColumn.htm>) that described using Art Lipp's special Delrin bushes. I looked them up on several forums and people who used them said they worked great. The caution was that if your steering shaft was bent, it would cause lots of problems. I rolled my column on a flat surface and it was straight. The challenge now was figuring out where to buy these bushes as Art's a hobbyist like us and does this as a side business. I found his email address (lipp04@yahoo.com) and sent him a message asking if he still sold them and how to buy them if he did.

He responded almost immediately, told me they cost \$30 plus \$5 for shipping and said he takes PayPal. I gave him the details of my car (turns out there are slight differences in his bushes between TR4 and TR6) and PayPal'ed him the money. I got the bushes in about a week.

If you read the TR6 article above, you'll see that Art's bushes get pressed and glued into the top and bottom of the steering column housing. And you don't even have to take the old bushes out (huge benefit)! His bushes fit well on my steering shaft, so I used some Gorilla glue and pressed them in place. I used a hammer to lightly tap the lower bush in. I had to make a "tool" for the upper bush as it was recessed in the steering column. The "tool" was simply a piece of ¾ schedule 40 PVC pipe and a ¾" wood dowel with a couple wraps of electrical tape around it to keep it snug inside the pipe. I slid the upper bush over the dowel and against the end of the pipe. I slide the whole thing thru the steering column collar and lightly tapped it into place. Then I applied the anti-seize as instructed and slid my steering shaft and wheel back in. It was snug as a bug in a rug (that means there was no wobble)!

Since I was messing around with the steering column and shafts, I also decided to replace my lower shaft with the two (sloppy) rubber couplings (<https://mossmotors.com/coupling-flexible-replacement?assoc=79367>), which are also a PITA to replace, with a custom U-joint shaft from Revington TR in the UK (<https://www.revingtontr.com/product/rtr3634-ak/name/steering-shaft-tr4-4a> or <https://www.revingtontr.com/product/rtr3634-bk/name/steering-shaft-tr250-5-6>). It was a bit pricey (\$160 with exchange rate and shipping), but simple to install and took what play in my wheel completely away. It even made my horn work better as it didn't need those two wires to bridge the rubber couplers.

If you have either or both of these steering maladies with your TR4-6 I'd highly recommend these upgrades.