

I-25 Tightening a Front End *By Gert Gehlhaar*

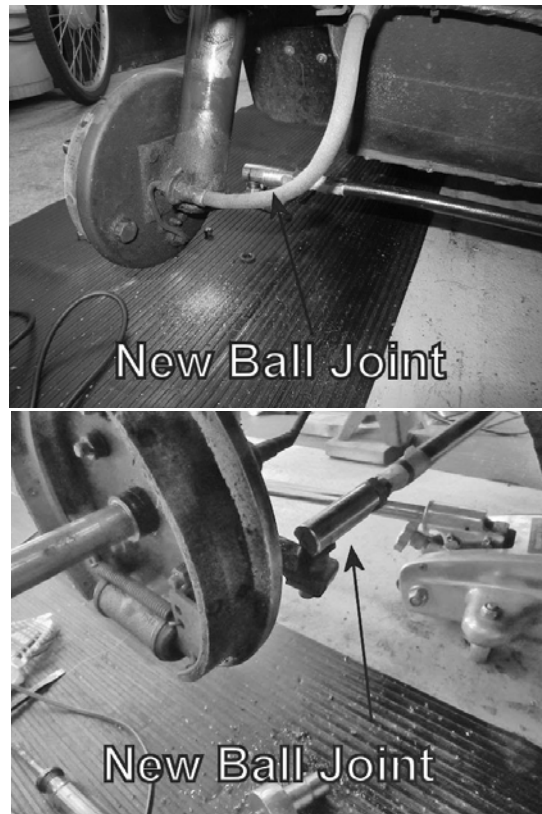
THE TIE ROD on the front end of my '67 M3 was loose, so I set out to replace the ball joints on both ends along with a bit of straightening.

Finding replacement parts proved a challenge but I finally got the pair (one left-hand thread, the right hand) for \$21.14 through Amazon.

Once I had the parts, I removed the tie-rod and old ball joints; all very simple. I found the tie-rod was bent in several places, so I straightened it out, hoping for better alignment between the two wheels. I had measured the old distance between the left and right ball joints and then installed the new ones the same distance apart, expecting a good initial adjustment. I checked the toe-in and found it very close to $3/8$ ", which I left alone for a test drive.

On the drive I found the front end fairly solid and steady until I got to about 30 mph when some shaking developed. Back home I made a little adjustment—one turn on a ball joint. A test drive showed the shaking worse. So I did a turn on the other ball joint and another test drive—even worse. "Hold on here, what's going on!" Some more measurement revealed that I now had a *half-inch* of toe-in. Oops ... I was making my adjustments in the *wrong direction!*

So ... starting over I got the toe-in to no more than $1/8$ " and went for another test drive. This was the best ride of all and the car cruised along at 45 mph with no wander and no shaking at all. Back home to clean the workshop and retighten all the nuts and bolts. I'm now happy with the



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front end of this KM and will most likely do the 1958 M3 next.

I hope this adventure will help someone else in doing the job. ■

These new ball joints require no lubrication, and are the same as used on modern lawn tractors as well as the ones chosen for the new King Midget Club Car.

They're available from several sources, but the best we found is McMaster Carr, #6058k28, LH and RH. We paid \$4.96 each, plus shipping.

As you've probably read in other articles on this subject (Shop Notes, Front Suspension and Steering, I-1, I-4, I-5, I-6, I-7, I-8 and I-14), setting King Midget toe-in is a controversial subject. Much seems to depend on how well all the parts work together—the overall condition of your front end. Gert's trial runs make sense, especially if you're a little dyslexic, like me!

As Gert's work shows, if your tires are in balance, aired properly, steering box in good shape, and shock struts properly adjusted and lubricated, the factory specification of 1/8" toe-in works just great.

*This article is adapted from Gert's original, posted on the KMW website:
www.kingmidgetswest.club*

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I. Steering