## **SHOP NOTES King Midget Maintenance and Restoration**

## I-19 Tie-Rod Ball Joint Replacement on a King Midget M3

By Gert Gehlhaar (Note: this article is reprinted from www.kingmidgetswest.club)





Randy Chesnutt helped me find John Deere part numbers for replacement ball joints for my front steering and I ordered them from NAPA.

Left Hand Ball Joint AM100645 \$17.50 Right Hand Ball Joint AM100644 \$17.50 Total Cost \$35.00

They were to arrive in three days. After two weeks I gave up. On the internet I checked with Amazon.com and found the exact same parts for the following prices:

Left Hand Ball Joint AM100645 \$5.20 Right Hand Ball Joint AM100644 \$15.94 Total Cost \$21.14

Why the left vs. right price difference, I don't know, but I ordered them on Monday and they arrived on Wednesday.

Removing the tie-rod and the ball joint and was simple. I found the tie-rod was bent in several places, so I straightened it for better alignment between the two wheels. I'd measured the old distance between the left and right ball joints, so I installed the new ones at the same measurement, thinking this would give a good initial adjustment. I checked the toe-in and it was close to 3/8" which I left alone for my first test drive.

On that test drive the front end was fairly solid and steady until about 30 mph when some shaking developed. Back home I made a little adjustment; one turn on the ball joint. The next test showed that it was actually worse. Another turn; another test drive—even worse. Hold on—what's going on here? I measured and found I now had a *half-inch* toe-in! Ooops, I'd made my adjustments in the wrong direction!

Starting over, I got the toe-in to no more than 1/8" and took 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 I cleaned the workshop and retightened all the nuts and bolts again.

I am now happy with the front end of my '67 KM and will do my 1958 KM M3 next, and hope this adventure will help someone else in doing the job. □