

# Willie's Workbench

By Willie Worthy

## Protection for Dana 44 Diff Housings

Initially, there was that familiar crunching/scraping cacophony as rock hit metal, but then there was a new sound: a grinding metal-to-metal noise emanating from the front end while I was driving. A quick look-see at the underside showed what I had done to my Dana 44. A large rock had smashed the cover, pushing it into the ring gear, which was now working as a cutting tool on the metal cover. Not a good thing, having metal cuttings in the differential housing.

It either meant my day of four-wheeling was over or fix it right there. OK, I opted to pull off the cover, collect the lube in a plastic bag, pound out the cover for clearance, push the bag of lube back in the housing, and reinstall the cover. Took a while to do all this, time spent away from Jeeping.

Back home, I started looking for a solution to keep this from happening again. Some of you are going to say "learn to drive better." Not an option as I most likely will get worse before I get better.

In the aftermarket there are some pretty trick-looking heavy-duty diff covers made from either steel or cast aluminum, some with fins and some without. However, none of them have the familiar Spicer look with the ring gear bulge. A Spicer engi-

neer once told me that was done with the purpose of maintaining lube on the ring gear as it rotated at higher speeds. Sounded good to me. Maybe the larger rounded aftermarket covers worked just fine with their added capacity, but I wanted a Spicer cover.

Now Spicer used the 44 in a wide application of vehicles and as both front and rearends, and all used the same style cover, with the only visible difference that I could see being the fill plug location; some were higher up than others. I finally settled on a cover from a 3/4-ton IH pickup. This cover, while I didn't actually measure the thickness, felt to be almost twice as heavy as the one I had smashed.

This was a good start, but I wanted to go even further in preventing a smashed-in cover. Research showed that numerous companies made differential cover protectors, each one with a bit different approach to solving the problem. While I'm sure there are more out there, I looked at the Warn Differential Protection Cover, Challenger Performance Tubular Product, Poison Spyder Customs Rock Rings, and finally settled for Superlift's eXtreme Ring.

The eXtreme Ring uses a full ring cut from 1/4-inch steel that utilizes all the bolts around the cover to ensure that it fit tightly. The ring-gear guard is again made of 1/4-inch steel in a bent and welded design that would greatly reduce the

chance of it ever bending even under the hardest contact. Plus I liked the gold irradiated finish over powdercoating.

Did it work as intended? Yep, it sure did. I even bashed it intentionally against a few rocks just to try it out. Now, my worries of a smashed differential cover are over ... but I still need to learn to drive better. **FW**

