

Wheels: Walt writes by e-mail: *“My dad had a 1996 Grand Caravan, with I think 90,000 miles on it. While he was turning out of a parking lot, one of the ball joints broke. He probably hadn’t had the suspension reliably checked ever.*

Now to my concern: I remember in the old days you used to have joints with grease fittings, so you could fill everything with grease every year or oil change or whatever. More recently, they’ve begun to make joints with “maintenance free” or “sealed” joints. A big part of me would worry about the water and dirt getting in.

#1) Should I needle inject grease into my fittings with every oil change or yearly to ensure a full packing of grease, or is the risk of contamination through the hole a far worse prospect than leaving the joints alone?

#2) Is this Chrysler phenomenon specific to Chrysler, or should I worry about my cars dropping tie-rod ends even if I check them faithfully for play, and detect none?”

Halderman: For this question I called in an expert at the Federal Mogul training center in St. Louis, Steve Cartwright. Here is his answer.

“Although, it is not common for internal rust to keep a part tight and then for it to fall off unexpectedly, this is definitely possible. Normally, looseness would be found far before separation.

A joint without fittings is not immune to internal contamination. In fact, the failure mode of most non grease able original equipment joints is to have a tear or separation of the boot, allowing water to wash out the original equipment grease and then rust the stud. The stud then acts as a file, eating away at the plastic internal bearing until looseness occurs. This looseness dramatically reduces tire life and affects vehicle handling. In severe cases, as your reader has seen, separation can occur and possibly lead to an accident. Luckily, most joints separate while turning sharply at low speed because this is when they are subjected to the most loads. Any non-grease able component has the potential for separation if the grease is washed out and severe rust develops before inspection.

I would not recommend piercing the original equipment boot with a needle tip grease gun. The likelihood of the grease reaching the point where it needs to be would be slim. If the boot is intact, I believe it is best to let it perform as intended until looseness is identified during inspection. Some original equipment joints can still develop looseness even if the boot is intact due to plastic deformation from loads. If your reader desires to solve these problems, he might want to consider the use of metal construction and grease fittings (MOOG brand). We recommend lubrication at each oil change interval or about every 4,000 miles.”

Thanks Steve for your very detailed and informative answer.

