



Tony Whitehead (Dr Jeep) diagnoses a problem on a TJ Wrangler

JEEP HOSPITAL

Each month Dr Jeep (Tony Whitehead) takes us through the trials and tribulations at his “Jeep Hospital”, USA 4X4 Jeep Specialist in Melbourne, Victoria. Over 20 Jeeps are admitted weekly for servicing and suspension work through to differential, transmission and engine rebuilds. Dr Jeep explains the diagnosis, the corrective surgery and future care of these vehicles.

NOISE IN THE FRONT DIFFERENTIAL

This month a 2005 TJ Wrangler was delivered to the hospital with a “noise” in the front differential. TJ Wrangler front differentials are Dana 30s and this one had been fitted with an auto locker. There are several manufacturers for these “lockers” that replace the side and spider gear assemblies in an “open” differential carrier. They work OK in Jeeps that are running smaller tyres. They can be a bit brutal, so much so that this one took a few teeth off the 4.1 ratio crown wheel. We replaced the crown wheel and pinion and with a fresh set of bearings had this Jeep back on the road in a day.



Chipped teeth on the crownwheel



Stripped cardan joint



CARDAN JOINT

Most Jeeps run a cardan joint in the front tail shaft at the transfer case end. The cardan joint consists of a pair of universal joints and a centre ball style bearing that allows for a smoother action. Some early CJ and SJ shafts had a hole cut into the H-case and using a tool called a KZD which is a grease needle that attaches to a grease gun you could grease the cardan joint bearing. Some early shafts had a grease nipple in the caps of the two universals, but not any more. All contemporary Jeeps like the Cherokees, Grand Cherokees and Wranglers don't have greasable cardan joints. We repair these in-house with a greasable type cardan joint and being greasable it will last a whole lot longer in extreme conditions and keeps the “sparrows” away – the noise connected to the early stages of the cardan joint dying from lack of grease.

FRONT AXLE UNIVERSAL JOINTS

An ungreasable item to keep an eye on in your Jeep is the front axle universal joints. The same joint is used in all the Full Size Cherokees, J10s and J20s running Dana 44 front differentials and in the TJ Wrangler with the Dana 30 front differential. The universal joints are strong enough but have no grease point. When inspecting a front axle universal you need to look for the shades of rust that get spread around the inner steering knuckle. If shades of rust are evident the universal will need removing and with the caps off you will more than likely find considerable rust inside the caps and the needles corroded or worn away. Universals in this condition will fail if not replaced and when it fails it will generally take out one or both axles in the process. Any Jeep being used off road on a regular basis needs constant attention to front axle and drive shaft universals. After a lot of persuasion with our bearing supplier we had them bring in greaseable axle universals that have the grease nipple located in the cap for easy access and when regularly greased will last a lot longer than any stock unit. We fit these to any Jeeps that go off road.



Greasable universal joint fitted to front axle



Rust dust evident around the axle universal joint



Universal joint removed from axle and caps removed show the wear and missing rollers

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RANCHO STEERING DAMPNERS

The new JK Wrangler is selling really well in Australia, so too are these Rancho steering dampers as the OEM dampers on the Wranglers seem to leak in no time, and while you will get a replacement one under warranty you really just need to stick a good one on and be done with it. The new silver RS5407 fits with just a small adjustment of the tie rod tube bracket. It needs to be pushed towards the driver's wheel 15mm, and then the Rancho damper fits straight on. We leave the boots off and give them to the dog for a toy where they do a better job.

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