

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.

THE DOCTOR’S TJ



BY TONY WHITEHEAD
IMAGES BEN DAVIDSON



Back in 1996 when the Australian dollar was fifty cents to one US dollar and two years after the XJ Cherokee was launched in Australia, the TJ Wrangler hit our shores. By then USA 4X4 was already five years old and I was having all sorts of fun hot-rodding and repairing anything from MBs to 80s CJs, SJs and J-trucks. I was also playing with the “new” XJ, but nothing compared to what was coming – the all new coil sprung TJ Wrangler. The first of them hit Aussie shores late in 1996 and I had placed my order well before that expecting my new Jeep for Christmas. It arrived, a bare bones, “povo pack” soft top only with half doors, cassette/FM head unit with two ordinary speakers, no console and steel wheels, but I didn’t care. I had one and for another \$2000 I had factory air con installed.

As soon as my TJ got back to USA4x4 from Frankston Chrysler Jeep the grinder was out, losing plastic fenders and a set of three piece Craigar drag-ways with some 31 inch tyres went straight on. About that time, a store in Utah, USA called Mepco,



had been playing around with TJs so I made contact (by fax I think) with one of the founders Jeff Mock and we placed the first of many orders with a company that was renamed Teraflex a year later. We had issues (as did the UK and South Africa) making a RHD TJ drive nicely with a lift kit on it, and USA 4X4 was pretty much the first company in the world to make a RHD TJ work. We sent hand-made panard brackets around the world and worked out the supplied drop pit-man arm was more trouble than it was worth. So we nutted out how to set the TJ suspension. Before then everything was leaf sprung and that bit easier to play around with.

Over the years this little Jeep has test bedded many things, different suspension kits, shock set ups, soft top set ups and so on, but it’s finally a finished article that runs the same motor and drive line that it was first sold with and only needs service love nowadays.

Heck, it’s hard to even start to think of all the mods I’ve done over the past 18 years to it, so I’ll start with the suspension kit. It’s now running my own HD coil, they

raise to 50mm at GVM and have Teraflex components to help, including bump stops, sway bar disconnects and rear track arm bracket and my own extended rear sway bar links. The 96 and 97 TJs came with OEM caster bolts but since running various early Teraflex control arms (flex-arms) that all wore out, I ended up with the Teraflex long arm lower arms and a bolt on chassis rail bracket. These run a huge rose joint one end and OEM rubber bush the other, giving a super smooth ride and adjustability. I still run stock upper arms front and rear, they’re durable and work well absorbing vibration. We are also the only Melbourne factory authorized Rancho dealer so various versions of the 9000 series shock and in-cab units had been in and out of her. It currently has the 999 series with the now defunct My-Ride controller and with the Tera discos and RS adjustable shocks it is a very smooth versatile kit on and off road. It also runs a one inch alloy Tera body lift to clear the different sizes from 32s to 35s.

Nowadays we stick to 33 inch tyres, but this Jeep can cope with 35s. They’re

heavy on the drive train and 33s are at the 50mm increase limit of the tyre diameter for the biggest tyre offered on a TJ with the same running gear. So I’m content with the 33x12.5R15 Federal Couragia tyres on the Dyna 15x8 rims with a near neutral offset, sitting the 33s well inside the WARN (also sadly defunct) six inch trail flares. These are brilliant flares and I’m baffled as to why they stopped making them. A speedo gear sorted the correct speed after the gear ratios were altered. I also run a 33x10.5 spare on the standard tail gate/hinge, it works just fine. I’ve only ever had two flats in 18 years so it doesn’t get much use.

We’re a WARN dealer so I added a WARN front rock crawler bar winch mount and have run an XD8000, XD9000 and now a 9.5Ti WARN winch, (now with the WARN remote control kit). It’s been brilliant and still carries steel rope, no need to swap to plasma just yet. Rear bumper is sorted with a Smittybilt XRC rear bar that has provision for the pivot but is not used and has a rated tow hitch. Smitty side step tube bars (old mount style) cover side/sill



protection and a WARN fuel tank guard and WARN D30 diff cover guard finish off the armour. I upgraded the H4 head lights with 100/55W globes and added 130W KC six inch Daylighters for forward vision, and USA truck light tail lights with a license plate lamp for the rear and USA style license plate mount. Steel tail light guards and RJR rear checker corner panels and sill panels beef up the rest.

The front and rear axles are original but have been changed from the stock 3.07:1 to a more useful 3.73:1 ratio. The AX15 Aisin gear box has a weak fifth gear so those ratios work well in fourth on the freeway, and I can pop fifth sometimes, but

after snapping the fifth syncro hub once and having to tow it home over 300km I'm wary of that overdrive. So I'm happy to have a better final drive ratio for fourth gear. I added a Teraflex 4:1 transercase, this gives me a 57.14:1 crawl ratio and off-road first is only used for dry rock crawling. As for lockers, well that's easy for me. Detroit's rule the roost and she has a pair of soft lockers installed, they're drama free, idiot proof and work great off-road and pretty good on-road once you learn to live with their little traits. A Teraflex SYE and Spicer cardan shaft and U-bolt D44 yoke deliver the rear axle power while a stock front shaft from a

2000 TJ delivers power to the front axle, and it's good as gold thanks to the addition of another NLA product, the WARN 38007 free wheel hub kit. This allows the front shaft to lie dormant until in 4wd and saves fuel and wear and tear and gives me two wheel drive low range for backing trailers etc. She also has Dana 30 outer axle seals to prevent axle tube mud build up, greasable axle unis and a HD RHD steering tie rod tube.

Under the hood is the original 4.0ltr Chrysler motor which has done 235,000Km. It's the early 4.0ltr with the short skirt piston and from day one it sounded like a diesel when cold. It's

worse nowadays but it still doesn't drink oil or leak oil for that matter. The head has never been off or the motor out, it's been bullet proof and while its thirsty it has never let me down. I added a K&N air filter, Banks extractors and monster muffler with a flexible joint, fitted a late model dual plane inlet manifold and have had a throttle body spacer once. No need for that with the later 4.0 manifold, and other than a replacement dizzy once and a few caps/leads/plugs and oil changes it still tractors on every day. Another brand we love and sell is Optima, so I slotted in the dual terminal deep cycle unit. It's had three in all these years and the old ones are still in use in my fork lifts. The D34/78 has a spare set of terminals and I learned once they're not for winch cables. More so for smaller accessories as I melted the side out of one once (but the battery was still fine). Upgraded horns and some anti-mud flaps and tape finish plus spare hoses and belt zip tied away finish the engine bay. There is also an ARB air compressor with plumbing to the front grille. It's had a rebuild or two

by now so I also carry a portable unit just in case.

Interior mods include many audio head units as well as several versions of speakers, generally Alpine and now all blue tooth including the NLA Alpine truck speaker boxes and Porsche front replacement speakers which make the good times roll. I run a NLA Gildo over head console with additional lighting and the inclusion of a Icom 400 Pro UHF. It's weather proof and can take a beating, they're a commercial radio de-tuned. It also makes a handy hat rack mount. Another defunct brand, SAAS was a company that made race car seats and steering wheels and I had them recover the steering wheel with their top grade leather in 97. It's still like new and a timber gear knob makes it feel a lot better than the stock one. She also had the mini console originally, so I sourced and fitted the full size console that's been full of junk ever since. I also have (NLA) Bestop side storage boxes, they're tight but useful additions between the B and C pillar each side.

A microwave mongoose alarm hooked up to aftermarket central locking make security and entry all good. I'm running a OBDII scan gauge too that plugs to the OBD connector and gives me info live to see what's happening on and off the trail. Extra 12V outlets have been fitted and my cool Jeep grille/emblem gobo puddle lights are fitted to the doors, which when opened at night project a perfect Jeep emblem on the ground when I hit the switch. Old school husky liners in the front foot wells help with keeping it tidy and Dingo seat covers on the late model TJ bucket seats keep the interior weather and dog proof. The Dingo covers are 14 oz Bradmill 10373 canvas which are unbelievably durable. Fitting the later seats was tricky, you will need the later seat bases to make it work and they are hard to find. I don't run a rear seat anymore, instead a rear Bestop cargo rack goes where the rear passengers once sat. I modified that also to sit higher.

Another product I have been selling since 2008 is Rhino Lining. It's a 2 pack

polyurethane product more commonly used to line a ute bed, but I had always wanted to do a Jeep exterior after seeing something like it at SEMA years ago, so Rhino QLD supplied the product and I did the job. After two weeks the full floor area, tub and the exterior was covered in Rhino lining. It looked wild up close, it sound deadened the engine and a lot of road noise and it has rust proofed the TJ forever. I did everything except the grille which was just fresh back from the paint shop. I even sprayed the Bestop door half tops and windscreen frame. All up this has added about 30kg to the Jeep but hey, what's 30kg after all the other goodies are added in.



To finish off it needed a roof. I've run hard tops, bikini tops, dusters, jammers, no top, sun-riders and settled for the Bestop half top. These are the best of all worlds to me. They can be flipped like a sun-rider so just the top opens, or folded down very easily (and back up) to leave just a duster cover, or flicked off completely. The old black denim lasts well and with the

factory door surround version fits tight as a drum. You still need ear plugs on a long haul, but that's what you get with a real Jeep. We made a rear tail light mount plate and fitted the (ex) AM radio and current UHF radio aerials and a Mickey Thompson tyre cover complete the rear exterior.

So there you have it, 18 years to build, a few hours to write it up and I bet I still missed a few mods and tricks. It's a great truck, simple, pre Skim key, minimal electronic gizmos, customized to the hilt and one I'll never sell. It will still be motoring around in another 18 years.

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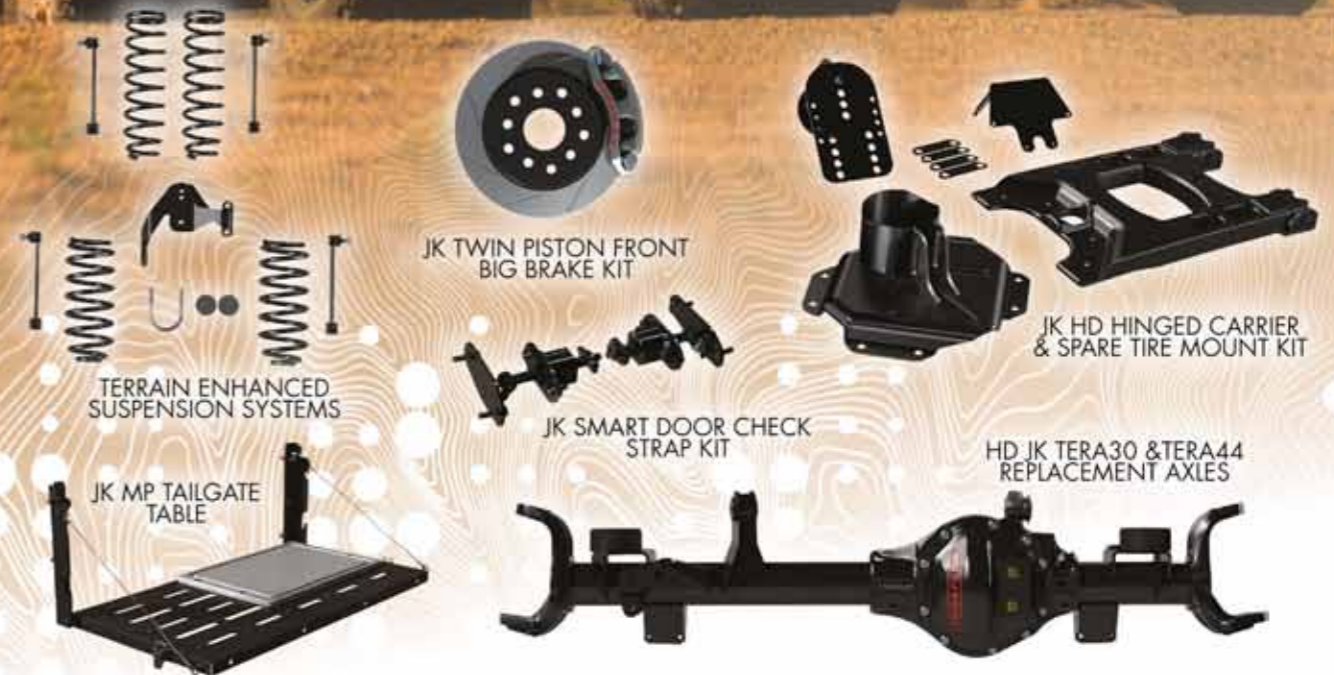
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