

## KNOCKING TAILSHAFT

Hi Allan, I bought my first 4WD in October 2009, it's a SWB Pajero. My dad owns a Pajero and I know it would be a good first 4WD not outlaying a great deal, but still plenty of power to take it where I want to go to learn how to 4WD. Living in Rockhampton there are some little tracks that have easy and hard parts to them. For weekends away, Byfield State Forest and Five Rocks are great locations to go to family and friends.

I haven't done too much to my Paj apart from fit 3in Macasis Bigbighers, a UHF, roof racks, a set of drawers and a fold down shelf on the back door that I saw on one of the customs featured. I have plans to make some rock sliders and maybe a tube bar for the front in the future.

Lately, I have been having some problems when I engage 4WD. By process of elimination and the help of my mates at the local suspension workshop we worked out that the passenger side CV shaft, thrust washer and wheel bearings were very much stuffed and the front drive shaft uni-joints were shot as well.

After a few hundred dollars, and a few hours after work, I replaced the offending parts plus I have also installed new AVM tubes. However, when I select 4WD, I still get a large clunking noise. It sounds like the driveshaft but it's too loud and inconsistent to be the driveshaft. As I've already replaced a heap of parts, I'm not so sure on what it could still be.

I pulled the front cover off the front diff and inspected it to

make sure I hadn't stripped any teeth off my diff gears and they still seem to be in perfect order. So I'm stuck on what the noise could be! My 4WDing dreams have come to a halt for the time being until I can find the problem.

Luke Bray  
Rockhampton, QLD

Well Luke, I still think that the tailshaft can make awful large clunking noises. If I were you I would jack the vehicle up from the body until the wheels are off the ground, then run it and see if the noise is any worse. I suspect that the front tailshaft is binding-up, which happens when you have a bit of a lift kit installed.

I think that the first thing you'll find if you pull the tailshaft out is wear marks and witness marks where the round tailshaft yoke that holds the cross-yoke is actually touching on the shaft part itself. We have been known to grind a little bit away from that because sometimes grinding a very small amount just relieves it, not around the cross-yoke, but the other part that is hitting the tailshaft itself.

Grind that out with a little high-speed grinder. You might find that taking off as little as 0.5mm might make all the difference in the world. I'm pretty sure that's what it is, if it's worse when it's jacked up, it puts the tailshaft under a greater angle and makes that knocking noise worse. I think you'll find that what the problem is, good luck with that Luke. - Allan Gray

## GO GRUMBLE

Hi Allan, I've just purchased an immaculate GQ wagon - I picked it up for a steal too! After driving a R50 Pathfinder for a number of years, I've become a little used to the quiet ride. While I'm not too worried about a few rattles here and there, there's one particular noise that has me concerned!

When I'm driving along at slow speeds, particularly off-road, the gearbox makes a rather loud grumble. It only ever happens in first and sometimes second gear. I've been told it's pretty normal for the GQ, and even the GQ manuals. Hearing different things about what it could be I wouldn't mind knowing exactly what is causing it and if it can be fixed? Have you come across this type of noise before? A wrench would be greatly appreciated.

George Harrison,  
George Horvath, SA

George, first of all change the oil in the transmission if it hasn't already been done. Failing that, take the front tailshaft off and see if you still have the noise, it could be the uni-joints binding up at certain angles. The noise in the gearbox could be quite bad in the

diesel, particularly if the revs are too low. If you only get it when your revs are down really low, it's simply a case of the gears rattling backwards and forwards as each power stroke from the pistons hitting the gear box. You'll notice if you keep the revs up just a little bit often it will go away.

I think I would take the front tailshaft off though and you'll find that might fix the noise. If so, you've got to get it back on and drop the body down a bit, tilting the diff up in the ideal thing or if it is binding up in the joint you may want to grind a little bit away from the shaft where the yokes are.

GQs do make a bit of a noise, but I'm sure it can be improved, particularly if it has a lift, but get back to us with how you end up going. - Allan Gray



## HESITATING THROTTLE

Hi Allan, I have a turbo diesel, intercooled 4.2L, which I've owned for three years and do plenty of weekend trips. I've done a 2in lift, snorkel, 3in exhaust and fitted a roof rack. I would like to add a winch, 33in tyres, roof console and fridge, roof drawer fit-out with a radio, aftermarket front seats and a turbo upgrade for more grunt.

My problem is, at the moment I have a hesitation that I'm feeling in the rev range of 2200-2800rpm. That's not to say it's not happening outside that range, that's just when I feel it.

It's most noticeable under load going up a hills or overtaking. Four mechanics have not been able to pin-point the problem including Nissan and an injector specialist, they all immediately go to fuel and filter but there's no change. The car needs to be at running temp for it to happen, winter or summer makes no difference.

I work in the bushfire-affected area of Kinglake and Marysville and do 200km a day up and down hills, so I feel it within 15 minutes of driving. Had the injectors done at 120,000km, I have still had a loss of power and fuel economy.

I believe it came about after following a heavy boat for several hours, prior to that the Patrol was fine. It is really frustrating and I don't know what to do next. Your advice would be greatly appreciated as I love my Patrol.

Colin Neat  
Kilsyth, VIC

Well Colin, I think what perhaps you'll need to do with your vehicle is get it on the dyno with an exhaust gas analyser. I'd be checking the colour of the smoke it blows at that 2200-2800rpm range. I suspect that it changes colour at that rev range.

I think in your case considering it sounds like you do a bit of towing, you should have an exhaust gas temperature gauge and certainly should have a boost gauge on the turbo, because I think the turbo itself might be for some reason or another fluctuating at that rev range, whether you have an intercooler or not.

I'd also get the tappets adjusted. Adjust them carefully when they are hot and the motor is stopped. I believe that will fix your problem. Thanks Col for writing in. - Allan Gray

## BAD EARTHS



My 60 Series 'Herman' has been with us for a couple of years now and has a TM bullbar, roof rack, Kaymar rear wheel carrier, snorkel, 2in Tough Dog suspension lift and 33in Macasis Bigbighers. I want to do front and rear auto lockers and a winch. I want to be able to go everywhere! The wife and I are going to eventually drive around the country doing the iconic 4WD tracks.

Sometimes the charging light and air cleaner light come on while driving and the alternator gauge moves up to around 16 volts when

doing about 100km, but comes down once it's idling. I have changed the alternator, but no joy. I think it must be a bad earth or loose wire, but don't know where to start? Help me please!

Michael Bolye  
Belmore, QLD

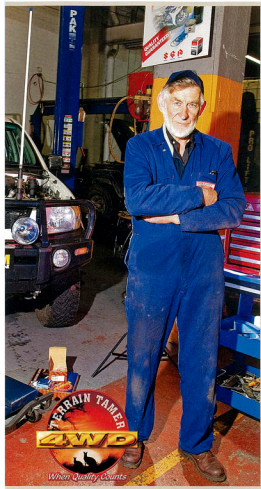
Well Mike, you're onto the thing yourself I think, you've got to earth everything. In particular if it is a diesel, I would also earth the Edec control motor, that's the little solenoid that clicks, with the gear going backwards and forwards

when you turn the ignition on and there was a tendency to corrode, so fit an earth engine block.

You are certainly going to need a body to earth engine, but earth everything except the radiator otherwise you will get corrosion and all sorts of problems with that. You can also get a voltmeter and see what its reading from earth to the battery and earth the block, you should only have half of a volt between the two, with voltmeters you allow a 0.01 of a volt for bolted

connections, 0.01 of a volt for a meter of cable, 0.02 of a volt for spring loaded connection, but anything over that is excessive.

If there is a fuse between the main feed cable from the alternator to battery, I would also replace this, they sometimes develop high resistance. I'd get the terminals off the battery and clean them up with a mix of carb soda and hot water used works best, use some emery paper to clean the terminals and bolt them back on again. And you will fix the problem. - Allan Gray



# ASK ALLAN!

If you've seen my DVD segments, you'll know that I just can't help but get to the bottom of your mechanical problems. If you're having some trouble with your 4WD, simply visit [www.4wdaction.com.au/](http://www.4wdaction.com.au/) ask-allan to submit your question and I'll get right onto the case for you.

Allan Gray  
Terrain Tamer

