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 **Replacing companion shaft / clips**

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04-08-09

#1



**marcthelegend**

Valued Member

Join Date: Sep 2008  
Location: Gosnells, WA  
Posts: 1,055



**Replacing companion shaft / clips**

Hi all,

Have read that this type of problem happens again and again and again, so thoguht I would do my first write up to this forum.

Had the companion shaft pop out around 10k's from home (lucky!) So decided instead of paying towing fees etc. to have mitsubishi repair it, I decided to tackle it myself (daring lol!)

First thing was to get all the parts together. Mitusbishi was the place to call for that, circlip was 4 dollars and seal was 40 dollars, had to pay 20 dollars extra because I needed them ASAP.

When all the parts arrive, just leave them aside somewhere and your ready to get started!

First thing is to get the pajero off the ground just enough to be comfortable and to get the wheel off the ground! I found the best method for me was to put a chassis stand in the center of the paj just after the rear diff and then to use the jack with a brick to lift the wheel off the ground (helps to rotate the bolts to make for easier access)

Below is a photo to show you my method which I find works the best.



With the above method, you leave the jack in the lowered position, undo the one bolt that you can get to (i only could get at one thanks to the large breaker bar) then jack the tyre off the ground and spin it to the next bolt, undo that one and repeat until they are all done.

I can tell you now, you will NOT be able to do this with a spanner or a ratchet! The best method for me was to drown the bolts in WD40 and use a 1 meter long breaker bar on the end of my high strength Ratchet, took me nearly an hour to undo all 6 of the little bastards but got it done in the end!

NOTE: You more than likely will get bolts that just keep spinning around and around, best method is to use another ratchet (must be a small one) and extend it with the smaller breaker bar and wedge it against the floor so that you can undo the big bolt, and not have to worry about the small bolt!



When I got to the end, before undoing removing the last bolt, I tied the drive shaft onto the suspension components to prevent any damage to the CV's etc.



Once I got the last bolt off, the shaft just stayed there and was easy to move out of the way, then using the breaker bar, you can pry the companion shaft from the diff.



This is a shot of everything after I got the companion shaft out.



This is the inner workings of the diff, note that around the edges, the gasket is completely stuffed.



This is the O ring on the shaft which I replaced with a new one from Mitsubishi.



And this is the companion shaft once removed.



After that, I took the old ring off the shaft and installed the new ring (only went for the same size one because I didnt have enough cash for new shafts etc.



Now to remove the dreaded seal .. I can tell you now it is an absolute B\*\*\*H to remove because it is in there with so much force, but thanks to this forum, I found a pry bar was best, also good idea to use the groove that is at the top (easy to find using a torch) and just lever it out, I couldnt use the groove the whole time, so I got a flat bladed screwdriver and turned it side to side, in the end it will come out.



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New seal is simple to install once you find out how, best method for me was to put heaps of oil on the seal and where it is going to go, I used the diff oil because I didnt want to contaminate anything with grease etc. but unsure whether grease would be safe?

Then I used a wooden block to get it to sit solidly and hit it around the edges with a rubber mallet, took me around 10 - 15 hits until it sat correctly.



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After that its time to put back the companion shaft back in, this was easy, just push the shaft back into the diff, then turn it until it slots in a little more and is solidly connected to the diff (it will have hardly any play left) and then just bash the thing in!! (this is the best time to release any bottled up anger with the whole thing! just dont get carried away lol) took me 5 hard bashes and it slid right in .. then I bashed it some more to make sure it was seated properly, and tried to pull it back out (it shouldnt come out) which it didnt, so I was satisfied it was done

After that you have to lift the drive shaft and line up one of the bolt holes and do up the first bolt, then do the other five up as well, make sure to tighten them ALL up as much as they were when you removed them!



Then fill the diff up again just so that the oil starts coming out of the filler hole, i didnt change the oil because I replaced it only a few days before-hand, but normally you would want to drain all the oil and fill it up fresh again.



Then all should be done, just clean everything up and the paj is ready to go again!

I hope this helps some people should the problem arise!

Regards

Marc

05 NP GLX 3.8L Auto with the following: ARB Deluxe Winch Bar, Uniden UH015sx, 8 spotties 🚚 (6 forward facing 2 backward facing), Upgraded stereo, Hand Winch, Tinting, 2.5 tow, dual battery setup (homemade), Bridgeston D694 LT tyres, wired up dummy lights, Bushskinz Sump/Intercooler plates, home-made diff breathers (front and back).

To-do:  
2" Lift, brake upgrade, oil seals.

*Last edited by marcthelegend; 04-08-09 at 06:13 PM.*



05-08-09

#2 ⚠️

**sikhabib**   
Junior Member

Join Date: Dec 2007  
Posts: 38

great writeup mate 🍻🍻🍻

hopefully i WONT need to use it one day lol



05-08-09

#3 ⚠️