



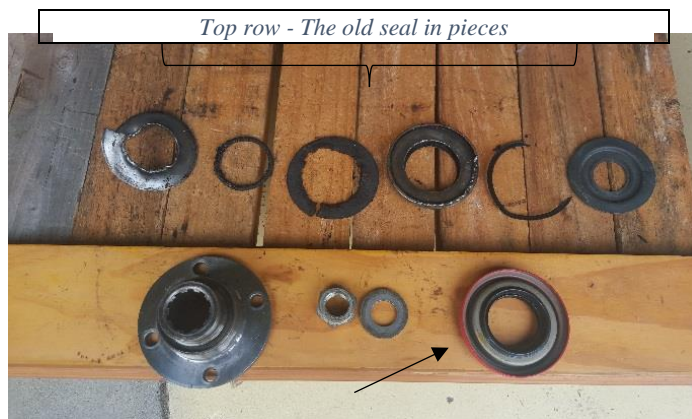
## The Light at the end of the Tunnel

Monday, 28th March 2016



Restoring a classic car can be as much an emotional journey as it is a mechanical one. On several occasions I've plumbed the depths of despair and self-doubt, usually (thank goodness) followed by euphoria and self-congratulation when things finally go my way!! For example.....

I have mentioned before that the diff pinion oil seal was leaking badly – not surprising really as they were originally a leather seal with a paper gasket, and mine had never been changed. The replacement seal was a similar size to the old one, but a very different design, so I had little idea of the shape of the seal to be removed. I had to destroy the seal to remove it, and when I did, after much hammering/chiselling/cursing I had several pieces on the floor – but the new seal would never fit! Part of the old seal was still there. After much internal debate I continued to destroy/remove bits of metal until I found the oil thrower, so the new seal would fit – but the drive shaft yolk was now a very tight fit onto the shaft, and required a helping light tap with a soft hammer. When everything was tightened up as much as I felt comfortable with, there was so much backlash that I KNEW I had managed to destroy the mysterious inner workings of the diff. There followed several nights of despair and sleeplessness. Where to get another diff?



Top row - The old seal in pieces

The new one-piece seal



My son came around, and we talked through the problem, removed the nut and yolk, cleaned and lightly oiled the threads, and re-assembled. Everything went on much easier this time, and slowly, millimetre by millimetre, I tightened the nut, drawing the pinion shaft through the diff and thereby reducing the backlash to acceptable levels. No discernible damage to the diff!!

Joy and happiness!! My beer tasted like nectar, and I slept like a baby!!!! But let's go back a little.....

## Rear suspension (IRS)

A new, bigger bench vice solved my problem of fitting the half-shaft universal joints.

The correct retaining tool (borrowed) made removing the diff pinion nut a doddle, and the seal was finally installed.

I couldn't assemble the coil springs onto the shock absorbers myself without damaging the powder-coated finish, so this was done for me by Pedders.



The half shafts, fulcrum shafts and wheel hubs were attached to the diff, and I spent a couple of days just walking around the now completed rear suspension, checking and re-torquing everything, attaching the brake pipes, exhaust mountings and trailing arms etc – and finally the whole unit is ready to re-join the rest of the car.

This mini-project of rebuilding the rear suspension turned out to be a bigger job than I had thought. It would certainly

take me less time if I ever had to do it again!!!!!!

It almost seems a shame to put this beautiful piece of machinery onto the underside of a car, exposed to the elements and never to be seen again..... But it had to happen, and eventually it did, with my son Callum's help. The whole unit was certainly too heavy to lift onto the trolley jack, but Phil Agnew's pulley and chain, suspended from my shed roof beam, did the trick.

After bleeding the brakes, I could get the wheels on so the body shell now looks almost like a car!!

So,



what's next? The list is surprisingly short:

- Fit the bonnet and headlight surrounds
- Refit the back section of the exhaust
- Set wheel alignment and related geometry
- Submit to a Roadworthy check

I can do the first, but I don't want to weld under the car, or fiddle around with the steering settings, but what could possibly go wrong?

We'll find out in next month's instalment.