

Morgan Suspension - The Front

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A ramble ...

I was very lucky to find my distinctive low mileage 4/4 4 seater and the previous owner had obviously looked after it religiously. However, this being my first Morgan, the daily drive to work in Sydney traffic and on Sydney's less than perfect road surfaces meant more frequent visits to the dentist and chiropractor. I'm used to many different cars with many different suspension settings, but the Morgan definitely felt vintage with a capital V and the rigid almost nonexistent shock absorbing was not in my comfort zone. The firm front and rear shock absorbers would, in my opinion, be great for smooth European roads or racetracks but Sydney? No way.

I spend a lot of time with computers and on the Internet in my job and soon found a few international web forums for Morgan's. There were quite a few discussions regarding suspension on Morgan's with many different suggestions regarding modifications. I generally subscribe to the KISS principle (Keep It Simple, Stupid) and didn't want to detract too much from what makes a Morgan a Morgan so was encouraged by reports from the US and UK on Rutherford AVO adjustable shock absorbers that had been specifically designed for Morgan's. I also decided to strip down the front suspension and check out the infamous kingpins with remote oiler. So, after finding all the parts that seemed to explode and disappear all around my workshop while dismantling, it was off to the legendary Ken Ward with my stub axles to have the bronze bushes replaced and to put some new king pins in. Inspection of the old king pins showed that they were almost perfect except at the bottom where rust had eaten into them, which had subsequently eroded the lower bronze bush.

While the stub axles were at Ken's I started scratching my head trying to work out exactly what this strange remote oiler thingy was and how it worked. I finally worked out that operation of a small foot pedal switch on the firewall fed engine oil to the top of the kingpin. Wow, what an ingenious idea I thought and a great little gadget. Then I thought about it a bit longer and reasoned, why would I want to do that? I'm squirting used engine oil, which after a few thousand kilometers may contain all sorts of contaminants, into the top of the front suspension that is supposed to be lubricated regularly with grease, which would be diluted and washed away by the oil. There was much debate on the internet forums regarding this little gadget and using the reasoning above I decided to pull it all out, wrap it up and put it all in a cupboard for Ron (much later Ron, if I ever sell the car). I may be wrong and it may serve a more useful purpose other than liberally coating the garage with oil but after 50,000 kms without it I don't think so.

I then had a look at the bottom of the suspension where all the wear had occurred and considered sealing it from the elements in some way. I found an article on the internet by Cuthbert Twillie that explained how to make some leather gaiters with Velcro strips that could be wrapped around the lower spring to protect the exposed area of the kingpin. Again I thought what a clever and simple idea ... but I didn't have any suitable leather and Velcro. What I did have was some length of expandable plastic heater ducting that I had left over from another project. The inside diameter was just the right size to comfortably fit over the lower spring like a sleeve.

Once Ken had finished reaming and honing my new bushes I started reassembly. Unfortunately, I was blissfully and naively unaware of a simple 'special tool' called a Montana Kingpin Locator (I have absolutely no idea why it's called that) which makes this job a whole lot easier and safer to do. It's simply a

length of ½" 16 BSF threaded rod 6" long with a hexagonal nut on it and two flats filed on the top. John Mott sent me the dimensions and details on how to make one. But I didn't know about this at the time, so I struggled dangerously and precariously with trolley jack, bottle jack, screwdrivers and pry bars. The job was made more difficult by my desire to cover the lower spring with the expandable plastic heater duct. Eventually and after many tools being unceremoniously hurled around the garage, numerous mugs of tea and lots of new swear words, the kingpin was located and bolted up. Now for the new AVO shock absorbers.

These AVO's, because they are adjustable, have a knurled knob on the outside of them to allow you to vary the damping rate. Obviously there are two ways you can put them on the car, either facing the outside of the car which makes it a little more difficult to turn the knob, or facing the inside which slightly shrouds the grease nipple (or zerk as they call it in the US). I opted for facing the outside as it doesn't foul on anything and once set you don't usually need to adjust again, unlike the regular need to access the grease nipple.

Finished at last! After application of copious amounts of grease and lifting the top spring while greasing to supply more grease under the damper blade mounting she was ready for testing.

I adjusted the AVO's to the second lowest setting as recommended and set off on my favourite bouncy, pitted, badly maintained local road. What a transformation! Instead of the front of the car launching and jumping over the tarmac the front of the car stayed on the road! My daily 120 km round trip into Sydney was much improved, but there was still the rear suspension.

As most Morgan people know the 4 seater has 7 leaf springs rather than the usual 6 or 5, so this coupled with the lever arm rear shock absorbers makes for a considerably hard ride under your bum.

As my daily drive encompasses Pitt Town Road and other small roads around the almost, if not, bankrupt Hawkesbury Council area the surface of this road reminds me of my early days driving up and down a cobbled Guildford High Street in the UK.

So the real reason for this ramble and lead up is to tell you of my conversion to telescopic shock absorbers on the back. But I've run out of room, so if Steve will allow me I'll continue this ramble next month.

