

Morgan Suspension, Back

Richard Rogers, Australia (see the previous issue for the front suspension)

Morgan Suspension - The back ... a continued ramble.

Apparently back in the '70s in the UK, British Leyland had an innovative idea to aid transportation of their cars around the country on various transportation devices by placing wooden blocks in the suspension. Mechanics at the dealerships were then supposed to remove these blocks before giving them to the customers, but as the mechanics doing PDIs (pre-delivery inspections) were sometimes apprentices they often forgot and a lot of complaints were received. After a few days of Morgan ownership, I checked my suspension to see if it had wooden blocks. I soon realized why many long term Morgan owners were slim, wiry and had a nervous look about them. As to whether they still had any teeth left or shares in a chiropractor's establishment then that's anybody's guess.

My normal daily journey covers a fair example of typical Sydney type roads and my local council does nothing more than patch the surface. Well, I suppose it's better than nothing, but it lasts about as long as a packet of lollies in a schoolboy's pocket. Traversing these roads is spoiled by having to pick your way, carefully avoiding the lumps, bumps, potholes, ridges and furrows instead of following a smooth line. There is one particular 90-degree corner that has a rut straight across from one side to the other, right in the middle of the corner, which when taken at anything approaching the speed limit, let alone anything above, will throw the back end of a Morgan out like a Morris Marina on a dirt road. In fact, probably the worst type of road surface anomaly to make you cringe, start praying and generally grit your teeth in anticipation is the ridge or furrow that is straight across in front of you. It would be interesting to have a camera take photographs of the faces of Morgan drivers and passengers as they approach a level crossing for example. As my 4-seater has seven-leaf springs at the back as well as the lever arm shock absorbers, it's probably more exaggerated and I decided to do something about it.

While surfing John Worrall's website and all the Morgan goodies he has for sale, which is better than a trip to my local Bunnings, I discovered a shock absorber conversion kit. This allows the lever arm shock absorbers to be replaced by various telescopic shock absorbers. After my success with the AVOs on the front I decided to try the same on the back, paid the dues and waited avidly for the postman to deliver.

About a week later a heavy package turned up on the doorstep with my conversion kit and some hard chrome kingpins that I had also requested. Unfortunately my earlier kingpin replacement had been with the mild steel type, so I thought I may as well stock up as the mild steel aren't supposed to last that long.

The kit comprises of two heavy gauge steel brackets with all mounting bolts and nuts, two lower U-bolts and of course the telescopic shock absorbers. A quick look at the instruction sheet on how to fit them and I decided to go for the "round tuit" and left it for a few months because it didn't look like a five



minute job. The weather looked too good and there were too many MOCA meetings to go to. January became a cold and wet June and I finally decided to bite the bullet and fit them.

The brackets are not pre-drilled, probably because every Morgan seems to be different, and they are supposed to replace the lever arm shock absorber and bracket that mounts to the rear chassis member in front of the rear spring. After





removal of all the seats, carpets, underfloor section at the back and the interior shock absorber covers, I finally had access to the parts that needed replacement. Jacking up each side of the car separately and inserting a suitably sized block of wood between the chassis frame and the under side of each leaf spring allowed me to undo the U bolts holding the spring to the rear axle, and replace the lower mounting bracket with the one supplied in the kit to locate the lower end of the telescopic shock absorber. I then unbolted the bracket holding the lever arms and removed them. The next part required modification to the rear plywood boards and drilling more holes in the chassis. This was the bit that I wasn't too keen on.

The general idea is to mount the telescopic shock absorbers as close to vertical as possible but still allow access to them for replacement without pulling half the car apart again. The top of the mounting bracket is shaped to fit against the rear metal seat rail and the plywood around that area needs to be 'relieved' to allow the top of the shock absorber not to foul yet still fit inside the interior shock absorber cover. Rather than bore you with all the dimensions and fitting instructions I finally mounted it all up after drilling a couple of extra holes in the chassis frame and the front of the rear seat rail. I took a few photo's of the conversion and showed Roger Shawyer. He was absolutely disgusted with me and suggested that the important thing was to clean the area thoroughly and I should be ashamed for letting it get so dirty. Ho hum. Needless to say, suitably admonished, I hung my head in shame and cleaned the area.

By the end of the weekend I'd finally completed the job and put all the interior back together ready for a test drive. Judging by the amount of rain that was now pelting down on the shed, and Pitt Town Road and Cattai Ridge Road being flooded and impassable, I decided to wait a little longer. It's very annoying when you've just completed a modification to your car that you think is going to solve a lot of problems and not be able to test it and find out. I felt like a little boy waiting to open presents at Christmas. The rain and flooding finally subsided on the following weekend and I was able to

try it out.

It is a definite improvement. Travelling on bumpy roads is like the difference between my Holden trayback ute and a normal modern car. It's actually comfortable! I was a bit concerned that softening the rear suspension may affect the handling, and I was a little concerned that the rear end of the car felt like I was about to join the ranks of the Fast and Furious almost reaching a point where I was drifting around corners. However, when I realized that I was traversing corners at 10kph to 20kph quicker than before I capitulated. I still find myself picking my way through the irregularities in the tarmac from habit, but in reality this is unnecessary. The corner that I mentioned earlier in this piece that has a ridge across it, can now be taken with impunity and disdain. The wooden bridges on Wisemans Ferry Road that Sydney club members would remember with mixed feelings as they generally have a 1" high ridge of concrete in front of them, are almost unnoticed. I haven't tried a railway crossing yet but I have no reason to believe it be any different to traveling over in a normal modern saloon.

So all in all I am very happy with this conversion and would recommend it to any Morgan owner who would like to restore a modicum of comfort to their journey on any badly maintained Australian roads.

[Editor: See the previous issue for the front suspension.]



ZDDP Additive = Cheap Insurance

Bill Button

November 1, 2007: I just telephoned Delta Cam in Tacoma, Washington USA. They tell me that General Motors is no longer supporting EOS. Not available.

Delta Cam, however, is selling an additive. You use 12 ounces of this additive each time you change oil. \$10 per 12 ounce can. This is their recommendation.

They also recommend this for the Rover V8. However; apparently the Rover V8 uses both steel cams (not as much of a problem) and cast iron cams (additive recommended).

As Delta stated, "Just Cheap Insurance."