Our supercharged TVR Griffith is an excellent test bed to analyse suspension performance, the power of the engine and larger brakes generate significant weight transfer that needs to be controlled to keep the car well balanced and under control.

It is equally important to achieve good ride characteristics when driving on roads at differing speeds, encountering speed bumps, undulating roads and pot holes and there are plenty of these around.

The car had been previously setup to bias track driving. The adjustable shock absorbers developed some years ago were setup to achieve a compromise for normal road usage, the set up generally too hard and not compliant, speed bumps having to be taken at 5mph and unevenness in the road surface causing quite a jolt. Not a good ride but excellent on track.

The power of the SC512 now demanded a suspension upgrade to fully utilise the cars performance, Gaz were introducing their new monotube shock absorber and the specification was high, raising their game to compete with other well respected systems. The materials used are high quality, the upper and lower mounts using rose joints to create a positive feel , due to direct load input into the chassis.

The Gaz shock absorbers look great with the silicone chrome springs fitted and are very easy to fit to the car, takes about 1.5 hours to remove existing suspension and replace with these units, all fitting perfectly.

After trying various coil over springs of differing strengths we settled on 450 lbs/in for the front and 400 lbs/in for the rear. This may seem a touch too far when considering the standard set up of 325 front and 300-275 rear, but they really do ride well, not too firm and able to absorb road undulations with ease and with comfort.

If setting up for the track harder springs work well with firmer damper settings. Spring rates will depend upon tyre choice i.e. road, competition or slicks. If running popular ultra low profile tyres on large diameter rims, I believe a softer spring should be used to compensate for loss of spring rate in the tyre sidewall.

With the shock absorbers fitted, the front ride height was adjusted so the front wishbone was horizontal ensuring the steering geometry was correct, otherwise bump steer characteristics would be induced. The rear ride height being raised approximately 25mm higher to achieve the correct attitude.

The shock absorbers have 22 positions, set by turning the adjusting collar located at the top of the shock absorber. As I wanted to adjust the adjust the settings by reaching under the car rather than having to remove the wheels, the shock absorbers were inverted so the adjuster was reachable without the need to remove the wheels or jack the car up.

The adjusters were set near mid range, the car then driven to assess suspension performance, initially the car had too much dive with weight transfer to the front wheels, increasing the setting to 14 clicks resolved this issue. Car was then accelerated under power to assess rear squat and rear weight transfer. With a 9 click setting the squat was excessive; increasing the setting to 11 clicks brought the back end under control. Driving the car over varying road surfaces showed a little harshness, the front shock absorber settings were reduced to 12 clicks and the ride was transformed. No sign of harshness, the suspension being progressive, absorbing the road surfaces, small potholes and speed bump undulations with ease. Gaz have the balance of suspension bump and rebound settings absolutely right.

The car feels right, staying controlled at speed whilst limiting roll and weight transfer between front and rear under hard acceleration, braking and cornering the car remaining stable at all times, the suspension feeling totally integrated giving confidence whether driving on road or track.

This is a well presented package that works, well worth considering if upgrading your suspension.