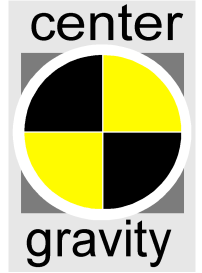


Road Report



Name: Mr Bump  
Car: Porsche 996 GT3  
Year: 2000  
Chassis: WPOZZZ99ZYS6\*\*\*\*\*  
Date: 12<sup>th</sup> May 2010

### Road Test

Initial drive on A-road, B road and dual-carriageway

- Excitable, darty steering, upset by road bumps
- Steering wheel offset to left driving straight-ahead
- Drift left under neutral throttle easily affected by road camber
- Steer right, climbing road camber on hard throttle – with twitch when changing gear
- Car darts into right turn with feeling of grip from rear
- Car unwillingly turns in on left bends with uneasy undetermined level of grip from right rear tyre
- Steering wheel vibration, likely from front wheels at 60mph+, subsides above 70mph
- Noise/creak/clunk on low speed parking manoeuvre from front wheel/suspension

### Wheel/tyre/chassis investigation

- All dampers externally inspected, no leaks evident, although perches are seized and springs very rusty
- Collar bearing in right hand front strut very worn allowing radial play at full droop
- Collar bearing worn on nearside front damper not as severe as offside front strut
- Front upper mounts in serviceable condition
- Both front track control arms visibly delaminated inner and outer bushes
- Both rear track control arms visibly delaminated on inner bushes
- Front anti-roll bar set to position 3
- Rear arb set to position 2
- Steering play in inner track rod end offside front wheel rocking 9-3o'clock
- Seal cap missing on nearside front strut turret
- Anti-roll bar drop link bearings serviceable
- Wheel bearings are serviceable
- Front pads excessively worn <1mm friction lining remaining
- Excessive toe in on nearside rear tyre (identified from wear pattern)
- 1mm camber shims fitted to lower front tcas, top mounts in road position, mounts set full positive on slots
- Rear camber and toe eccentric adjusters are symmetrical
- All spring perches are seized, no service/maintenance of dampers evident

### Geometry Investigation

- Car ride heights checked with 82kg and 2.4fuel. Front ride 102mm, rear ~109mm.
- Rear ride heights 15mm too low
- Rake zero degrees (causing understeer), caused by too low ride height
- Front and rear cambers are symmetrical circa 1 and 2 degrees negative respectively
- Over 4mm total of toe-out on front axle, should be 0.5mm toe in
- Over 3.8mm of toe in on nearside rear wheel and zero toe on offside. Should be 1.5mm each toe in
- Rear mismatch of toe-in is causing a thrust angle issue

### Conclusions and further action suggested

Significant changes in geometry over bumpy roads and on/off throttle will be caused by very worn tca bushes. All inner bushes will be replaced. The outer front tca bushes will also be replaced. The front and rear negative camber ratio will cause understeer on low speed tight turning, in conjunction with the low rake caused by low rear ride heights. Geometry adjustment will rectify low speed understeer and darty steering. The front top mounts will be turned to race position from road position allowing circa 2 ½+deg negative cambers to be achieved. The inner track rod end will cause a tramline steering sensation and should be replaced prior to geometry adjustment.