

Measured Suspension Data

MR #	From WinGeo3	0.476
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Finding H: the height of CG above roll axis by similar triangles

As an example assume:

- MF = 300 kg
- MR = 342 kg
- L = 2351mm
- Hf = 340 mm
- MR = 95mm
- Hr = 238 mm

Givno: $\frac{642 \times b}{2351} = 342$

Givno b = 1255mm from the front wheel is the lenoth of the (red) triangle

By similar triangles therefore:

$$\frac{143}{2351} = \frac{Z}{1255}$$

Givno Z = 76 mm

Where Z is the height of the triangle at the position of the CG

The height of the CG above the ground H is assumed to be 340mm

This give a value of H of 340 + (76+95) = 169mm

Ms 11	Left front corner sprung mass (kg)	107.5
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100

Kpf	Front Roll Stiffness [Nm/rad]	11338.1
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Static	46.0%	
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$$WT_{srl} = \frac{T_s^2 \times \theta \times K_{esr}}{2 \times T}$$