

	RS250		Theta	27.46093
Weight	(Kg)	Gemoterty	(mm)	
Front	69.45	Wheel Base	1364	
Back	63.7	Front wheel radius	285	
Front (rider)	98.3	Back wheel radius	300	
Back (rider)	115	Average radius	292.5	
Lifted	54.5	Lift height	629	
Lifted (rider)	87.8			

	RS660		Theta	26.98929
Weight	(Kg)	Gemoterty	(mm)	
Front	84.35	Wheel Base	1386	
Back	74.5	Front wheel radius	295	
Front (rider)	114.6	Back wheel radius	305	
Back (rider)	125.6	Average radius	300	
Lifted	62	Lift height	629	
Lifted (rider)	93			

Rs250 set up Rpm 11000

Gear Ratios			Top speed	
			km/h	MPH
1st	11	27	57.284573	35.80286
2nd	16	26	86.527747	54.07984
3rd	17	21	113.82519	71.14074
4th	22	23	134.49422	84.05888
5th	24	22	153.3901	95.86881
6th	25	21	167.38999	104.6187

rpm

inch

Tyre Dimensions 17 Dia

Front	110	70	
Rear	150	60	0.5218

Rs660 set up Rpm 10500

Gear Ratios			Top speed	
			km/h	MPH
1st				
2nd				
3rd				
4th				
5th				

6th

rpm

Tyre Dimensions

Dia

Front
Rear

	Bike Only	Bike + Rider
X CoG	652.5483	735.3961556
Y CoG	473.8459	627.1871916
weight split front	52.15922	46.08532583
Weight split rear	47.84078	53.91467417

	Bike Only	Bike + Rider
X CoG	650.0283	724.7360533
Y CoG	514.1514	669.3538641
weight split front	53.10041	47.71024147
weight split rear	46.89959	52.28975853

Primary Reduc Ration	Secondary Reduc Ratio
23	59
	14
	42

Primary Reduc Ration	Secondary Reduc Ratio
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Rolling resistance with rider

$$F_w = 0.02 \cdot m \cdot g$$

41.84946

Rolling Resistance

$$F_w = 0.02 \cdot m \cdot g$$

47.12724

Rake angle	25 degrees
Trail	102mm

Rake angle	24.1 degrees
Trail	104.6mm

Resistane due to gradient at 10 degrees

$F_p = m \cdot g \cdot \sin \theta$

164.0996264

this is amount of N to reach top speed at 10 degree incline

Amount of N to reach 167kmh

46.38888889

415.7571728

MotoGP

wheel base	1420 mm		
Rake angle	31 degrees		
Trail	114.3 mm		
wheel diameter	17"		
Front Tyre	120	70	
Rear Tyre	180	55	

Paris Dakar

wheel base	1500mm		
wheel diameter	21" front	18" rear	
rake angle	27.6 degrees		
trail	121.92		