

# QUARTER jr - Version 3.2

## Racing Systems Analysis - www.QUARTERjr.com

File: motorcyc.dat

Note: test case for QUARTER jr

General		Clutch		Vehicle	
Elevation - feet	900	Slip RPM	6000	Weight - lbs	730
Barometer - in Hg	29.92	Lock-up option?	Yes	Rollout - inches	12
Temperature - deg F	74			Wheelbase - inches	54
Relative Humidity - %	40			Body Style: motorcycle	
		Transmission Gear Ratios		Frontal Area - sq ft	7.9
		2nd -	2.74		
		3rd -	1.96		
		4th -	1.40		
		5th -	1.00		
Engine				Final Drive	
Fuel System: Gasoline Carburetor				Gear Ratio	6.81
Displacement - CID	60			Tire Diameter - inches	28.0
RPM@ Peak HP	7200			Tire Width - inches	5.00
Peak HP	80			Traction Index	3
Shift@ RPM	8000				

### Frontal Area Worksheet

Maximum Width - inches 21.0  
Maximum Height - inches 60.0  
Shape Factor - % 90.0

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Frontal Area - sq ft = 7.9

### Tire Width Worksheet

Tread Width - inches 6.00  
Number of Grooves 4  
Each Groove Width - inches 0.250

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Effective Tire Width = 5.00

### Motorcycle Final Drive Ratio Worksheet

Primary Drive Speed Reduction 1.77  
Countershaft Sprocket Teeth 13  
Rear Wheel Sprocket Teeth 50

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Final Drive Ratio = 6.81

1.076

Time	Distance	MPH	Acceleration	Gear	RPM
0.00	0	0.0	1.06	1	6,000
0.219/0.00	Rollout	5.9	1.09(s)	1	6,000
1.00	29	29.4	0.93	1	7,040
1.03	30	29.9	0.88	1	7,190
1.23	40	33.6	0.73	1	8,000
1.43	50	37.6	0.88	2	6,410
1.61	60	40.4	0.73	2	6,870
2.00	85	46.1	0.59	2	7,790
2.10	92	47.3	0.55	2	8,000
2.30	106	50.1	0.62	3	6,050
3.00	162	58.2	0.49	3	6,990
3.17	177	60.0	0.48	3	7,200
3.93	247	67.0	0.37	3	8,000
4.13	267	68.8	0.40	4	5,860
4.73	330	73.4	0.35	4	6,240
5.00	359	75.4	0.33	4	6,410
6.00	475	82.3	0.29	4	6,970
7.00	600	88.3	0.25	4	7,450
7.45	660	90.7	0.23	4	7,630
8.00	734	93.3	0.21	4	7,840
9.00	874	97.3	0.16	4	8,140
9.84	995	100.0	0.13	4	8,340
9.87	1000	100.1	0.13	4	8,350
10.00	1019	100.5	0.13	4	8,380
11.00	1168	102.9	0.10	4	8,550
12.00	1320	104.9	0.08	4	8,680

1/8 Mile: 7.45 sec @ 89.4 MPH    1/4 Mile: 12.00 sec @ 104.5 MPH