

### Road Load Inputs

A_f	9 [ft^2]
c_D	0.66 [dim]
c_R	0.005 [dim]
rho_air	0.0736 [lbm/ft^3]
weight	616 [lbf]
mass (calculated)	19.13 [slugs]

This data is for a ~2009 Triumph  
Street Triple R with a ~200 lbf rider

### Calculated Forces as a Function of Velocity

Vehicle Speed	Road Load Force	Propulsion Force	Acceleration Force
[mph]	[lbf]	[lbf]	[lbf]
0	3.1	261.0	257.9
5	3.4	326.3	322.8
10	4.5	391.5	387.0
15	6.4	469.9	463.5
20	8.9	496.0	487.0
25	12.2	522.1	509.9
30	16.2	548.2	531.9
35	21.0	561.2	540.2
40	26.4	587.3	560.9
45	32.6	626.5	593.8
50	39.6	665.6	626.0
55	47.3	678.7	631.4
60	55.6	665.6	610.0
65	64.8	626.5	561.7
70	74.6	587.3	512.7
75	85.2	507.3	422.1
80	96.5	507.3	410.7
85	108.6	497.5	388.9
90	121.4	487.8	366.4
95	134.9	468.3	333.4
100	149.1	439.0	289.9
105	164.1	411.1	247.0
110	179.8	394.7	214.9
115	196.2	370.0	173.8
120	213.3	361.7	148.3
125	231.2	354.6	123.3
130	249.9	340.4	90.5
135	269.2	325.2	56.0
140	289.3	312.2	22.9
145	310.1	298.5	-11.6
150	331.6	292.7	-39.0
155	353.9	286.5	-67.4
160	376.9	268.6	-108.3
165	400.6	268.6	-132.0
170	425.1	0.0	-425.1