

Lamborghini Murcielago

2004



DIMENSIONS

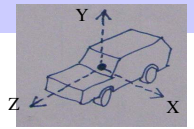
4 Wheels	Length	4,550m	Wheelbase	2,665m
Ground clearance	Width	2,240m	Front track	1,635m
0,150m	Body height	0,700m	Rear track	1,695m

NullPoint (0,0,0)

Supposed at: 0,256m

of body base

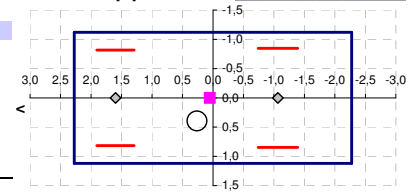
UPPER VIEW [m]



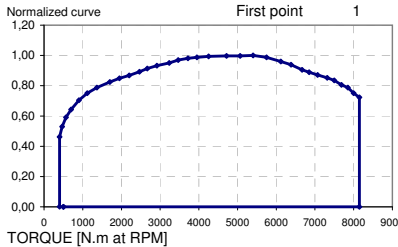
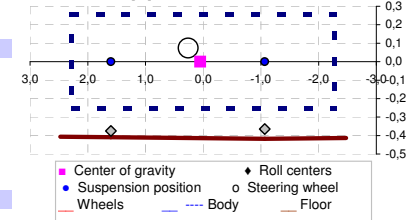
WEIGHTS

Body	1.760kg			
Engine	1.760kg			
Front wheels	60kg	+		
Rear wheels	60kg	120kg		
DISTRIBUTION front	42%	1.880kg		
rear	58%			
Steering wheel				
Center of gravity [m]				
Rotational inertias [kg.m²]				
Estimated [kg.m²]				

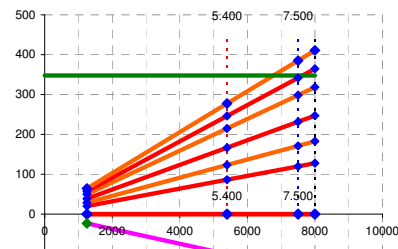
X pitch	Y yaw	Z roll
2.310	2.810	0,05
(3.250)	(3.250)	(590)



LATERAL VIEW [m]

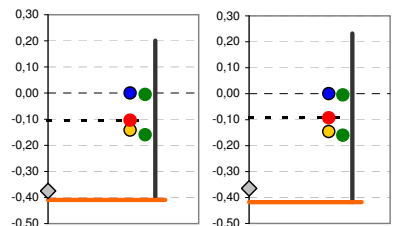


TORQUE [N.m at RPM]

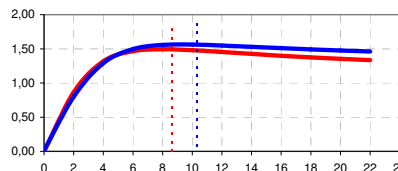


SPEED BY GEAR [km/h at RPM]

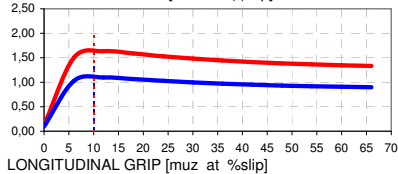
Vmax



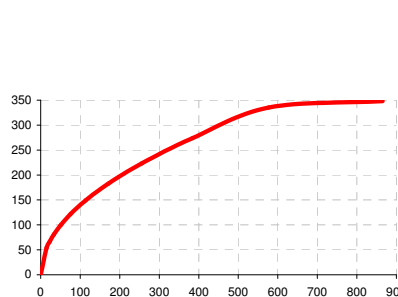
SUSPENSION GEOMETRY [cm]



LONGITUDINAL GRIP [muz at %slip]



LONGITUDINAL GRIP [muz at %slip]



SPEED AT CURVE [km/h at R curve,m]

With Az = 0

COMMENTS BY MODELERS

580Hp, 0-60mph in 3,6seconds, AWD, 1650 kg, 205mph top speed.

Model/Textures: Deyan,Ini/Sounds/Shaders/Import: Mr Whippy,Gauges: Blo0m,Testing: LB and Made

ENGINE

Maximum power	520 CV	8.000rpm	max
Maximum torque	583 N.m	7.500rpm	(385kW)
CONSUMPTION		1.250rpm	min
Fuel tank	50 L Gasoline	0,0000200	g/J

AERODYNAMIC

Frontal area	1,90m²		
COEFFICIENTS			
Overall aerody	width 1,00	span 0,10	Cd 0,30

TRANSMISSION

Drive:	total	20% Front	gears	6
Gearbox:	manual		differential ratio	2,53
HELP TO DRIVE:				
with ABS			SHIFT:	
without ASD			At max RPM	

BRAKES

front	2.150 N.m	14.098 N	73%
rear	850 N.m	5.231 N	27%
		19.329 N	

STEERING

Steer lock	3,5	between locks	To front wheels
Turning diameter	11,97	m	Ackerman
STEERING WHEEL POSITION			
		X	Y
		0,40	0,07

SUSPENSION

LENGTH				
[m]	hung	min	max	kerb weight
Front	0,142	0,005	0,160	0,104
Rear	0,146	0,005	0,160	0,093
STIFFNESS [N/m]				
Front	275.000	86.150	65.599	43.200
Rear	275.000	89.375	67.453	19.600

ROLL CENTER

Front		X	Y	Z
Rear				
SUSPENSION POSITION				
Wheel		X	Y	Z
		0	0,82	1,60
		1	-0,82	1,60
		2	0,85	-1,07
		3	-0,85	-1,07

WHEELS

[m]	Radius	Perimeter	optimal values	
Front	0,305	1,916	SR [-]	SA [rad]
Rear	0,325	2,042	0,100	0,150
media	0,315	1,979	0,100	0,180

TEORICAL PERFORMANCE

Speed	348 km/h	By power	(216mph)
Acceleration	5,26 seg	from 0 a 100 km/h	(255mph)
	13,76 seg	from 0 to 400 m	(3,62s Weight/Power)
	24,03 seg	from 0 to 1000 m	
Brake	13,5m	from 60 to 0 km/h	
	73,5m	from 140 to 0 km/h	
Adelantament	2,13 seg	from 20 a 50 km/h in 2ª	
	5,15 seg	from 60 to 120 km/h in 3ª	
	5,70 seg	from 80 to 120 km/h in 5ª	
Consumption	1,2 L	at 90km/h	
100 km	1,7 L	at 120km/h	
	2,875	Km at 120km/h	
TRANSVERSAL DYNAMIC			
V = 348 km/h	2,23G	Longitudinal	1,50G
		Amáx 0,88G (378%)	
		Fmáx -1,22G (117%)	
V = 0 km/h	2,23G		1,51G
		Amáx 0,87G (116%)	
		Fmáx -1,28G (122%)	
		(% of available acceleration/braking)	

AERODYNAMIC CHANGES

V [km/h]	+/- ΔM [kg]	+/- ΔAx	- ΔAz
100	0	0,0%	-0,02G
150	1	0,0%	-0,04G
200	1	0,1%	-0,07G
250	2	0,1%	-0,11G
300	2	0,1%	-0,15G

GEAR RATIOS

V [km/h]	+ Az
1ª 2,941	128
2ª 2,056	183
3ª 1,520	247
4ª 1,179	318
5ª 1,030	365
6ª 0,914	411
7ª	
8ª	
9ª	
MA -2,53	-148
	-0,64G

WHEELS ANGLE

° out	° in
1,25	1,52
2,50	3,08
5,00	6,35
10,00	13,45

RESUME

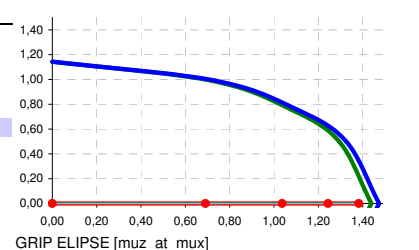
Vertical stiffness	k 266.105 N/m
Frecuencie	w 1,96 Hz
Wheel vertical stiffness	k 1.100.000 N/m
Frecuencie	w 15,24 Hz

Damping 8%

critical real

43.283 N/m/s

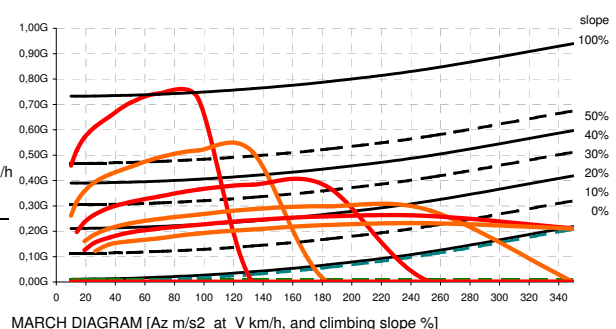
3.449 N/m/s



GRIP ELIPSE [muz at mux]

ROLL COEFFICIENT

0,011



MARCH DIAGRAM [Az m/s² at V km/h, and climbing slope %]