VEHICLE DATA SHEET

1985 FERRARI 308GTS QV **DATE** 5/15/2006

BASIC DATA							
CURB WEIGHT lb	2900		*KG:*	1318.2			
WEIGHT DIST. %	*FRONT*	42.5	*REAR*	57.5			
AXLE WEIGHT lb	*FRONT*	1233	*REAR*	1668			
WHEELBASE IN	**92.1**		*CM*	233.9			
CENTER OF GRAVITY HEIGHT IN	**16.75**		*CM*	42.545	*EST*		
FRONT TIRE SIZE	225	0.45	17				
REAR TIRE SIZE	245	0.4	17				
FRONT TIRE DIAMETER MM / IN	*FRONT*	634.3	25.1		317.2	12.6	*RADIUS*
REAR TIRE DIAMETER MM / IN	*REAR*	627.8	24.7		313.9	12.4	*RADIUS*
TOP SPEED	MPH	155	M/S	69.3			
VEHICLE KINETIC ENERGY Kj	6,961						
FRONT Master Cylinder Dia. Inches	**0.865**	*MM*	**22.0**				
REAR Master Cylinder Dia. Inches	**0.865**	*MM*	**22.0**				
FRONT MC press with pedal force	*pedal force lb*	**30**	MC PSI	**230**			
REAR MC press with pedal force	*pedal force lb*	**30**	MC PSI	**230**			
PEDAL RATIO	**4.5**						
PROPORTIONING VALVE	**0.7**						
BOOSTER RATIO	**4**						
Total Pressure, w/prop valve and booster	*PSI F-R*	**919**	**644**	*BAR F-R*	**62.5**	**43.8**	

OEM CONDITION							
OE CALIPER FRONT	P2	48	0	*MULTIPLIER*	2		
OE CALIPER REAR	P2	38	0	*MULTIPLIER*	2		
TOTAL CAR CALIPER VOLUME	*pad travel mm*	1	*TOTAL*	9,238.4		9.2	cc
MASTER CYLINDER VOLUME	*bore x stroke*	22	24	28,632.3		28.6	cc
RESERVOIR VOLUME	50.8	50.8	50.8	131,096.51		131.1	cc
DISC FRONT DIA X WIDTH	**274**	28		Effective Radius	111.6		
DISC REAR DIA X WIDTH	**279**	16		Effective Radius	114.1		
PAD MATERIAL	*FRONT*	OE	*REAR*	OE			
COEFFICIENT OF FRICTION (EST) *mu*	*FRONT*	**0.35**	*REAR*	**0.35**			
OE PISTON AREA PER CALIPER CM	*FRONT*	**36.17**	*REAR*	**22.67**			
Brake Torque, per wheel @ **50** bar, in Nm	*FRONT*	**706**	*REAR*	**453**			
Static brake torque balance %	*FRONT*	**60.9%**	*REAR*	**39.1%**			
Brake Torque, per wheel @ **50** bar, in Nm	*FRONT*	**706**	Rear pressure w/prop valve		*REAR*	**317**	
True balance %	*FRONT*	**69.0%**	Rear balance w/prop valve		*REAR*	**31.0%**	
1 G deceleration brake torque balance							
Brake Torque Nm, Front @ **88 bar,** Rear @ **62 bar**	*FRONT*	**1243**	*REAR*	**561**			
Static brake torque balance %	*FRONT*	**68.9%**	*REAR*	**31.1%**			

BREMBO KIT							
CALIPER FRONT	P4	36	40	*MULTIPLIER*	2		
CALIPER REAR	P2	38	0	*MULTIPLIER*	2		
TOTAL CAR CALIPER VOLUME	*pad travel mm*	1	*TOTAL*	22,529.2		22.5	cc
MASTER CYLINDER VOLUME	*bore x stroke*	22	24	28,632.3		28.6	cc
RESERVOIR VOLUME LxWxH	50.8	50.8	50.8	131,096.51		131.1	cc
DISC FRONT DIA X WIDTH	**313**	28		Effective Radius	131.1		
DISC REAR DIA X WIDTH	**279**	16		Effective Radius	114.1		
PADS MATERIAL	*FRONT*	DS1100	*REAR*	DS3000			
COEFICIENT OF FRICTION *mu*	*FRONT*	**0.45**	*REAR*	**0.62**			
KIT PISTON AREA PER CALIPER CM	*FRONT*	**45.47**	*REAR*	**22.67**			
Brake Torque, per wheel @ **50** bar, in Nm	*FRONT*	**1341**	*REAR*	**802**			
Static brake torque balance %	*FRONT*	**62.6%**	*REAR*	**37.4%**			
Brake Torque, per wheel @ **50** bar, in Nm	*FRONT*	**1,341**	Rear pressure w/prop valve		*REAR*	**561**	
True balance %	*FRONT*	**70.5%**	Rear balance w/prop valve		*REAR*	**29.5%**	
1 G deceleration brake torque balance							
Brake Torque Nm, Front @ **62 bar,** Rear @ **48 bar**	*FRONT*	**1663**	*REAR*	**770**			
Static brake torque balance %	*FRONT*	**68.4%**	*REAR*	**31.6%**			

WEIGHT TRANSFER TO FRONT AXLE DURING DECELERATION

WEIGHT	CG height	TRACK	G force	TRANSFER LB
2900	16.75	92	1.00	**527.4**

Axle weight during 1.0 G deceleration, Lbs *FRONT* **1760** *REAR* **1140**

At 1 G deceleration, car makes 1.3 times more braking torque, with 30% less system pressure, than in OE condition

At 1 G deceleration, car makes 2346 Nm of brake torque, equal to about 1730 Ft/Lb of torque

Note that at 1 G deceleration, the rear axle has 39% of the cars weight, and the brake torque for the rear is 32%, nicely balanced