FOURLINK - Version 4.0

Racing Systems Analysis - www.QUARTERjr.com

File: exp.4LB
Note:

General Data	
Estimated 60 ft Time - sec	1.10
Maximum Acceleration - g's	2.34
Tire Rollout - inches	104.0

Static Weight Data - lbs		%
Front Weight	979	45.0
Rear Weight	1196	55.0
Total Weight	2175	100.0

Rear Suspension Data	
Shock Mount Location - inches	-5.00
Rear Spring Rate - lbs/inch	100
Shock Units:	lbs per in/sec
Compression (Bump) Rate	200
Extension (Rebound) Rate	400
Wheelie Bar Length - inches	65.0

Center of Gravity Data	
Wheelbase - inches	102.0
Horizontal CG - inches	45.9
Vertical CG - inches	17.0
Front Strut Lift - inches	2.5
Front Tire Lift - inches	3.0
Weight of Rear Axle Assembly	250

Four Link Geometry Data - Hole Code 1132

Link Bar	Axle End x-in	Axle End y-in	Chassis End x-in	Chassis End y-in	Length inches	Angle degrees	Forces and Components lbs	Horiz	Vertical
Upper	0.000	19.250	18.500	12.000	19.87	-21.4	-4784	-4532	1532
Lower	0.000	8.000	18.500	5.750	18.64	-6.9	9058	9037	-612
							Totals	4505	920

Dynamic Weight Transfer	
Front Weight - lbs	0
Rear Weight - lbs	2076
Wheelie Bar Force - lbs	99
Shock Separation - inches	-0.3
Shock Damping Ratio	6.33

Instant Center Parameters	
Horizontal IC - inches	41.6
Vertical IC - inches	2.9
Percent Anti-Squat - %	93
Initial Rear Tire Hit - lbs	444

Dynamic Chassis Analysis - Hole Code 1132

Time sec	Separation in	Separation in/sec	Forces - lbs Spring	Shock	Mass	Rear Tires	Front Tires	Wheelie Bars
0.00	0.00	0.0	845	0	0	1196	979	0
0.05	0.01	0.5	842	-368	21	1665	531	0
0.10	0.04	0.7	836	-584	18	2121	72	0
0.15	0.08	0.5	829	-392	-20	2104	51	0
0.20	0.09	0.2	826	-154	-25	2132	18	0
0.25	0.09	-0.1	826	27	-32	2102	0	41
0.30	0.08	-0.3	828	115	0	2076	0	99
0.35	0.07	-0.3	831	117	0	2077	0	99
0.40	0.05	-0.3	834	116	0	2077	0	99
0.45	0.04	-0.3	837	116	0	2077	0	99
0.50	0.02	-0.3	840	115	0	2077	0	99
0.55	0.01	-0.3	842	115	0	2077	0	99
0.60	0.00	-0.4	845	146	-26	2074	0	75
0.65	-0.03	-0.6	850	245	-25	2148	0	3
0.70	-0.06	-0.6	856	234	3	2134	44	0
0.75	-0.09	-0.6	862	223	3	2088	90	0
0.80	-0.12	-0.5	868	213	3	2043	135	0

Average Rear Tire Force - lbs 2100 Rear Tire Force Variation - % 3.5

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Note:

Four Link Bar Geometry Data

	Upper Link Bar				Lower Link Bar			
	Axle End		Chassis End		Axle End		Chassis End	
Hole	x-in	y-in	x-in	y-in	x-in	y-in	x-in	y-in
1	0.000	19.250	18.500	12.000	0.000	10.000	18.500	7.000
2	0.000	0.000	18.500	10.750	0.000	9.000	18.500	5.750
3	0.000	0.000	18.500	9.500	0.000	8.000	18.500	4.500
4	0.000	0.000	18.500	8.250	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Adjust Geometry: Axle Height - in 0.000 Chassis Height - in 0.000
Pinion Angle - deg 0.00

Calculated Four Link Bar Details - Display Limits

Shock Separation - in		Instant Center Locations - in			
min	-3.0	x-min	36.0	y-min	1.0
max	3.0	x-max	56.0	y-max	16.0

Percent Anti-Squat - %		Lower Link Bar Angle - degs	
min	65	min	-7.0
max	95	max	-2.0

Calculated Four Link Bar Details **Display Limits: On**

Hole Code	Instant Center x-in	Instant Center y-in	Shock Sep.	%Anti-Squat	Tire Hit	Hole Code	Instant Center x-in	Instant Center y-in	Shock Sep.	%Anti-Squat	Tire Hit
1132	41.6	2.9	-0.3	93	444						