

Joe's Little Kunna						59.9					
Joe's Little Kunna						97			CASCADE	Final Measurements	
		Design Information							A4		108.0
Scale Factor								A3		108.0	
127.25430								A2		108.0	
								A1		108.0	
		Main Line Measurements									
Line		A Line Mark	A Line Cut	B Line Mark	B Line Cut			B4		102.7	
2 x A4 (Red)	84.0	106.9	111.9	101.5	106.5	79.8		B3		102.7	
2 x A3	84.0	106.9	111.9	101.5	106.5	79.8		B2		102.7	
2 x A2	84.0	106.9	111.9	101.5	106.5	79.8		B1		102.7	
2 x A1 (Red)	84.0	106.9	111.9	101.5	106.5	79.8					
								C4	110.7	111.8	
		C Cascade	C Line Mark	C Line Cut				C3	110.7	111.8	
2 x C4	1	1.3	110.7	115.7		87.0		C2	110.7	111.8	
2 x C3	1	1.3	110.7	115.7		87.0		C1	1.3	1.1	
2 x C2	1	1.3	110.7	115.7		87.0					
2 x C1						87.0		D4		163.8	
								D3		163.8	
		Short D Mark	Short D Cut	Long D Mark	D Line Cut			D2		163.8	
6 x D's	41.8	53.2	58.2	124.7	129.7	98.00		D1		54.3	
				124.7	129.7	98.00					
2 x B1/8	1	1.3		124.7	129.7	98.00			Position	Length	
2 x C1/8	2	2.5				98.00		Brake To Up Con		77.7	
2 x D1/8	3	3.8						Brake To Tail	1	135.1	
								Brake To Tail	2	135.1	
Sterring Line		Position		Mark	Cut			Brake To Tail	3	135.1	
Upper Steering		1		57.4	62.4	45.1		Brake To Tail	5	135.1	
Upper Steering		2		57.4	62.4	45.1		Toggle		26.8	
Upper Steering		3		57.4	62.4	45.1		Toggle Cut		42.3	
Upper Steering		5		57.4	62.4	45.1			Size	0	
To brake set				81.2	86.2	63.8			Max Dep Speed	130	
To toggle				111.5	123.5	87.6			Max weight lbs	155	

FCI-130-R-M				140.00	CASCADE		Final
Design Information					A4	62.3	102.9
Scale Factor	Top Skin				A3	62.3	102.9
89.443	29.238				A2	62.3	102.9
					A1	62.3	102.9
Main Line Measurements							
Line	Cas. Mark	LINE MARK	Cut		B4		106.4
2 x A4	40.7	101.7	107.7		B3		106.4
2 x A3	40.7	101.7	107.7		B2		106.4
2 x A2	40.7	101.7	107.7		B1		106.4
2 x A1	40.7	101.7	107.7				
					C4	76.8	112.3
					C3	76.8	112.3
2 x C4	35.6	111.1	117.1		C2	76.8	112.3
2 x C3	35.6	111.1	117.1		C1	76.8	112.3
2 x C2	35.6	111.1	117.1				
2 x C1	35.6	111.1	117.1		D4		121.0
					D3		121.0
					D2		121.0
16 x B&D's	44.3	50.3			D1		121.0
						Position	Length
					Brake To Up Con		83.9
					Brake To Tail	1	124.1
					Brake To Tail	2	124.1
Sterring Line	Position	Mark	Cut		Brake To Tail	3	124.1
Upper Steering	1	40.2	46.2		Brake To Tail	5	124.1
Upper Steering	2	40.2	46.2		Toggle		19.9
Upper Steering	3	40.2	46.2		Toggle Cut		31.9
Upper Steering	5	40.2	46.2		Max Dep Speed		180
To brake set		83.9	89.9		Max weight lbs		196
To toggle		103.8	111.8		Max weight Kgs		89

FCI Rage Tandem								360				
FCI Rage Tandem								385		CASCADE	Final Measurements	
Scale Factor				360=130.603		A5	126.1	199.7				
103.413947	135.062			385=136.284		A4	126.1	199.7				
				400=141.990		A3	126.1	199.7				
				Main Line Measurements		425=146.018		A2	126.1	199.7		
Line		Cas. Mark	LINE MARK		Cut	A1	126.1	199.7				
2 x A5	71.3	73.7	199.1	192.5	205.1	B5		207.4				
2 x A4	71.3	73.7	199.1	192.5	205.1	B4		207.4				
2 x A3	71.3	73.7	199.1	192.5	205.1	B3		207.4				
2 x A2	71.3	73.7	199.1	192.5	205.1	B2		206.9				
2 x A1	71.3	73.7	199.1	192.5	205.1	B1		198.4				
						C5	152.0	218.1				
2 x C5	64.0	66.2	217.5	210.3	223.5	C4	152.0	218.1				
2 x C4	64.0	66.2	217.5	210.3	223.5	C3	152.0	218.1				
2 x C3	64.0	66.2	217.5	210.3	223.5	C2	152.0	218.1				
2 x C2	64.0	66.2	217.5	210.3	223.5	C1	147.5	195.5				
2 x C1	46.5	48.1	194.8	188.4	200.8	D5		233.3				
						D4		233.3				
12 x B&D's	81.4			78.7	87.4	D3		233.3				
						D2		230.6				
2 x B1/10	72.4			70.0	78.4	D1		194.5				
2 x B2/9	80.9			78.2	86.9		Position	Length				
						Brake To Up Con		157.2				
2 x D1/10	47.2			45.6	53.2	Brake To	1	219.1				
2 x D2/9	78.7			76.1	84.7	Brake To	2	219.1				
						Brake To	3	219.1				
Sterring Line	Position			Mark	Cut	Brake To	4	248.2				
Upper Steering	1			65.9	63.7	71.9	Brake To	5	242.0			
Upper Steering	2			65.9	63.7	71.9	Brake To	6	242.0			
Upper Steering	3			65.9	63.7	71.9	Brake To	7	248.2			
Upper Steering	4			61.4	59.4	67.4	Brake To	8	252.7			
Upper Steering	5			55.2	53.4	61.2	Outside Toggle		18.8			
Upper Steering	6			55.2	53.4	61.2	Toggle Cut		33.8			
Upper Steering	7			61.4	59.4	67.4	Inside Toggle					
Upper Steering	8			65.9	63.7	71.9		Size	385			
To brake set				157.7	152.5	163.7	Max Dep Speed		130			
Outside Toggle				181.0	175.0	191.0	Max weight lbs		481			
Inside Toggle	4,5,6,7,8			191.3	185.0	201.3	Max weight Kgs		219			

New Rage Tandem 03jun07			360	Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Meters	
Scale Factor			293	A5	122.8	192.6	311.8	489.3
100.000000	136.284			A4	122.8	192.6	311.8	489.3
				A3	122.8	192.6	311.8	489.3
	Main Line Measurements			A2	122.8	192.6	311.8	489.3
Line	Cas. Mark	LINE MARK	Cut	A1	122.8	192.6	311.8	489.3
2 x A5	70.0	192.0	198.0	B5		198.1		503.2
2 x A4	70.0	192.0	198.0	B4		198.1		503.2
2 x A3	70.0	192.0	198.0	B3		198.1		503.2
2 x A2	70.0	192.0	198.0	B2		197.6		502.0
2 x A1	70.0	192.0	198.0	B1		190.6		484.2
				C5	145.3	206.1	368.9	523.6
2 x C5	61.0	205.5	211.5	C4	145.3	206.1	368.9	523.6
2 x C4	61.0	205.5	211.5	C3	145.3	206.1	368.9	523.6
2 x C3	61.0	205.5	211.5	C2	145.3	206.1	368.9	523.6
2 x C2	61.0	205.5	211.5	C1	145.3	191.6	368.9	486.7
2 x C1	46.5	191.0	197.0	D5		220.6		560.4
				D4		220.6		560.4
12 x B&D's	75.5		81.5	D3		220.6		560.4
				D2		218.7		555.6
2 x B1/10	68.0		74.0	D1		192.2		488.3
2 x B2/9	75.0		81.0		Position	Length		
				Outside Brake To Up Con		148.0		375.9
2 x D1/10	47.1		53.1	Inside Brake To Up Con		170.5		433.1
2 x D2/9	73.6		79.6	Brake To	1	211.7		537.7
				Brake To	2	211.7		537.7
Sterring Line	Position	Mark	Cut	Brake To	3	211.7		537.7
Upper Steering	1	63.7	69.7	Brake To	4	229.9		583.9
Upper Steering	2	63.7	69.7	Brake To	5	223.9		568.7
Upper Steering	3	63.7	69.7	Brake To	6	223.9		568.7
Upper Steering	4	59.4	65.4	Brake To	7	229.9		583.9
Upper Steering	5	53.4	59.4	Outside Toggle		22.5		57.2
Upper Steering	6	53.4	59.4	Toggle Cut		32.5		82.6
Upper Steering	7	59.4	65.4	Inside Toggle		9.0		22.9
		63.7	69.7	Inside Toggle Cut		19.0		48.3
To outside brake set		152.5	160.5					
Outside Toggle		175.0	185.0	Size		360		
Inside brake set		175.0	183.0	Max weight lbs		450		
Inside Toggle	4,5,6,7,8	184.0	194.0	Max weight Kgs		164		

FCI Rage Tandem		260	359		CASCADE	Final Measurements
Scale Factor		260=114.101	360=130.603		A5	121.8 193.9
96.564358	131.602		385=136.284		A4	121.8 193.9
			400=141.990		A3	121.8 193.9
	Main Line Measurements		425=146.018		A2	121.8 193.9
Line	Cas. Mark	LINE MARK	Cut		A1	121.8 193.9
2 x A5	72.1	193.2	199.2		B5	199.9
2 x A4	72.1	193.2	199.2		B4	199.9
2 x A3	72.1	193.2	199.2		B3	199.9
2 x A2	72.1	193.2	199.2		B2	199.5
2 x A1	72.1	193.2	199.2		B1	193.4
					C5	145.2 208.2
2 x C5	63.1	207.5	213.5		C4	145.2 208.2
2 x C4	63.1	207.5	213.5		C3	145.2 208.2
2 x C3	63.1	207.5	213.5		C2	145.2 208.2
2 x C2	63.1	207.5	213.5		C1	145.2 192.9
2 x C1	47.8	192.3	198.3		D5	223.3
					D4	223.3
12 x B&D's	78.2		84.2		D3	223.3
					D2	221.4
2 x B1/10	71.7		77.7		D1	194.1
2 x B2/9	77.7		83.7			Position Length
					Brake To Up Con 146.8	
2 x D1/10	49.0		55.0		Brake To 1	204.3
2 x D2/9	76.3		82.3		Brake To 2	204.3
					Brake To 3	204.3
Sterring Line	Position	Mark	Cut		Brake To 4	221.8
Upper Steering	1	61.5	67.5		Brake To 5	216.1
Upper Steering	2	61.5	67.5		Brake To 6	216.1
Upper Steering	3	61.5	67.5		Brake To 7	221.8
Upper Steering	4	57.4	63.4		Brake To 8	226.0
Upper Steering	5	51.6	57.6		Outside Toggle	17.2
Upper Steering	6	51.6	57.6		Toggle Cut	32.2
Upper Steering	7	57.4	63.4		Inside Toggle	4.2
		61.5	67.5		Inside Toggle Cut	19.2
To outside brake set		147.3	155.3			
Outside Toggle		169.0	179.0		Size	359
Inside brake set		169.0	177.0		Max weight lbs	449
Inside Toggle	4,5,6,7,8	177.7	187.7		Max weight Kgs	163

New Tandem						360			
New Tandem						385	CASCADE	Final Measurements	
							A5	106.7	171.0
Scale Factor							A4	106.7	171.0
103.413947							A3	106.7	171.0
							A2	106.7	171.0
							A1	106.7	171.0
		Main Line Measurements					B5		175.1
Line		Cas. Mark	LINE MARK		Cut		B4		175.1
2 x A5	62.3	64.4	169.9	164.3	175.9		B3		175.1
2 x A4	62.3	64.4	169.9	164.3	175.9		B2		174.7
2 x A3	62.3	64.4	169.9	164.3	175.9		B1		167.5
2 x A2	62.3	64.4	169.9	164.3	175.9		C5	128.3	183.9
2 x A1	62.3	64.4	169.9	164.3	175.9		C4	128.3	183.9
2 x C5	53.8	55.6	182.7	176.7	188.7		C3	128.3	183.9
2 x C4	53.8	55.6	182.7	176.7	188.7		C2	128.3	183.9
2 x C3	53.8	55.6	182.7	176.7	188.7		C1	124.5	192.3
2 x C2	53.8	55.6	182.7	176.7	188.7		D5		196.7
2 x C1	39.1	40.4	163.7	158.3	169.7		D4		196.7
							D3		196.7
12 x B&D's		68.4	74.4	66.1			D2		194.4
							D1		168.0
2 x B1/10		60.8		58.8	66.8			Position	Length
2 x B2/9		67.9		65.7	73.9		Brake To Up Con		134.4
							Brake To Tail	1	186.3
2 x D1/10		39.6		38.3	45.6			2	186.3
2 x D2/9		66.1		63.9	72.1			3	186.3
								4	181.8
Sterring Line		Position		Mark	Cut			5	176.6
Upper Steering		1	55.3	53.5	61.3			6	176.6
Upper Steering		2	55.3	53.5	61.3			7	181.8
Upper Steering		3	55.3	53.5	61.3			8	185.5
Upper Steering		4	51.6	49.9	57.6		Toggle		7.6
Upper Steering		5	46.4	44.9	52.4		Toggle Cut		19.6
Upper Steering		6	46.4	44.9	52.4			Size	385
		7	51.6	49.9				Max Dep Speed	130
		8	55.3	53.5				Max weight lbs	481
To brake set		Outside 1,2,3	134.4	130.0	140.4			Max weight Kgs	219
To toggle			143.5	138.8	155.5				
Inside Toggle		Flare 4,5,6,7,8	133.7	129.3	145.7				

the measurements above are done with the computer

Measurements by hand

c1=159.5

c b1=58.0

d1=39.5

b2=64.8

d2=61.8

Military					290.000			
Military					290.000		CASCADE	Final Measurements
						A5	92.9	148.6
Scale Factor						A4	92.9	148.6
1.0000						A3	92.9	148.6
						A2	92.9	148.6
						A1	92.9	148.6
		Main Line Measurements				B5		150.9
Line		Cas. Mark	LINE MARK		Cut	B4		150.9
2 x A5	55.9	55.9	147.5	147.5	153.5	B3		150.9
2 x A4	55.9	55.9	147.5	147.5	153.5	B2		150.9
2 x A3	55.9	55.9	147.5	147.5	153.5	B1		144.1
2 x A2	55.9	55.9	147.5	147.5	153.5	C5	111.6	159.7
2 x A1	55.9	55.9	147.5	147.5	153.5	C4	111.7	159.7
						C3	111.7	159.7
2 x C5	48.3	48.3	158.6	158.6	164.6	C2	111.7	159.7
2 x C4	48.2	48.2	158.6	158.6	164.6	C1	112.8	112.6
2 x C3	48.2	48.2	158.6	158.6	164.6	D5		169.7
2 x C2	48.2	48.2	158.6	158.6	164.6	D4		169.7
2 x C1	34.0	34.0	145.5	145.5	151.5	D3		169.7
						D2		169.7
16 x B&D's		59.3		59.3	65.3	D1		110.4
							Position	Length
2 x B1/10		52.5		52.5	58.5	Brake To Up Con		111.7
2 x D1/10		61.5		61.5	67.5	Brake To Tail	1	159.7
						Brake To Tail	2	159.7
						Brake To Tail	3	159.7
						Brake To Tail	5	159.7
Sterring Line		Position		Mark	Cut	Brake To Tail	6	159.7
Upper Steering		1	48.0	48.0	54.0	Brake To Tail	7	159.7
Upper Steering		2	48.0	48.0	54.0	Toggle		28.7
Upper Steering		3	48.0	48.0	54.0	Toggle Cut		40.7
Upper Steering		5	48.0	48.0	54.0		Size	290
Upper Steering		6	48.0	48.0	54.0		Max Dep Speed	130
Upper Steering		7	48.0	48.0	54.0		Max weight lbs	363
To brake set			111.7	111.7	117.7		Max weight Kgs	165
To toggle			140.4	140.4	152.4			

Riot		92.000				
PROTOTYPE ROIT		115.000		CASCADE	Final Measurements	
Scale Factor				A5 C	70.3	113.2
1.1180				A4	70.3	113.2
				A3	70.3	113.2
	Main Line Measurements			A2	70.3	113.2
Line	Cas. Mark	LINE MARK	Cut	A1	70.3	113.2
2 x A5	42.9	112.0	118.0	B5 C		115.6
2 x A4	42.9	112.0	118.0	B4		115.6
2 x A3	42.9	112.0	118.0	B3		115.6
2 x A2	42.9	112.0	118.0	B2		118.0
2 x A1	42.9	112.0	118.0	B1		112.4
				C5 C	85.9	122.8
2 x C5	37.0	121.6	127.6	C4	85.9	122.8
2 x C4	37.0	121.6	127.6	C3	85.9	122.8
2 x C3	37.0	121.6	127.6	C2		124.1
2 x C2	0.0	123.0	129.0	C1		112.1
2 x C1	0.0	111.0	117.0	D5 C		131.2
				D4		131.2
12 x B&D's	45.4	51.4		D3		131.2
				D2		N/A
2 x B1/10	42.1		48.1	D1		N/A
2 x B2/9	47.7		53.7		Position	Length
				Brake To Up Con		80.0
				Brake To Tail	1	114.0
Steering Line	Position		Cut	Brake To Tail	2	114.0
Upper Steering	1	34.0	40.0	Brake To Tail	3	114.0
Upper Steering	3	34.0	40.0	Brake To Tail	5	114.0
Upper Steering	4	34.0	40.0	Toggle		18.5
Upper Steering	5	34.0	40.0	Toggle Cut		30.5
To brake set		80.0	86.0		Size	115
To toggle		98.5	108.5		Max Dep Speed	130
					Max weight lbs	150
					Max weight Kgs	68

RIOT 7 CELLREV 1		130		CASCADE	Measureme
Scale Factor					
1.06322				A4	72.0 113.9
Main Line Measurements				A3	72.0 113.9
Line	Cas. Mark	LINE MARK	Cut	A2	72.0 113.9
				A1	72.0 113.9
2 x A4	42.5	113.2	119.2		
2 x A3	42.5	113.2	119.2	B4	116.0
2 x A2	42.5	113.2	119.2	B3	116.0
2 x A1	42.5	113.2	119.2	B2	115.6
				B1	111.7
2 x C4	38.1	118.4	124.4		
2 x C3	38.1	118.4	124.4	C4	81.6 119.1
2 x C2	38.1	118.4	124.4	C3	81.6 119.1
2 x C1	32.1	112.5	118.5	C2	81.6 119.1
				C1	81.6 113.1
8 x B&D's	44.7	50.7			
				D4	125.7
2 x B1/8	40.4		46.4	D3	125.7
2 x B2/7	44.2		50.2	D2	123.4
2 x D1/8	33.0		39.0	D1	114.0
2 x D2/7	42.4		48.4		
				Position	Length
				Brake To Up Con	80.1
Sterring Line	Position		Cut	Brake To Tail	1 118.0
Upper Steerin	1	41.1	47.1	Brake To Tail	2 113.7
Upper Steerin	3	36.9	42.9	Brake To Tail	3 112.6
Upper Steerin	4	35.8	41.8	Brake To Tail	5 111.6
Upper Steerin	5	34.8	40.8	Toggle	9.6
To brake set 1ST Mark		80.1	89.6	Toggle Cut	21.6
To brake set 2ST Mark		82.1			Size 130
To toggle		93.7	103.7		

Rage			155		CASCADE	Final Measurements	Cascade Meters	Final / Meters	
Scale Factor					A5	76.9	122.9	195.2	312.1
1.20203					A4	76.9	122.9	195.2	312.1
					A3	76.9	122.9	195.2	312.1
	Main Line Measurements				A2	76.9	122.9	195.2	312.1
l4ine	Cas. Mark	LINE MARK	Cut		A1	76.9	122.9	195.2	312.1
2 x A5	46.2	121.8	127.8		B5 C		125.7		319.2
2 x A4	46.2	121.8	127.8		B4		125.7		319.2
2 x A3	46.2	121.8	127.8		B3		125.7		319.2
2 x A2	46.2	121.8	127.8		B2		127.5		323.7
2 x A1	46.2	121.8	127.8		B1		121.4		308.5
					C5 C	92.2	132.0	234.3	335.3
2 x C5	39.8	130.9	136.9		C4	92.2	132.0	234.3	335.3
2 x C4	39.8	130.9	136.9		C3	92.2	132.0	234.3	335.3
2 x C3	39.8	130.9	136.9		C2		134.6	0.0	341.8
2 x C2	0.0	133.4	139.4		C1		120.1	0.0	305.1
2 x C1	0.0	119.0	125.0		D5		141.2		358.6
					D4		141.2		358.6
12 x B&D's	48.9	54.9			D3		141.2		358.6
					D2		N/A		N/A
2 x B1/10	44.7		50.7		D1		N/A		N/A
2 x B2/9	50.7		56.7			Position	l4length		
					Brake To Up Con		88.0		223.6
					Brake To Tail4	1	134.5		341.7
Sterring l4ine	Position		Cut		Brake To Tail4	2	134.5		341.7
Upper Steering	1	46.5	52.5		Brake To Tail4	3	134.5		341.7
Upper Steering	3	46.5	52.5		Brake To Tail4	5	134.5		341.7
Upper Steering	4	46.5	52.5		Toggle		11.4		28.9
Upper Steering	5	46.5	52.5		Toggle Cut		23.4		59.4
To brake set 1ST Mark		90.5	100.0			Size	155		
To brake set 2ST Mark		92.5							
To toggl4e		105.9	115.9		Max Dep Speed		130		

Pro Series				170		Cascade inches	Final / Inches	Cascade Meters	Final / Meters
Scale Factor					A5	77.0	121.8	195.6	309.3
1.1222	0.0000				A4	77.0	121.8	195.6	309.3
					A3	77.0	121.8	195.6	309.3
					A2	77.0	121.8	195.6	309.3
Main Line Measurements					A1	77.0	121.8	195.6	309.3
Line	Cas. Mark	LINE MARK	Cut		B5		126.4		321.0
2 x A5	44.9	120.6	125.4		B4		126.4		321.0
2 x A4	44.9	120.6	125.4		B3		126.4		321.0
2 x A3	44.9	120.6	125.4		B2		126.4		321.0
2 x A2	44.9	120.6	125.4		B1		128.1		325.3
2 x A1	44.9	120.6	125.4		C5	89.9	130.2	228.3	330.6
					C4	89.9	130.2	228.3	330.6
2 x C5	40.4	129.0	133.8		C3	89.9	130.2	228.3	330.6
2 x C4	40.4	129.0	133.8		C2	89.9	130.2	228.3	330.6
2 x C3	40.4	129.0	133.8		C1	89.9	130.2	228.3	330.6
2 x C2	40.4	129.0	133.8		D5		139.3		353.8
2 x C1	40.4	129.0	133.8		D4		139.3		353.8
					D3		139.3		353.8
18 x B&D's	49.4	54.1			D2		139.3		353.8
					D1		126.9		322.4
2 x B1/10	51.1		55.8			Position	Length		
2 x D1/10	37.0		41.8		Brake To Up Con		92.9		236.1
					Brake To Tail	1	133.3		338.7
Sterring Line	Position		Cut		Brake To Tail	2	133.3		338.7
Upper Steering	1	40.4	45.1		Brake To Tail	3	133.3		338.7
Upper Steering	2	40.4	45.1		Brake To Tail	5	133.3		338.7
Upper Steering	3	40.4	45.1		Toggle Mark		14.4		36.6
Upper Steering	5	40.4	45.1		Toggle Cut		26.4		67.0
To brake set 1ST Mark		95.9	103.9			Size	170		
To brake set 2ST Mark		97.9							
To Toggle Mark		113.3	123.3			Max Dep Speed	130		
To Toggle Cut		123.3				Max weight lbs	162		

SENTRY			190 #		Cascade inches	Final / Inches	Cascade Meters	Final / Meters
Scale Factor				A5	78.8	130.4	200.1	331.3
1.1255	28.8546			A4	78.8	130.4	200.1	331.3
				A3	78.8	130.4	200.1	331.3
				A2	78.8	130.4	200.1	331.3
Main Line Measurements				A1	78.8	130.4	200.1	331.3
Line	Cas. Mark	LINE MARK	Cut	B5		133.7		339.6
2 x A5	51.8	129.3	134.1	B4		133.7		339.6
2 x A4	51.8	129.3	134.1	B3		133.7		339.6
2 x A3	51.8	129.3	134.1	B2		133.7		339.6
2 x A2	51.8	129.3	134.1	B1		130.0		330.2
2 x A1	51.8	129.3	134.1	C5	95.6	140.1	242.7	355.9
				C4	95.6	140.1	242.7	355.9
2 x C5	44.7	139.0	143.7	C3	95.6	140.1	242.7	355.9
2 x C4	44.7	139.0	143.7	C2	95.6	140.1	242.7	355.9
2 x C3	44.7	139.0	143.7	C1	95.6	128.6	242.7	326.7
2 x C2	44.7	139.0	143.7	D5		150.5		382.2
2 x C1	33.2	127.5	132.3	D4		150.5		382.2
				D3		150.5		382.2
18 x B&D's	54.9	59.7		D2		150.5		382.2
				D1		132.7		337.1
2 x B1/10	51.2		56.0		Position	Length		
2 x D1/10	37.1		41.9	Brake To Up Con		88.7		225.4
				Brake To Tail	1	140.8		357.7
Sterring Line	Position		Cut	Brake To Tail	2	140.8		357.7
Upper Steering	1	52.1	56.9	Brake To Tail	3	140.8		357.7
Upper Steering	2	52.1	56.9	Brake To Tail	5	140.8		357.7
Upper Steering	3	52.1	56.9	Toggle Mark		12.2		31.0
Upper Steering	5	52.1	56.9	Toggle Cut		24.2		61.5
To brake set 1ST Mark		91.7	99.7		Size	190		
To brake set 2ST Mark		93.7						
To Toggle Mark		106.9	116.9		Max Dep Speed	130		
To Toggle Cut		116.9			Max weight lbs	180		

Comanche - D		500.0			
Comanche - D		440.0			
Scale Factor	Max lbs				
0.9380832	748.0				
Line	LINE MARK	Cut		CASCADE	Final Measurements
16 x Upper A's	98.0	104.0	A Crossing	109.90	207.92
14 x Upper B's	99.9	105.9	A #7 Center	103.94	201.97
14 x Upper C's	88.3	94.3	A #6	100.51	198.54
14 x Upper D's	98.0	104.0	A #5	95.96	193.99
			A #4	92.07	190.10
4 X OUTSIDE LONG E	194.7	200.7	A #3	88.84	186.86
4 X CENTER LONG E	198.4	204.4	A #2	85.50	183.53
4 X SHORT INSIDE E	28.0	34.0	A #1	81.61	179.64
4 X SHORT E TAIL	30.0	36.0			
			B Crossing		209.80
2 x OUTSIDE B	94.5	100.5	B #7 Center		203.84
2 x OUTSIDE C	79.7	85.7	A #6		200.42
2 x OUTSIDE D	85.3	91.3	B #5		195.87
			B #4		191.98
2 X LOWER CENTER A CROSSING	107.6	113.6	B #3		188.74
2 X LOWER CENTER A #7	101.7	107.7	B #2		185.41
2 X LOWER A #6	98.3	104.3	B #1		181.52
2 X LOWER A #5	93.7	99.7		CASCADE	
2 X LOWER A #4	89.8	95.8	C Crossing	124.29	212.57
2 X LOWER A #3	86.6	92.6	C #7 Center	116.70	204.97
2 X LOWER A #2	83.3	89.3	A #6	114.16	202.44
2 X LOWER A #1	79.4	85.4	C #5	110.88	199.15
			C #4	106.94	195.21
2 X LOWER CENTER C CROSSING	122.0	128.0	C #3	103.94	192.21
2 X LOWER CENTER C #7	114.4	120.4	C #2	100.75	189.02
2 X LOWER C #6	111.9	117.9	C #1	98.40	186.68
2 X LOWER C #5	108.6	114.6			
2 X LOWER C #4	104.7	110.7	D Crossing		222.32
2 X LOWER C #3	101.7	107.7	D #7 Center		214.73
2 X LOWER C #2	98.5	104.5	A #6		212.19
2 X LOWER C #1	96.2	102.2	D #5		208.91
			D #4		204.97
2 X UPPER STEERING #7	130.4	136.4	D #3		201.97
2 X UPPER STEERING #6	124.8	130.8	D #2		198.78
2 X UPPER STEERING #5	121.0	127.0	D #1		196.43
2 X UPPER STEERING #4	117.3	123.3			
2 X UPPER STEERING #3	114.4	120.4			
2 X UPPER STEERING #2	115.5	121.5			
2 X UPPER STEERING #1	116.3	122.3			
2 X SAFE STEERING LINE	92.9	98.9			
2 X LOWER STEERING(RED) MARK	187.6	197.6			

Comanche		500.0			
Comanche		500.0			
Scale Factor	Max lbs				
1.0000000	850.0				
Line	LINE MARK	Cut		CASCADE	Final Measurements
16 x Upper A's	104.5	110.5	A Crossing	117.00	221.50
14 x Upper B's	106.5	112.5	A #7 Center	110.65	215.15
14 x Upper C's	94.1	100.1	A #6	107.00	211.50
14 x Upper D's	104.5	110.5	A #5	102.15	206.65
			A #4	98.00	202.50
4 X OUTSIDE LONG E	207.5	213.5	A #3	94.55	199.05
4 X CENTER LONG E	211.5	217.5	A #2	91.00	195.50
4 X SHORT INSIDE E	29.9	35.9	A #1	86.85	191.35
4 X SHORT E TAIL	32.0	38.0			
			B Crossing		223.50
2 x OUTSIDE B	100.8	106.8	B #7 Center		217.15
2 x OUTSIDE C	85.0	91.0	A #6		213.50
2 x OUTSIDE D	90.9	96.9	B #5		208.65
			B #4		204.50
2 X LOWER CENTER A CROSSING	114.8	120.8	B #3		201.05
2 X LOWER CENTER A #7	108.4	114.4	B #2		197.50
2 X LOWER A #6	104.8	110.8	B #1		193.35
2 X LOWER A #5	99.9	105.9		CASCADE	
2 X LOWER A #4	95.8	101.8	C Crossing	132.35	226.45
2 X LOWER A #3	92.3	98.3	C #7 Center	124.25	218.35
2 X LOWER A #2	88.8	94.8	A #6	121.55	215.65
2 X LOWER A #1	84.6	90.6	C #5	118.05	212.15
			C #4	113.85	207.95
2 X LOWER CENTER C CROSSING	130.1	136.1	C #3	110.65	204.75
2 X LOWER CENTER C #7	122.0	128.0	C #2	107.25	201.35
2 X LOWER C #6	119.3	125.3	C #1	104.75	198.85
2 X LOWER C #5	115.8	121.8			
2 X LOWER C #4	111.6	117.6	D Crossing		236.85
2 X LOWER C #3	108.4	114.4	D #7 Center		228.75
2 X LOWER C #2	105.0	111.0	A #6		226.05
2 X LOWER C #1	102.5	108.5	D #5		222.55
			D #4		218.35
2 X UPPER STEERING #7	139.0	145.0	D #3		215.15
2 X UPPER STEERING #6	133.0	139.0	D #2		211.75
2 X UPPER STEERING #5	129.0	135.0	D #1		209.25
2 X UPPER STEERING #4	125.0	131.0			
2 X UPPER STEERING #3	121.9	127.9			
2 X UPPER STEERING #2	123.1	129.1			
2 X UPPER STEERING #1	124.0	130.0			
2 X SAFE STEERING LINE	99.0	105.0			
2 X LOWER STEERING(RED) MARK	200.0	210.0			

Comanche Dovetail		455			
Scale Factor	Max lbs				
1.0000000	819.0				
<p>6.75 Inches is necessary to form the loop on 1 end, The cut measurements reflect 1 loop Place the end of the line at 6.75 on the ruler mark @ 2.25 and 4.25, Fold the line and place the dots together. Sew with the dots at the edge of the presser foot.</p>					
Line	LINE MARK	Cut		CASCADE	Final Measurements
16 x Upper A's	104.5	108.3	A Crossing	117.00	221.50
6 x Upper B's Center	106.5	110.3			
6 x Upper B's Inside	105.3	109.0	A #7 Center	110.65	215.15
14 x Upper C's	94.1	97.9	A #6	107.00	211.50
6 x Upper D's Center	104.5	108.3	A #5	102.15	206.65
6 x Upper D's Inside	101.3	105.0	A #4	98.00	202.50
			A #3	94.55	199.05
4 X OUTSIDE LONG E	207.5	211.3	A #2	91.00	195.50
4 X CENTER LONG E	211.5	215.3	A #1	86.85	191.35
4 X SHORT INSIDE E	29.9	33.7	B Crossing		222.25
4 X SHORT E TAIL	32.0	35.8	B #7 Center		215.90
			A #6		212.25
2 x Stabilizer B	100.8	104.5	B #5		207.40
2 x Stabilizer C	85.0	88.8	B #4		203.25
2 x Stabilizer D	90.9	94.7	B #3		199.80
			B #2		196.25
2 X LOWER CENTER A CROSSING	114.8	118.5	B #1		192.10
2 X LOWER CENTER A #7	108.4	112.2		CASCADE	
2 X LOWER A #6	104.8	108.5	C Crossing	132.35	226.45
2 X LOWER A #5	99.9	103.7	C #7 Center	124.25	218.35
2 X LOWER A #4	95.8	99.5	A #6	121.55	215.65
2 X LOWER A #3	92.3	96.1	C #5	118.05	212.15
2 X LOWER A #2	88.8	92.5	C #4	110.12	204.22
2 X LOWER A #1	84.6	88.4	C #3	106.77	200.87
			C #2	103.25	197.35
2 X LOWER CENTER C CROSSING	130.1	133.9	C #1	100.15	194.25
2 X LOWER CENTER C #7	122.0	125.8	D Crossing		233.63
2 X LOWER C #6	119.3	123.1	D #7 Center		225.53
2 X LOWER C #5	115.8	119.6	A #6		222.83
2 X LOWER C #4	107.9	111.6	D #5		219.33
2 X LOWER C #3	104.5	108.3	D #4		211.39
2 X LOWER C #2	101.0	104.7	D #3		208.05
2 X LOWER C #1	97.9	101.7	D #2		204.52
			D #1		201.43
2 X UPPER STEERING #7	150.0	153.8			
2 X UPPER STEERING #6	133.0	136.8			
2 X UPPER STEERING #5	129.0	132.8			
2 X UPPER STEERING #4	125.0	128.8			
2 X UPPER STEERING #3	121.9	125.7	PLANE		400
2 X UPPER STEERING #2	123.1	126.9	FLOATS		200
2 X UPPER STEERING #1	124.0	127.8	PILOT		220
2 X SAFE STEERING LINE	99.0	102.8	PASSENGER		220
2 X LOWER STEERING(RED) MARK	200.0	203.8	TOTAL		1040

Scale Factor	Max lbs				20-Jun-05
100.0000000	799.0				
Top Skin	33.500				
Line	LINE MARK	Cut		CASCADE	Final Measurements
16 x Upper A's	105.0	111.0	A Crossing	118.00	223.00
2 x Upper B 3	106.1	112.1			
2 x Upper B 2	105.8	111.8			
10 x Upper B's	106.5	112.5	A #7 Center	111.65	216.65
14 x Upper C's	94.1	100.1	A #6	107.40	212.40
2 x Upper D 3	103.7	109.7			
2 x Upper D 2	103.0	109.0			
10 x Upper D's	104.5	110.5	A #5	103.25	208.25
			A #4	98.80	203.80
4 X OUTSIDE LONG E	207.5	213.5	A #3	95.45	200.45
4 X CENTER LONG E	211.5	217.5	A #2	91.93	196.93
4 X SHORT INSIDE E	29.9	35.9	A #1	85.90	190.90
4 X SHORT E TAIL	32.0	38.0			
			B Crossing		224.50
2 x Stabilizer B	101.3	107.3	B #7 Center		218.15
2 x Stabilizer C	86.0	92.0	A #6		213.90
2 x Stabilizer D	89.9	95.9	B #5		209.75
			B #4		205.30
2 X LOWER CENTER A CROSSING	115.8	121.8	B #3		201.95
2 X LOWER CENTER A #7	109.4	115.4	B #2		198.43
2 X LOWER A #6	105.2	111.2	B #1		192.40
2 X LOWER A #5	101.0	107.0		CASCADE	
2 X LOWER A #4	96.6	102.6	C Crossing	132.35	226.45
2 X LOWER A #3	93.2	99.2	C #7 Center	124.25	218.35
2 X LOWER A #2	89.7	95.7	A #6	121.55	215.65
2 X LOWER A #1	83.7	89.7	C #5	118.05	212.15
			C #4	113.85	207.95
2 X LOWER CENTER C CROSSING	130.1	136.1	C #3	109.53	203.63
2 X LOWER CENTER C #7	122.0	128.0	C #2	105.11	199.21
2 X LOWER C #6	119.3	125.3	C #1	101.33	195.43
2 X LOWER C #5	115.8	121.8			
2 X LOWER C #4	111.6	117.6	D Crossing		236.85
2 X LOWER C #3	107.3	113.3	D #7 Center		228.75
2 X LOWER C #2	102.9	108.9	A #6		226.05
2 X LOWER C #1	99.1	105.1	D #5		222.55
			D #4		218.35
2 X UPPER STEERING #7	139.0	145.0	D #3		214.03
2 X UPPER STEERING #6	133.0	139.0	D #2		209.61
2 X UPPER STEERING #5	129.0	135.0	D #1		205.83
2 X UPPER STEERING #4	125.0	131.0			
2 X UPPER STEERING #3	121.9	127.9			
2 X UPPER STEERING #2	123.1	129.1			
2 X UPPER STEERING #1	124.0	130.0			
2 X SAFE STEERING LINE	99.0	105.0			
2 X LOWER STEERING(RED) MARK	210.0	220.0			

Rage PPC Elliptical		500				
Scale Factor	Max lbs					
1.1952286	1100.0					
Line	LINE MARK	Cut		CASCADE	Final Measurements	
16 x Upper A's	130.4	135.4	A Crossing	143.41	273.80	
10 x Upper B's	131.0	136.0	A #7 Center	135.64	266.03	
2 x Upper B 3's	130.4	135.4	A #6	131.10	261.49	
2 x Upper B 2's	130.1	135.1	A #5	125.24	255.63	
			A #4	120.10	250.49	
10 x Upper C's	114.7	119.7	A #3	115.80	246.19	
2 x Upper C 3's	114.0	119.0	A #2	111.49	241.89	
2 x Upper C 2's	113.5	118.5	A #1	106.35	236.75	
10 x Upper D's	126.6	131.6	B Crossing	143.41	274.40	
2 x Upper D 3's	123.6	128.6				
2 x Upper D 2's	120.9	125.9	B #7 Center		266.63	
			A #6		262.09	
4 X OUTSIDE LONG E	254.1	259.1	B #5		256.24	
4 X CENTER LONG E	259.1	264.1	B #4		251.10	
4 X SHORT INSIDE E	36.8	41.8	B #3		246.17	
4 X SHORT E TAIL	39.3	44.3	B #2		241.60	
			B #1		232.63	
2 x OUTSIDE B	126.3	131.3				
2 x OUTSIDE C	105.8	110.8		CASCADE		
2 x OUTSIDE D	107.3	112.3	C Crossing	161.69	276.37	
2 X LOWER CENTER A CROSSING	141.2	146.2	C #7 Center	152.37	267.05	
2 X LOWER CENTER A #7	133.4	138.4	A #6	149.02	263.70	
2 X LOWER A #6	128.8	133.8	C #5	144.72	259.40	
2 X LOWER A #5	123.0	128.0	C #4	139.58	254.26	
2 X LOWER A #4	117.8	122.8	C #3	135.64	249.62	
2 X LOWER A #3	113.5	118.5	C #2	131.45	244.92	
2 X LOWER A #2	109.2	114.2	C #1	128.35	234.18	
2 X LOWER A #1	104.1	109.1				
			D Crossing		288.31	
2 X LOWER CENTER C CROSSING	159.4	164.4				
2 X LOWER CENTER C #7	150.1	155.1	D #7 Center		278.98	
2 X LOWER C #6	146.8	151.8	A #6		275.64	
2 X LOWER C #5	142.5	147.5	D #5		271.34	
2 X LOWER C #4	137.3	142.3	D #4		266.20	
2 X LOWER C #3	133.4	138.4	D #3		259.21	
2 X LOWER C #2	129.2	134.2	D #2		252.33	
2 X LOWER C #1	126.1	131.1	D #1		235.68	
2 X UPPER STEERING #7	171.0	176.0	Outside Long E Tail		293.43	
2 X UPPER STEERING #6	163.6	168.6	Outside Long E Inside		290.92	

2 X UPPER STEERING #5	158.7	163.7			
2 X UPPER STEERING #4	153.8	158.8	Center Long	E Tail	298.45
2 X UPPER STEERING #3	150.0	155.0	Center Long	E Inside	295.94
2 X UPPER STEERING #2	151.4	156.4			
2 X UPPER STEERING #1	152.6	157.6			
2 X SAFE STEERING LINE	121.8	126.8			
2 X LOWER STEERING(RED) MARK	257.0	267.0			

Comanche-D-elliptcial			403			
Comanche-D-elliptcial			550			
Scale Factor		Max lbs				
1.1682313		935.0				
Line		LINE MARK	Cut		CASCADE	Final Measurements
16 x Upper A's	109.1	127.4	132.4	A Crossing	140.22	267.67
10 x Upper B's	109.6	128.0	133.0	A #7 Center	132.62	260.07
2 x Upper B 3's	109.1	127.4	132.4	A #6	128.19	255.63
2 x Upper B 2's	108.9	127.2	132.2	A #5	122.46	249.91
				A #4	117.44	244.89
10 x Upper C's	95.9	112.1	117.1	A #3	113.23	240.68
2 x Upper C 3's	95.4	111.4	116.4	A #2	109.03	236.48
2 x Upper C 2's	94.9	110.9	115.9	A #1	104.00	231.45
10 x Upper D's	105.9	123.8	128.8	B Crossing	140.22	268.26
2 x Upper D 3's	103.4	120.8	125.8			
2 x Upper D 2's	101.1	118.1	123.1	B #7 Center		260.66
				A #6		256.22
4 X OUTSIDE LONG E	212.6	248.4	253.4	B #5		250.50
4 X CENTER LONG E	216.8	253.3	258.3	B #4		245.48
4 X SHORT INSIDE E	30.8	36.0	41.0	B #3		240.66
4 X SHORT E TAIL	32.9	38.4	43.4	B #2		236.20
				B #1		227.43
2 x OUTSIDE B	105.7	123.4	128.4			
2 x OUTSIDE C	88.6	103.4	108.4		CASCADE	
2 x OUTSIDE D	89.8	104.9	109.9	C Crossing	158.09	270.18
2 X LOWER CENTER A CROSSING	118.1	138.0	143.0	C #7 Center	148.98	261.07
2 X LOWER CENTER A #7	111.6	130.4	135.4	A #6	145.71	257.80
2 X LOWER A #6	107.8	125.9	130.9	C #5	141.50	253.59
2 X LOWER A #5	102.9	120.2	125.2	C #4	136.48	248.57
2 X LOWER A #4	98.6	115.2	120.2	C #3	132.62	244.03
2 X LOWER A #3	95.0	111.0	116.0	C #2	128.54	239.44
2 X LOWER A #2	91.4	106.8	111.8	C #1	125.50	228.95
2 X LOWER A #1	87.1	101.8	106.8			
				D Crossing		281.85
2 X LOWER CENTER C CROSSING	133.4	155.8	160.8			
2 X LOWER CENTER C #7	125.6	146.7	151.7	D #7 Center		272.73
2 X LOWER C #6	122.8	143.5	148.5	A #6		269.46
2 X LOWER C #5	119.2	139.3	144.3	D #5		265.26
2 X LOWER C #4	114.9	134.2	139.2	D #4		260.23
2 X LOWER C #3	111.6	130.4	135.4	D #3		253.41
2 X LOWER C #2	108.1	126.3	131.3	D #2		246.68
2 X LOWER C #1	105.5	123.2	128.2	D #1		230.41
2 X UPPER STEERING #7	143.1	167.2	172.2	Outside Long E Tail		286.80
2 X UPPER STEERING #6	136.9	159.9	164.9	Outside Long E Inside		284.35
2 X UPPER STEERING #5	132.8	155.1	160.1			
2 X UPPER STEERING #4	128.7	150.4	155.4	Center Long E Tail		291.71
2 X UPPER STEERING #3	125.5	146.6	151.6	Center Long E Inside		289.25
2 X UPPER STEERING #2	126.7	148.0	153.0			
2 X UPPER STEERING #1	127.7	149.2	154.2			
2 X SAFE STEERING LINE	101.9	119.0	124.0			
2 X LOWER STEERING(RED) MARK	215.0	251.2	261.2			

Comanche-D			440			
Comanche-D			440			
Scale Factor		Max lbs				
1.0000000		748.0				
Line		LINE MARK	Cut		CASCADE	Final Measurements
16 x Upper A's	108.10	108.1	114.1	A Crossing	120.35	228.45
14 x Upper B's	109.60	109.6	115.6	A #7 Center	113.85	221.95
14 x Upper C's	96.90	96.9	102.9	A #6	110.05	218.15
14 x Upper D's	107.60	107.6	113.6	A #5	105.15	213.25
				A #4	100.85	208.95
4 X OUTSIDE LONG E	212.60	212.6	218.6	A #3	97.25	205.35
4 X CENTER LONG E	216.80	216.8	222.8	A #2	93.65	201.75
4 X SHORT INSIDE E	30.80	30.8	36.8	A #1	89.35	197.45
4 X SHORT E TAIL	32.90	32.9	38.9			
				B Crossing		229.95
2 x OUTSIDE B	103.70	103.7	109.7	B #7 Center		223.45
2 x OUTSIDE C	87.50	87.5	93.5	A #6		219.65
2 x OUTSIDE D	93.60	93.6	99.6	B #5		214.75
				B #4		210.45
2 X LOWER CENTER A CROSSING	118.10	118.1	124.1	B #3		206.85
2 X LOWER CENTER A #7	111.60	111.6	117.6	B #2		203.25
2 X LOWER A #6	107.80	107.8	113.8	B #1		198.95
2 X LOWER A #5	102.90	102.9	108.9		CASCADE	
2 X LOWER A #4	98.60	98.6	104.6	C Crossing	136.15	233.05
2 X LOWER A #3	95.00	95.0	101.0	C #7 Center	127.35	224.25
2 X LOWER A #2	91.40	91.4	97.4	A #6	125.05	221.95
2 X LOWER A #1	87.10	87.1	93.1	C #5	121.45	218.35
				C #4	117.15	214.05
2 X LOWER CENTER C CROSSING	133.90	133.9	139.9	C #3	113.85	210.75
2 X LOWER CENTER C #7	125.10	125.1	131.1	C #2	110.35	207.25
2 X LOWER C #6	122.80	122.8	128.8	C #1	107.75	204.65
2 X LOWER C #5	119.20	119.2	125.2			
2 X LOWER C #4	114.90	114.9	120.9	D Crossing		243.75
2 X LOWER C #3	111.60	111.6	117.6	D #7 Center		234.95
2 X LOWER C #2	108.10	108.1	114.1	A #6		232.65
2 X LOWER C #1	105.50	105.5	111.5	D #5		229.05
				D #4		224.75
2 X UPPER STEERING #7	143.10	143.1	149.1	D #3		221.45
2 X UPPER STEERING #6	136.90	136.9	142.9	D #2		217.95
2 X UPPER STEERING #5	132.80	132.8	138.8	D #1		215.35
2 X UPPER STEERING #4	128.70	128.7	134.7			
2 X UPPER STEERING #3	125.50	125.5	131.5			
2 X UPPER STEERING #2	126.70	126.7	132.7			
2 X UPPER STEERING #1	127.70	127.7	133.7			
2 X SAFE STEERING LINE	101.90	101.9	107.9			
2 X LOWER STEERING(RED) MARK	205.90	205.9	215.9			

Renegade			500.0					
Scale Factor	Max lbs							
1.0000000	850.0							
Line	LINE MARK Inches	Meters	Cut		CASCADE Inches	CASCADE Meters	Final Measurements Inches	Final Measurements Meters
16 x Upper A's	105.0	266.7	111.0	A Crossing	117.00	297.18	222.00	563.88
14 x Upper B's	106.5	270.5	112.5	A #7 Center	110.65	281.05	215.65	547.75
14 x Upper C's	94.1	239.0	100.1	A #6	107.00	271.78	212.00	538.48
14 x Upper D's	104.5	265.4	110.5	A #5	102.15	259.46	207.15	526.16
				A #4	98.00	248.92	203.00	515.62
4 X OUTSIDE LONG E	207.5	527.1	213.5	A #3	94.55	240.16	199.55	506.86
4 X CENTER LONG E	211.5	537.2	217.5	A #2	91.00	231.14	196.00	497.84
4 X SHORT INSIDE E	29.9	75.9	35.9	A #1	86.85	220.60	191.85	487.30
4 X SHORT E TAIL	32.0	81.3	38.0					
				B Crossing			223.50	567.69
2 x OUTSIDE B	100.8	255.9	106.8	B #7 Center			217.15	551.56
2 x OUTSIDE C	85.0	215.9	91.0	A #6			213.50	542.29
2 x OUTSIDE D	90.9	230.9	96.9	B #5			208.65	529.97
				B #4			204.50	519.43
2 X LOWER CENTER A CROSSING	114.8	291.5	120.8	B #3			201.05	510.67
2 X LOWER CENTER A #7	108.4	275.3	114.4	B #2			197.50	501.65
2 X LOWER A #6	104.8	266.1	110.8	B #1			193.35	491.11
2 X LOWER A #5	99.9	253.7	105.9		CASCADE			
2 X LOWER A #4	95.8	243.2	101.8	C Crossing	132.35	336.17	226.45	575.18
2 X LOWER A #3	92.3	234.4	98.3	C #7 Center	124.25	315.60	218.35	554.61
2 X LOWER A #2	88.8	225.4	94.8	A #6	121.55	308.74	215.65	547.75
2 X LOWER A #1	84.6	214.9	90.6	C #5	118.05	299.85	212.15	538.86
				C #4	113.85	289.18	207.95	528.19
2 X LOWER CENTER C CROSSING	130.1	330.5	136.1	C #3	110.65	281.05	204.75	520.07
2 X LOWER CENTER C #7	122.0	309.9	128.0	C #2	107.25	272.42	201.35	511.43
2 X LOWER C #6	119.3	303.0	125.3	C #1	104.75	266.07	198.85	505.08
2 X LOWER C #5	115.8	294.1	121.8					
2 X LOWER C #4	111.6	283.5	117.6	D Crossing			236.85	601.60
2 X LOWER C #3	108.4	275.3	114.4	D #7 Center			228.75	581.03
2 X LOWER C #2	105.0	266.7	111.0	A #6			226.05	574.17
2 X LOWER C #1	102.5	260.4	108.5	D #5			222.55	565.28
				D #4			218.35	554.61
2 X UPPER STEERING #7	139.0	353.1	145.0	D #3			215.15	546.48
2 X UPPER STEERING #6	133.0	337.8	139.0	D #2			211.75	537.85
2 X UPPER STEERING #5	129.0	327.7	135.0	D #1			209.25	531.50
2 X UPPER STEERING #4	125.0	317.5	131.0					
2 X UPPER STEERING #3	121.9	309.6	127.9					
2 X UPPER STEERING #2	123.1	312.7	129.1					
2 X UPPER STEERING #1	124.0	315.0	130.0					
2 X SAFE STEERING LINE	99.0	251.5	105.0					
2 X LOWER STEERING(RED) MARK	200.0	508.0	210.0					

GENESIS				500		
GENESIS				500		
Scale Factor		Max lbs		Max Kgs		
1.0000		800		364		
Line		LINE MARK	Cut		CASCADE	Final Measurements
24 x Upper A's	105.50	105.50	111.50	A #5 Center	108.85	214.35
22 x Upper B's	106.30	106.30	112.30	A #4	110.45	215.95
22 x Upper C's	105.90	105.90	111.90	A #3	109.65	215.15
22 x Upper D's	116.90	116.90	122.90	A #2	119.95	225.45
				A #1	2.25	107.75
2 x OUTSIDE B	30.00	30.00	36.00	B #5 Center		215.15
2 x OUTSIDE C	25.00	25.00	31.00	A #4		216.75
2 x OUTSIDE D	20.00	20.00	26.00	B #3		215.95
				B #2		226.25
2 x CENTER A	109.80	109.80	115.80	B #1		108.55
2 x CENTER B	111.00	111.00	117.00			
2 x CENTER C	109.80	109.80	115.80		CASCADE	
2 x CENTER D	120.80	120.80	126.80	C #5 Center	93.75	199.65
				A #4	2.25	108.15
2 x INSIDE A	106.60	106.60	112.60	C #3	113.65	219.55
2 x INSIDE B	108.20	108.20	114.20	C #2	109.85	215.75
2 x INSIDE C	107.40	107.40	113.40	C #1	106.09	211.99
2 x INSIDE D	117.70	117.70	123.70			
2 X LOWER CENTER A #5	105.90	105.90	111.90	D #5 Center		210.65
2 X LOWER A #4	102.30	102.30	108.30	A #4		119.15
2 X LOWER A #3	98.70	98.70	104.70	D #3		230.55
2 X LOWER A #2	95.10	95.10	101.10	D #2		226.75
2 X LOWER A #1	91.50	91.50	97.50	D #1		222.99
2 X LOWER CENTER C #5	111.40	111.40	117.40			
2 X LOWER C #4	107.60	107.60	113.60			
2 X LOWER C #3	103.84	103.84	109.84			
2 X LOWER C #2	100.00	100.00	106.00			
2 X LOWER C #1	96.26	96.26	102.26			
2 X UPPER STEERING #7	139.00	139.00	145.00			
2 X UPPER STEERING #6	127.95	127.95	133.95			
2 X UPPER STEERING #5	127.95	127.95	133.95			
2 X UPPER STEERING #4	125.00	125.00	131.00			
2 X UPPER STEERING #3	124.40	124.40	130.40			
2 X UPPER STEERING #2	127.95	127.95	133.95			
2 X UPPER STEERING #1	134.25	134.25	140.25			
2 X RED STEERING LINE	99.00	99.00	105.00			

Prodigy			155	Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Meters	
Design Information				A4	67.6	109.4	171.7	277.8
Scale Factor				A3	67.6	109.4	171.7	277.8
0.9411				A2	67.6	109.4	171.7	277.8
				A1	67.6	109.4	171.7	277.8
Main Line Measurements								
Line	Cas. Mark	LINE MARK	Cut	B4		112.3		285.2
2 x A4 (Red)	41.9	108.2	114.2	B3		112.4		285.5
2 x A3	41.9	108.2	114.2	B2		112.4		285.5
2 x A2	41.9	108.2	114.2	B1		112.4		285.5
2 x A1	41.9	108.2	114.2					
				C4	83.6	119.1	212.3	302.6
				C3	83.6	119.1	212.3	302.6
2 x C4	35.6	118.0	124.0	C2	83.6	119.1	212.3	302.6
2 x C3	35.6	118.0	124.0	C1	83.6	119.1	212.3	302.6
2 x C2	35.6	118.0	124.0					
2 x C1	35.6	118.0	124.0	D4		128.4		326.2
				D3		128.4		326.2
Long "B"	111.2	117.2		D2		128.4		326.2
16 x B&D's	44.9	50.9		D1		128.4		326.2
2 x B1/10	10.4				Position	Length		
2 x C1/10	11.3			Brake To Up Con		85.1		216.3
2 x D2/8	12.2			Brake To Tail	1	127.5		323.8
				Brake To Tail	2	127.5		323.8
Sterring Line	Position		Cut	Brake To Tail	3	127.5		323.8
Upper Steering	1	42.4	48.4	Brake To Tail	5	127.5		323.8
Upper Steering	2	42.4	48.4	Toggle		21.2		53.8
Upper Steering	3	42.4	48.4	Toggle Cut		33.2		84.3
Upper Steering	5	42.4	48.4		Size	155		
To brake set		89.6	95.6		Max Dep Speed	130		
To toggle		110.8	129.8		Max weight lbs	233		

Red Line CRW						125					
Red Line CRW						200			CASCADE	Final Measurements	
Rotation		Design Information						A4			107.4
Scale Factor							A3			107.4	
1.2649							A2			107.4	
							A1			107.4	
		Main Line Measurements									
Line		A Line Mark	A Line Cut	B Line Mark	B Line Cut			B4		102.1	
2 x A4 (Red)	84.0	106.3	111.3	100.9	105.9	79.8		B3		102.1	
2 x A3	84.0	106.3	111.3	100.9	105.9	79.8		B2		102.1	
2 x A2	84.0	106.3	111.3	100.9	105.9	79.8		B1		102.1	
2 x A1 (Red)	84.0	106.3	111.3	100.9	105.9	79.8					
								C4	110.0	111.2	
		C Cascade	C Line Mark	C Line Cut				C3	110.0	111.2	
2 x C4	1	1.3	110.0	115.0		87.0		C2	110.0	111.2	
2 x C3	1	1.3	110.0	115.0		87.0		C1	1.3	1.1	
2 x C2	1	1.3	110.0	115.0		87.0					
2 x C1						87.0		D4		162.8	
								D3		162.8	
		Short D Mark	Short D Cut	Long D Mark	D Line Cut			D2		162.8	
6 x D's	41.8	52.9	57.9	124.0	129.0	98.00		D1		54.0	
				124.0	129.0	98.00					
2 x B1/8	1	1.3		124.0	129.0	98.00			Position	Length	
2 x C1/8	2	2.5				98.00		Brake To Up Con		77.2	
2 x D1/8	3	3.8						Brake To Tail	1	134.2	
								Brake To Tail	2	134.2	
Sterring Line		Position		Mark	Cut			Brake To Tail	3	134.2	
Upper Steering		1		57.0	62.0	45.1		Brake To Tail	5	134.2	
Upper Steering		2		57.0	62.0	45.1		Toggle		26.6	
Upper Steering		3		57.0	62.0	45.1		Toggle Cut		42.1	
Upper Steering		5		57.0	62.0	45.1			Size	0	
To brake set				80.7	85.7	63.8			Max Dep Speed	130	
To toggle				110.8	122.8	87.6			Max weight lbs	320	
		AMOUNT	COST						Max weight Kgs	145	
Feet Of 1000 Line	15	15	0.98								
Feet Of 725 Line	361	361	17.90								
Fabric	31	39	225.47								
8962 Tape	39	49	6.66								
7407 Tape	17	22	2.90								
LABOR	13	16	328.88							TOTAL COST	
LINKS		4	4.00							586.79	

Red Line CRW Plus 12 inches over original				150		CASCADE	Final Measurements
Seq & 8 Way Speed	Design Information					A4	93.0
Scale Factor						A3	93.0
100.0000						A2	93.0
						A1	93.0
	Main Line Measurements						
Line	A Line Mark	A Line Cut	B Line Mark	B Line Cut		B4	96.1
2 x A4 (Red)	91.9	96.9	94.9	99.9		B3	96.1
2 x A3	91.9	96.9	94.9	99.9		B2	96.1
2 x A2	91.9	96.9	94.9	99.9		B1	1.1
2 x A1 (Red)	91.9	96.9					
						C4	65.3
	C Cascade	C Line Mark	C Line Cut			C3	65.3
2 x C4	39.0	103.1	108.1			C2	65.3
2 x C3	39.0	103.1	108.1			C1	1.3
2 x C2	39.0	103.1	108.1				
						D4	115.0
						D3	115.0
	Short D Mark	D Cut	Long D Mark	Long D Cut		D2	115.0
6 x D's	49.8	54.8	113.3	118.3		D1	50.9
			113.3	118.3			
2 x B1/8	90.2		113.3	118.3			
2 x C1/8	86.7					Position	Length
2 x D1/8	87.0					Brake To Up Con	66.5
						Brake To Tail	1
						Brake To Tail	2
Steering Line	Position		Mark	Cut		Brake To Tail	3
Upper Steering	1.00		49.5	54.5		Brake To Tail	5
Upper Steering	2.00		49.5	54.5		Toggle	22.5
Upper Steering	3.00		49.5	54.5		Toggle Cut	38.0
Upper Steering	5.00		49.5	54.5			Size
To brake set			70.0	75.0			0
To toggle			96.0	108.0		Max Dep Speed	130
						Max weight lbs.	240
						Max weight Kgs	109

Red Line CRW				150		CASCADE	Final Measurements
Seq & 8 Way Speed	Design Information					A4	81.1
Scale Factor						A3	81.1
109.5445						A2	81.1
						A1	81.1
	Main Line Measurements						
Line	A Line Mark	A Line Cut	B Line Mark	B Line Cut		B4	84.6
2 x A4 (Red)	79.97	84.97	83.47	88.47		B3	84.6
2 x A3	79.97	84.97	83.47	88.47		B2	84.6
2 x A2	79.97	84.97	83.47	88.47		B1	1.1
2 x A1 (Red)	79.97	84.97					
91.97	91.97					C4	60.3
	C Cascade	C Line Mark	C Line Cut			C3	60.3
2 x C4	33.96	93.00	98.00			C2	60.3
2 x C3	33.96	93.00	98.00			C1	1.3
2 x C2	33.96	93.00	98.00				
						D4	106.0
						D3	106.0
	Short D Mark	D Cut	Long D Mark	Long D Cut		D2	106.0
6 x D's	45.79	50.79	104.18	109.18		D1	46.9
			104.18	109.18			
2 x B1/8	73.94		104.18	109.18			
2 x C1/8	73.39					Brake To Up Con	57.3
2 x D1/8	75.26					Brake To Tail	1
						Brake To Tail	2
						Brake To Tail	3
Sterring Line	Position		Mark	Cut		Brake To Tail	5
Upper Steering	1.00		43.00	48.00		Toggle	19.2
Upper Steering	2.00		43.00	48.00		Toggle Cut	34.7
Upper Steering	3.00		43.00	48.00			
Upper Steering	5.00		43.00	48.00			Size
To brake set			60.80	65.80			0
To toggle			83.53	95.53		Max Dep Speed	130
						Max weight lbs	240
						Max weight Kgs	109

Express				150				Final Measurements
Design Information								
Scale Factor						A4		84.2
1.0000						A3		84.2
						A2		84.2
Main Line Measurements						A1		84.2
Line	A LINE MARK	A LINE CUT	B LINE MARK	B LINE CUT				
						B4		86.5
2 x A/B 4 Center	83.1	89.1	85.4	91.4		B3		86.5
2 x A/B 3	83.1	89.1	85.4	91.4		B2		86.5
2 x A/B 2	83.1	89.1	85.4	91.4		B1		86.5
2 x A/B 1	83.1	89.1	85.4	91.4				
	C LINE MARK	C LINE CUT	D LINE MARK	D LINE CUT		C4		94.0
						C3		94.0
2 x C/D 4 Center	92.9	98.9	103.8	109.8		C2		94.0
2 x C/D 3	92.9	98.9	103.8	109.8		C1		94.0
2 x C/D 2	92.9	98.9	103.8	109.8				
2 x C/D 1	92.9	98.9	103.8	109.8		D4		104.9
						D3		104.9
						D2		104.9
Stabilizer						D1		104.9
B	83.4						Position	Length
C	83.0					Brake To Up Con		60.0
D	85.5					Brake To Tail	1	101.3
						Brake To Tail	2	101.3
Steering Line	Position			Cut		Brake To Tail	3	101.3
Upper Steering	1		41.3	47.3		Brake To Tail	5	101.3
Upper Steering	2		41.3	47.3		Toggle		46.9
Upper Steering	3		41.3	47.3		Toggle Cut		58.9
Upper Steering	5		41.3	47.3			Size	150
To brake set			60.0	66.0			Max Dep Speed	130
To toggle			106.9	118.9			Max weight lbs.	180

Tandem						525				
Tandem						525		CASCADE	Final Measurements	
Scale Factor								A5	142.8	244.1
1.0000								A4	142.8	244.1
								A3	142.8	244.1
								A2	142.8	244.1
								A1	142.8	244.1
Line	Cas. Mark				NE MARK	Cut		B5		248.1
2 x A5	101.50	101.50	243.50	243.50		249.5		B4		248.1
2 x A4	101.50	101.50	243.50	243.50		249.5		B3		248.1
2 x A3	101.50	101.50	243.50	243.50		249.5		B2		248.1
2 x A2	101.50	101.50	243.50	243.50		249.5		B1		248.1
2 x A1	101.50	101.50	243.50	243.50		249.5		C5	163.0	256.1
								C4	163.0	256.1
2 x C5	93.25	93.25	255.50	255.50		261.5		C3	163.0	256.1
2 x C4	93.25	93.25	255.50	255.50		261.5		C2	163.0	256.1
2 x C3	93.25	93.25	255.50	255.50		261.5		C1	163.0	268.4
2 x C2	93.25	93.25	255.50	255.50		261.5		D5		268.4
2 x C1	93.25	93.25	255.50	255.50		261.5		D4		268.4
								D3		268.4
16 x B&D's	105.5	105.50				111.5		D2		268.4
								D1		268.4
B stab		16.0		16.0		22.0			Position	Length
C stab		14.0		14.0		20.0		Brake To Up Con		196.5
D stab		12.0		12.0		18.0		Brake To Tail	1	268.8
								Brake To Tail	2	263.6
Sterring Line		Position		Mark		Cut		Brake To Tail	3	256.5
Upper Steering		1	72.3	72.3		78.3		Brake To Tail	5	256.5
Upper Steering		2	67.1	67.1		73.1		Brake To Tail	6	263.6
Upper Steering		3	60.0	60.0		66.0		Brake To Tail	7	268.8
Upper Steering		5	60.0	60.0		66.0		Toggle		18.8
Upper Steering		6	67.1	67.1		73.1		Toggle Cut		30.8
Upper Steering		7	72.3	72.3		78.3			Size	525
To brake set			196.5	196.5		202.5			Max Dep Speed	130
To toggle			219.8	241.0		231.8			Max weight lbs	788
									Max weight Kgs	358

Griffin			190	CASCADE	Final Measurements	
Scale Factor				A5	92.6	143.7
1.0000				A4	92.6	143.7
				A3	92.6	143.7
Line	Cas. Mark	LINE MARK	Cut	A2	92.6	143.7
2 x A5	51.2	142.5	148.5	A1	92.6	143.7
2 x A4	51.2	142.5	148.5	B5		145.7
2 x A3	51.2	142.5	148.5	B4		145.7
2 x A2	51.2	142.5	148.5	B3		145.7
2 x A1	51.2	142.5	148.5	B2		145.7
				B1		145.7
2 x C5	44.9	152.6	158.6	C5	108.9	153.7
2 x C4	44.9	152.6	158.6	C4	108.9	153.7
2 x C3	44.9	152.6	158.6	C3	108.9	153.7
2 x C2	44.9	152.6	158.6	C2	108.9	153.7
2 x C1	44.9	152.6	158.6	C1	108.9	153.7
				D5		162.1
20 x B&D's	54.4		60.4	D4		162.1
Stabilizer				D3		162.1
B	10.0			D2		162.1
C	11.0			D1		162.1
D	12.0				Position	Length
				Brake To Up Con		117.3
Steering Li	Position		Cut	Brake To Tail	1	162.5
Upper Stee	1	45.2	51.2	Brake To Tail	2	162.5
Upper Stee	2	45.2	51.2	Brake To Tail	3	162.5
Upper Stee	3	45.2	51.2	Brake To Tail	5	162.5
	5	45.2	51.2	Toggle		18.0
Upper Stee	7	45.2		Toggle Cut		30.0
To brake set		117.3			Size	190
To toggle		135.4	143.4	Max Dep Speed		130

Esprite			170		CASCADE	Final Measurements
Scale Factor	weight	CU In		A5	75.3	117.1
1.000000	0.00	0.00		A4	75.3	117.1
	Main Line Measurements			A3	75.3	117.1
Line	Cas. Mark	LINE MARK	Cut	A2	75.3	117.1
2 x A5	40.35	115.60	121.6	A1	75.3	117.1
2 x A4	40.35	115.60	121.6	B5	3.7	120.8
2 x A3	40.35	115.60	121.6	B4		120.8
2 x A2	40.35	115.60	121.6	B3		120.8
2 x A1	40.35	115.60	121.6	B2		120.8
				B1		120.8
2 x C5	35.50	124.96	131.0	C5	9.4	126.5
2 x C4	35.50	124.96	131.0	C4	89.5	126.5
2 x C3	35.50	124.96	131.0	C3	89.5	126.5
2 x C2	35.50	124.96	131.0	C2	89.5	126.5
2 x C1	35.50	124.96	131.0	C1	89.5	126.5
				D5	18.1	135.2
20 x B&D's		44.26	50.3	D4		135.2
Stabilizer				D3		135.2
B	16.00			D2		135.2
C	18.29			D1		135.2
D	31.35				Position	Length
				Brake To Up Con		88.0
Sterring Line	Position		Cut	Brake To Tail	1	129.5
Upper Steeri	1.00	41.50	47.5	Brake To Tail	2	129.5
Upper Steeri	2.00	41.50	47.5	Brake To Tail	3	129.5
Upper Steeri	3.00	41.50	47.5	Brake To Tail	5	129.5
Upper Steeri	5.00	41.50	47.5	Toggle		23.5
To brake set		91.20		Toggle Cut		35.8
To toggle		118.96	127.0		Size	170

ZP MANTA			290	CASCADE	Final Measurements	Cascade Meters	Final Measurements Meters	
Scale Factor				A5	97.3	148.6	247.0	377.5
1.00000				A4	97.3	148.6	247.0	377.5
				A3	97.3	148.6	247.0	377.5
Line	Cas. Mark	LINE MARK	Cut	A2	97.3	148.6	247.0	377.5
2 x A5	51.5	147.5	153.5	A1	97.3	148.6	247.0	377.5
2 x A4	51.5	147.5	153.5	A To B	5.38	154.0		391.2
2 x A3	51.5	147.5	153.5	B4		154.0		391.2
2 x A2	51.5	147.5	153.5	B3		154.0		391.2
2 x A1	51.5	147.5	153.5	B2		154.0		391.2
				B1		145.1		368.6
2 x C5	47.0	158.0	164.0	A To C	10.50	159.1	26.7	404.2
2 x C4	47.0	158.0	164.0	C4	112.3	159.1	285.1	404.2
2 x C3	47.0	158.0	164.0	C3	112.3	159.1	285.1	404.2
2 x C2	47.0	158.0	164.0	C2	112.3	159.1	285.1	404.2
2 x C1	47.0	158.0	164.0	C1	112.3	142.6	285.1	362.3
NEW C1	30.5	141.5		A To D	20.38	169.0		429.3
20 x B&D's	56.5		62.5	D4		169.0		429.3
	Outside Lines			D3		169.0		429.3
B 1	49.1			D2		169.0		429.3
C1	30.5	141.5	147.5	A To Tail	5.13	138.1		350.8
D 1	27.1				Position	Length		
				Brake To Up Con		101.3		257.2
Sterring Line	Position	Mark	Cut	Brake To Tail	1	157.8		400.7
Upper Steerin	1	56.5	61.0	Brake To Tail	2	157.8		400.7
Upper Steerin	2	56.5	61.0	Brake To Tail	3	157.8		400.7
Upper Steerin	3	56.5	61.0	Brake To Tail	5	157.8		400.7
Upper Steerin	5	56.5	61.0	Toggle		22.3		56.5
To brake set		105.3		Toggle Cut		34.3		87.0
To toggle		127.5	135.5		Size	290		

MANTA						135	Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Meters	
Scale Factor		weight	CU In		Fabric	A5	65.5	102.1	166.4	259.4	
0.682288		8.19	402.55		35	A4	65.5	102.1	166.4	259.4	
		Main Line Measurements					A3	65.5	102.1	166.4	259.4
Line		Cas. Mark	LINE MARK			Cut	A2	65.5	102.1	166.4	259.4
2 x A5	51.500	35.1	100.6	147.5		106.6	A1	65.5	102.1	166.4	259.4
2 x A4	51.500	35.1	100.6	147.5		106.6	A To B	3.16	105.3	267.5	
2 x A3	51.500	35.1	100.6	147.5		106.6	B4		105.3	267.5	
2 x A2	51.500	35.1	100.6	147.5		106.6	B3		105.3	267.5	
2 x A1	51.500	35.1	100.6	147.5		106.6	B2		105.3	267.5	
							B1		105.3	267.5	
2 x C5	45.375	31.0	108.8	159.5		114.8	A To C	8.19	110.3	20.8	280.2
2 x C4	45.375	31.0	108.8	159.5		114.8	C4	77.9	110.3	197.8	280.2
2 x C3	45.375	31.0	108.8	159.5		114.8	C3	77.9	110.3	197.8	280.2
2 x C2	45.375	31.0	108.8	159.5		114.8	C2	77.9	110.3	197.8	280.2
2 x C1	45.375	31.0	108.8	159.5		114.8	C1	77.9	110.3	197.8	280.2
							A To D	15.78	48.2		122.5
20 x B&D's	56.5		38.5			44.5	D4		117.9		299.5
Stabilizer							D3		117.9		299.5
B		10.9		16.0			D2		117.9		299.5
C		12.5		18.3			A To Tail	5.35	117.9		299.5
D		21.4		31.4				Position	Length		
							Brake To Up Con		72.9		185.3
Sterring Line		Position		Mark		Cut	Brake To Tail	1	111.5		283.2
Upper Steering		1.00	38.5	56.5		44.5	Brake To Tail	2	111.5		283.2
Upper Steering		2.00	38.5	56.5		44.5	Brake To Tail	3	111.5		283.2
Upper Steering		3.00	38.5	56.5		44.5	Brake To Tail	5	111.5		283.2
Upper Steering		5.00	38.5	56.5		44.5	Toggle		21.7		55.1
To brake set			77.4	113.5			Toggle Cut		33.9		86.2
To toggle			103.4	151.5		111.4		Size	135		

OLD Maverone					250	CASCADE		Final Measurements
Same as Raider					A5	-46.3	5.1	
Scale Factor					Fabric	A4	-46.3	5.1
1.0000					75	A3	-46.3	5.1
Main Line Measurements					A2	-46.3	5.1	
Line	Cas. Mark	Line Mark		Cut	A1	-46.3	5.1	
2 x A5	51.5	51.5	4.0	4.0	10.0	B5	-43.5	
2 x A4	51.5	51.5	4.0	4.0	10.0	B4	-43.5	
2 x A3	51.5	51.5	4.0	4.0	10.0	B3	-43.5	
2 x A2	51.5	51.5	4.0	4.0	10.0	B2	-43.5	
2 x A1	51.5	51.5	4.0	4.0	10.0	B1	-43.5	
						C5	-41.7	5.1
						C4	-41.7	5.1
2 x C5	46.9	46.9	4.0	4.0	10.0	C3	-41.7	5.1
2 x C4	46.9	46.9	4.0	4.0	10.0	C2	-41.7	5.1
2 x C3	46.9	46.9	4.0	4.0	10.0	C1	-41.7	5.1
2 x C2	46.9	46.9	4.0	4.0	10.0	D5	-38.9	
2 x C1	46.9	46.9	4.0	4.0	10.0	D4	-38.9	
						D3	-38.9	
20 x B&D's	4	4.0	10.0			D2	-38.9	
Stabilizer						D1	-38.9	
B	16.0		16.0			Position	Length	
C	14.0		14.0			Brake To Up Con	105.0	
D	12.0		12.0			Brake To Tail	1	109.0
						Brake To Tail	2	109.0
Sterring Line	Position	Mark		Cut		Brake To Tail	3	109.0
Upper Steering	1	4.0	4.0	10.0		Toggle		22.5
Upper Steering	2	4.0	4.0	10.0		Toggle Cut		34.5
Upper Steering	3	4.0	4.0	10.0		Size		250
Upper Steering	5	4.0	4.0	10.0		Max Dep Speed		130
To brake set		105.0	105.0			Max weight lbs		250
To toggle		127.5	127.5	135.5		Max weight Kgs		114
						Date of Manufacture		
						Serial Number		

NEW Maverone					250	CASCADE		Final Measurements
					A5	90.4	138.1	
Scale Factor					Fabric	A4	90.4	138.1
0.9285					65	A3	90.4	138.1
Line					Cas. Mark	LINE MARK	Cut	A2
2 x A5	47.8	137.0	143.0			A1	90.4	138.1
2 x A4	47.8	137.0	143.0			B5	141.6	
2 x A3	47.8	137.0	143.0			B4	141.6	
2 x A2	47.8	137.0	143.0			B3	141.6	
2 x A1	47.8	137.0	143.0			B2	141.6	
						B1	141.6	
2 x C5	42.1	148.1	154.1			C5	107.2	149.2
2 x C4	42.1	148.1	154.1			C4	107.2	149.2
2 x C3	42.1	148.1	154.1			C3	107.2	149.2
2 x C2	42.1	148.1	154.1			C2	107.2	149.2
2 x C1	42.1	148.1	154.1			C1	107.2	149.2
						D5	158.4	
20 x B&D's					52.5	58.5	D4	158.4
Stabilizer							D3	158.4
B	14.9					D2	158.4	
C	13.0					D1	158.4	
D	11.1					Position	Length	
						Brake To Up Con	105.4	
Sterring Lin	Position		Cut			Brake To Tail	1	157.8
Upper Steer	1	52.5	58.5			Brake To Tail	2	157.8
Upper Steer	2	52.5	58.5			Brake To Tail	3	157.8
Upper Steer	3	52.5	58.5			Brake To Tail	5	157.8
Upper Steer	5	52.5	58.5			Toggle		35.3
To brake set		105.4				Toggle Cut		47.3
To toggle		140.7	148.7			Size		250
						Max Dep Speed		130
						Max weight lbs		250
						Max weight Kgs		114
						Date of Manufacture		
						Serial Number		

Raider			220					
Raider			220		CASCADE	Final Measurements Inches	CASCADE	Final Measurements Meters
Scale Factor		Fabric		A5	89.8	134.6	228.0	341.9
1.0000		75		A4	89.8	134.6	228.0	341.9
Main Line Measurements				A3	89.8	134.6	228.0	341.9
Line	Cas. Mark	LINE MARK	Cut	A2	89.8	134.6	228.0	341.9
2 x A5	45.0	133.5	139.5	A1	89.8	134.6	228.0	341.9
2 x A4	45.0	133.5	139.5	B5		138.0		350.5
2 x A3	45.0	133.5	139.5	B4		138.0		350.5
2 x A2	45.0	133.5	139.5	B3		138.0		350.5
2 x A1	45.0	133.5	139.5	B2		138.0		350.5
				B1		138.0		350.5
2 x C5	39.5	144.0	150.0	C5	105.8	145.1	268.6	368.6
2 x C4	39.5	144.0	150.0	C4	105.8	145.1	268.6	368.6
2 x C3	39.5	144.0	150.0	C3	105.8	145.1	268.6	368.6
2 x C2	39.5	144.0	150.0	C2	105.8	145.1	268.6	368.6
2 x C1	39.5	144.0	150.0	C1	105.8	145.1	268.6	368.6
				D5		154.0		391.2
20 x B&D's	49.5		55.5	D4		154.0		391.2
Stabilizer				D3		154.0		391.2
B	16.0			D2		154.0		391.2
C	14.0			D1		154.0		391.2
D	12.0				Position	Length		
				Brake To Up Con		102.5		260.4
Sterring Line	Position		Cut	Brake To Tail	1	147.0		373.4
Upper Steering	1	44.5	50.5	Brake To Tail	2	147.0		373.4
Upper Steering	2	44.5	50.5	Brake To Tail	3	147.0		373.4
Upper Steering	3	44.5	50.5	Brake To Tail	5	147.0		373.4
Upper Steering	5	44.5	50.5	Toggle		23.5		59.7
To brake set		107.0		Toggle Cut		35.5		90.2
To toggle		130.5	138.5		Size	220		

Clipper						194			
Clipper						195		CASCADE	Final Measurements
Design Information						A5	68.9	111.4	
Scale Factor					Fabric	A4	68.9	111.4	
1.0026					75	A3	68.9	111.4	
						A2	68.9	111.4	
Main Line Measurements						A1	68.9	111.4	
Line		Cas. Mark	Line Mark		Cut	B5		113.3	
2 x A5	42.5	42.6	110.3	110.0	116.3	B4		113.3	
2 x A4	42.5	42.6	110.3	110.0	116.3	B3		113.3	
2 x A3	42.5	42.6	110.3	110.0	116.3	B2		113.3	
2 x A2	42.5	42.6	110.3	110.0	116.3	B1		113.3	
2 x A1	42.5	42.6	110.3	110.0	116.3	C5	74.5	121.4	
						C4	-41.8	5.1	
2 x C5	46.9	47.0	120.3	120.0	126.3	C3	-41.8	5.1	
2 x C4	46.9	47.0	4.0	4.0	10.0	C2	-41.8	5.1	
2 x C3	46.9	47.0	4.0	4.0	10.0	C1	-41.8	5.1	
2 x C2	46.9	47.0	4.0	4.0	10.0	D5		118.9	
2 x C1	46.9	47.0	4.0	4.0	10.0	D4		2.6	
						D3		2.6	
20 x B&D's	45.5	45.6			51.6	D2		2.6	
Stabilizer						D1		2.6	
B		16.0		16.0			Position	Length	
C		14.0		14.0		Brake To Up Con		105.3	
D		12.0		12.0		Brake To Tail	1	109.3	
						Brake To Tail	2	109.3	
Sterring Line		Position	Mark		Cut	Brake To Tail	3	109.3	
Upper Steering		1	4.0	4.0	10.0	Brake To Tail	5	109.3	
Upper Steering		2	4.0	4.0	10.0	Toggle		22.6	
Upper Steering		3	4.0	4.0	10.0	Toggle Cut		34.6	
Upper Steering		5	4.0	4.0	10.0		Size	195	
To brake set			105.3	105.0			Max Dep Speed	130	
To toggle			127.8	127.5	135.8		Max weight lbs	195	
							Max weight Kgs	89	
							Date of Manufacture		
							Serial Number		
						217.3296877			

Demonstrator	Updated		220		CASCADE	Final Measurements	Cascade Meters	Final Measurements Meters
Design Information	12-Jul-07			A4	77.0	128.4	195.6	326.1
Scale Factor				A3	77.0	128.4	195.6	326.1
100.000000				A2	77.0	128.4	195.6	326.1
				A1	77.0	128.4	195.6	326.1
Main Line Measurements				A To B	4.50		11.4	0.0
Line	Cas. Mark	LINE MARK	Cut	B4		132.9		337.5
2 x A4 (Red)	51.50	127.25	132.25	B3		132.9		337.5
2 x A3	51.50	127.25	132.25	B2		132.9		337.5
2 x A2	51.50	127.25	132.25	B1		132.9		337.5
2 x A1	51.50	127.25	132.25	A To C	12.00		30.5	0.0
				C4	95.5	140.4	242.6	356.6
				C3	95.5	140.4	242.6	356.6
2 x C4	45.00	139.25	144.25	C2	95.5	140.4	242.6	356.6
2 x C3	45.00	139.25	144.25	C1	95.5	140.4	242.6	356.6
2 x C2	45.00	139.25	144.25	A To D	23.0		58.4	0.0
2 x C1	45.00	139.25	144.25	D4		151.4		384.5
				D3		151.4		384.5
				D2		151.4		384.5
16 x B&D's	56.0	61.0	61.0	D1		151.4		384.5
				A To Tail	17.9		45.4	0.0
B Stabilizer Measurement	9.80				Position	Length		
C Stabilizer Measurement	20.73			Brake To Up Con		100.5		255.3
D Stabilizer Measurement	31.89			Brake To Tail	1	150.3		381.6
				Brake To Tail	2	150.3		381.6
Steering Line	Position		Cut	Brake To Tail	3	150.3		381.6
Upper Steering	1	49.75	54.75	Brake To Tail	5	150.3		381.6
Upper Steering	2	49.75	54.75	Toggle		18.3		46.4
Upper Steering	3	49.75	54.75	Toggle Cut		30.5		77.5
Upper Steering	5	49.75	54.75					
To brake set		104.75	111.75					
To toggle		127.25	135.25					

Prodigy 2		UPDATED 05 jun09		225		Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Inches	
Design Information		Slider				A4	76.6	129.7	194.4	329.5
Scale Factor	35.4	24.1	Inches			A3	76.6	129.7	194.4	329.5
100.000000	89.9	61.2	Meters			A2	76.6	129.7	194.4	329.5
Top & Bottoms						A1	76.6	129.7	194.4	329.5
Main Line Measurements						A To B	3.3	8.4		
Line	Cas. Mark	LINE MARK		Cut			B4	133.0		337.9
2 x A4 (Red)	53.3	128.6		134.6			B3	133.0		337.9
2 x A3	53.3	128.6		134.6			B2	133.0		337.9
2 x A2	53.3	128.6		134.6			B1	128.2		325.7
2 x A1 (Red)	53.3	128.6		134.6			A To C	11.2	28.4	
						C4	95.6	140.9	242.7	357.9
						C3	95.6	140.9	242.7	357.9
2 x C4	45.5	139.8		145.8			C2	95.6	140.9	242.7
2 x C3	45.5	139.8		145.8			C1	94.8	125.3	240.7
2 x C2	45.5	139.8		145.8			A To D	22.3	56.6	
2 x C1	30.7	124.2		130.2			D4	152.0		386.1
						D3	152.0			386.1
Long "B"	130.2						D2	152.0		386.1
Long "D"	148.8						D1	125.3		318.3
						A To Tail	19.9	77.1		
16 x B&D's	56.6			62.6						
2 x B1/10	51.8						Position	Length		
						Brake To Up Con		97.8		248.4
2 x D2/8	30.7						Brake To Tail	1	148.1	376.2
						Brake To Tail	2	148.1		376.2
Sterring Line	Position	Mark		Cut			Brake To Tail	3	148.1	376.2
Upper Steering	1.0	50.3		55.3			Brake To Tail	5	148.1	376.2
Upper Steering	2.0	50.3		55.3			Toggle		22.3	56.6
Upper Steering	3.0	50.3		55.3			Toggle Cut		34.3	87.1
Upper Steering	5.0	50.3		55.3						
To brake set		102.3		109.3						
To toggle		128.6		140.6						

Sharpchuter		UPDATED 30 Mar 09		220		Cascade	Final Measurements	Cascade Meters	Measurements Meters
Scale Factor		Design Information						0.0	0.0
0.9476	30.3	24.2	Inches	A4	76.8	125.5	195.1	318.8	
	77.0	61.4	Meters	A3	76.8	125.5	195.1	318.8	
Top & Bottoms		97.5	92.7	Meters	A2	76.8	125.5	195.1	318.8
Line	Cas. Mark	LINE MARK	Cut	A1	76.8	125.5	195.1	318.8	
2 x A4	48.80	124.37	129.37	A To B	4.9		12.4	0.0	
2 x A3	48.80	124.37	129.37	B4		130.4		331.1	
2 x A2	48.80	124.37	129.37	B3		130.4		331.1	
2 x A1	48.80	124.37	129.37	B2		130.4		331.1	
				B1		130.4		331.1	
2 x C4	43.12	135.98	140.98	A To C	11.6		29.5	0.0	
2 x C3	43.12	135.98	140.98	C4	94.1	137.1	239.1	348.3	
2 x C2	43.12	135.98	140.98	C3	94.1	137.1	239.1	348.3	
2 x C1	43.12	135.98	140.98	C2	94.1	137.1	239.1	348.3	
				C1	94.1	137.1	239.1	348.3	
20 x B&D's		53.54	58.5	A To D	22.2		56.3	0.0	
Stabilizer				D4		147.7		375.0	
B	Flare			D3		147.7		375.0	
C	17.1			D2		147.7		375.0	
D	26.5			D1		147.7		375.0	
				A To Tail	16.7	Length	42.3		
Sterring Line		Position	Cut	Brake To Up Con		95.0		241.3	
Upper Steering	1	51.17	56.17	Brake To Tail	1	146.2		371.3	
Upper Steering	2	51.17	56.17	Brake To Tail	2	146.2		371.3	
Upper Steering	3	51.17	56.17	Brake To Tail	3	146.2		371.3	
Upper Steering	5	51.17	56.17	Brake To Tail	5	146.2		371.3	
To brake set		99.50	106.50	Toggle		17.1		43.4	
To toggle		120.82	128.82	Toggle Cut		29.3		74.5	

FURY		36.5	34.5			220					
FURY		UPDATED 30 Mar 09				175		Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Inches
Design Information							A4	68.8	114.6	174.8	291.1
Scale Factor	30.3	27.0	21.6		Inches		A3	68.8	114.6	174.8	291.1
89.188259	24.2	68.6	54.8		Meters		A2	68.8	114.6	174.8	291.1
Top & Bottoms		82.7	78.2		Meters		A1	68.8	114.6	174.8	291.1
Main Line Measurements							A To B	4.01			
Line		Cas. Mark	LINE MARK			Cut	B4		118.6		301.3
2 x A4 (Red)	51.50	45.9	113.5	127.3		118.5	B3		118.6		301.3
2 x A3	51.50	45.9	113.5	127.3		118.5	B2		118.6		301.3
2 x A2	51.50	45.9	113.5	127.3		118.5	B1		118.6		301.3
2 x A1	51.50	45.9	113.5	127.3		118.5	A To C	10.70			
							C4	85.3	125.3	216.7	318.3
							C3	85.3	125.3	216.7	318.3
2 x C4	45.00	40.1	124.2	139.3		129.2	C2	85.3	125.3	216.7	318.3
2 x C3	45.00	40.1	124.2	139.3		129.2	C1	85.3	125.3	216.7	318.3
2 x C2	45.00	40.1	124.2	139.3		129.2	A To D	20.5			
2 x C1	45.00	40.1	124.2	139.3		129.2	D4		135.1		343.2
							D3		135.1		343.2
Long "B"		117.5					D2		135.1		343.2
Long "D"		134.0					D1		135.1		343.2
							A To Tail	14.7			
16 x B&D's	56	49.9	54.9			54.9					
2 x B1/10	11	9.8						Position	Length		
2 x C1/10	12	10.7					Brake To Up Con		88.9		225.9
2 x D2/8	13	11.6					Brake To Tail	1	133.3		338.6
							Brake To Tail	2	133.3		338.6
Sterring Line		Position		Mark		Cut	Brake To Tail	3	133.3		338.6
Upper Steering		1.0	44.4	49.8		49.4	Brake To Tail	5	133.3		338.6
Upper Steering		2.0	44.4	49.8		49.4	Toggle		15.8		40.2
Upper Steering		3.0	44.4	49.8		49.4	Toggle Cut		28.1		71.3
Upper Steering		5.0	44.4	49.8		49.4					
To brake set			93.4	104.8		100.4					
To toggle			113.5	127.3		121.5					

Maverick		UPDATED 30 Mar 09		175		Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Inches
Design Information	Slider				A4	69.8	114.9	177.3	291.8
Scale Factor	27.0	21.6	Inches		A3	69.8	114.9	177.3	291.8
93.541435	68.7	54.9	Meters		A2	69.8	114.9	177.3	291.8
Top & Bottoms	82.6	78.4	Meters		A1	69.8	114.9	177.3	291.8
Main Line Measurements					A To B	4.30			
Line	Cas. Mark	LINE MARK		Cut	B4		119.2		302.7
2 x A4 (Red)	45.18	113.7		118.7	B3		119.2		302.7
2 x A3	45.2	113.7		118.7	B2		119.2		302.7
2 x A2	45.2	113.7		118.7	B1		119.2		302.7
2 x A1	45.2	113.7		118.7	A To C	10.48			
					C4	85.7	125.3	217.7	318.4
					C3	85.7	125.3	217.7	318.4
2 x C4	39.7	124.2		129.2	C2	85.7	125.3	217.7	318.4
2 x C3	39.7	124.2		129.2	C1	85.7	125.3	217.7	318.4
2 x C2	39.7	124.2		129.2	A To D	20.2			
2 x C1	39.7	124.2		129.2	D4		135.1		343.1
					D3		135.1		343.1
					D2		135.1		343.1
					D1		135.1		343.1
					A To Tail	15.4			
16 x B&D's	49.5			54.5					
2 x B1/10	10.3					Position	Length		
2 x C1/10	11.2				Brake To Up Con		89.2		226.6
2 x D2/8	12.2				Brake To Tail	1	134.2		340.9
					Brake To Tail	2	134.2		340.9
Steering Line	Position	Mark		Cut	Brake To Tail	3	134.2		340.9
Upper Steering	1	45.0		50.0	Brake To Tail	5	134.2		340.9
Upper Steering	2	45.0		50.0	Toggle		18.0		45.8
Upper Steering	3	45.0		50.0	Toggle Cut		30.3		76.9
Upper Steering	5	45.0		50.0					
To brake set		93.7		100.7					
To toggle		116.0		124.0					

Firelite		UPDATED 30 Mar 09		145		Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Inches
Design Information	Slider				A4	63.6	104.7	161.6	265.9
Scale Factor	24.6	19.7	Inches		A3	63.6	104.7	161.6	265.9
91.025899	62.4	49.9	Meters		A2	63.6	104.7	161.6	265.9
Top & Bottoms	75.1	71.4	Meters		A1	63.6	104.7	161.6	265.9
Main Line Measurements					A To B	3.87			
Line	Cas. Mark	LINE MARK		Cut	B4		108.5		275.7
2 x A4 (Red)	41.2	103.5		108.5	B3		108.5		275.7
2 x A3	41.2	103.5		108.5	B2		108.5		275.7
2 x A2	41.2	103.5		108.5	B1		108.5		275.7
2 x A1	41.2	103.5		108.5	A To C	9.56			
					C4	78.2	114.2	198.5	290.1
					C3	78.2	114.2	198.5	290.1
2 x C4	36.2	113.1		118.1	C2	78.2	114.2	198.5	290.1
2 x C3	36.2	113.1		118.1	C1	78.2	114.2	198.5	290.1
2 x C2	36.2	113.1		118.1	A To D	18.4			
2 x C1	36.2	113.1		118.1	D4		123.1		312.7
					D3		123.1		312.7
					D2		123.1		312.7
					D1		123.1		312.7
					A To Tail	13.1			
16 x B&D's	45.1	50.1		50.1					
2 x B1/10	10.0					Position	Length		
2 x C1/10	10.9				Brake To Up Con		80.8		205.3
2 x D2/8	11.8				Brake To Tail	1	121.8		309.4
					Brake To Tail	2	121.8		309.4
Sterring Line	Position	Mark		Cut	Brake To Tail	3	121.8		309.4
Upper Steering	1.0	41.0		46.0	Brake To Tail	5	121.8		309.4
Upper Steering	2.0	41.0		46.0	Toggle		16.0		40.6
Upper Steering	3.0	41.0		46.0	Toggle Cut		28.3		71.8
Upper Steering	5.0	41.0		46.0					
To brake set		85.3		92.3					
To toggle		105.6		113.6					

Mini-Cricket 130				UPDATED 30 Mar 09	130		Cascade Inches	Measurements Inches	Cascade Meters	Measurements Inches
Design Information	Slider					A4	60.3	99.2	153.1	251.9
Scale Factor	23.0	18.6	Inches			A3	60.3	99.2	153.1	251.9
100.000000	58.4	47.2	Meters			A2	60.3	99.2	153.1	251.9
Top & Bottoms	28.0	26.6	Meters			A1	60.3	99.2	153.1	251.9
Main Line Measurements						A To B	3.70			
Line	Cas. Mark	LINE MARK		Cut		B4		102.9		261.3
2 x A4 (Red)	39.0	98.0		103.0		B3		102.9		261.3
2 x A3	39.0	98.0		103.0		B2		102.9		261.3
2 x A2	39.0	98.0		103.0		B1		102.9		261.3
2 x A1	39.0	98.0		103.0		A To C	9.05			
						C4	74.1	108.2	188.2	274.9
						C3	74.1	108.2	188.2	274.9
2 x C4	34.3	107.1		112.1		C2	74.1	108.2	188.2	274.9
2 x C3	34.3	107.1		112.1		C1	74.1	108.2	188.2	274.9
2 x C2	34.3	107.1		112.1		A To D	17.5			
2 x C1	34.3	107.1		112.1		D4		116.7		296.3
						D3		116.7		296.3
						D2		116.7		296.3
						D1		116.7		296.3
						A To Tail	11.9			
16 x B&D's	42.7	47.7		47.7						
2 x B1/10	11.0						Position	Length		
2 x C1/10	12.0					Brake To Up Con		76.3		193.8
2 x D2/8	13.0					Brake To Tail	1	115.1		292.4
						Brake To Tail	2	115.1		292.4
Sterring Line	Position	Mark		Cut		Brake To Tail	3	115.1		292.4
Upper Steering	1.0	38.8		43.8		Brake To Tail	5	115.1		292.4
Upper Steering	2.0	38.8		43.8		Toggle		15.0		38.0
Upper Steering	3.0	38.8		43.8		Toggle Cut		27.2		69.1
Upper Steering	5.0	38.8		43.8						
To brake set		80.8		87.8						
To toggle		100.0		108.0						

130 RESERVE			130		Cascade	Final Measurements	Cascade Meters	Final Meters	
Design Information					A4	68.8	102.6	174.6	260.7
Scale Factor					A3	68.8	102.6	174.6	260.7
1.0000					A2	68.8	102.6	174.6	260.7
					A1	68.8	102.6	174.6	260.7
Main Line Measurements					A To B	2.5		6.4	
Line	Cas. Mark	Line Mark	Cut		B4		105.1		267.0
2 x A4 (Red)	34.0	101.5	106.3		B3		105.1		267.0
2 x A3	34.0	101.5	106.3		B2		105.1		267.0
2 x A2	34.0	101.5	106.3		B1		105.1		267.0
2 x A1	34.0	101.5	106.3		A To C	9.0		22.9	
					C4	83.8	111.6	212.7	283.5
					C3	83.8	111.6	212.7	283.5
2 x C4	28.0	110.5	115.3		C2	83.8	111.6	212.7	283.5
2 x C3	28.0	110.5	115.3		C1	83.8	111.6	212.7	283.5
2 x C2	28.0	110.5	115.3		A To D	17.5		44.5	
2 x C1	28.0	110.5	115.3		D4		120.1		305.1
					D3		120.1		305.1
					D2		120.1		305.1
16 x B&D's	36.5	42.5			D1		120.1		305.1
					A To Tail	11.6		29.5	
2 x B1/8	1.0					Position	Length		
2 x C1/8	2.0				Brake To Up Con		83.8		212.7
2 x D1/8	3.0				Brake To Tail	1	118.3		300.4
					Brake To Tail	2	118.3		300.4
Sterring Line	Position	Mark	Cut		Brake To Tail	3	118.3		300.4
Upper Steering	1	34.5	40.5		Brake To Tail	5	118.3		300.4
Upper Steering	2	34.5	40.5		Toggle		16.5		41.9
Upper Steering	3	34.5	40.5		Toggle Cut		28.8		73.0
Upper Steering	5	34.5	40.5						
To brake set		88.0	94.0						
To toggle		108.8	120.8						

JOE

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CASCADE

**Final
Measurements**

Design Information

Scale Factor

0.8519

Main Line Measurements

Line Cas. Mark LINE MARK

2 x A4 45.25 38.55 96.90

2 x A3 45.25 38.55 96.90

2 x A2 45.25 38.55 96.90

2 x A1 45.25 38.55 96.90

2 x C4 39.75 33.86 105.85

2 x C3 39.75 33.86 105.85

2 x C2 39.75 33.86 105.85

2 x C1 29.25 24.92 96.90

12 x B&D's 49.5 42.2 46.9

2 x B1/8 46.35 39.5

2 x D1/8 29.35 25.0

Sterring Line Position Mark

Upper Steering 1 38.33

Upper Steering 2 38.33

Upper Steering 3 38.33

Upper Steering 5 38.33

To brake set 79.86

To toggle 96.26

Cut

101.65

101.65

101.65

101.65

110.60

110.60

110.60

101.65

110.60

110.60

110.60

Cut

44.33

44.33

44.33

44.33

87.86

108.26

A4

59.6

98.0

A3

59.6

98.0

A2

59.6

98.0

A1

59.6

98.0

B4

101.6

B3

101.6

B2

101.6

B1

99.0

C4

73.2

107.0

C3

73.2

107.0

C2

73.2

107.0

C1

73.2

98.0

D4

115.3

D3

115.3

D2

115.3

D1

98.1

Position

Length

Brake To Up Con

79.9

Brake To Tail

1

118.2

Brake To Tail

2

118.2

Brake To Tail

3

118.2

Brake To Tail

5

118.2

Toggle

16.4

Toggle Cut

28.4

Maverick-A				200	Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Metres
Design Information				A4	89.5	134.6	227.3	341.9
Scale Factor				A3	89.5	134.6	227.3	341.9
1.0000				A2	89.5	134.6	227.3	341.9
				A1	89.5	134.6	227.3	341.9
Main Line Measurements								
Line	Cas. Mark	Line Mark	Cut	B4		138.9		352.7
2 x A4 (Red)	45.25	133.50	139.50	B3		138.9		352.7
2 x A3	45.25	133.50	139.50	B2		138.9		352.7
2 x A2	45.25	133.50	139.50	B1		138.9		352.7
2 x A1	45.25	133.50	139.50					
				C4	105.5	145.1	268.0	368.6
				C3	105.5	145.1	268.0	368.6
2 x C4	39.75	144.00	150.00	C2	105.5	145.1	268.0	368.6
2 x C3	39.75	144.00	150.00	C1	105.5	145.1	268.0	368.6
2 x C2	39.75	144.00	150.00					
2 x C1	39.75	144.00	150.00	D4		154.9		393.4
				D3		154.9		393.4
				D2		154.9		393.4
16 x B&D's	49.5	55.5		D1		154.9		393.4
2 x B1/10	1.0				Position	Length		
2 x C1/10	2.0			Brake To Up Con		103.3		262.3
2 x D2/8	3.0			Brake To Tail	1	148.1		376.0
				Brake To Tail	2	148.1		376.0
Sterring Line	Position		Cut	Brake To Tail	3	148.1		376.0
Upper Steering	1	44.80	50.80	Brake To Tail	5	148.1		376.0
Upper Steering	2	44.80	50.80	Toggle		29.0		73.7
Upper Steering	3	44.80	50.80	Toggle Cut		41.5		105.4
Upper Steering	5	44.80	50.80		Size	200		
To brake set		107.75	113.75		Max Dep Speed	130		
To toggle		141.25	153.25		Max weight lbs	240		

Star Trac	I & II		290		Cascade Inches	Final Measurements Inches	Cascade Meters	Final Measurements Meters	
Scale Factor	Design Information								
1.0000					A4	86.1	133.9	218.6	340.2
	Main Line Measurements				A3	86.1	133.9	218.6	340.2
Line	Cas. Mark	LINE MARK	Cut		A2	86.1	133.9	218.6	340.2
					A1	86.1	133.9	218.6	340.2
2 x A4	48.00	132.80	137.3						
2 x A3	48.00	132.80	137.3		B4		138.1		350.8
2 x A2	48.00	132.80	137.3		B3		138.1		350.8
2 x A1	48.00	132.80	137.3		B2		138.1		350.8
					B1		138.1		350.8
2 x C4	38.00	146.80	151.3						
2 x C3	38.00	146.80	151.3		C4	110.1	147.9	279.5	375.7
2 x C2	38.00	146.80	151.3		C3	110.1	147.9	279.5	375.7
2 x C1	38.00	146.80	151.3		C2	110.1	147.9	279.5	375.7
Long B		136.75	141.3		C1	110.1	147.9	279.5	375.7
Long D		160.75	165.3						
20 x B&D's		52.20	56.7		D4		162.1		411.8
Stabilizer					D3		162.1		411.8
B	0.0				D2		162.1		411.8
C	0.0				D1		162.1		411.8
D	0.0					Position	Length		
Sterring Line	Position	Mark	Cut		Brake To Up Con		98.0		248.9
Upper Steering	1	54.80	59.30		Brake To Tail	1	152.8		388.1
Upper Steering	2	54.80	59.30		Brake To Tail	2	152.8		388.1
Upper Steering	3	54.80	59.30		Brake To Tail	3	152.8		388.1
Upper Steering	5	54.80	59.30		Brake To Tail	5	152.8		388.1
To brake set		102.50			Toggle		32.5		82.6
To toggle		135.00	143.00		Toggle Cut		44.5		113.0

