2010 Rating Application - Bay Area Multihull Association

The Rating Committee has no responsibility for the seaworthiness or safety of yachts rated & cites US SAILING Fundamental Rule 4, "It shall be the sole responsibility of each yacht to decide whether or not to start or to continue to race".

Boat Name		Name	
Sail Number		Street	
Boat Model	Corsair 24 MkII	City, State, Zip	
Manufacturer	Corsair Marine	Email Address:	
Year Built		Day Phone:	
Marina		Evening Phone:	
Slip Number		Emergency #:	

Do you want an ODR (One Design Rating)?

Yes ☐ No ☐ N / A ☐

This is a: Unmodified Class Boat ☐
Modified Class Boat ☐
Non-Class (Custom) ☐
Cut/paste ☒

Source of the information Provided (Circle/check all that apply)

Class Rules ☐ Sailmaker ☐
Designer ☐ Owner Measurement ☐
Sales Brochure ☐ Measurement Cert. ☐

Descriptions of terms used for sails, hull measurement & sailing weight are on following pages. Sail Areas, Luff Lengths, Foot & LP generally come from the sailmaker. Where possible, please give measurements in metric or feet & decimals. Please provide drawings or pictures showing side & end views of your boat from deck to bottom & attach to the application if a modified or custom boat.

Mainsail 20XX sailmaker
Area:
P (luff)
E (foot)
MGH
MGT
MGU
MGM
MastCirc
Full Batten or Soft

Jib / Genoa (largest) 20XX sailmaker
Area:
Luff Length
LPG
Leach
Foot
LuffL.roach + or -
Le.roach + or -
Ft.roach + or -
Mid-Girth

Screacher 20XX sailmkaer
yes/no
Area:
Scr.Luff1
LPG
Scr.Luff2 (leach)
Scr.MG
Scr.Foot

Sc.SMG as % Sc.SF 0%

Asymmetric Spin (largest) 20XX sailmaker
yes/no
Area:
SLU (luff perimeter)
SLU (leech perimeter)
SMG
SF (foot.perimeter)

SMG as % SF 0%

Symmetric Spin (largest)
yes/no
Area:
SL
SSMG
SSF (foot.perimeter)

SMG as % SF 0%

Displacement (Load.cell metric or Mfg Displ)
Wt Boat sails, motor
CG Safety, dry(gas,h2o)
WE
Weight Sailing
WCD Weight Crew
Declared

Rated Weight 0

US Sailing and/or ISAF ERS methods of sail measurement may apply above, not class rules. Longest Luff Lengths from Class Rules & Maximum Sail Areas and will be assumed if not provided. Weight Sailing will be lightest boat in Class unless weighed w/inspection.

Hull
Length Overall:
Waterline length
Maximum Beam
Maximum Draft
FOC Fwd Overhang
AOC Aft Overhang

Hull - Foils
Daggerboard (y/n)
Centerboard (y/n)
Ctbd Fairing (y/n)
Keel(s) (y/n)

Lifting Foils (y/n)

Other
Masthead Spin(yes/no)
Masthead Scr.(yes/no)
Sprit Length
Rigging (SS, synthetic)

Holding Tank(s)

Engine(s)
Inboard (hp x type)
Outboard (hp x type)

Propeller (s)
1 x feather/fold
1 x fixed (blades)
2 x feather/fold
2 x fixed (blades)

Modifications

Describe modifications / comments/ trapeze(#) or hiking straps below

Lifting Foils in amas, canting mast(6 degrees), 85 gal water ballast, carbon interior, ice box, galley top, nav station/table, 2 pipe berths, custom carbon crossbeams

I certify that my vessel conforms to the configuration indicated above and understand that a BAMA ratings certificate will be issued based on this information, valid only for the indicated configuration.

Electronically
Signature of Owner Date

Office Use Only
TCF **PHRF** Amount Paid

Sample - Metric

Basic Sail Area Measurements

Corsair 24 MkII sail # Generic

Corsair 24 MkII Class Std.Sail Areas

It is preferred to have a sail loft actually measure the sails, and fill out this sheet, or use the loft's computer calculation when built for Areas. Alternative: a competitor may measure sails; please use feet and tenths of feet, or metric for measurement.

Mast Circumference 0.397

Sail Areas - CTOA

		Measured Sails				Imp sq.ft	Metric sq.m
Mainsail	22.44	SA= (Foot*2+MGM*3+1.5*MGU+MGT+.5*HW)*Luff/8	Imp.	Metric		241.5	22.44
Luff / P	8.992		29.50	8.992		247.0	CTOA
Foot / E	3.505		11.50	3.505			
HW / MGH	0.759	Head mainsail shall extend @ right angles not more than	2.49	0.759			
MGT	1.194	Maximum MGT (max 7/8 point girth) =	3.92	1.194			
MGU	1.948	Maximum MGU (max 3/4 point girth)=	6.39	1.948			
MGM	2.819	Maximum MGM (max 1/2 point girth)=	9.25	2.819			
MGL	3.226	Maximum MGL (max 1/4 point girth) =	10.58	3.226			
						Imp sq.ft	Metric sq.m
Jib - Large	10.92	SA= Luff * LP * .5	Imp.	Metric		117.6	10.92
Luff	8.433	Maximum Luff =	27.67	8.433		118.0	10.96
LP	2.591	Maximum Overlap =	8.50	2.591			ISAF % of CTOA
Mid-Girth	0.000			0.000		118.7	11.03
Height (=vlg)	7.927	Jib Height = 0.94 * Luff.Length				(max/min)-1	1%
						Imp sq.ft	Metric sq.m
Screacher	22.08	SA= Luff * LP * .5	Imp.	Metric		237.7	22.08
Luff	9.398	Luff - head to tack maximum=	30.83	9.398		238.0	CTOA
LP	4.699		15.42	4.699			
smg screecher	0.000	Estimate (scaled from pencil.paper, no penalty config.)	0.00	0.000			
sf screecher	0.000	Estimate (scaled from pencil.paper)	0.00	0.000			
						Imp sq.ft	Metric sq.m
Asym.Spin.Large	44.35	SA = (Luff+Leech)*(Foot + 4*Mid Girth) / 12	Imp.	Metric		477.3	44.35
SLU / Luff	10.109	Head to tack (luff) maximum length =	33.17	10.109		477.0	CTOA
SLE / Leech	8.204	Clew to head (leech) maximum length =	26.92	8.204			
ASF / Foot	6.299	Tack to clew (foot) maximum length =	20.67	6.299			
ASMG / mid-girth	5.690	SMG =	18.67	5.690		90%	
ISAF	44.345	SA= (SLU+SLE) x .25 x ASF + (ASMG-.5ASF) x (SLU+SLE)/3					

One Design Rules:		Corsair 24Class Rules – Revision 0.00 – Posted 12/07/02	Class Imp	Class I.Decimal	Convert Metric	Class Metric
	5.6.1	Mast				
	5.6.1 b	Ctr.Hor. pivot pin aft fwd upper fold struts	16.5”	16.50	0.419	0.420
	5.6.1 f	Length of mast extrusion shall not exceed	31’10”	31.83	9.703	9.700
	5.6.2	Bowsprit				
	5.6.2 b	sprit attach pin ctrline Spin.tack attach ctrline	52"	52.00	1.321	1.320
		sprit attach pin ctrline Bobstay attach ctrline	47"	47.00	1.194	1.194
	5.8.2	Mainsail				
	5.8.2a	P=	29'6"	29.50	8.992	9.000
		E=	11'6"	11.50	3.505	3.500
	5.8.2a	Head (MGH)	29.9"	2.49	0.063	0.760
	5.8.2e	Maximum MGT (max 7/8 point girth)=	3'11"	3.92	1.194	1.195
		Maximum MGU (max 3/4 point girth)=	6'4.7"	6.39	1.948	1.950
		Maximum MGM (max 1/2 point girth)=	9'3"	9.25	2.819	2.820
		Maximum MGL (max 1/4 point girth)=	10'7"	10.58	3.226	3.225
	5.8.2f	Leech, Plan A sail plan ¬ exceed	30'6"	30.50	9.296	9.300
	5.8.3	Jib				
	5.8.3a	Luff - head to tack maximum length=	27'8"	27.67	8.433	8.445
		Foot - tack to clew maximum length=	9'9"	9.75	2.972	2.960
		Leech -clew to head maximum length=	24'6"	24.50	7.468	7.475
		LPG=	8'6"	8.50	2.591	2.590
5.8.4		Spinnaker dimensions:				
		Luff - Head to tack maximum length=	33'2"	33.17	10.109	10.100
		Foot - Tack to clew maximum length=	20'8"	20.67	6.299	6.300
		Leech - clew - head maximum length=	26'11"	26.92	8.204	8.200
		Spin Mid-Girth(SMG)=	18'8"	18.67	5.690	5.600
5.8.6		Screacher				
5.8.6b		Luff - head to tack maximum=	30'10"	30.83	9.398	9.400
		Foot - tack to clew maximum= Not Measured				
		Leech - leech maximum length=	24'6"	24.50	7.468	7.475
		LP=	15'5"	15.42	4.699	4.700

Mainsail

a) The HEAD shall be defined as the point of intersection of the line of the Luff, including the boltrope, and the highest point of the sail perpendicular to the Luff. The Head Width shall be measured from the HEAD.
b) Luff is measured as the distance between two points along a line parallel to the sail Luff from which lines drawn at 90 degrees intersect the highest point on the HEAD or the lowest point on the Foot, respectively.
c) The Foot is measured as the two farthest points along the Foot.
d) The cross width measurements shall be taken from the seven-eighths, three-quarter, and one-half points on the Leech, located when the HEAD is folded to the Clew for the half height point, and when the HEAD is folded to the half height point to determine the three-quarter point. The seven-eighths point is located by folding the Head to the three-quarter point. Girth is measured as the shortest distance from Leech points to Luff, including the boltrope.

Spinnaker

e) For purposes of spinnaker measurement, the mid-girth shall be measured from the one-half point on the Luff to the one-half point on the Leech. These one-half points shall be found by folding the Head to the Tack for the one-half point on the Luff, and folding the Head to the Clew for the one-half point on the Leech.

Jib

f) For purposes of headsail measurement, the Tack is defined as the point where the Luff and Foot, if extended, would intersect each other. The Head is defined as the point of intersection of the line of the Luff, including the boltrope, and the highest point of the sail perpendicular to the Luff. The Clew is the point where the Leech and Foot, if extended, would intersect each other.
g) The diagonal (LP) is defined as the shortest distance from the Luff to the Clew.
h) The mid-girth is measured by folding the Head to the Clew to find the mid-leech. The distance from the mid-leech to the closest point on the Luff is the mid-girth

Screecher

i) For purposes of Screacher measurement, the Tack is defined as the point where the Luff and Foot, if extended, would intersect each other. The Head is defined as the point of intersection of the line of the Luff, including the boltrope, and the highest point of the sail perpendicular to the Luff. The Clew is the point where the Leech and Foot, if extended, would intersect each other.
j) The diagonal (LP) is defined as the shortest distance from the Luff to the Clew

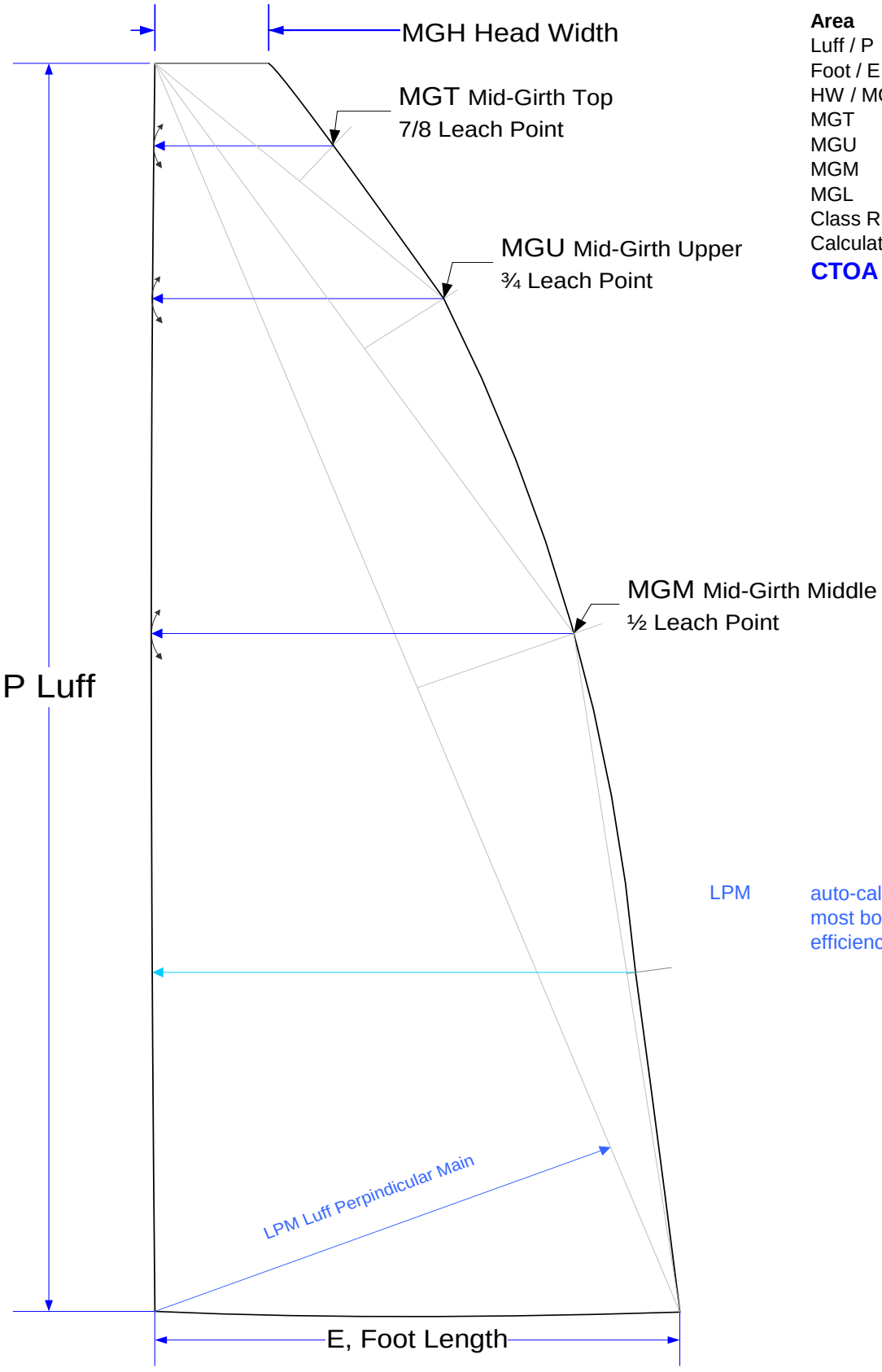
Mainsail Measurement - Sample

Corsair 24 Mk II - Sample Mainsail to Class Maximum Specs

Mainsail	Metric m^2	Imperial ft^2
Area	22.44	241.53
Luff / P	8.99	29.500
Foot / E	3.51	11.500
HW / MGH	0.76	2.492
MGT	1.19	3.917
MGU	1.95	6.392
MGM	2.82	9.250
MGL	3.23	10.583

Class Rule includes MGL
Calculation rounds out MGL

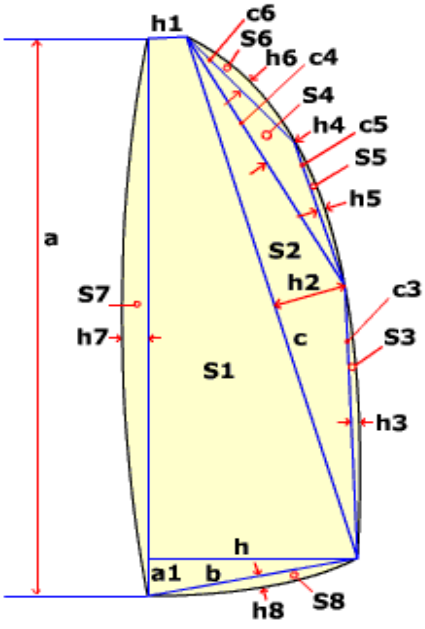
CTOA 247.00



ISAF Equipment Rules of Sailing (ERS)

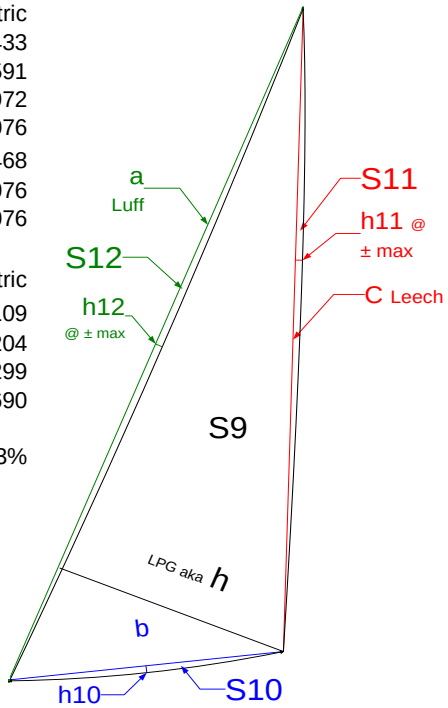
CM - Area of Mainsail (Sample Data)

			Metric
77.370	S1 = ((h + h1)(a - a1) + (a1 x h))/2	h	7.250
2.565	S2 = c x h2/2	h1	0.135
0.002	S3 = 2/3 c3 x h3	a	20.955
0.007	S4 = c4 x h4/2	a1	0.125
0.001	S5 = 2/3 c5 x h5	c	20.517
0.002	S6 = 2/3 c6 x h6	h2	0.250
1.257	S7 = 2/3 a x h7	c3	0.103
0.002	S8 = 2/3 b x h8	h3	0.029
81.204	CM* = (S1+S2+S3+S4+S5+S6+S7+S8) m2	c4	0.109
		h4	0.122
	CM = (CM* + Area of Mast + Area of Boom) m^2	c5	0.057
	Non-Rotating Masts add no Sail Area	h5	0.021
	Area of Mast = (Total Length x Perimeter / 2) m^2	c6	0.055
	Area of Boom = (Total Length x Height) m^2	h6	0.042
	Larger Multihulls Mast Area = (MC/2 * a); a = P.luff or VLM	b	0.073
		h7	0.090
		h8	0.032



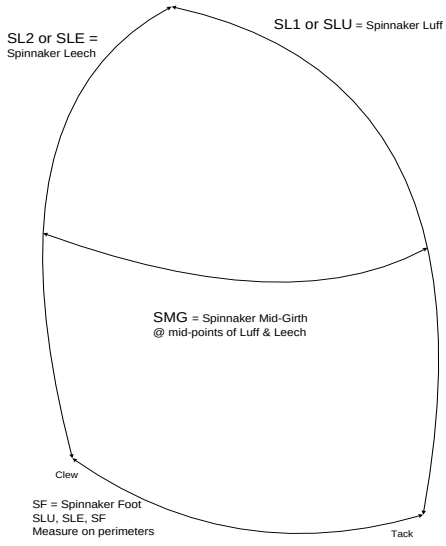
CJ - Area Jib Sample C-24MkII Jib: max luff, lpg, roach: Le, Ft, -Lu

			Metric
10.924	S9 = a x h / 2	a	8.433
0.151	**S10** = 2/3 b x h10 (3" 0.076m)	h	2.591
0.379	**S11** = 2/3 c x h11 (3" 0.076m)	b	2.972
-0.428	**S12** = 2/3 a x h12 (-3" -0.076)	h10	0.076
11.026	CJ = (S9 +or- S10 +or- S11 +or- S12) m2	c	7.468
		h11	0.076
		h12	-0.076



CSPI - Area of Spinnaker (Sample Corsair 24 MkII at max.spec)

			Metric
44.345	CSPI = SFx(SL1+SL2)/4+(SMG*-SF/2)x2/3(SL1+SL2)/2 m2	SL1	10.109
		SL2	8.204
		SF	6.299
		SMG	5.690
	* where SMG >= 75% of SF		
	SMG % SF		90.3%



Texel AUS/NDL MEASUREMENT FORM

Weight Sailing lb	2138	**Texel AUS/NDL Inventory Form**
Weight Sailing kg	970	**Equipment Declaration Form**

Date: September 1, 2010

This is to **state** that the yacht **Corsair 24MkII sail AUS 102, Wingin'It** weighs the above w/the following in a dry condition (no:water, gas). All equipment "Declared" is part of the "Inventory" that must remain on the boat for racing including a set of racing sails & **U.S. Coast Guard required equipment** applicable to the boat size. Texel Weight Equipment (WE) of individual items is waived based on inclusion of same in Sailing Weight.

Equipment	Description	Equipment	Description	WE items (list)	Kg
Engine/s	Outboard	Mainsails	One (1) on boom		
Generator	No	Mizzens			
Anchor 1	Yes, [Fortress] [3kg]lb/kg	Headsails	One (1) Jib, hanks		
Anchor 2		Headsails	One (1) Screacher		
Chain (size/m)	Yes[6mm]link.dia. [3]m	Spinnaker #1	One (1) Spinnaker		
Rode (dia/m)	Yes [8mm] dia. [25]m	Spinnaker #2			
Moorings	dock lines	Screacher	One (1) w/furling gear		
Fenders	Yes (2)	Other sails			
Drogues	No	Spare sheets	Minimal		
Tools(kgs)	Yes	Mattresses No.	None		
Spares(kgs)	Minimal	Seat cushions	No		
Dinghy	No	Bunk cushions	No		
Liferaft	No	Stove type	Yes		
Outboard(hp)	Yes [Nissan], [5] hp min.	Refrig	No		
Battery #1 Amp/Hrs	20 amp hour	Awning	No		
Battery #2 Amp/Hrs	TBD (no)	T.V.	No		
VHF Radio	handheld	Video	No		
Solar panels	No	Radar	No		
Gas bottles (kgs)	No	Wine Rack	No		
Safety Category (Offshore)	Inshore - Coast Guard Req.	Other (list)			
Other (list)					

Where it is simpler to weigh items such as tools and spares, use kgs, where it is simpler to count items, use numbers etc. For example [Tools - 10kg], [Mattresses - 4], [Chain 8mm - 50 metres]. Otherwise describe, [Engine - 9.8 hp Yamaha outboard 27hp Yanmar Diesel] or mark to show it is carried [Video - X]. WE may be used for Offshore Races requiring Category X equip.

WM	969.8	Offshore	**WE**	0
WM	969.8	Inshore	Wt.Sailing =	(Wt.Measured + Wt.Equipment)

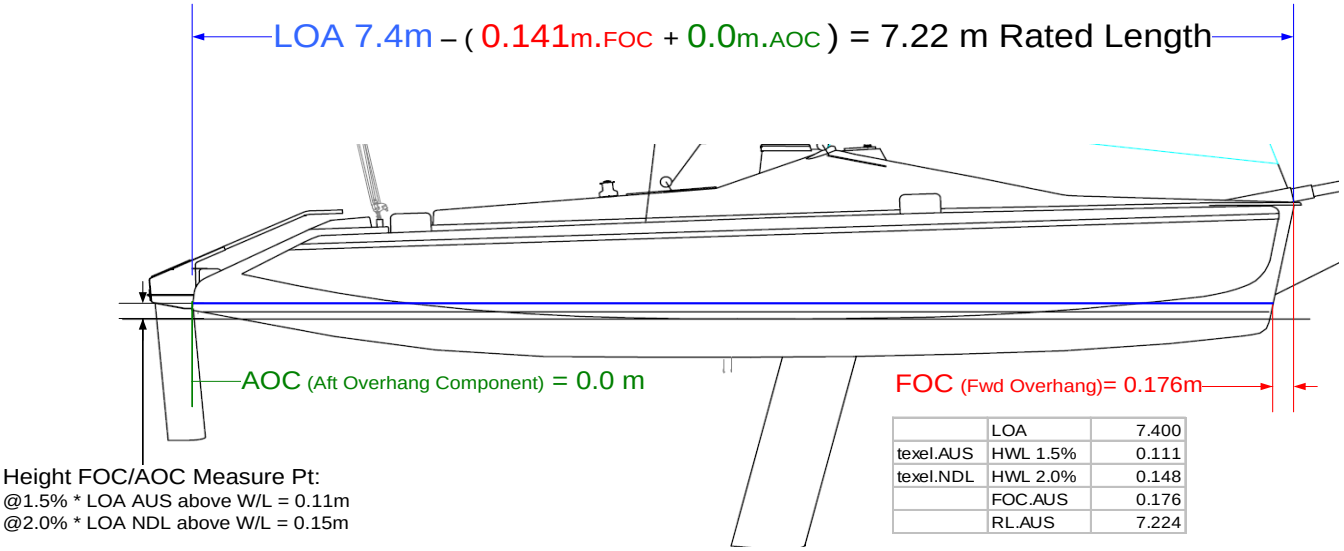
SIGNED:

MEASURER **OWNER** D. Berry

2139	Gross: Wingin' It, dry, all sails
0	Lifting Bridle, stays aboard while sailing
-1	NIST test deviation @ 2,000 lbs
0	Subtract: inspection found nada
2138	Net: Wingin' It, dry, all sails

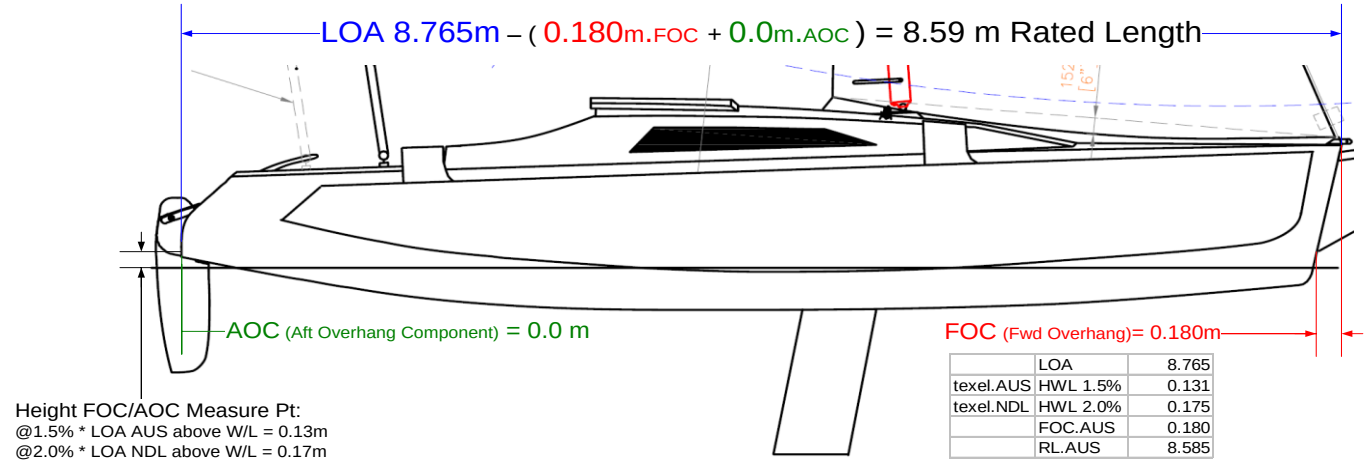
Rated Length Examples

Corsair Sprint 750: Sample Forward Overhang Component (FOC) Australia (10 boats)



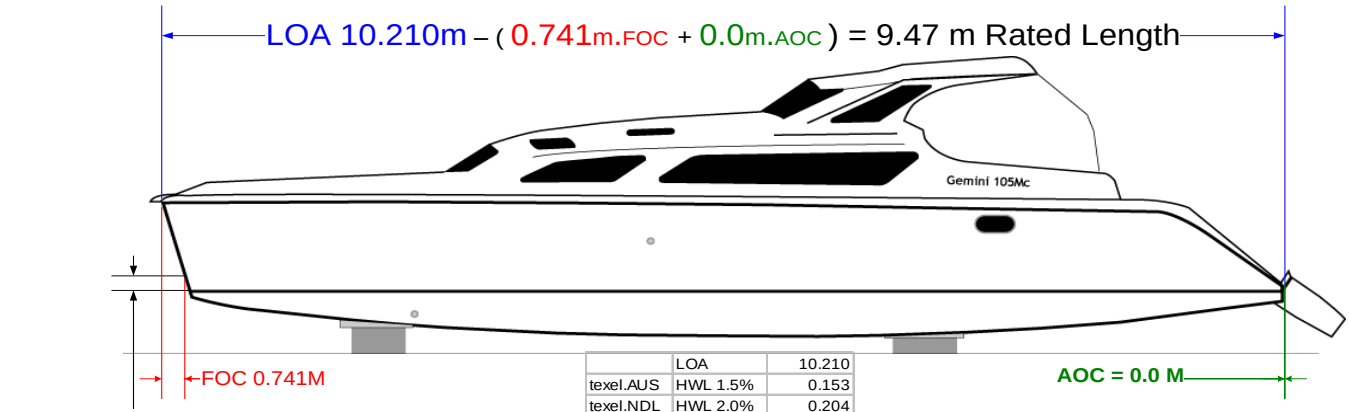
	LOA	7.400
texel.AUS	HWL 1.5%	0.111
texel.NDL	HWL 2.0%	0.148
	FOC.AUS	0.176
	RL.AUS	7.224

Corsair 28-R: Sample Forward Overhang Component (FOC) Australia & Thailand (10 boats)



	LOA	8.765
texel.AUS	HWL 1.5%	0.131
texel.NDL	HWL 2.0%	0.175
	FOC.AUS	0.180
	RL.AUS	8.585

Gemini105MC Mood Indigo: Preliminary Forward Overhang Component (FOC)



	LOA	10.210
texel.AUS	HWL 1.5%	0.153
texel.NDL	HWL 2.0%	0.204
	FOC.AUS	0.741
	RL.AUS	9.469

Mast Circumference

Boat	MC		Date	Comments
Native, Newick Tri	0.908	w	08/20/09	Blue Tape, taper above spin.halyard (img_0060...)
Humdinger, Acapella Tri	0.800	w	03/20/10	Owner TB.Verified
Formula 40 Tuki	0.760	c	07/28/09	Blue Tape
Antrim 30	0.750	t	04/05/10	TB.verified, Erin #28910
Formula 40 Shadow	0.719	a	04/04/09	Dirty blue tape, 1st pass, taper above hounds
D-Class Cat Adrenaline Marstrom	0.700	c	05/30/09	Assumption, not measured pre-Delta.Ditch @RichmondYC
Viva 27 Cat Sass	0.600	a	05/30/09	Measure pre-Delta.Ditch @RichmondYC
Contour 34SC	0.585	a	01/08/10	Blue.Tape, measured by owner
Corsair 31RS Leneman	0.554	a	05/30/09	Blue Tape, C-31RS #28543 Prime Directive
D-Class Cat Rocket88	0.495	a	07/15/10	Dirty, 1st pass
D-Class Cat Beowulf V Marstrom	0.483	c	06/01/10	Correction, Corsair 28R Section
Corsair 28R Marstrom	0.483	c	03/31/10	Blue Tape C-28R, Alameda Marina
Corsair 31R Marstrom	0.483	c	04/22/09	Blue Tape C-31R #135 Roshambo, Alameda Marina
Corsair Sprint 750	0.481	a	05/02/09	Blue Tape Sprint 750 #70 Afterburner, Alameda Marina
Corsair 24 Mk II	0.397	a	08/01/09	Blue tape C-24MkII #006 Emma Jean, Alameda Marina
Multi23	0.356	c	04/07/09	M. Leneman, US Tri.Nationals, Standard Section

Mast Circumference: wrap paper or tape around mast above boom
Mast Area added to mainsail area IFF mast rotates
Mast Area = 1/2 * Mast Circumference* P (mainsail luff, Vertical Luff Mainsail)
No Correction Factor (CF) on airfoil shape
CF - Carbon Mast may be added later (ref: Multi2000 CF.carbon-mast)
a: aluminum
w: wood composite
t: tuttle carbon honeycomb composite

NOTE: The values on this worksheet are not used for Texel ratings, but for storage of measurements of extra sails for future possible changes.

Genoa #	**0**	*Genoa #*	**0**	*Genoa #*	**0**
LLg		LLg		LLg	
LPG		LPG		LPG	
FG		FG		FG	
frg + or -		frg + or -		frg + or -	
LG		LG		LG	
lrg + or -		lrg + or -		lrg + or -	
llrg + or -		llrg + or -		llrg + or -	
Area Genoa 2	**0.00**	**Area Genoa 3**	**0.00**	**Area Genoa 4**	**0.00**
Spinnaker #	**0**	*Spinnaker #*	**0**	*Spinnaker #*	**0**
SF		SF		SF	
SL1		SL1		SL1	
SL2		SL2		SL2	
SMG		SMG		SMG	
Area of Spinnaker	**0.00**	**Area of Spinnaker**	**0.00**	**Area of Spinnaker**	**0.00**
SMG as % SF	Must be >75%	**SMG as % SF**	Must be >75%	**SMG as % SF**	Must be >75%
Screecher #	**0**	*Screecher #*	**0**	*Screecher #*	**0**
ScrF		ScrF		ScrF	
ScrL1		ScrL1		ScrL1	
ScrL2		ScrL2		ScrL2	
ScrMG		ScrMG		ScrMG	
Area of Screecher	**0.00**	**Area of Screecher**	**0.00**	**Area of Screecher**	**0.00**
SMG as % SF	Must be >50%	**SMG as % SF**	Must be >50%	**SMG as % SF**	Must be >50%