

BOAT Name NICOLE Sail Nr USA 2021	GPH 653.6	HULL Length Overall 11.964m Maximum Beam 3.328m Displacement 7,325kg Draft 1.770m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.269% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension 0.00
GENERAL Class CAL 40 Designer LAPWORTH Builder CAL Series 11/1963 Age 05/1970 Age Allowance 0.487% Offset File US40911b.OFF - 08/05/2018 12:50:24 Measurement by - 24/08/1995		IMSL 9.593m VCGD -0.083m Sink 20.86kg/mm RL 7.603m VCGM -0.082m WS 30.47m² LSM0 9.578m Displacement/Length ratio 8.3365



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	634.7			710.8		
Time on Time	0.9454			0.9496		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	758.8	576.6	510.4	984.8	717.6	613.4
Time on Time	0.8896	1.1707	1.3225	0.6854	0.9407	1.1004

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1125.5	938.2	828.2	765.8	737.0	722.8	719.1
52°	728.7	614.1	545.1	515.8	505.5	500.5	497.0
60°	685.4	580.3	524.7	501.3	491.3	486.3	482.2
75°	649.7	554.7	511.3	490.2	476.2	467.4	459.4
90°	652.8	554.0	508.1	483.8	470.2	456.0	435.8
110°	676.8	557.3	502.0	475.7	455.2	438.3	420.0
120°	697.8	570.4	508.0	479.5	456.9	435.9	406.0
135°	768.9	621.9	535.0	495.7	472.1	450.1	410.7
150°	907.2	717.1	604.1	530.4	495.7	473.8	434.0
Run VMG	1047.5	828.1	697.4	607.3	549.5	508.1	464.0

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Number **US6293**
ORC Ref **USAX02216QW**
Issued On **18/03/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight

Default **647kg**
Maximum **647kg**
Minimum* **485kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

ToD	ToT
Non Spin GPH 677.9	0.8851
Non Spin OSN 658.3	0.9114

Selected Courses							
Windward / Leeward	1086.5	883.1	762.8	686.5	643.3	615.5	591.5
Circular Random	907.2	729.8	633.7	577.3	542.8	520.8	495.6
Coastal / Long Distance	1082.6	827.6	683.4	595.9	552.0	519.3	470.9
Non Spinnaker	950.0	760.4	656.8	595.4	557.4	533.0	504.1

Sails Limitations

Headsails	Spinnakers
5	3

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	44.6°	43.3°	43.6°	42.9°	41.6°	40.9°	41.1°
Beat VMG	3.20	3.84	4.35	4.70	4.88	4.98	5.01
52°	4.94	5.86	6.60	6.98	7.12	7.19	7.24
60°	5.25	6.20	6.86	7.18	7.33	7.40	7.47
75°	5.54	6.49	7.04	7.34	7.56	7.70	7.84
90°	5.51	6.50	7.09	7.44	7.66	7.89	8.26
110°	5.32	6.46	7.17	7.57	7.91	8.21	8.57
120°	5.16	6.31	7.09	7.51	7.88	8.26	8.87
135°	4.68	5.79	6.73	7.26	7.63	8.00	8.77
150°	3.97	5.02	5.96	6.79	7.26	7.60	8.30
Run VMG	3.44	4.35	5.16	5.93	6.55	7.09	7.76
Gybe Angles	146.2°	150.3°	150.3°	155.3°	170.7°	180.0°	180.0°

Class Division Length

CDL = **8.599**

Storm Sails Areas

Heavy Weather Jib **26.86**
Storm Jib (JL=9.17) **9.95**
Storm Trysail **11.40**

Owner

BOAT	
Name NICOLE	Sail Nr USA 2021
File US6293	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS					
Inclining Test Current Inclining					
Flotation date 28/05/2016				SG 1.0080	
FFM 1.323	FF 1.329	SFFP 0.593			
FAM 0.857	FA 0.863	SAFP 11.223			
W1 97.2	PD1 524.4	WD 12.125			
W2 97.2	PD2 524.4	GSA 1.0			
W3 97.2	PD3 524.4	RSA 1.0			
W4 97.2	PD4 524.4	PLM 9000.0			
LCF from stem on CL / on sheer				6.437 / 6.649	
Maximum beam station from stem				6.675	
RM Measured				177.0kg-m	
RM Default				171.3kg-m	
Limit of positive stability / Stab.Index				116.9° / 123.8	
Freeboard at mast at 4.588				1.006	



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RIG					
Forestay Tension Aft	Spreaders 1				
Inner Stay Fixed	Runners 1				
Carbon Mast No	Jumper Struts None				
Taper Hollows No	Jib Furler No				
Fiber Rigging No	Main Furler No				
Lenticular Rigging No	Without Backstay No				
Articulated Bowsprit No					
P 12.210	E 5.331	MDT1 0.133	MW 0.168		
IG 14.091	J 4.588	MDL1 0.212	GO 0.172		
ISP 14.064	SFJ 0.000	MDT2 0.133	BD 0.193		
BAS 1.460	SPL 4.610	MDL2 0.165	MWT 179.60		
FSP 0.068	TPS 0.000	TL 2.500	MCG 5.092		

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0.461		
Type Feathering 2 blades	PBW 0.153		
Twin Screw No	PIPA 0.0013		
PSA 18.000	PHL 0.147	ST3 0.000	ESL 0.000
PSD 0.031	ST1 0.000	ST4 0.000	
PHD 0.071	ST2 0.000	ST5 0.000	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.180	1.07	1.94	3.40	4.50	38.46	39.61	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	14.45	14.45	14.45	8.30	7.90	98.96		SL · (SFL + 4·SHW) / 6	
Asymmetric	SLU	SLE	SL	SHW	SFL				
	14.05	14.05	14.05	7.66	8.27	91.14		AS · (SFL + 4·SHW) / 6	

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
					7.05	14.09	50.57					

MEASUREMENT INVENTORY				
Measurer				
Date				
Comment				
Id	Item	Weight	Distance	VCG Description
a	Ancher	0-0	0-00	
Id	Item	Weight Description		

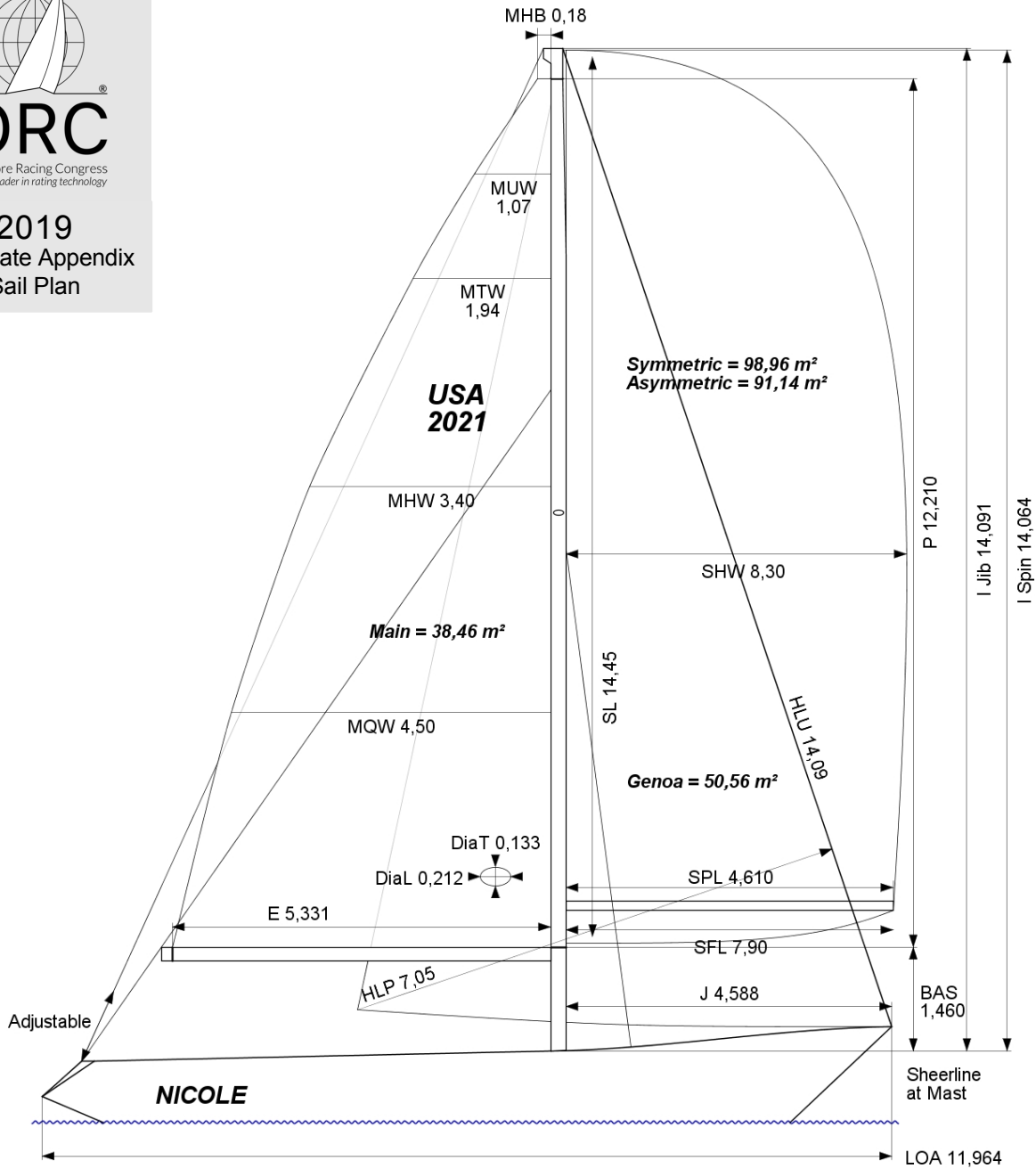
MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
	Tank				0.00	0.00	0-0	
Id	Item	Weight	Distance	VCG Description				



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
630555	0.18	1.07	1.94	3.40	4.50	38.47										
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
630553						7.05	14.09	154%	50.57							
SYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1768363	14.45	14.45	14.45		7.90	98.97				QUANTUM	2018 TRY RADIAL SYMMETRICAL					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
630549			0.00	7.66	8.27	91.14	asym									