

BOAT	GPH	HULL
Name CARPANCHO V Sail Nr ESP-9121	680.0	Length Overall 9.520m Maximum Beam 3.254m Displacement 4,020kg Draft 1.665m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.278% Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL		IMSL 8.367m VCGD 0.101m Sink 15.03kg/mm RL 7.058m VCGM 0.007m WS 20.32m² LSM0 8.144m Displacement/Length ratio 7.4424
Class RO 330 SD Designer RONAUTICA Builder RONAUTICA Series 01/1999 Age 02/2002 Age Allowance 0.487% Offset File RO330SD.OFF - 16/01/2015 00:05:58 Measurement by - 18/05/2013		



2020
ORC International
Certificate

Rating Office

Offshore
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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	660.3			737.6		
Time on Time	0.9087			0.9151		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	782.7	601.0	537.3	1013.1	741.5	645.9
Time on Time	0.8624	1.1232	1.2562	0.6663	0.9103	1.0450

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1173.8	974.6	859.7	794.8	772.9	765.5	776.1
52°	757.9	639.8	575.2	547.6	535.7	531.4	530.8
60°	711.9	605.1	555.8	533.2	520.8	515.2	512.7
75°	680.4	581.2	541.6	520.8	505.3	493.0	481.6
90°	687.3	579.2	531.8	510.2	499.2	482.5	456.3
110°	687.5	569.6	524.9	498.7	475.2	456.4	437.0
120°	709.4	582.8	530.8	503.0	477.9	454.5	418.6
135°	783.2	636.5	556.0	520.8	495.6	470.7	425.7
150°	919.7	728.8	617.7	552.0	520.4	496.9	451.6
Run VMG	1062.0	841.5	711.5	625.5	564.7	528.9	482.7
Selected Courses							
Windward / Leeward	1117.9	908.0	785.6	710.2	668.8	647.2	629.4
Circular Random	938.7	757.0	659.4	603.0	569.0	547.6	523.1
Coastal / Long Distance	1112.3	851.2	706.9	621.5	579.0	546.8	495.1
Non Spinnaker	996.5	797.5	689.4	625.9	587.2	563.0	536.4

Certificate

Number **912101**
ORC Ref **03510000LRF**
Issued On **02/07/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 514kg
Maximum **480kg**
Minimum* **360kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **711.7 0.8431**
Non Spin OSN **689.3 0.8704**

Sails Limitations

Headsails	Spinnakers
5	4

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	44.3°	42.8°	42.0°	40.9°	40.7°	40.5°	42.0°
Beat VMG	3.07	3.69	4.19	4.53	4.66	4.70	4.64
52°	4.75	5.63	6.26	6.57	6.72	6.77	6.78
60°	5.06	5.95	6.48	6.75	6.91	6.99	7.02
75°	5.29	6.19	6.65	6.91	7.13	7.30	7.48
90°	5.24	6.22	6.77	7.06	7.21	7.46	7.89
110°	5.24	6.32	6.86	7.22	7.58	7.89	8.24
120°	5.07	6.18	6.78	7.16	7.53	7.92	8.60
135°	4.60	5.66	6.47	6.91	7.26	7.65	8.46
150°	3.91	4.94	5.83	6.52	6.92	7.25	7.97
Run VMG	3.39	4.28	5.06	5.76	6.38	6.81	7.46
Gybe Angles	146.0°	150.5°	152.0°	159.0°	180.0°	180.0°	180.0°

Class Division Length

CDL = 7.706

Storm Sails Areas

Heavy Weather Jib **21.50**
Storm Jib (JL=8.21) **7.97**
Storm Trysail **8.94**

Owner

BOAT Name CARPANCHO V Sail Nr ESP-9121 File E9121 Data in meters/kilograms		INCLINING TEST AND FREEBOARDS Inclining Test Current Inclining Flotation date 19/05/2013 SG 1.0250		 ORC Offshore Racing Congress World leader in rating technology 2020 IMS Measurement Certificate
RIG Forestay Tension Aft Spreaders 2 Inner Stay None Fitted Runners/Checkstays 0 Carbon Mast No Jib Furler No Fiber Rigging No Main Furler No Non-Circular Rigging No Articulated Bowsprit No		FFM 1.155 FF 1.155 SFFP 0.330 FAM 0.864 FA 0.864 SAFF 9.080 W1 51.3 PD1 476.2 WD 9.530 W2 51.3 PD2 476.2 GSA 1.0 W3 51.3 PD3 469.8 RSA 1.0 W4 51.3 PD4 479.3 PLM 9000.0		
P 11.480 E 4.450 MDT1 0.120 MW 0.182 IG 12.510 J 3.240 MDL1 0.182 GO 0.210 ISP 12.910 SFJ 0.310 MDT2 0.120 BD 0.149 BAS 1.520 SPL 3.380 MDL2 0.182 MWT 107.00 FSD 0.037 TPS TL MCG 5.300		LCF from stem on CL / on sheer 5.144 / 5.370 Maximum beam station from stem 6.100 RM Measured 81.0kg-m RM Default 79.2kg-m Limit of positive stability / Stab.Index 115.6° / 114.5 Freeboard at mast at 3.550 0.994		
MIZZEN RIG AND SAILS N/A		PROPELLER Installation Strut PRD 0.411 Type Folding 2 blades PBW 0.110 Twin Screw PIPA 0.0031 ST1 0.047 ST3 0.170 ST5 0.280 ST2 0.170 ST4 0.097 EDL 1.330		
COMMENTS N/A		MOVABLE BALLAST N/A		 World Leader In Rating Technology
		CENTERBOARD N/A		

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.15	0.81	1.48	2.58	3.43	28.09	28.48	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	63.02		SL · (SFL + 4·SHW) / 6	
	12.30	12.30	12.30	6.19	5.98				
Asymmetric Not Available									

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	Flying	Meas.Date	Material	Comment
0.07	0.54	1.04	2.06	3.17	4.35	12.01	25.51	No	01/07/2020	Kevlar		
0.12	0.49	0.93	1.94	3.09	4.42	12.20	25.24	No	01/07/2020	Unknow		
0.07	0.39	0.78	1.65	2.65	3.68	12.08	21.08	No	01/07/2020	Dacron		
0.09	0.50	0.94	1.90	2.94	4.11	10.57	20.90	No	01/07/2020	Unknow		

MEASUREMENT INVENTORY					MEASUREMENT INVENTORY				
Mesurer ESP 488-842 Date 19/05/2013 Comment Internal Ballast total = 0.0					Id Item Weight Distance VCG Description				
Id Item Weight Distance VCG Description 4 Anchor 0.60 ANCLA 12KG +-									
Id Item Weight Description									

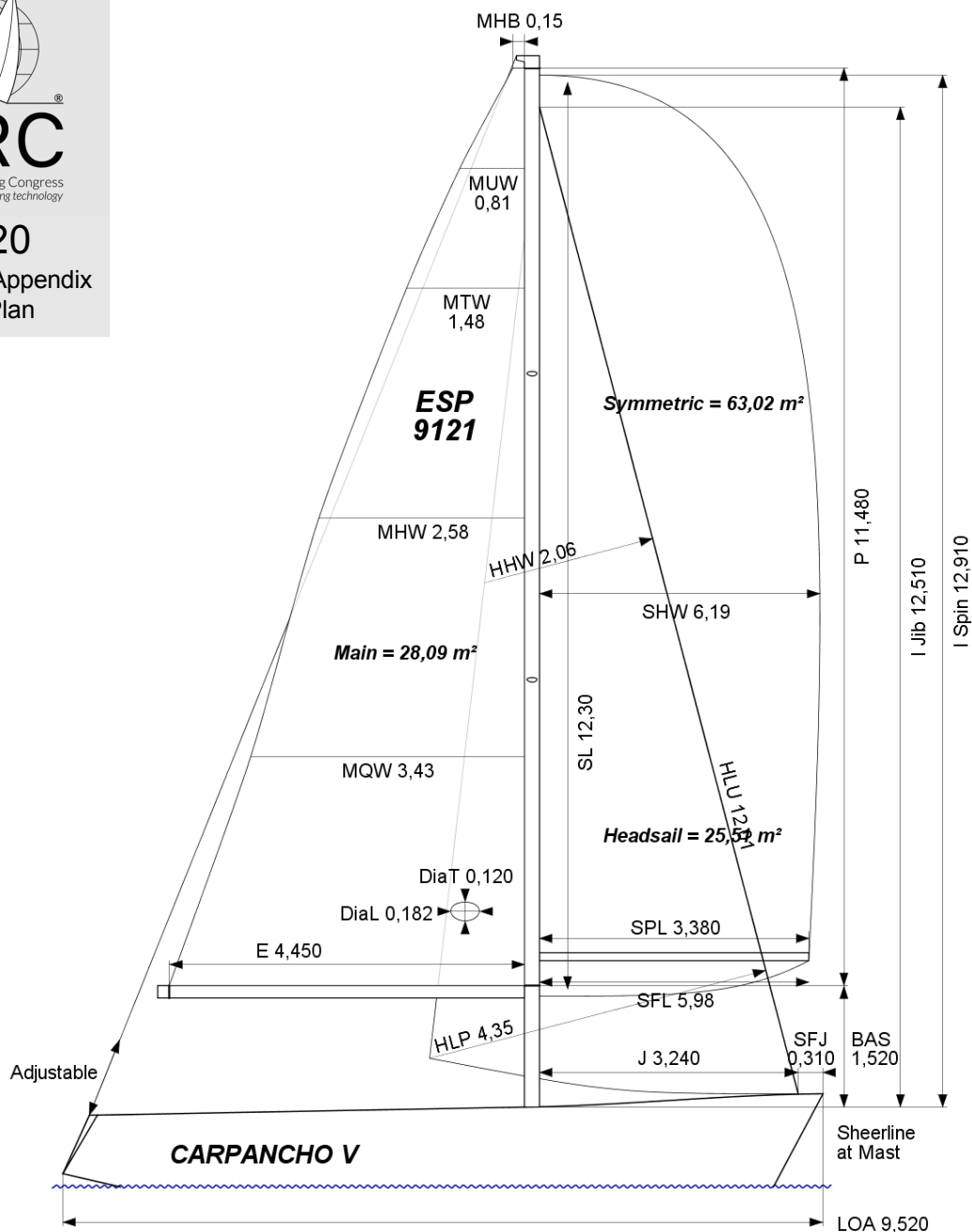


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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
Mayor	0.15	0.81	1.48	2.58	3.43	28.10							01/07/2020		Unknown	

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
G4	0.07	0.54	1.04	2.06	3.17	4.35	12.01	134%	25.51	No			01/07/2020		Kevlar	
G3	0.12	0.49	0.93	1.94	3.09	4.42	12.20	136%	25.24	No			01/07/2020		Unknown	
G2	0.07	0.39	0.78	1.65	2.65	3.68	12.08	114%	21.08	No			01/07/2020		Dacron	
G1	0.09	0.50	0.94	1.90	2.94	4.11	10.57	127%	20.90	No			01/07/2020		Unknown	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
Spi	12.30	12.30	12.30	6.19	5.98	63.02		01/07/2020		Unknown	

ASYMMETRIC SPINNAKERS (0)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
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