



World Leader in Rating Technology

2016 ORC Club Certificate

Rating Office

**PATRICIO D. GUTIERREZ
C. GRIERSON Y
COSTANERASUR
Y.C.A**



Certificate

Number **387001**
Issued On **10/03/2016**
ORC Ref **ARG00002103**
VPP Ver. **2016 1.01**
Valid until **31/12/2016**

Crew Weight

Declared **570kg**
Default* **548kg**
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **681,5 0,8804**
Non Spin OSN **663,4 0,9044**
N/S Perf. Line **23,7 0,592**

Sails Limitations

Headsails **6** Spinnakers **3**

Spinnaker configuration

Symmetric: **Yes 77,28**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = **8,075**

Stability

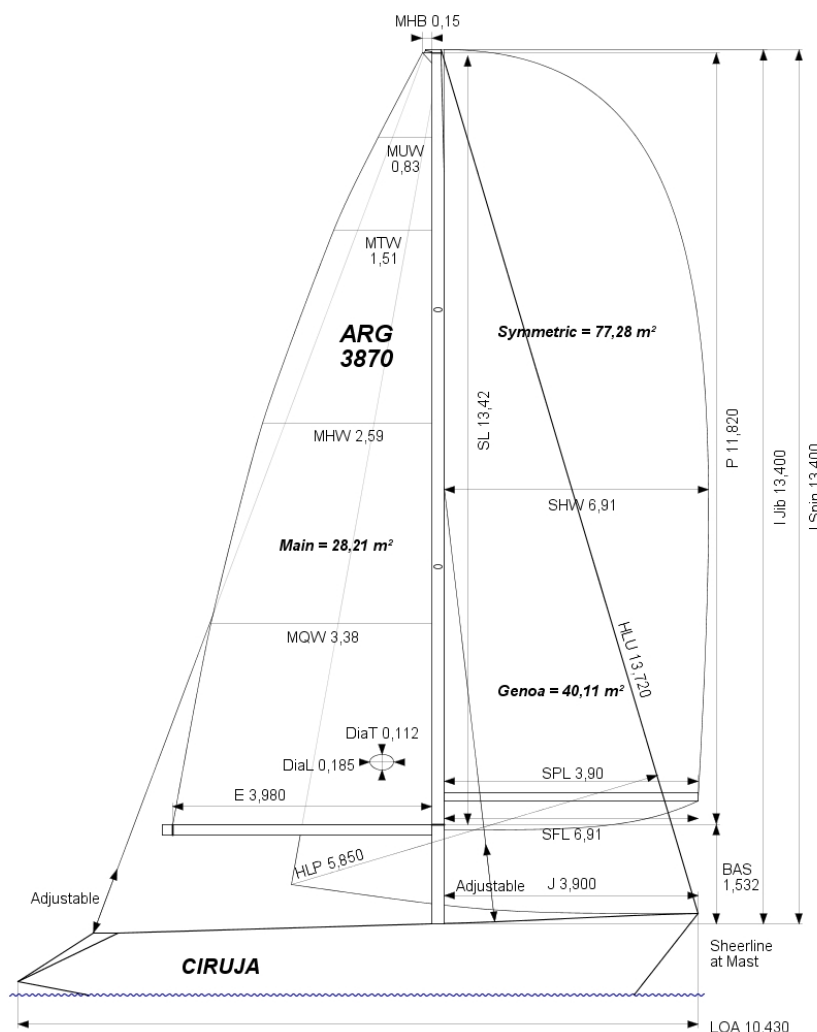
LPS (Estimated): **115,6°**
Stability Index: **112,5**
OSR Category: **N/A**

Owner

**JUAN RUGGERO
BUENOS AIRES**

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature



BOAT		GPH	HULL	
Name	CIRUJA	658,4	Data File	ARG3870.dxt
Sail Nr	ARG-3870		Offset File	ARG3870NK2.off
CLASS			Displacement	4.376kg
Class	PANDORA34		IMS Division	Cruiser/Racer
Designer	NESTOR VOLKER		Fwd Accom.	Yes
Builder	AST. MARCO		Fiber Rigging	No
Series	03/1992		Crew Arm Ex	No
Age Date	03/1992		Dynamic All.	0,032%
Age Allowance	0,487%		Construction	Solid
COMMENTS			Aramid Core	No
PROPELLER			Carbon Rudder	No
Installation	Strut	PRD 0,428	Light Stanchions	
Type	Folding 2 blades	PBW 0,113	IMSL	8,637m
		PIPA 0,0034	VCGD	-0,077m
SCORING OPTIONS			Sink	15,79kg/mm
			RL	7,512m
			VCGM	0,011m
			WS	21,87m²
			LSM0	8,524m
			Displacement/Length ratio	7,0656
			Water Ballast	0
			Trim Tab	No
			CENTERBOARD	
			N/A	

	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	641,3			716,3		
Time On Time	0,9355			0,9424		
Performance Line	0,644	43,9		0,812	214,1	
Triple Number	Low 0,8950	Medium 1,1566	High 1,3003	Low 0,6895	Medium 0,9356	High 1,0842



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ORC Club Certificate Appendix

BOAT

Name **CIRUJA**
Sail Nr **ARG-3870**

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TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1109,2	926,2	823,1	770,5	744,2	730,1	724,6
52°	716,6	602,9	547,6	526,5	517,4	512,6	509,2
60°	672,0	569,8	529,7	511,3	501,6	495,7	490,9
75°	634,7	547,7	516,2	496,8	481,1	469,5	459,9
90°	636,3	548,8	516,5	496,5	478,4	461,7	439,0
110°	683,7	563,7	517,9	491,0	465,9	448,1	430,3
120°	704,0	577,2	523,9	496,3	471,0	447,1	413,2
135°	774,5	629,1	548,2	513,2	488,5	464,2	420,9
150°	908,7	720,0	609,6	543,8	512,6	489,5	445,6
Run VMG	1049,3	831,4	702,5	617,1	557,6	521,5	476,3

Selected Courses

Windward / Leeward	1079,3	878,8	762,8	693,8	650,9	625,8	600,4
Circular Random	906,1	732,2	638,9	584,7	551,2	529,4	502,7
Ocean for PCS	1113,3	860,7	718,2	631,0	574,1	534,4	479,2
Non Spinnaker	946,7	761,2	660,8	601,8	565,3	541,3	511,4

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	44,5°	43,5°	43,5°	41,7°	40,6°	40,0°	39,6°
Beat VMG	3,25	3,89	4,37	4,67	4,84	4,93	4,97
52°	5,02	5,97	6,57	6,84	6,96	7,02	7,07
60°	5,36	6,32	6,80	7,04	7,18	7,26	7,33
75°	5,67	6,57	6,97	7,25	7,48	7,67	7,83
90°	5,66	6,56	6,97	7,25	7,53	7,80	8,20
110°	5,27	6,39	6,95	7,33	7,73	8,03	8,37
120°	5,11	6,24	6,87	7,25	7,64	8,05	8,71
135°	4,65	5,72	6,57	7,01	7,37	7,75	8,55
150°	3,96	5,00	5,91	6,62	7,02	7,35	8,08
Run VMG	3,43	4,33	5,12	5,83	6,46	6,90	7,56
Gybe Angles	146,7°	150,6°	151,8°	158,2°	180,0°	180,0°	180,0°