

BOAT Name CARITA Sail Nr ECU-50695	GPH 612,7	HULL Length Overall 13,720m Maximum Beam 4,242m Displacement 11.878kg Draft 2,231m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,410% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class First45f5 Designer Farr Builder Beneteau Series 01/1990 Age 01/1991 Age Allowance 0,487% Offset File lakeman.off - 25/10/2001 09:53:00 Measurement by P. GUTIERREZ - 30/09/2017		IMSL 11,944m VCGD -0,115m Sink 28,99kg/mm RL 8,789m VCGM 0,105m WS 38,40m² LSMO 11,827m Displacement/Length ratio 7,1799



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2017
ORC International
Certificate

Rating Office
Federación Ecuatoriana
de Vela
Patricio D. Gutiérrez - RO
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	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	595,0			668,7		
Time On Time	1,0083			1,0095		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	720,3	539,1	467,0	943,4	679,3	563,1
Time on Time	0,9371	1,2521	1,4454	0,7155	0,9937	1,1987

Wind Velocity	TIME ALLOWANCES						
	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1072,6	883,9	782,4	712,3	673,8	653,1	633,9
52°	689,1	577,0	510,4	474,6	458,8	451,5	445,0
60°	643,6	541,7	484,5	458,4	445,1	437,8	431,1
75°	606,1	511,6	466,5	446,0	432,6	421,9	408,1
90°	605,1	510,5	463,9	440,5	428,4	417,2	394,6
110°	636,9	522,3	463,6	438,7	420,7	403,4	382,2
120°	659,4	541,2	473,7	444,3	426,2	409,4	376,0
135°	738,5	598,8	514,0	465,0	441,1	423,8	389,9
150°	882,3	691,2	583,0	511,4	466,1	443,0	410,6
Run VMG	1018,7	798,2	672,5	587,2	526,9	481,3	434,6

Certificate
Number **506951**
ORC Ref **ECU00005619**
Issued On **04/10/2017**
VPP Ver. **2017 1.00**
Valid until **31/03/2018**

Crew Weight
Declared **874kg**
Default* **874kg**
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **636,8 0,9422**
Non Spin OSN **618,0 0,9709**

Selected Courses							
Windward / Leeward	1045,7	841,0	727,5	649,7	600,4	567,2	534,2
Circular Random	859,8	688,1	593,8	537,3	501,6	477,9	449,1
Ocean for PCS	1064,3	813,6	670,3	581,5	523,5	483,3	429,4
Non Spinnaker	902,7	718,7	616,6	555,0	515,6	489,5	457,1

Sails Limitations	
Headsails	Spinnakers
6	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	44,7°	43,1°	43,1°	43,1°	41,5°	40,5°	39,9°
Beat VMG	3,36	4,07	4,60	5,05	5,34	5,51	5,68
52°	5,22	6,24	7,05	7,59	7,85	7,97	8,09
60°	5,59	6,65	7,43	7,85	8,09	8,22	8,35
75°	5,94	7,04	7,72	8,07	8,32	8,53	8,82
90°	5,95	7,05	7,76	8,17	8,40	8,63	9,12
110°	5,65	6,89	7,76	8,21	8,56	8,92	9,42
120°	5,46	6,65	7,60	8,10	8,45	8,79	9,57
135°	4,87	6,01	7,00	7,74	8,16	8,49	9,23
150°	4,08	5,21	6,17	7,04	7,72	8,13	8,77
Run VMG	3,53	4,51	5,35	6,13	6,83	7,48	8,28
Gybe Angles	145,1°	149,5°	152,0°	153,6°	160,4°	180,0°	180,0°

Class Division Length
CDL = **10,367**

Storm Sails Areas
Heavy Weather Jib **36,72**
Storm Jib (JL=10,72) **13,60**
Storm Trysail **15,40**

Owner
RAFAEL GOMEZ


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

Signature

BOAT	
Name CARITA	Sail Nr ECU-50695
File ECU50695	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 30/09/2017	SG 1,0253	
FFM 1,362	FF 1,358	SFFP 0,650
FAM 1,079	FA 1,085	SAFP 12,088
W1 135,0	PD1 455,9	WD 11,910
W2 135,0	PD2 455,4	GSA 1,0
W3 135,0	PD3 454,6	RSA 1,0
W4 135,0	PD4 456,4	PLM 9000,0
LCF from stem on CL / on sheer		7,347 / 7,642
Maximum beam station from stem		7,422
RM Measured		277,9kg·m
RM Default		282,5kg·m
Limit of positive stability / Stab.Index		109,4° / 115,8
Freeboard at mast at 5,010		1,209

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay Adjustable	Runners 0		
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 15,770	E 5,580	MDT1 0,131	MW 0,237
IG 16,353	J 4,580	MDL1 0,232	GO 0,276
ISP 16,326	SFJ 0,430	MDT2 0,131	BD 0,223
BAS 1,718	SPL 5,060	MDL2 0,182	MWT
FSP 0,074	TPS 0,000	TL 1,600	MCG




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IMS Measurement Certificate

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Shaft exposed	PRD 0,492	
Type Feathering 2 blades	PBW 0,153	
Twin Screw No	PIPA 0,0053	
PSA 18,800	PHL 0,126	ST3 0,126 ESL 1,200
PSD 0,033	ST1 0,042	ST4 0,060
PHD 0,056	ST2 0,128	ST5 0,229

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,040	1,10	2,04	3,51	4,65	51,41	52,39	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	16,11	16,11	16,11	8,55	8,30	114,11		SL · (SFL + 4·SHW) / 6	
Asymmetric	SLU	SLE	SL	SHW	SFL				
	16,65	15,75	16,20	8,49	8,18	113,78		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
0,11	0,86	1,68	3,35	5,03	6,72	16,35	55,01			03/10/2017	Carbon	3DI
0,06	0,85	1,75	3,25	5,05	6,84	15,70	52,97			12/01/2016	Dacron	

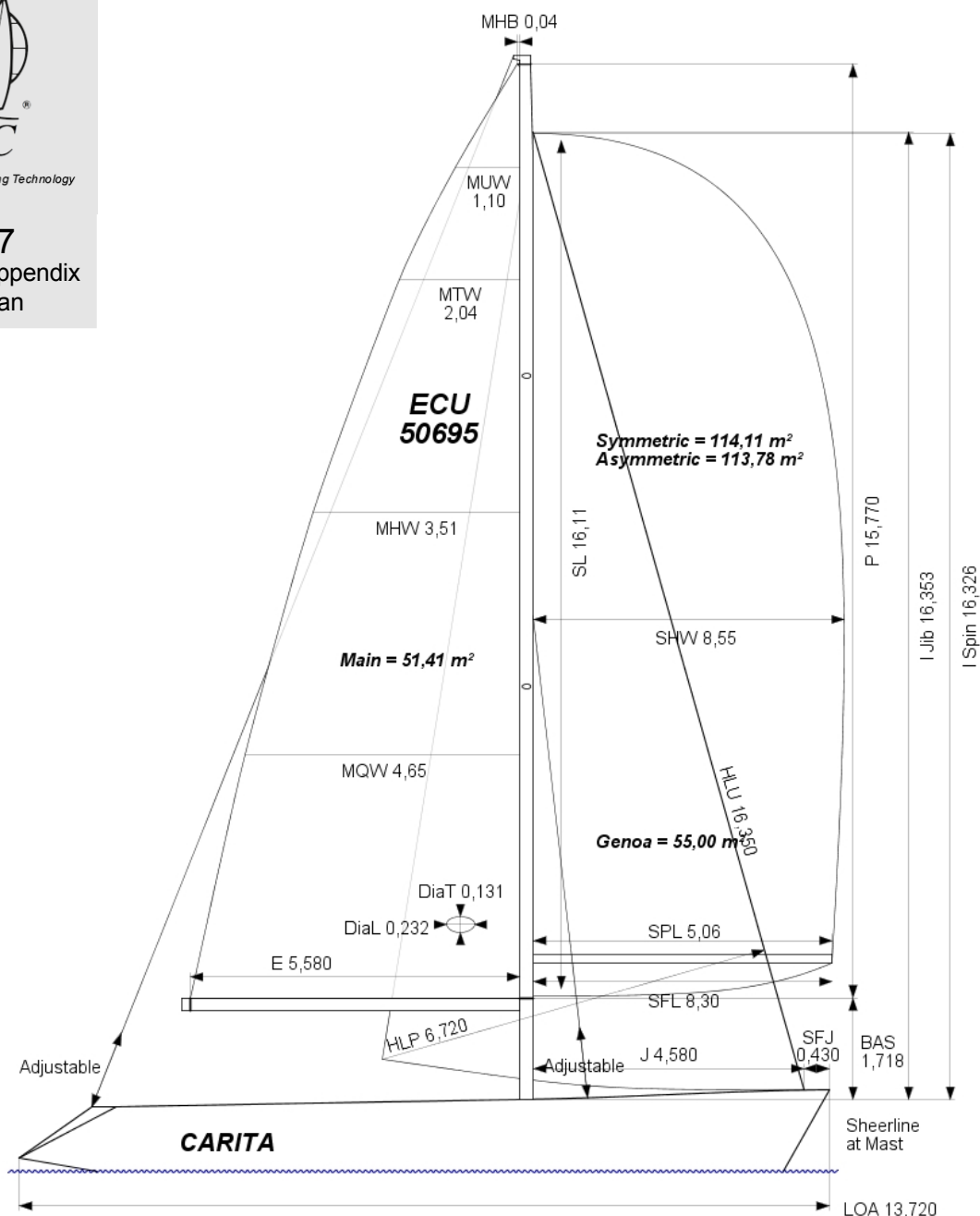
MEASUREMENT INVENTORY				
Measurer PATRICIO GUTIERREZ P G				
Date 30/09/2017				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
C4	Engine	YANMAR		
Id	Item	Weight	Description	

MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
C6	Tank	AGUA	PVC	90,0	6,10	0,00		Ø-Ø
B3	Tank	PETROLEO	ALUMINIO	288,0	10,70	0,00		54,Ø
Id	Item	Weight	Distance	VCG Description				
E4	Battery	40,0	9,60	0,00 2 X 12 V - 110 AMP				
B4	Battery	60,0	9,60	0,00 3 X 12 V - 110 AMP				



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0,040	1,10	2,04	3,51	4,65	51,41	A VELASTEGUI	12/01/2016		Dacron	

HEADSAILS (2)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G1 LM	0,11	0,86	1,68	3,35	5,03	6,72	16,35	147%	55,01			P	03/10/2017	NORTH	Carbon	3DI
1	0,06	0,85	1,75	3,25	5,05	6,84	15,70	149%	52,97			A	12/01/2016		Dacron	

SYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2A	16,11	16,11	16,11	8,55	8,30	114,11	A V M	23/04/2017	NORTH	Nylon	NUEVO
1	16,10	16,10	16,10	8,30	8,30	111,36	A VELASTEGUI	12/01/2016		Nylon	
S2	16,10	16,10	16,10	8,29	8,29	111,22	A V M	27/10/2016	ELVSTROM	Nylon	NUEVO

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A1	16,65	15,75	16,20	8,49	8,18	113,78	asym	A V M	23/04/2017	NORTH	Nylon	NUEVO