

BOAT
Name VARANO DEL DESIERTO Sail Nr ESP-5477

GPH
627.7

HULL	
Length Overall	11.710m
Maximum Beam	3.944m
Displacement	7,427kg
Draft	1.970m
IMS Reg. Division	Cruiser/Racer
Dynamic Allowance	0.245%
Fwd Accommodation	Yes
Hull Construction	Solid
Carbon Rudder	No
Crew Arm Extension	
IMSL	10.527m VCGD 0.131m Sink 23.47kg/mm
RL	8.341m VCGM 0.120m WS 32.01m²
LSM0	10.442m Displacement/Length ratio 6.5232



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2016
ORC International
Certificate

GENERAL
Class SUN FAST 40 (SK)
Designer ANDRIEU Daniel
Builder JEANNEAU SA
Series 06/1998
Age 02/2000
Age Allowance 0.487%
Offset File f183.off - 04/06/1999 09:56:50
Measurement by CONTI/RIOS - 22/03/2002

Rating Office

Offshore
Racing
Congress



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SCORING OPTIONS						
	OFFSHORE			INSHORE		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	609.8			684.0		
Time On Time	0.9840			0.9868		
Performance Line	PLT	PLD		PLT	PLD	
	0.946	140.3		0.776	162.6	
Triple Number	Low	Medium	High	Low	Medium	High
	0.9227	1.2200	1.3898	0.7064	0.9763	1.1516

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1096.4	905.5	796.7	731.1	701.2	686.2	677.8
52°	702.7	587.8	521.3	491.4	480.6	475.3	471.2
60°	655.2	551.1	498.4	476.1	465.6	460.4	456.1
75°	616.0	522.3	483.0	463.2	448.7	438.0	429.3
90°	617.0	523.0	483.4	460.5	447.4	431.6	408.1
110°	649.8	532.9	481.9	457.2	434.8	413.9	394.2
120°	672.5	550.4	489.6	462.4	440.1	417.8	378.4
135°	746.3	603.2	520.1	479.9	457.0	435.6	393.8
150°	882.4	694.1	586.1	516.4	480.2	458.5	418.4
Run VMG	1019.0	801.5	676.1	591.8	533.4	491.4	447.7

Certificate	
Number	547701
ORC Ref	ESP00015671
Issued On	26/01/2016
VPP Ver.	2016 1.00
Valid until	31/12/2016

Selected Courses							
Windward / Leeward	1057.7	853.5	736.4	661.5	617.3	588.8	562.7
Circular Random	875.0	702.3	608.5	553.1	518.6	496.1	469.1
Ocean for PCS	866.1	687.6	588.6	529.3	491.5	465.5	429.4
Non Spinnaker	920.3	734.5	632.5	571.7	533.7	508.9	478.6

Crew Weight	
Declared	680kg
Default*	732kg
Non Manual Pwr	No

Special Scoring		
	ToD	ToT
Double H.GPH	629.5	0.9531
Double H.OSN	612.6	0.9794
Non Spin GPH	653.1	0.9187
Non Spin OSN	634.3	0.9459
N/S Perf. Line	79.5	0.789

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	45.1°	43.6°	43.6°	42.5°	41.1°	40.9°	40.4°
Beat VMG	3.28	3.98	4.52	4.92	5.13	5.25	5.31
52°	5.12	6.12	6.91	7.33	7.49	7.57	7.64
60°	5.49	6.53	7.22	7.56	7.73	7.82	7.89
75°	5.84	6.89	7.45	7.77	8.02	8.22	8.39
90°	5.83	6.88	7.45	7.82	8.05	8.34	8.82
110°	5.54	6.76	7.47	7.87	8.28	8.70	9.13
120°	5.35	6.54	7.35	7.79	8.18	8.62	9.51
135°	4.82	5.97	6.92	7.50	7.88	8.26	9.14
150°	4.08	5.19	6.14	6.97	7.50	7.85	8.60
Run VMG	3.53	4.49	5.33	6.08	6.75	7.33	8.04
Gybe Angles	145.4°	149.7°	151.9°	155.2°	171.0°	180.0°	180.0°

Sails Limitations	
Headsails	6
Spinnakers	3

Class Division Length
CDL = 9.435

Storm Sails Areas	
Heavy Weather Jib	36.15
Storm Jib (JL=10.64)	13.39
Storm Triesail	12.48

Owner

BOAT	
Name VARANO DEL	Sail Nr ESP-5477
File E5477.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 30/05/2014		SG 1.0270	
FFM 1.376	FF 1.375	SFFP 0.626	
FAM 1.089	FA 1.089	SAFP 10.840	
W1 91.400	PD1 467.2	WD 12.294	
W2 91.400	PD2 464.9	GSA 1.0	
W3 91.400	PD3 463.4	RSA 1.0	
W4 91.400	PD4 462.8	PLM 9000.0	
LCF from stem on CL / on sheer		6.487 / 6.768	
Maximum beam station from stem		7.414	
RM Measured		190.5kg·m	
RM Default		197.8kg·m	
Limit of positive stability / Stab.Index		111.5° / 113.2	
Freeboard at mast at 4.220		1.242	

RIG			
Forestay Tension Aft	Spreaders 3		
Inner Stay None Fitted	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 14.730	E 4.840	MDT1 0.118	MW 0.216
IG 16.247	J 4.220	MDL1 0.216	GO 0.246
ISP 16.300	SFJ 0.000	MDT2 0.117	BD 0.161
BAS 1.659	SPL 4.410	MDL2 0.216	MWT
FSP 0.060	TPS 5.320	TL	MCG

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0.480		
Type Folding 2 blades	PBW 0.134		
Twin Screw No	PIPA 0.0067		
PSA 20.800	PHL 0.142	ST3 0.111	ESL 1.013
PSD 0.030	ST1 0.022	ST4 0.058	
PHD 0.080	ST2 0.100	ST5 0.258	

COMMENTS	
FED. CATALANA	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



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2016 Measurements Datasheet

Certificate	
Number 547701	
ORC Ref ESP00015671	
Issued On 26/01/2016	
VPP Ver. 2016 1.00	
Valid until 31/12/2016	



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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.170	1.10	1.91	3.20	4.10	43.25	44.12	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	15.76	15.76	15.76	7.70	7.50	100.60		SL · (SFL + 4·SHW) / 6	
Asymmetric	SLU	SLE	SL	SHW	SFL	Area (r)			
	16.53	15.06	15.79	6.21	8.27	87.16	90.77	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
0.09	0.78	1.49	2.96	4.48	6.09	15.60	46.93			17/07/2014	Carbon	LIGERO
0.09	0.75	1.43	2.90	4.45	6.05	15.74	46.72			26/03/2010	Unknow	G?1
					5.81	15.15	44.81				Unknow	G?2
					4.56	16.10	37.37	Y		30/07/2001	Dacron	G?3
					4.61	15.43	36.21	Y		30/07/2001	Kevlar	G?3

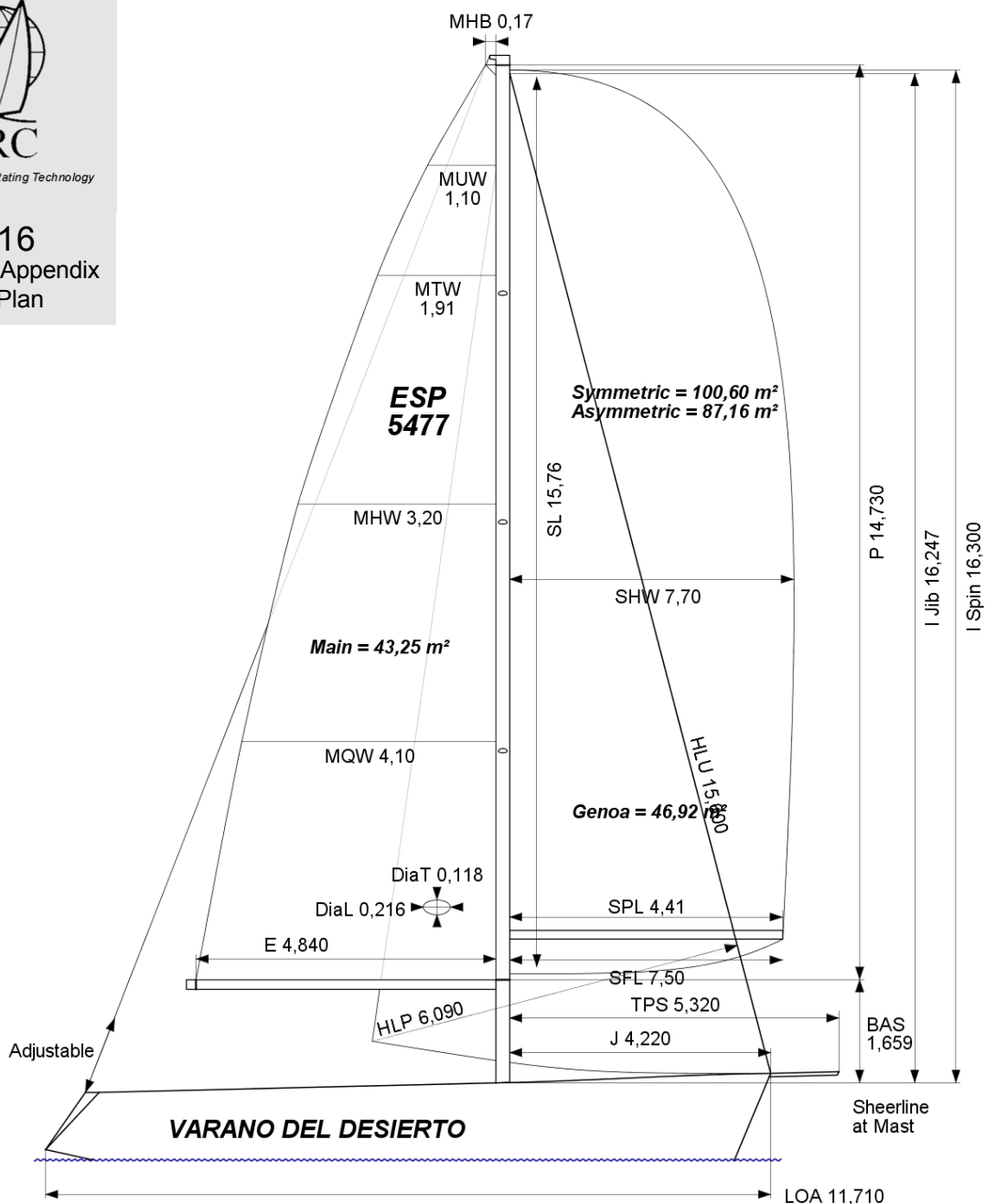
MEASUREMENT INVENTORY				
Measurer CESAR CALVO 498				
Date 30/05/2014				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Weight	Description	

MEASUREMENT INVENTORY				
Id	Item	Weight	Distance	VCG Description
1	Battery			2 BAT 115 Ah EN J
2	Battery			1 BAT 120 Ah EN J



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2016
Certificate Appendix
Sail Plan



SAILS INVENTORY																
MANSAIL																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
3	0.170	1.10	1.91	3.20	4.10	43.25		08/09/2014		Unknown						
1	0.160	0.97	1.76	3.10	4.02	41.93				Carbon						
HEADSAILS																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.09	0.78	1.49	2.96	4.48	6.09	15.60	144%	46.93				17/07/2014		Carbon	LIGERO
4	0.09	0.75	1.43	2.90	4.45	6.05	15.74	143%	46.72			E520	26/03/2010		Unknown	G?1
2						5.81	15.15	138%	44.81						Unknown	G?2
5						4.56	16.10	108%	37.37	Y			30/07/2001		Dacron	G?3
3						4.61	15.43	109%	36.21	Y	410		30/07/2001		Kevlar	G?3
SYMMETRIC SPINNAKERS																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
3	15.76	15.76	15.76	7.70	7.50	100.60		30/05/2006		Unknown	PESADO					
1	15.74	15.74	15.74	7.69	7.38	100.05	518	05/02/2006		Unknown						
2	15.74	15.74	15.74	7.65	7.33	99.50		06/03/2010		Unknown	LIGERO					
ASYMMETRIC SPINNAKERS																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	16.53	15.06	15.80	6.21	8.27	87.16	asym				Unknown	RICHER				