

BOAT Name CREMISE Sail Nr ESP-5158	GPH 715,8	HULL Length Overall 9,800m Maximum Beam 2,974m Displacement 5.346kg Draft 1,683m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,572% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class RANGER 32 Designer GARY MULL Builder RANGER YACHTS Series 04/1977 Age 04/1977 Age Allowance 0,487% Offset File CREM11.OFF - 11/03/2002 15:48:00 Measurement by TMONTANER - 12/04/2005		IMSL 8,299m VCGD 0,096m Sink 14,75kg/mm RL 6,161m VCGM 0,019m WS 20,96m² LSM0 8,379m Displacement/Length ratio 9,0877



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ORC International
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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	695,6			776,4		
Time On Time	0,8626			0,8694		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	823,4	633,7	562,5	1061,0	785,9	671,0
Time on Time	0,8198	1,0651	1,2000	0,6362	0,8589	1,0059

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1226,4	1030,9	925,4	850,7	814,4	795,3	782,1
52°	798,4	680,3	606,5	571,1	555,9	549,1	544,2
60°	753,4	641,5	580,3	553,9	539,9	532,8	527,7
75°	717,3	609,8	562,4	540,4	525,2	513,5	501,5
90°	718,6	611,0	557,4	536,6	522,9	508,9	484,8
110°	734,2	606,4	550,5	524,5	503,8	491,4	476,2
120°	753,1	621,1	556,7	528,8	507,3	485,9	459,3
135°	820,1	676,7	583,6	544,4	521,6	500,9	461,5
150°	957,4	764,0	651,5	577,3	543,7	522,5	484,1
Run VMG	1105,5	881,1	750,3	656,8	591,5	552,7	511,3

Certificate
Number **515801**
ORC Ref **ESP00021245**
Issued On **03/02/2017**
VPP Ver. **2017 1.00**
Valid until **31/12/2017**

Crew Weight
Declared **480kg**
Default* **535kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	718,1	0,8355
Double H.OSN	699,2	0,8581
Non Spin GPH	745,9	0,8044
Non Spin OSN	723,0	0,8299

Selected Courses							
Windward / Leeward	1166,0	956,0	837,8	753,7	703,0	674,0	646,7
Circular Random	986,8	797,0	694,5	634,5	597,6	573,9	546,0
Ocean for PCS	1205,3	933,7	779,5	684,4	622,5	579,9	522,5
Non Spinnaker	1040,7	835,3	723,1	656,5	614,9	588,0	556,0

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	43,8°	42,1°	42,9°	43,0°	41,9°	41,1°	40,5°
Beat VMG	2,94	3,49	3,89	4,23	4,42	4,53	4,60
52°	4,51	5,29	5,94	6,30	6,48	6,56	6,61
60°	4,78	5,61	6,20	6,50	6,67	6,76	6,82
75°	5,02	5,90	6,40	6,66	6,85	7,01	7,18
90°	5,01	5,89	6,46	6,71	6,88	7,07	7,43
110°	4,90	5,94	6,54	6,86	7,15	7,33	7,56
120°	4,78	5,80	6,47	6,81	7,10	7,41	7,84
135°	4,39	5,32	6,17	6,61	6,90	7,19	7,80
150°	3,76	4,71	5,53	6,24	6,62	6,89	7,44
Run VMG	3,26	4,09	4,80	5,48	6,09	6,51	7,04
Gybe Angles	147,7°	151,9°	152,7°	157,6°	180,0°	180,0°	180,0°

Class Division Length
CDL = **7,231**

Storm Sails Areas


Heavy Weather Jib	21,60
Storm Jib (JL=8,22)	8,00
Storm Trysail	5,86

Owner

BOAT	
Name CREMISE	Sail Nr ESP-5158
File E5158	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 04/10/2010		SG 1,0250	
FFM 1,110	FF 1,115	SFFP 0,540	
FAM 0,930	FA 0,930	SAFP 9,080	
W1 49,5	PD1 416,2	WD 10,270	
W2 49,5	PD2 415,2	GSA 1,0	
W3 49,5	PD3 4117,4	RSA 1,0	
W4 49,5	PD4 418,0	PLM 9000,0	
LCF from stem on CL / on sheer		5,605 / 5,770	
Maximum beam station from stem		5,960	
RM Measured		74,5kg·m	
RM Default		79,1kg·m	
Limit of positive stability / Stab.Index		117,7° / 123,4	
Freeboard at mast at 4,190		1,017	

RIG			
Forestay Tension Aft	Spreaders 1		
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 11,190	E 2,990	MDT1 0,127	MW 0,153
IG 12,650	J 4,060	MDL1 0,198	GO 0,153
ISP 12,610	SFJ 0,130	MDT2 0,120	BD 0,150
BAS 1,250	SPL 4,060	MDL2 0,153	MWT
FSP 0,060	TPS 4,060	TL 3,430	MCG



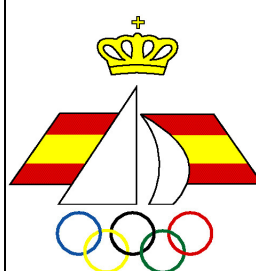
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IMS Measurement Certificate

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Shaft exposed	PRD 0,380		
Type Folding 2 blades	PBW		
Twin Screw No	PIPA 0,0047		
PSA 19,400	PHL 0,130	ST3 0,085	ESL 0,680
PSD 0,025	ST1 0,100	ST4 0,045	
PHD 0,070	ST2 0,080	ST5 0,190	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,070	0,63	1,15	1,96	2,53	20,13	20,38	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	74,66		SL · (SFL + 4·SHW) / 6	
	12,92	12,92	12,92	6,98	6,75				
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	Fly	Meas.Date	Material	Comment
0,11	0,74	1,41	2,82	4,33	5,92	12,40	35,94			18/10/2012		

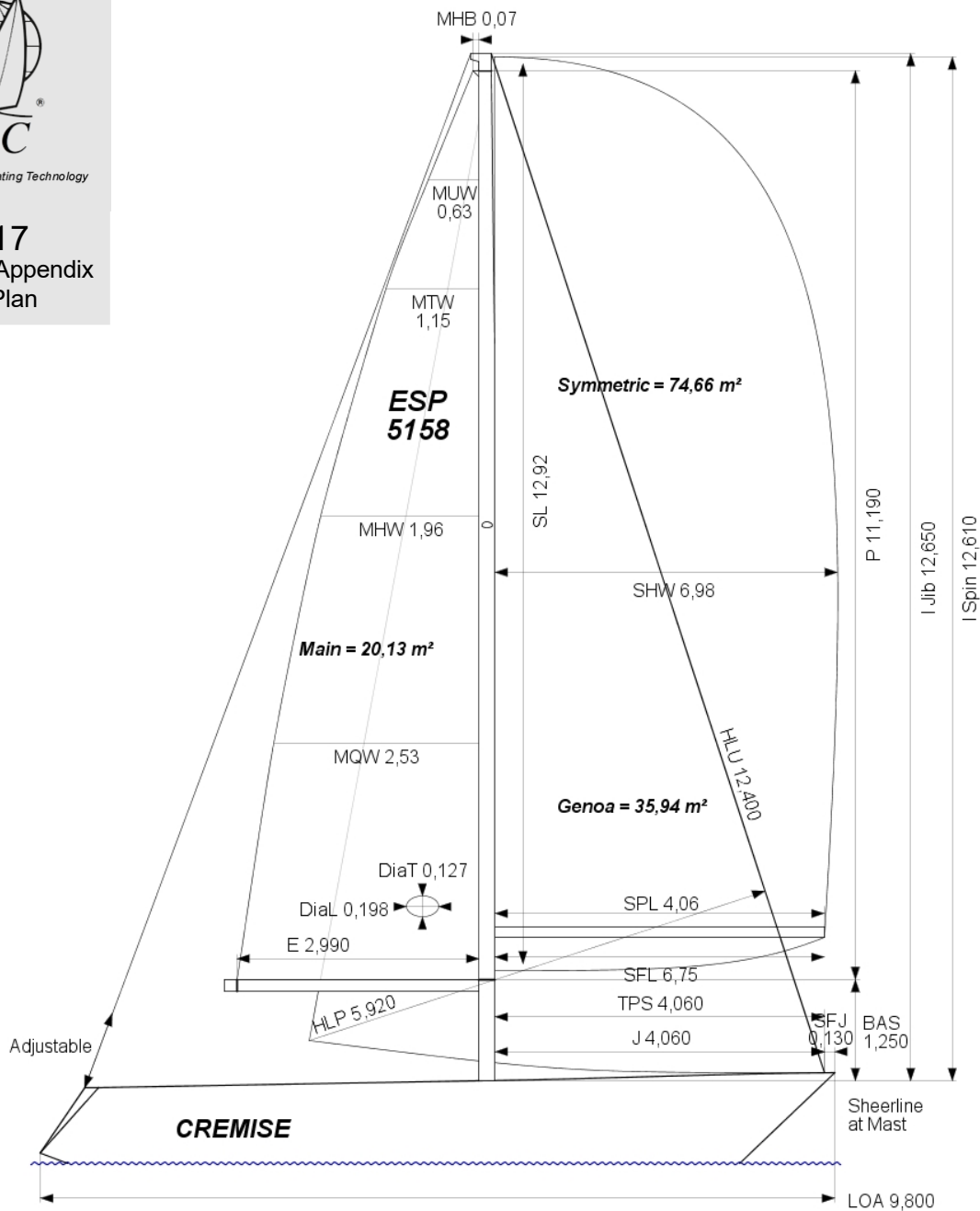
MEASUREMENT INVENTORY				
Measurer JJBELTRAN				
Date 04/10/2010				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
+	Anchor	17,0	4,08	ANCLA
+	Chain	3,0	4,08	CADENA
+	Tools	7,0	5,90	
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	BUOKH	DU2011	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

MEASUREMENT INVENTORY				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
1	Battery	44,0	6,81	2 BATERIAS



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Certificate Appendix
Sail Plan



SAILS INVENTORY																	
MAINSAIL (1)																	
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment						
001	0,070	0,63	1,15	1,96	2,53	20,09	jibeltran	18/10/2012									
HEADSAILS (1)																	
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment	
001	0,11	0,74	1,41	2,82	4,33	5,92	12,40	146%	35,94			jibeltran	18/10/2012				
SYMMETRIC SPINNAKERS (1)																	
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment						
ORC	12,92	12,92	12,92	6,98	6,75	74,66							* Copied from legacy *				
ASYMMETRIC SPINNAKERS (0)																	
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment					