BOAT

Name **CON CAALMA II**
Sail Nr **ESP-2964**

GPH

690.6

GENERAL

Class	**FIRST 32S5 (BK)mod**
Designer	**berret**
Builder	**beneteau**
Series	**07/1987**
Age	**05/1991**
Age Allow ance	**0.487%**
Offset File	**E214-Esp2964.off - 15/04/2010**
Measurement by	**- 17/06/2011**

HULL

Length Overall	**9.446m**
Maximum Beam	**3.264m**
Displacement	**4,528kg**
Draft	**1.822m**
Plan Review	
IMS Reg. Division	**Cruiser/Racer**
Dynamic Allow ance	**0.362%**
Hull Construction	**Solid**
Carbon Rudder	**No**
Crew Arm Extension	

IMSL	**8.414m**	VCGD	**0.044m**	Sink	**14.87kg/mm**
RL	**6.973m**	VCGM	**0.049m**	WS	**20.46m²**
LSM0	**8.294m**	Displacement/Length ratio			**7.9362**

SCORING OPTIONS

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	**670.7**			**747.2**		
Time on Time	**0.8946**			**0.9034**		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	**793.4**	**610.7**	**547.4**	**1023.8**	**751.9**	**652.8**
Time on Time	**0.8508**	**1.1053**	**1.2332**	**0.6593**	**0.8977**	**1.0340**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	**1161.3**	**968.1**	**859.7**	**799.7**	**778.7**	**771.2**	**772.8**
52°	**759.0**	**645.6**	**581.0**	**555.1**	**544.7**	**540.5**	**539.5**
60°	**718.2**	**613.1**	**562.6**	**541.1**	**530.1**	**525.2**	**522.6**
75°	**689.5**	**589.9**	**549.2**	**528.9**	**515.1**	**504.8**	**495.1**
90°	**698.1**	**587.9**	**539.9**	**518.6**	**508.8**	**494.1**	**470.7**
110°	**702.7**	**582.0**	**535.1**	**510.3**	**488.6**	**469.6**	**450.7**
120°	**727.9**	**598.5**	**541.8**	**515.2**	**492.8**	**470.5**	**434.6**
135°	**808.6**	**659.9**	**571.3**	**533.0**	**509.1**	**486.5**	**443.2**
150°	**950.8**	**752.3**	**638.5**	**566.1**	**532.2**	**509.7**	**467.1**
Run VMG	**1097.9**	**868.1**	**734.7**	**642.2**	**576.4**	**539.0**	**495.1**
Selected Courses							
Windward / Leeward	**1129.6**	**918.1**	**797.2**	**720.9**	**677.5**	**655.1**	**634.0**
Circular Random	**951.8**	**768.2**	**669.8**	**613.1**	**579.0**	**557.6**	**532.5**
Coastal / Long Distance	**1126.4**	**862.1**	**717.7**	**631.4**	**589.1**	**557.8**	**506.9**
Non Spinnaker	**1002.0**	**803.4**	**695.7**	**632.8**	**594.5**	**570.4**	**543.5**

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	**43.5°**	**41.3°**	**40.9°**	**40.5°**	**39.8°**	**39.4°**	**39.8°**
Beat VMG	**3.10**	**3.72**	**4.19**	**4.50**	**4.62**	**4.67**	**4.66**
52°	**4.74**	**5.58**	**6.20**	**6.49**	**6.61**	**6.66**	**6.67**
60°	**5.01**	**5.87**	**6.40**	**6.65**	**6.79**	**6.85**	**6.89**
75°	**5.22**	**6.10**	**6.55**	**6.81**	**6.99**	**7.13**	**7.27**
90°	**5.16**	**6.12**	**6.67**	**6.94**	**7.08**	**7.29**	**7.65**
110°	**5.12**	**6.19**	**6.73**	**7.06**	**7.37**	**7.67**	**7.99**
120°	**4.95**	**6.01**	**6.64**	**6.99**	**7.31**	**7.65**	**8.28**
135°	**4.45**	**5.46**	**6.30**	**6.75**	**7.07**	**7.40**	**8.12**
150°	**3.79**	**4.79**	**5.64**	**6.36**	**6.76**	**7.06**	**7.71**
Run VMG	**3.28**	**4.15**	**4.90**	**5.61**	**6.25**	**6.68**	**7.27**
Gybe Angles	**147.0°**	**151.5°**	**154.0°**	**159.0°**	**180.0°**	**180.0°**	**180.0°**

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ORC International Certificate

Rating Office

Offshore Racing Congress

Certificate

Number **296401**
ORC Ref **03510000KPV**
Issued On **17/06/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default	527kg
Maximum	**440kg**
Minimum*	**330kg**

**when applied by the NoR and SI*

Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	**718.1**	**0.8355**
Non Spin OSN	**695.1**	**0.8631**

Sails Limitations

Headsails	Spinnakers
5	**4**

Class Division Length

CDL = **7.691**

Storm Sails Areas

Heavy Weather Jib	**19.57**
Storm Jib (JL=7.83)	**7.25**
Storm Trysail	**8.61**

Owner

BOAT

Name	**CON CAALMA II**	Sail Nr	**ESP-2964**
File	**E2964**	Data in	**meters/kilograms**

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**		

P	**11.900**	E	**4.130**	MDT1	**0.090**	MW	**0.135**
IG	**11.840**	J	**3.320**	MDL1	**0.135**	GO	**0.190**
ISP	**11.875**	SFJ	**0.060**	MDT2	**0.070**	BD	**0.145**
BAS	**1.500**	SPL	**3.320**	MDL2	**0.090**	MWT	**92.00**
FSD	**0.032**	TPS	**0.000**	TL	**0.960**	MCG	**4.670**

INCLINING TEST AND FREEBOARDS

Inclining Test **Current Inclining**

Flotation date **21/04/2015** SG **1.0250**

FFM	**1.160**	FF	**1.161**	SFFP	**1.058**
FAM	**0.990**	FA	**0.990**	SAFP	**8.378**
W1	**53.5**	PD1	**586.0**	WD	**10.150**
W2	**53.5**	PD2	**578.7**	GSA	**1.0**
W3	**53.5**	PD3	**586.0**	RSA	**1.0**
W4	**53.5**	PD4	**585.1**	PLM	**9000.0**

LCF from stem on CL / on sheer	**5.168 / 5.396**
Maximum beam station from stem	**6.060**
RM Measured	**73.2kg·m**
RM Default	**76.4kg·m**
Limit of positive stability / Stab.Index	**117.1° / 117.5**
Freeboard at mast at 3.380	**1.076**

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MIZZEN RIG AND SAILS

N/A

PROPELLER

Installation	**Shaft exposed**	PRD	**0.475**
Type	**Folding 2 blades**	PBW	
Twin Screw	**No**	PIPA	**0.0052**

PSA	**20.000**	PHL	**0.127**	ST3	**0.105**	ESL	**0.970**
PSD	**0.025**	ST1	**0.026**	ST4	**0.055**		
PHD	**0.070**	ST2	**0.105**	ST5	**0.210**		

Certificate

Number **296401**
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COMMENTS

modificado quilla añadidos 75 k plomo debajo del bulbo.

MOVABLE BALLAST

N/A

CENTERBOARD

N/A

SAILS (Maximum Areas)

Mainsail	**MHB**	**MUW**	**MTW**	**MHW**	**MQW**	**Area**	**Area (r)**	**Formula**
	0.16	0.86	1.57	2.70	3.52	29.55	30.16	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	**SLU**	**SLE**	**SL**	**SHW**	**SFL**			
	11.94	11.94	11.94	5.77	5.64	57.15		SL · (SFL + 4·SHW) / 6

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
0.09	0.56	1.05	2.09	3.19	4.28	11.56	24.61		No	17/06/2020	Unknow	
0.07	0.50	0.98	2.00	3.09	4.23	11.35	23.37		No	10/04/2019	Unknow	
0.07	0.43	0.81	1.57	2.35	3.15	11.28	17.86	Y	No	10/04/2019	Unknow	

MEASUREMENT INVENTORY

Measurer **ESP 699**
Date **21/04/2015**
Comment
Internal Ballast total = 0.0

Id	*Item*	*Weight*	*Distance*	*VCG*	*Description*

Id	*Item*	*Weight*	*Description*

MEASUREMENT INVENTORY

Id	*Item*	*Tank Use*	*Tank Type*	*Capcty*	*Dist.*	*VCG*	*Condtn*	*Description*
1	Tank	agua			4.00		~~0.0~~	babor
2	Tank	gasoil			4.00		~~5.0~~	estribor (en reserva)

Id	*Item*	*Weight*	*Distance*	*VCG*	*Description*
1	Battery		2.07		2 baterias delante motor
001	Misc	21.0	1.00		molinete electrico

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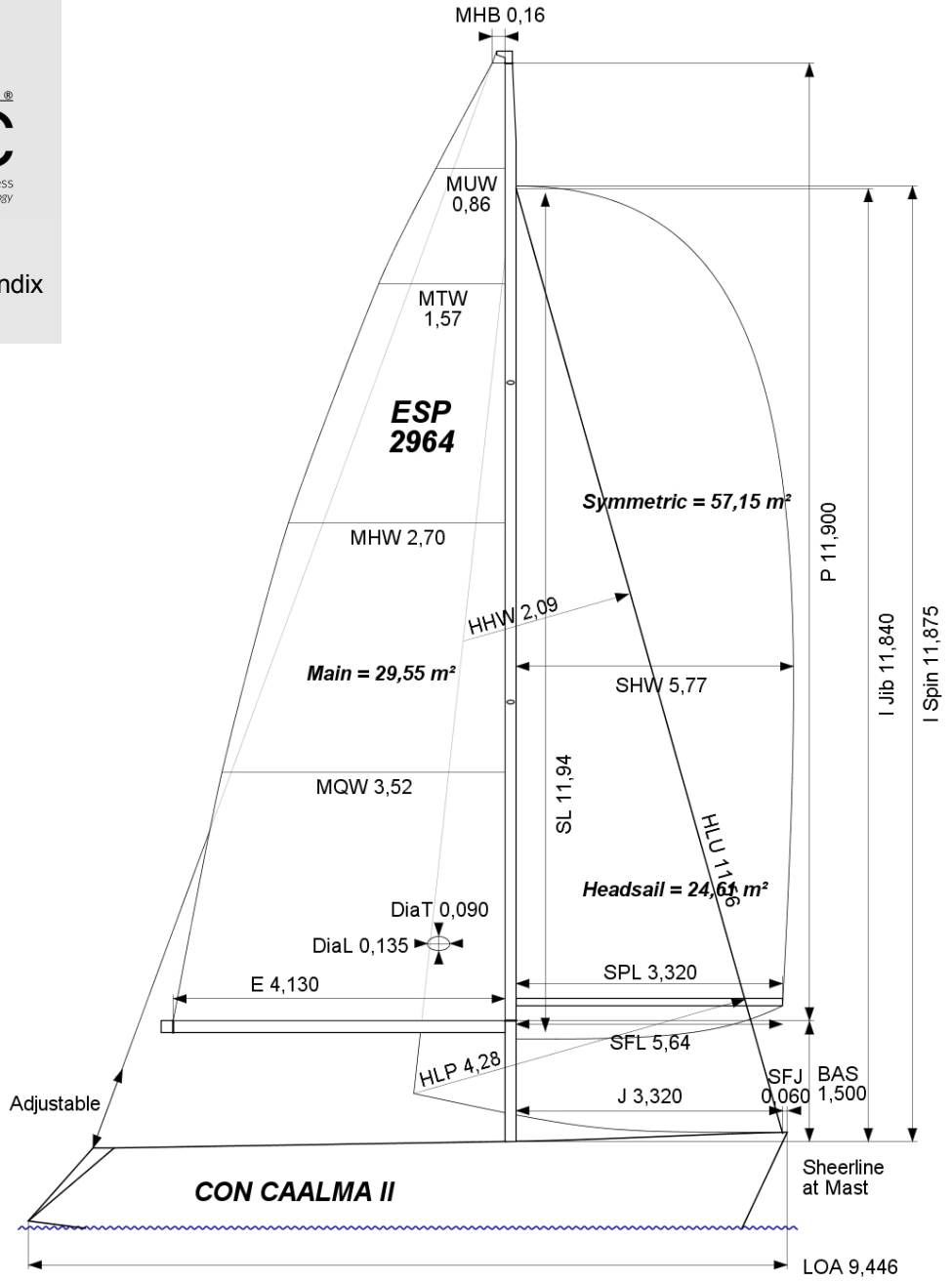
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.16	0.86	1.57	2.70	3.52	29.55		10/04/2019		Unknown	

HEADSAILS (3)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
001	0.09	0.56	1.05	2.09	3.19	4.28	11.56	129%	24.61		No		17/06/2020		Unknow	
g13	0.07	0.50	0.98	2.00	3.09	4.23	11.35	127%	23.37		No		10/04/2019		Unknow	
foq13	0.07	0.43	0.81	1.57	2.35	3.15	11.28	95%	17.86	Y	No		10/04/2019		Unknow	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S1	11.94	11.94	11.94	5.77	5.64	57.16		10/04/2019		Unknown	

ASYMMETRIC SPINNAKERS (0)

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