

BOAT Name Speculator Sail Nr FIN-10936	GPH 589.9	HULL Length Overall 12.495m Maximum Beam 3.844m Displacement 7,901kg Draft 1.998m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.002% Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class Finnulf 41 Designer K-J Stråhlmann Builder Finnulf Yachts Series 06/2001 Age 05/2006 Age Allowance 0.487% Offset File FIN20041.OFF - 18/05/2002 18:56:40 Measurement by - 05/06/2020		IMSLS 11.250m VCGD 0.151m Sink 24.66kg/mm RL 9.213m VCGM 0.172m WS 32.35m² LSM0 11.070m Displacement/Length ratio 5.8242



ORC
Offshore Racing Congress
World leader in rating technology

2020
ORC International
Certificate

Rating Office

Offshore
Racing
Congress



SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	575.3			645.7		
Time on Time	1.0428			1.0454		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	670.4	523.7	471.8	869.5	649.2	568.2
Time on Time	1.0069	1.2890	1.4308	0.7763	1.0398	1.1879

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	977.1	809.8	728.2	695.7	682.0	676.0	667.2
52°	635.4	535.1	490.8	476.7	470.8	468.0	463.7
60°	598.0	510.3	475.4	462.4	457.0	454.2	451.0
75°	568.9	493.9	464.2	449.0	439.7	434.4	429.7
90°	572.2	494.0	462.4	444.6	430.2	417.9	403.6
110°	604.9	500.5	458.6	436.5	420.1	408.8	390.1
120°	620.7	510.7	463.2	438.6	416.3	396.1	372.8
135°	687.4	556.9	486.3	454.4	432.0	409.2	365.5
150°	816.2	648.4	548.0	486.7	456.2	435.0	392.8
Run VMG	942.5	748.7	632.8	557.0	506.7	469.0	425.9

Certificate
Number **10936**
ORC Ref **03290000NU7**
Issued On **04/08/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default 796kg
Maximum **633kg**
Minimum* **475kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **615.3 0.9751**
Non Spin OSN **600.6 0.9990**

Selected Courses							
Windward / Leeward	959.8	779.3	680.5	626.3	594.4	572.5	546.6
Circular Random	807.3	653.7	572.5	526.2	498.2	480.0	456.7
Coastal / Long Distance	958.1	731.6	612.2	544.9	508.9	480.1	435.3
Non Spinnaker	852.7	686.0	596.4	544.5	512.7	491.9	465.1

Sails Limitations
Headsails **6** Spinnakers **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	43.5°	42.4°	42.0°	40.9°	40.5°	40.3°	40.1°
Beat VMG	3.68	4.45	4.94	5.17	5.28	5.33	5.40
52°	5.67	6.73	7.33	7.55	7.65	7.69	7.76
60°	6.02	7.05	7.57	7.78	7.88	7.93	7.98
75°	6.33	7.29	7.76	8.02	8.19	8.29	8.38
90°	6.29	7.29	7.78	8.10	8.37	8.61	8.92
110°	5.95	7.19	7.85	8.25	8.57	8.81	9.23
120°	5.80	7.05	7.77	8.21	8.65	9.09	9.66
135°	5.24	6.46	7.40	7.92	8.33	8.80	9.85
150°	4.41	5.55	6.57	7.40	7.89	8.28	9.16
Run VMG	3.82	4.81	5.69	6.46	7.10	7.68	8.45
Gybe Angles	142.3°	148.0°	150.0°	155.0°	168.0°	180.0°	180.0°

Class Division Length
CDL = **10.221**

Storm Sails Areas
Heavy Weather Jib **37.93**
Storm Jib (JL=10.90) **14.05**
Storm Trysail **15.15**

Owner

BOAT	
Name Speculator	Sail Nr FIN-10936
File L10936	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS					
Inclining Test Current Inclining					
Flotation date 28/04/2012				SG 1.0050	
FFM	1.382	FF	1.398	SFFP	0.200
FAM	1.045	FA	1.049	SAFP	11.425
W1	114.1	PD1	577.1	WD	11.815
W2	114.1	PD2	569.5	GSA	1.0
W3	114.1	PD3	575.3	RSA	1.0
W4	114.1	PD4	569.2	PLM	9000.0
LCF from stem on CL / on sheer				6.951 / 7.205	
Maximum beam station from stem				8.237	
RM Measured				185.4kg-m	
RM Default				207.8kg-m	
Limit of positive stability / Stab.Index				106.8° / 110.3	
Freeboard at mast at 4.750				1.162	



ORC
Offshore Racing Congress
World leader in rating technology

2020
IMS Measurement
Certificate

RIG					
Forestay Tension	Aft	Runners/Checkstays		0	
Inner Stay	None Fitted	Main Furler		No	
Carbon Mast	No	Jib Furler		No	
Fiber Rigging	No	Main Furler		No	
Non-Circular Rigging	No				
Articulated Bowsprit	No				
P	16.000	E	5.410	MDT1	0.120
IG	16.664	J	4.550	MDL1	0.235
ISP	16.674	SFJ	0.200	MDT2	0.120
BAS	1.599	SPL	4.660	MDL2	0.170
FSD	0.040	TPS	5.130	TL	2.800
				MW	0.235
				GO	0.261
				BD	0.170
				MWT	273.00
				MCG	6.179

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation	Strut	PRD	0.468
Type	Folding 2 blades	PBW	0.118
Twin Screw	No	PIPA	0.0042
ST1	0.065	ST3	0.180
ST2	0.180	ST4	0.110
		ST5	0.350
		EDL	2.790

Certificate	
Number	10936
ORC Ref	03290000NU7
Issued On	04/08/2020
VPP Ver.	2020 1.02
Valid until	31/12/2020

COMMENTS	
Radar removed 2013	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.15	1.13	2.05	3.50	4.50	51.38	52.35	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	16.56	16.56	16.56	8.53	8.20	116.80		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	0.82	1.59	3.15	4.74	6.37	16.41	52.12		No	09/05/2016	Carbon	3DL
0.10	0.81	1.57	3.13	4.67	6.31	16.29	51.19		No	28/04/2012	Kevlar	
0.09	0.68	1.32	2.74	4.34	6.10	16.36	47.26		No	28/04/2012	Kevlar	
0.10	0.61	1.16	2.26	3.41	4.59	16.28	37.31	Y	No	05/05/2017	Carbon	
0.10	0.51	0.94	1.86	2.85	3.89	14.66	28.06		No	28/04/2012	Dacron	

MEASUREMENT INVENTORY				
Measurer				
Date 28/04/2012				
Comment				
Internal Ballast total = 0.0				
Id	Item	Weight	Distance	VCG Description
2	Ancher	45.0	5.09	
4	Ancher	40.0	5.09	
4	Tools	45.0	4.19	
2	Tools	8.0	4.50	9.32 Removed-radar
Id	Item	Maker	Model	
1	Engine	VOLVO	D2-55C	
Id	Item	Weight Description		

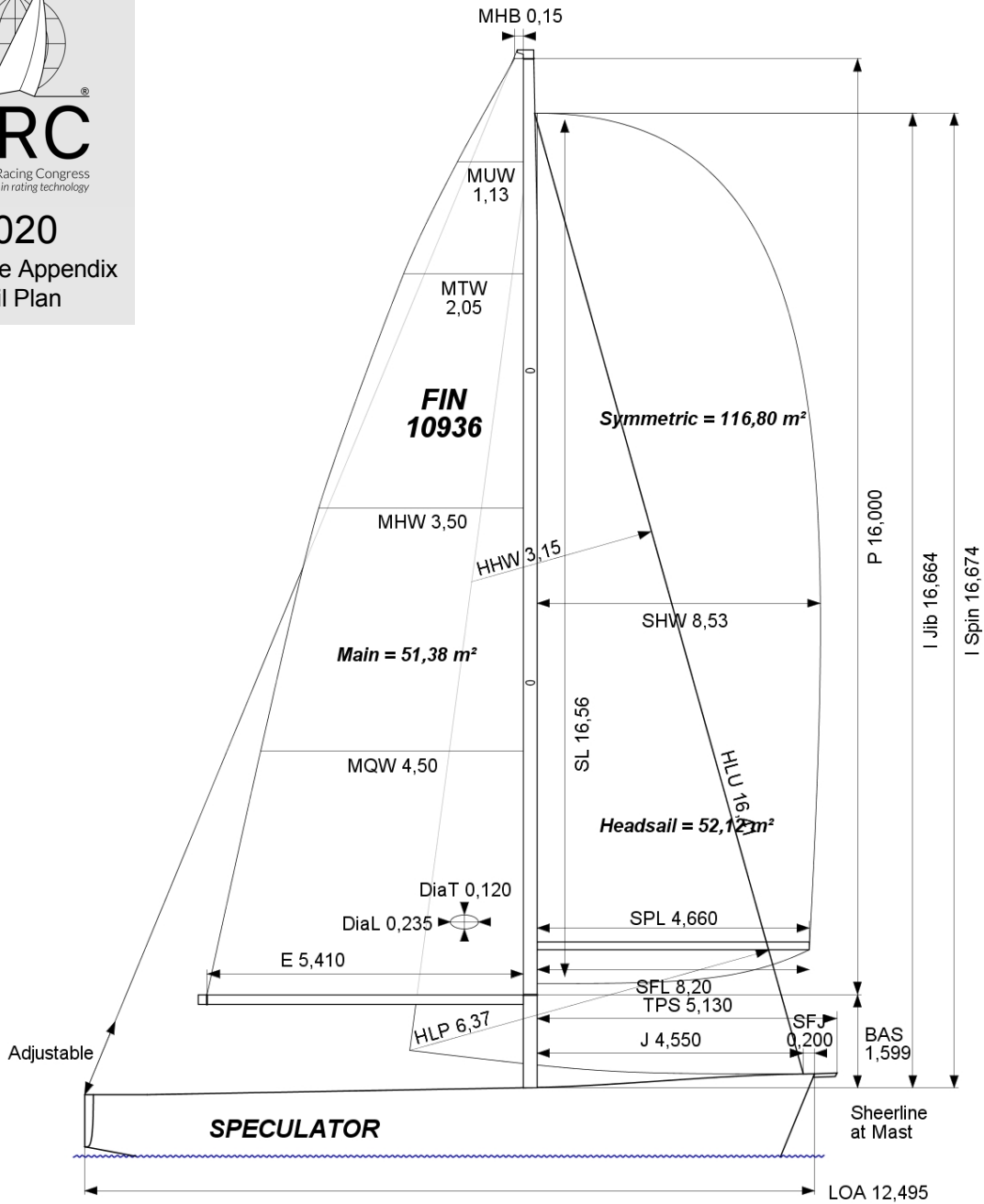
MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
1	Tank	WASTE		80.0	7.19		0-0 EMPTY
2	Tank	WATER	RST	150.0	3.69		0-0 EMPTY
3	Tank	DIESEL	RST	100.0	4.39		40-0
4	Tank	Boiler	RST	25.0	7.79		0-0 Empty
5	Tank	LPG		2.6	9.89		
Id	Item	Weight	Distance	VCG Description			
2	Battery		6.59	3x110 Ah			
1	Battery		8.09	70 Ah			



ORC

Offshore Racing Congress
World leader in rating technology

2020
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2	0.15	1.13	2.05	3.50	4.50	51.38		29/03/2019	North Sails	Unknown	
1	0.15	1.03	1.87	3.29	4.56	50.04		28/04/2012	North Sails	Unknown	

HEADSAILS (5)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
G1_16	0.09	0.82	1.59	3.15	4.74	6.37	16.41	140%	52.12		No		09/05/2016	North Sails	Carbon	3DL
G1	0.10	0.81	1.57	3.13	4.67	6.31	16.29	139%	51.19		No		28/04/2012	North Sails	Kevlar	
G2	0.09	0.68	1.32	2.74	4.34	6.10	16.36	134%	47.26		No		28/04/2012	North Sails	Kevlar	
G3	0.10	0.61	1.16	2.26	3.41	4.59	16.28	101%	37.31	Y	No		05/05/2017	WB-Sails	Carbon	
G4	0.10	0.51	0.94	1.86	2.85	3.89	14.66	85%	28.06		No		28/04/2012	North Sails	Dacron	

SYMMETRIC SPINNAKERS (4)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2	16.54	16.57	16.56	8.53	8.20	116.77		05/06/2020	WB-Sails	Unknown	
Med	16.20	16.20	16.20	8.12	8.03	109.38		28/04/2012	North Sails	Unknown	
1S	16.19	16.19	16.19	8.07	7.92	108.48		28/04/2012	North Sails	Unknown	White
5S	15.42	15.42	15.42	7.32	7.54	94.63		28/04/2012	North Sails	Unknown	White

ASYMMETRIC SPINNAKERS (0)

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