

BOAT
Name FREYA
Sail Nr EST 571

GPH
635,2

HULL
Length Overall 10,640 m
Maximum Beam 3,450 m
Displacement 5 901 kg
Draft 2,239 m
IMS Reg. Division Cruiser/Racer
Dynamic Allowance 0,556%
Fwd Accommodation Yes
Hull Construction Solid
Carbon Rudder No
Trim Tab No
IMS L 9,841 VCGD 0,142 VCGM 0,115
Sink 19,57 kg/mm Wetted Area 25,62 m²



2009
ORC International
Certificate

GENERAL
Class First 36.7
Designer B.Farr
Builder Beneteau S.A.
Series 01.2001
Age 07.2008
Age Allowance 0,520%
Offset File F196.BOF - 5.09.2002 9:35:34
Measurement by A.Tetsmann - 06.07.2008

SCORING OPTIONS		
	OFFSHORE	INSHORE
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time On Distance	635,2	704,2
Time On Time	0,9446	0,9586
Performance Line	PLT 0,814 PLD 94,4	PLT 0,940 PLD 259,2
Triple Number	Low 0,9146 Medium 1,2053 High 1,3678	Low 0,6945 Medium 0,9738 High 1,1462

Rating Office
Estonian Yachting Union
Veiko Rosme
Regati 1, 11911, Tallinn
Estonia

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1078,6	877,4	767,3	718,5	692,1	675,5	660,4
52°	697,3	577,0	529,1	499,4	487,4	480,5	474,0
60°	650,6	553,5	511,7	484,4	471,7	465,5	458,9
75°	610,6	536,1	492,9	470,2	457,4	443,2	433,3
90°	600,4	522,9	483,8	460,4	443,7	436,4	415,9
110°	627,4	538,4	496,2	470,6	449,2	426,6	397,3
120°	676,1	558,9	510,5	479,9	459,2	437,8	395,1
135°	783,9	622,2	545,1	504,0	477,3	457,9	419,2
150°	940,7	732,1	607,7	543,7	505,0	478,9	441,2
Run VMG	1086,2	845,4	701,7	609,0	550,5	511,7	465,0

Certificate
Number EST571
ORC Ref EST00000199
Issued On 21.05.2009
VPP Ver. 1.11
Valid until 31.12.2009

Crew Weight
Declared 750 kg
Default* 686 kg

Special Scoring
ToD ToT
Double 636,8 0,9422
Non Spinnaker 671,0 0,8942

Selected Courses							
Windward / Leeward	1101,1	873,7	746,5	673,0	628,8	600,3	568,4
Circular Random	883,7	709,7	615,7	560,6	526,4	503,8	474,9
Ocean for PCS	944,7	742,3	629,3	560,6	515,8	484,4	440,2
Non Spinnaker	949,9	755,7	649,3	586,2	546,8	521,0	489,4

Sails Limitations
Genoa 3 Jibs 2 Spinnakers 3
Spinnaker configuration Symmetric

Storm Sails Areas
Heavy Weather Jib 27,04
Storm Jib (JL=9,20) 10,02
Storm Trysail 11,51

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°	44,0°	40,1°	38,2°	37,2°	36,5°	36,1°
Beat VMG	3,34	4,10	4,69	5,01	5,20	5,33	5,45
52°	5,16	6,24	6,80	7,21	7,39	7,49	7,60
60°	5,53	6,50	7,04	7,43	7,63	7,73	7,84
75°	5,90	6,71	7,30	7,66	7,87	8,12	8,31
90°	6,00	6,89	7,44	7,82	8,11	8,25	8,66
110°	5,74	6,69	7,26	7,65	8,01	8,44	9,06
120°	5,32	6,44	7,05	7,50	7,84	8,22	9,11
135°	4,59	5,79	6,60	7,14	7,54	7,86	8,59
150°	3,83	4,92	5,92	6,62	7,13	7,52	8,16
Run VMG	3,31	4,26	5,13	5,91	6,54	7,04	7,74
Gybe Angles	142,8°	148,9°	150,5°	165,4°	177,3°	178,4°	179,2°

Owner
AS HÜNTAL AUTO
Sauga vald, Kilksamaa
Pärnumaa, Estonia
PJK
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

BOAT	
Name FREYA	Sail Nr EST 571
File Est0571.dxt	Data in meters/kilograms

RIG			
Forestay Tension Aft	Spreaders 3		
Inner Forestay None Fitted	Runners 0		
Carbon Mast No	Jumpers None		
Taper Hollows No	w/o Backstay No		
P 13,850	E 4,750	MDT1 0,101	TL 0,720
IG 14,090	J 4,000	MDL1 0,188	MWT 150,00
ISP 14,120	SFJ	MDT2 0,101	MCG 5,050
SPS	SPL 4,250	MDL2 0,150	CPW 2,260
BAS 1,540	TPS	MW 0,189	BD
BAL	FSP 0,070	GO 0,207	BWT

HEAVY ITEMS			
Bow Thruster No	Generator No	Air Condition No	
Windlass No	Jib Furler No	Desalinator No	
Heavy Deck No	Main Furler No		
Headliners No	Water Heater No		
Anchor Weight	Heavy Items Adjustment	0,0000	
Anchor LCG	Total Gyradius Adjustment	0,0400	

MIZZEN RIG AND SAILS	
N/A	

COMMENTS

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 18.05.2009	SG 1,0020	
FFM 1,315	FF 1,324	SFFP 0,367
FAM 1,040	FA 1,046	SAFP 10,162
W1 76,000	PD1 209,0	WD 10,610
W2 76,000	PD2 210,0	GSA 12,6
W3 76,000	PD3 211,0	RSA 4298,7
W4 76,000	PD4 210,0	PLM 2005,
Maximum beam station from stem	7,091	
RM Measured / Default	134,3 / 139,3	
Limit of positive stability	113,1°	
Stability Index	115,8	
Freeboard at mast at 4,000	1,178	

PROPELLER		
Installation Strut Drive	PRD 0,410	
Type Folding	PBW 0,130	
Twin Screw No	PIPA 0,0027	
ST1 0,042	ST3	ST5 0,280
ST2	ST4 0,090	EDL 2,450

WATER BALLAST	
N/A	

CENTERBOARD
N/A



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2009
IMS Measurement
Certificate

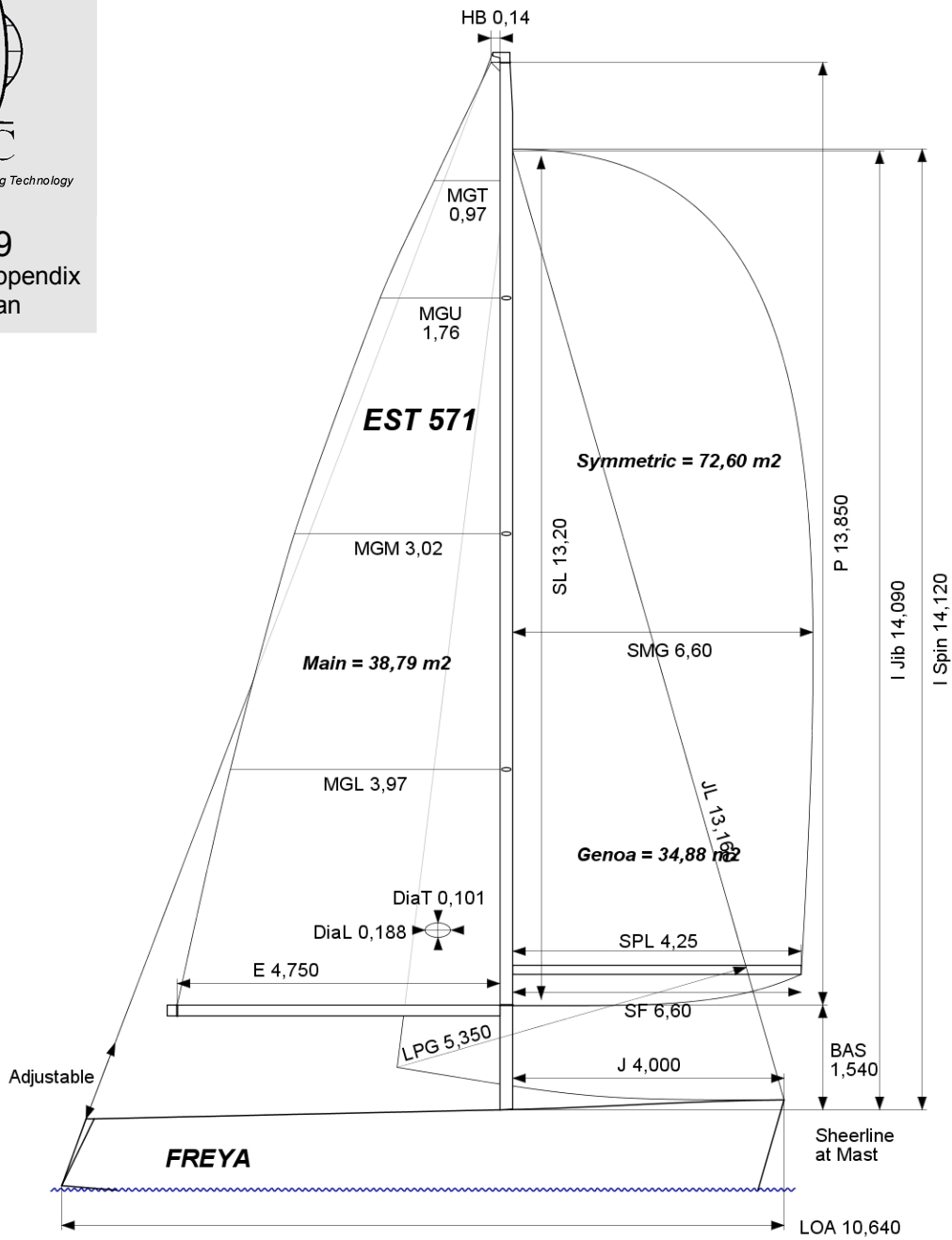
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SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0,135	0,97	1,76	3,02	3,97	19,00	38,79	P/8 · (E + 2·MGL+ 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG		
	0,07	0,70	1,32	2,61	3,95	13,16	5,35	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)	
Symmetric	SL	SMG	SF				Area	Formula	
	13,20	6,60	6,60				72,60	SL · (SF + 4·SMG) / 6	



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2009
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	0,135	0,97	1,76	3,02	3,97	19,00	38,79				Unknown	

JIBS / GENOAS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	0,07	0,70	1,32	2,61	3,95	5,35	13,16	134%	34,89				Unknown	

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
ORC	13,20	6,60	6,60	72,60					* Copied from legacy *

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Dat	Manufacturer	Material	Comment
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