

BOAT
Name ZUXU
Sail Nr EST 537

GPH
618,0

HULL
Length Overall 11,345 m
Maximum Beam 3,468 m
Displacement 6 638 kg
Draft 2,021 m
IMS Reg. Division Cruiser/Racer
Dynamic Allowance 0,716%
Fwd Accommodation Yes
Hull Construction Cored
Carbon Rudder No
Trim Tab No
IMS L 10,415 VCGD 0,166 VCGM 0,153
Sink 20,47 kg/mm Wetted Area 27,61 m²



2009
ORC International
Certificate

GENERAL
Class X-37
Designer JEPPESEN
Builder X-YACHTS
Series 01.2004
Age 05.2008
Age Allowance 0,325%
Offset File X37STD.OFF - 27.04.2005 14:29:00
Measurement by Tetsmann - 09.07.2008

SCORING OPTIONS		
	OFFSHORE	INSHORE
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time On Distance	618,0	693,7
Time On Time	0,9709	0,9730
Performance Line	PLT 0,855 PLD 105,3	PLT 1,014 PLD 303,1
Triple Number	Low 0,9481 Medium 1,2351 High 1,3881	Low 0,7181 Medium 0,9863 High 1,1456

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	1069,2	883,2	773,8	731,3	706,7	692,3	683,3
52°	689,1	570,4	518,8	496,0	484,8	478,2	473,4
60°	642,9	542,6	497,6	474,3	465,3	459,9	455,2
75°	602,7	518,6	474,1	458,9	442,7	435,5	428,2
90°	573,5	497,7	460,7	444,6	436,3	429,2	406,8
110°	589,7	510,6	471,6	446,3	422,7	406,3	390,4
120°	632,9	530,3	484,3	456,7	434,2	411,0	374,9
135°	729,5	586,0	517,5	479,1	454,7	434,5	393,5
150°	874,1	691,4	578,2	518,4	481,6	457,5	419,0
Run VMG	1009,3	798,4	667,6	585,0	531,2	493,5	448,2

Certificate
Number EST537
ORC Ref EST00000362
Issued On 10.06.2009
VPP Ver. 1.11
Valid until 31.12.2009

Crew Weight
Declared 700 kg
Default* 695 kg

Special Scoring
ToD ToT
Double 621,1 0,9661
Non Spinnaker 660,8 0,9080

Selected Courses							
Windward / Leeward	1059,2	851,6	733,4	666,7	626,3	599,7	571,6
Circular Random	853,0	688,0	599,4	548,0	516,4	495,8	470,1
Ocean for PCS	912,2	720,1	613,0	547,7	504,9	474,3	429,9
Non Spinnaker	932,8	743,4	639,7	578,3	540,1	515,4	486,0

Sails Limitations
Genoa 0 Jibs 4 Spinnakers 3
Spinnaker configuration Symmetric

Storm Sails Areas
Heavy Weather Jib 33,04
Storm Jib (JL=10,17) 12,24
Storm Trysail 13,30

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	44,2°	44,0°	41,9°	40,1°	39,1°	38,8°	38,8°
Beat VMG	3,37	4,08	4,65	4,92	5,09	5,20	5,27
52°	5,22	6,31	6,94	7,26	7,43	7,53	7,60
60°	5,60	6,63	7,23	7,59	7,74	7,83	7,91
75°	5,97	6,94	7,59	7,84	8,13	8,27	8,41
90°	6,28	7,23	7,81	8,10	8,25	8,39	8,85
110°	6,10	7,05	7,63	8,07	8,52	8,86	9,22
120°	5,69	6,79	7,43	7,88	8,29	8,76	9,60
135°	4,93	6,14	6,96	7,51	7,92	8,28	9,15
150°	4,12	5,21	6,23	6,94	7,47	7,87	8,59
Run VMG	3,57	4,51	5,39	6,15	6,78	7,29	8,03
Gybe Angles	142,3°	148,0°	150,5°	162,6°	169,3°	173,0°	175,7°

Owner
AS Sampo Pank
Narva mnt. 11
Tallinn, Estonia
ESS Kalev JK
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

BOAT	
Name ZUXU	Sail Nr EST 537
File Est0537.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 10.06.2009		SG 1,0020
FFM 1,391	FF 1,400	SFFP 0,250
FAM 1,073	FA 1,080	SAFP 10,800
W1 84,500	PD1 518,8	WD 10,375
W2 84,500	PD2 522,4	GSA 1,0
W3 84,500	PD3 518,1	RSA 1,0
W4 84,500	PD4 520,8	PLM 9000,
Maximum beam station from stem		7,559
RM Measured / Default		132,8 / 161,5
Limit of positive stability		112,0°
Stability Index		116,4
Freeboard at mast at 4,350		1,186



2009
IMS Measurement
Certificate

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Forestay None Fitted	Runners 0		
Carbon Mast No	Jumpers None		
Taper Hollows No	w/o Backstay No		
P 14,900	E 5,100	MDT1 0,123	TL 0,810
IG 15,510	J 4,100	MDL1 0,209	MWT 209,00
ISP 15,540	SFJ 0,250	MDT2 0,110	MCG 5,250
SPS	SPL 4,100	MDL2 0,186	CPW 0,000
BAS 1,750	TPS 0,000	MW 0,209	BD 0,250
BAL 0,000	FSP 0,070	GO 0,244	BWT 36,00

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	0,0442	

PROPELLER		
Installation Strut Drive	PRD 0,432	
Type Folding	PBW 0,000	
Twin Screw No	PIPA 0,0034	
ST1 0,042	ST3 0,000	ST5 0,255
ST2 0,000	ST4 0,114	EDL 2,375

Certificate	
Number EST537	
ORC Ref EST00000362	
Issued On 10.06.2009	
VPP Ver. 1.11	
Valid until 31.12.2009	

MIZZEN RIG AND SAILS	
N/A	

WATER BALLAST	
N/A	

COMMENTS	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0,180	1,11	1,94	3,29	4,24	17,65	45,20	$P/8 \cdot (E + 2 \cdot MGL + 2 \cdot MGM + 1.5 \cdot MGU + MGT + 0.5 \cdot HB)$	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG		
	0,17	0,67	1,21	2,28	3,33	15,40	4,36	$0.1125 \cdot JL \cdot (1.445 \cdot LPG + 2 \cdot JGL + 2 \cdot JGM + 1.5 \cdot JGU + JGT + 0.5 \cdot JH)$	
Symmetric	SL	SMG	SF						
	15,22	7,50	7,35					$94,74$	$SL \cdot (SF + 4 \cdot SMG) / 6$

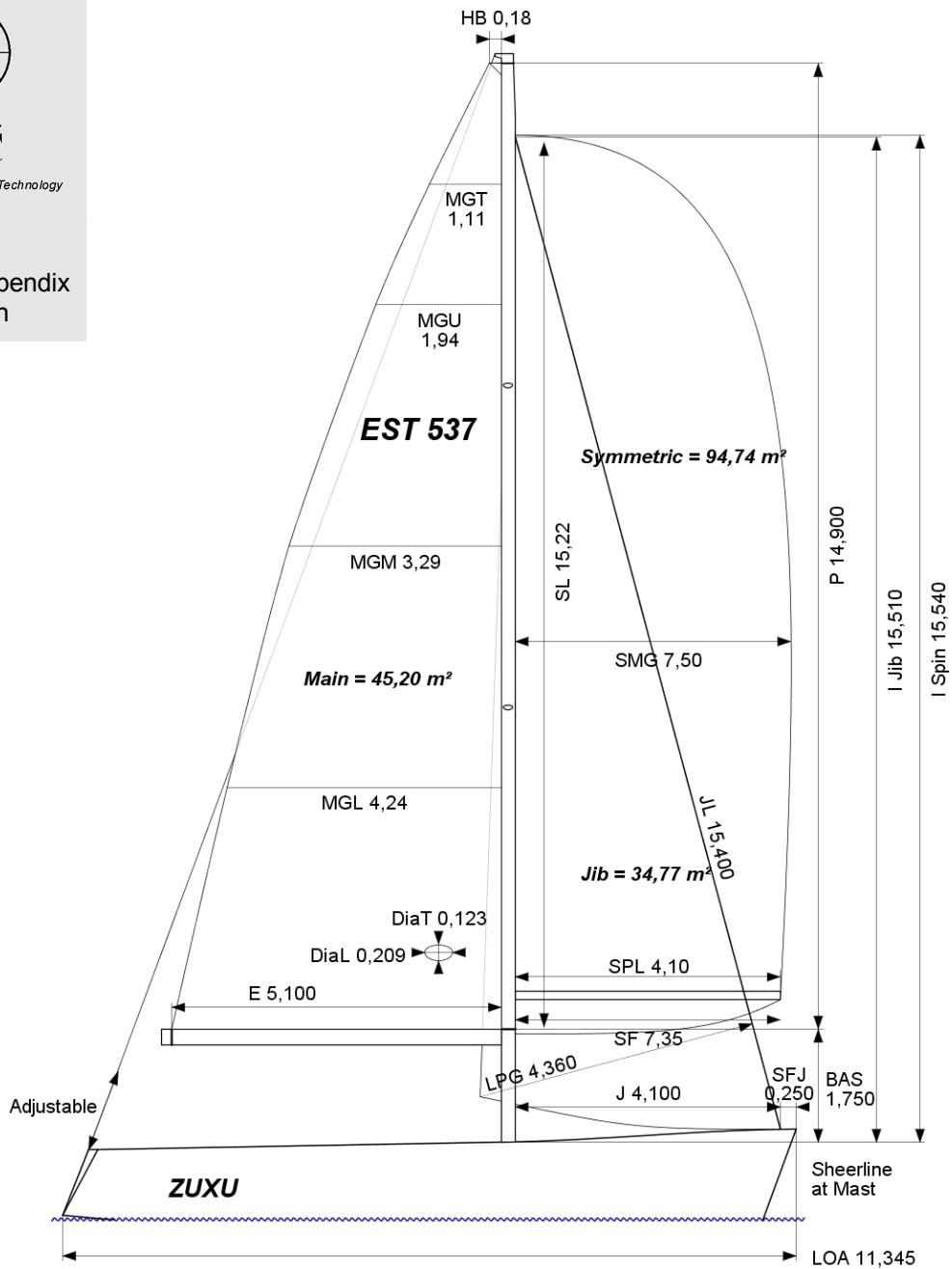
MEASUREMENT INVENTORY			
Measurer Veiko Rosme EST 2			
Date 10.06.2009			
Comment			
Id	Item	Weight	Distanc Description
1	Anchor	13,0	4,85 Anchor portside
2	Anchor	7,0	8,00 Anchor starboard
3	Tools	9,0	7,30 Toolbox
Id	Item	Maker	Model
1	Engine	Yanmar	3YM30
Id	Item	Weight	Description

MEASUREMENT INVENTORY						
Id	Item	Tank Use	Tank Type	Capct	Dist.	Condt Description
1	Liquid Tank	Diesel	Steel	60,0	8,10	15,0 portside
2	Liquid Tank	Water	Plastic	80,0	5,50	0,0 starboard
3	Liquid Tank	Waste	Plastic	40,0	3,00	0,0 starboard
Id	Item	Weight	Distanc	Description		
1	Battery	4,60		Battery 120 Ah portside		
2	Battery	7,70		Engine Battery 70 Ah		
1	Miscellaneous	9,00		Boiler stainless steel 30 LI starboard		
2	Miscellaneous	10,80		Heater Eberspächer Marine D4		



World Leader in Rating Technology

2009
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measur	Meas.Dat	Manufacturer	Material	Comment
1	0,180	1,11	1,94	3,29	4,24	17,65	45,20	D206			Unknown	

JIBS / GENOAS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area Measure	Meas.Dat	Manufacturer	Material	Comment
2	0,17	0,67	1,21	2,28	3,33	4,36	15,32	106%	34,59	10.06.2009	North	Unknown	G1 L/M
3	0,17	0,64	1,16	2,17	3,19	4,34	15,30	106%	33,46	10.06.2009	North	Unknown	G1 M/H
4	0,13	0,52	0,99	1,96	2,97	4,03	15,07	98%	30,09	12.02.2008	North	Unknown	G4

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measur	Meas.Dat	Manufacturer	Material	Comment
1	15,22	7,50	7,35	94,74				Unknown	S2
2	15,25	7,40	7,40	94,04				Unknown	S4
3	15,20	7,45	7,45	94,37				Unknown	S0

ASYMMETRIC SPINNAKERS

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