

BOAT
Name LEPA
Sail Nr EST 434

GPH
620,8

HULL
Length Overall 11,215 m
Maximum Beam 3,571 m
Displacement 6 882 kg
Draft 2,374 m
IMS Reg. Division Cruiser/Racer
Dynamic Allowance 0,559%
Fwd Accommodation Yes
Hull Construction Solid
Carbon Rudder No
Trim Tab No
IMS L 10,393 VCGD 0,288 VCGM 0,121
Sink 20,38 kg/mm Wetted Area 27,69 m²



2009
ORC International
Certificate

GENERAL
Class ELAN 37
Designer Rob Humphreys
Builder ELAN MARINE
Series 03.2004
Age 06.2006
Age Allowance 0,325%
Offset File ELAN37.OFF - 21.04.2004 14:55:50
Measurement by A.Tetsmann - 06.07.2008

SCORING OPTIONS		
	OFFSHORE	INSHORE
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time On Distance	620,8	689,2
Time On Time	0,9664	0,9795
Performance Line	PLT 0,850 PLD 106,1	PLT 0,980 PLD 271,6
Triple Number	Low 0,9401 Medium 1,2317 High 1,3893	Low 0,7139 Medium 0,9945 High 1,1674

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	1060,7	861,2	754,5	707,5	680,2	663,1	646,8
52°	682,0	565,6	519,1	492,8	480,6	473,6	467,2
60°	636,0	541,6	501,4	475,9	466,3	460,9	454,9
75°	599,3	524,7	482,7	465,4	452,0	442,2	432,7
90°	587,1	510,5	471,5	454,1	444,9	438,1	415,3
110°	605,4	522,4	481,4	459,0	439,5	419,9	400,8
120°	648,1	540,7	495,1	466,6	448,6	427,1	390,2
135°	753,8	598,7	527,7	488,4	464,5	447,5	408,9
150°	904,8	706,2	589,5	528,2	491,0	466,7	432,0
Run VMG	1044,8	815,4	680,6	595,3	539,9	502,6	457,7

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VPP Ver. 1.11
Valid until 31.12.2009

Crew Weight
Declared 680 kg
Default* 665 kg

Special Scoring
ToD ToT
Double 623,2 0,9627
Non Spinnaker 660,5 0,9085

Selected Courses							
Windward / Leeward	1071,1	850,9	729,5	660,0	617,4	589,5	557,7
Circular Random	860,9	692,4	601,9	549,3	516,9	495,6	468,4
Ocean for PCS	920,4	724,5	615,7	549,9	507,4	477,5	435,0
Non Spinnaker	935,3	743,9	639,1	577,0	538,4	513,3	482,6

Sails Limitations
Genoa 3 Jibs 2 Spinnakers 3
Spinnaker configuration Symmetric

Storm Sails Areas
Heavy Weather Jib 28,00
Storm Jib (JL=9,36) 10,37
Storm Trysail 11,68

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	44,1°	43,1°	40,4°	38,2°	36,7°	35,8°	35,1°
Beat VMG	3,39	4,18	4,77	5,09	5,29	5,43	5,57
52°	5,28	6,36	6,94	7,30	7,49	7,60	7,71
60°	5,66	6,65	7,18	7,56	7,72	7,81	7,91
75°	6,01	6,86	7,46	7,73	7,96	8,14	8,32
90°	6,13	7,05	7,64	7,93	8,09	8,22	8,67
110°	5,95	6,89	7,48	7,84	8,19	8,57	8,98
120°	5,55	6,66	7,27	7,71	8,03	8,43	9,23
135°	4,78	6,01	6,82	7,37	7,75	8,04	8,80
150°	3,98	5,10	6,11	6,82	7,33	7,71	8,33
Run VMG	3,45	4,41	5,29	6,05	6,67	7,16	7,86
Gybe Angles	142,4°	146,4°	150,5°	162,1°	172,2°	174,1°	177,7°

Owner
OÜ LEPA KAUBAKESKUS
Karja 4
Pärnu, Estonia
Pärnu YC
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

BOAT	
Name LEPA	Sail Nr EST 434
File Est0434.dxt	Data in meters/kilograms

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 13,680	E 4,880	MDT1 0,110	TL 2,800
IG 14,350	J 4,220	MDL1 0,210	MWT 184,10
ISP 14,430	SFJ 0,000	MDT2 0,100	MCG 5,030
SPS	SPL 4,400	MDL2 0,150	CPW
BAS 1,650	TPS	MW 0,210	BD 0,170
BAL	FSP 0,066	GO 0,225	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	0,0459	

MIZZEN RIG AND SAILS	
N/A	

COMMENTS

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 14.06.2006	SG 1,0020	
FFM 1,290	FF 1,301	SFFP 0,270
FAM 0,965	FA 0,971	SAFP 10,364
W1 63,500	PD1 202,0	WD 11,100
W2 63,500	PD2 202,0	GSA 12,6
W3 63,500	PD3 204,0	RSA 4298,7
W4 63,500	PD4 204,0	PLM 2005,
Maximum beam station from stem	7,483	
RM Measured / Default	121,5 / 133,8	
Limit of positive stability	111,4°	
Stability Index	115,3	
Freeboard at mast at 4,220	1,115	

PROPELLER		
Installation Strut Drive	PRD 0,430	
Type Folding	PBW	
Twin Screw No	PIPA 0,0013	
ST1 0,060	ST3	ST5 0,345
ST2	ST4 0,011	EDL 2,330

WATER BALLAST	
N/A	

CENTERBOARD
N/A



2009
IMS Measurement
Certificate

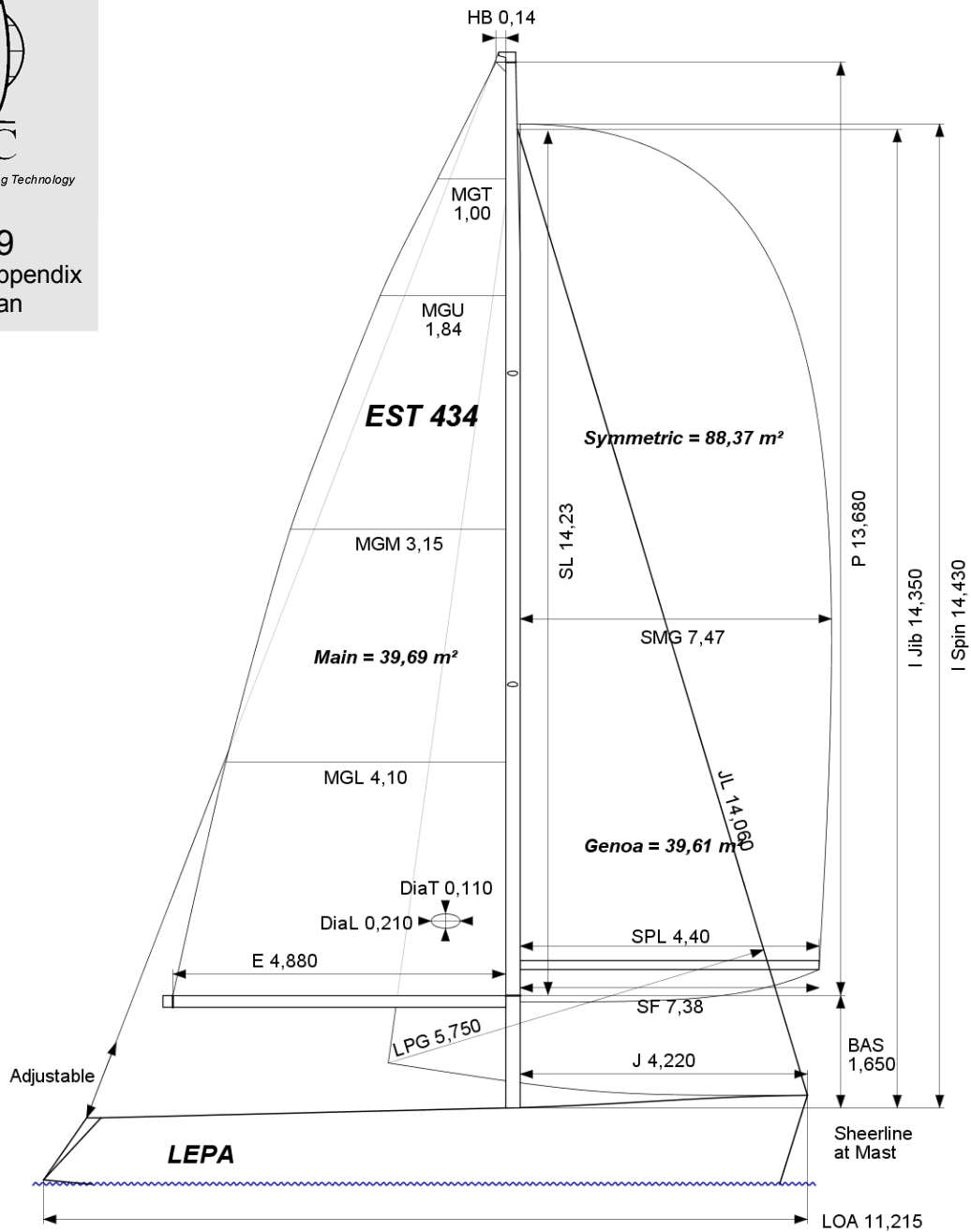
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SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0,145	1,00	1,84	3,15	4,10	0,00	39,69	P/8 · (E + 2·MGL+ 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG	Area	Formula
	0,11	0,73	1,38	2,75	4,19	14,06	5,75	39,61	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)
Symmetric	SL	SMG	SF						
	14,23	7,47	7,38						
				88,37					
				SL · (SF + 4·SMG) / 6					



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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	0,145	1,00	1,84	3,15	4,10	0,00	39,69				Unknown	

JIBS / GENOAS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	0,11	0,73	1,38	2,75	4,19	5,75	14,06	136%	39,61				Unknown	

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	14,15	7,40	7,10	86,55				Unknown	
2	14,23	7,47	7,38	88,37		04.08.2008		Unknown	
3	13,87	7,56	7,04	86,18		04.08.2008		Unknown	

ASYMMETRIC SPINNAKERS

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