

BOAT
Name HERMES-X
Sail Nr EST 505

GPH
588,6

HULL
Length Overall 12,903 m
Maximum Beam 3,927 m
Displacement 9 211 kg
Draft 2,211 m
IMS Reg. Division Cruiser/Racer
Dynamic Allowance 0,637%
Fwd Accommodation Yes
Hull Construction Cored
Carbon Rudder No
Trim Tab No
IMS L 11,887 VCGD 0,118 VCGM 0,056
Sink 25,26 kg/mm Wetted Area 34,16 m²



2009
ORC International
Certificate

GENERAL
Class X-43
Designer JEPPESEN
Builder X-YACHTS
Series 01.2003
Age 07.2007
Age Allowance 0,390%
Offset File X43STD.OFF - 8.05.2004 11:51:56
Measurement by A.Tetsmann - 07.08.2007

SCORING OPTIONS		
	OFFSHORE	INSHORE
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time On Distance	588,6	658,4
Time On Time	1,0194	1,0253
Performance Line	PLT 0,878 PLD 94,2	PLT 1,008 PLD 263,4
Triple Number	Low 0,9908 Medium 1,2981 High 1,4712	Low 0,7463 Medium 1,0317 High 1,2163

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	1014,2	835,9	733,9	687,2	659,9	643,1	628,2
52°	650,2	537,3	490,0	467,9	455,4	448,0	441,4
60°	605,1	509,8	469,4	447,6	438,2	432,4	426,6
75°	566,1	490,2	447,6	432,7	419,5	412,3	404,0
90°	545,1	471,4	436,5	419,0	410,2	403,3	385,8
110°	562,7	485,0	447,5	425,2	405,6	386,5	365,4
120°	606,3	505,1	461,2	434,5	416,0	396,3	358,5
135°	708,4	570,6	497,0	458,3	433,8	416,2	379,5
150°	856,9	674,1	564,3	499,5	462,4	437,3	402,9
Run VMG	989,4	778,4	651,5	568,9	514,1	476,2	429,6

Certificate
Number EST505
ORC Ref EST00000292
Issued On 31.05.2009
VPP Ver. 1.11
Valid until 31.12.2009

Crew Weight
Declared 800 kg
Default* 827 kg

Special Scoring
ToD ToT
Double 590,4 1,0163
Non Spinnaker 627,3 0,9564

Selected Courses							
Windward / Leeward	1020,7	818,4	703,8	636,3	594,1	566,0	534,3
Circular Random	815,8	656,8	570,8	520,4	489,1	468,3	441,8
Ocean for PCS	873,8	688,0	584,0	520,3	478,5	448,9	407,1
Non Spinnaker	888,0	706,9	607,3	547,8	510,5	485,9	455,9

Sails Limitations
Genoa 4 Jibs 3 Spinnakers 4
Spinnaker configuration Asymmetric-Pole

Storm Sails Areas
Heavy Weather Jib 38,80
Storm Jib (JL=11,02) 14,37
Storm Trysail 16,24

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	44,8°	44,3°	42,5°	40,1°	38,8°	38,0°	37,4°
Beat VMG	3,55	4,31	4,91	5,24	5,46	5,60	5,73
52°	5,54	6,70	7,35	7,69	7,90	8,04	8,16
60°	5,95	7,06	7,67	8,04	8,22	8,32	8,44
75°	6,36	7,34	8,04	8,32	8,58	8,73	8,91
90°	6,60	7,64	8,25	8,59	8,78	8,93	9,33
110°	6,40	7,42	8,05	8,47	8,87	9,32	9,85
120°	5,94	7,13	7,81	8,29	8,65	9,08	10,04
135°	5,08	6,31	7,24	7,85	8,30	8,65	9,49
150°	4,20	5,34	6,38	7,21	7,79	8,23	8,93
Run VMG	3,64	4,62	5,53	6,33	7,00	7,56	8,38
Gybe Angles	141,3°	146,9°	148,1°	158,7°	167,9°	171,9°	176,3°

Owner
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	HERMES-X	Sail Nr EST 505
File	Est0505.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	16,000	E	5,800	MDT1	0,130	TL	0,890
IG	16,855	J	4,620	MDL1	0,236	MWT	
ISP	16,955	SFJ	0,375	MDT2	0,130	MCG	
SPS	3,000	SPL	4,690	MDL2	0,190	CPW	0,000
BAS	1,845	TPS	0,000	MW	0,236	BD	
BAL	0,152	FSP	0,078	GO	0,263	BWT	0,00

HEAVY ITEMS					
Bow Thruster	Yes	Generator	No	Air Condition	No
Windlass	Yes	Jib Furler	No	Desalinator	No
Heavy Deck	Yes	Main Furler	No		
Headliners	No	Water Heater	No		
Anchor Weight		Heavy Items Adjustment	0,0030		
Anchor LCG		Total Gyradius Adjustment	0,0263		

MIZZEN RIG AND SAILS	
N/A	

COMMENTS

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date	13.07.2007	SG	1,0020
FFM	1,416	FF	1,427
FAM	1,165	FA	1,172
SFFP	0,370	SAFP	12,150
W1	93,000	PD1	203,0
W2	93,000	PD2	203,0
W3	93,000	PD3	202,0
W4	93,000	PD4	202,0
WD	12,650	GSA	12,6
RSA	4298,7	PLM	2005,
Maximum beam station from stem			8,467
RM Measured / Default			203,3 / 225,8
Limit of positive stability			117,7°
Stability Index			123,1
Freeboard at mast at 4,995			1,250

PROPELLER			
Installation	Strut Drive	PRD	0,400
Type	Folding	PBW	0,000
Twin Screw	No	PIPA	0,0030
ST1	0,045	ST3	0,000
ST2	0,000	ST4	0,096
ST5	0,283	EDL	1,400

WATER BALLAST	
N/A	

CENTERBOARD
N/A



World Leader in Rating Technology

2009
IMS Measurement
Certificate

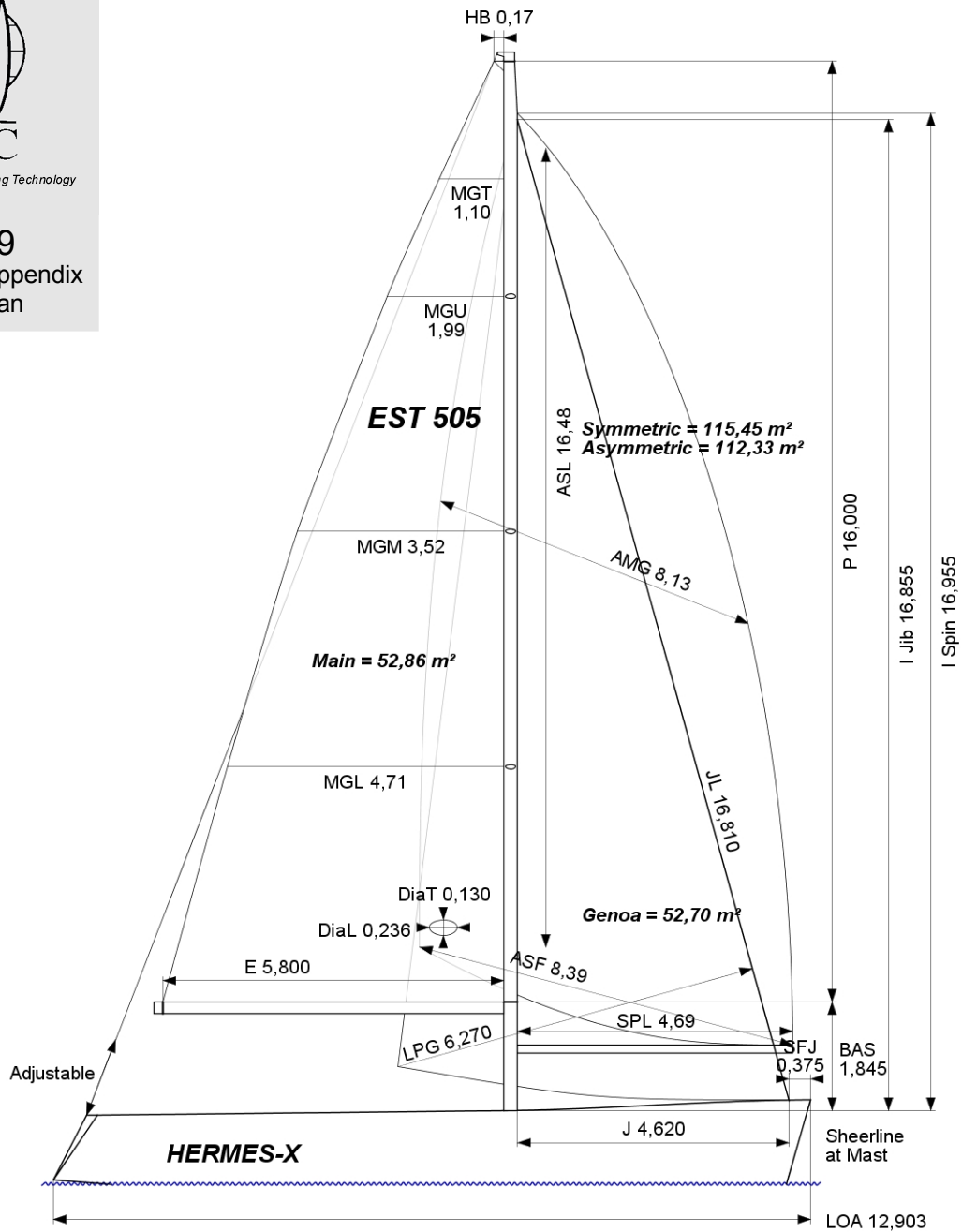
Certificate	
Number	EST505
ORC Ref	EST00000292
Issued On	31.05.2009
VPP Ver.	1.11
Valid until	31.12.2009

SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0,170	1,10	1,99	3,52	4,71	34,00	52,86	P/8 · (E + 2·MGL+ 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG		
	0,00	0,78	1,57	3,14	4,70	16,81	6,27	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)	
Symmetric	SL	SMG	SF						
	16,64	8,39	8,07				115,45	SL · (SF + 4·SMG) / 6	
Asymmetric	SLU	SLE	ASL	AMG	ASF				
	17,30	15,65	16,48	8,13	8,39	112,33 ASL · (ASF + 4·AMG) / 6			



World Leader in Rating Technology

2009
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
ORC	0,170	1,10	1,99	3,52	4,71	34,00	52,86					* Copied from legacy *

JIBS / GENOAS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measure	Meas.Dat	Manufacturer	Material	Comment
1	0,00	0,00	0,00	0,00	0,00	6,27	16,81	136%	52,71				Unknown	light
2	0,00	0,00	0,00	0,00	0,00	6,27	16,81	136%	52,71				Unknown	heavy
3	0,00	0,00	0,00	0,00	0,00	4,96	16,76	107%	41,57				Unknown	
4	0,00	0,00	0,00	0,00	0,00	4,06	16,54	88%	33,58				Unknown	

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	16,64	8,39	8,07	115,45				Unknown	light
2	16,64	8,39	8,07	115,45				Unknown	heavy

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Dat	Manufacturer	Material	Comment
1	17,30	15,65	16,48	8,13	8,39	112,33	asym				Unknown	