

BOAT Name Simina Sail Nr ROU 410	GPH 590.0	HULL Length Overall 12.259m Maximum Beam 3.884m Displacement 8,334kg Draft 2.384m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.155% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class Elan 410 Designer Humphreys Builder Elan Series 12/2005 Age 12/2008 Age Allowance 0.390% Offset File ELAN410r.off - 10/04/2008 12:45:28 Measurement by Adrian Nita - 08/05/2015		IMSL 11.474m VCGD 0.106m Sink 24.81kg/mm RL 9.594m VCGM 0.091m WS 32.85m² LSMO 11.483m Displacement/Length ratio 5.5041



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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	573.5			640.9	
Time On Time	1.0463			1.0533		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	680.9	521.4	462.3	885.0	645.7	552.6
Time on Time	0.9913	1.2947	1.4601	0.7627	1.0453	1.2215

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1006.6	833.0	732.3	681.7	658.7	647.0	629.4
52°	656.0	550.2	492.5	470.9	462.8	458.5	451.9
60°	616.5	520.0	475.7	457.7	449.7	445.4	440.3
75°	584.3	498.2	463.9	446.0	433.2	424.7	417.6
90°	585.8	498.3	461.6	444.5	429.0	414.0	392.8
110°	604.1	497.6	455.9	433.2	418.6	407.8	388.2
120°	621.8	510.1	462.1	437.9	415.2	394.7	373.3
135°	689.3	559.0	486.1	453.9	432.6	410.7	366.3
150°	821.2	651.3	549.5	485.9	455.6	435.2	394.3
Run VMG	948.3	752.1	634.5	556.2	505.8	468.1	426.4

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Number **002/17**
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Issued On **14/05/2017**
VPP Ver. **2017 1.00**
Valid until **31/12/2017**

Crew Weight

Declared **790kg**
Default* **838kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	619.9	0.9679
Non Spin OSN	602.5	0.9959

Selected Courses							
Windward / Leeward	977.4	792.6	683.4	619.0	582.2	557.5	527.9
Circular Random	816.2	657.5	572.1	522.5	491.8	471.4	445.1
Ocean for PCS	1003.0	772.9	642.9	563.5	512.1	476.5	427.7
Non Spinnaker	869.8	695.6	600.5	544.2	509.1	485.9	456.5

Sails Limitations

Headsails	Spinnakers
6	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	43.2°	41.8°	41.5°	40.2°	39.0°	38.3°	38.1°
Beat VMG	3.58	4.32	4.92	5.28	5.47	5.56	5.72
52°	5.49	6.54	7.31	7.65	7.78	7.85	7.97
60°	5.84	6.92	7.57	7.87	8.00	8.08	8.18
75°	6.16	7.23	7.76	8.07	8.31	8.48	8.62
90°	6.15	7.22	7.80	8.10	8.39	8.70	9.17
110°	5.96	7.23	7.90	8.31	8.60	8.83	9.27
120°	5.79	7.06	7.79	8.22	8.67	9.12	9.64
135°	5.22	6.44	7.41	7.93	8.32	8.77	9.83
150°	4.38	5.53	6.55	7.41	7.90	8.27	9.13
Run VMG	3.80	4.79	5.67	6.47	7.12	7.69	8.44
Gybe Angles	144.2°	148.6°	149.9°	155.1°	168.3°	180.0°	180.0°

Class Division Length

CDL = **10.535**

Storm Sails Areas

Heavy Weather Jib **38.14**
Storm Jib (JL=10.93) **14.13**
Storm Trysail **15.26**

Owner

BOAT	
Name Simina	Sail Nr ROU 410
File simina 2017	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 14/06/2015		SG 1.0000	
FFM 1.510	FF 1.520	SFFP 0.505	
FAM 1.080	FA 1.087	SAFP 11.810	
W1 99.7	PD1 515.0	WD 12.300	
W2 99.7	PD2 516.0	GSA 1.0	
W3 99.7	PD3 517.0	RSA 1.0	
W4 99.7	PD4 517.0	PLM 9000.0	
LCF from stem on CL / on sheer		6.859 / 7.098	
Maximum beam station from stem		8.094	
RM Measured		187.1kg·m	
RM Default		201.9kg·m	
Limit of positive stability / Stab.Index		115.5° / 119.9	
Freeboard at mast at 4.700		1.297	

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows No	Jib Furler No		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 16.150	E 5.400	MDT1 0.134	MW 0.250
IG 16.700	J 4.640	MDL1 0.250	GO 0.280
ISP 16.703	SFJ 0.060	MDT2 0.120	BD 0.230
BAS 1.603	SPL 4.660	MDL2 0.210	MWT
FSP 0.080	TPS	TL 1.130	MCG


MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.467		
Type Folding 2 blades	PBW 0.112		
Twin Screw No	PIPA 0.0032		
ST1 0.050	ST3 0.170	ST5 0.280	
ST2 0.165	ST4 0.098	EDL 3.005	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	




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IMS Measurement Certificate

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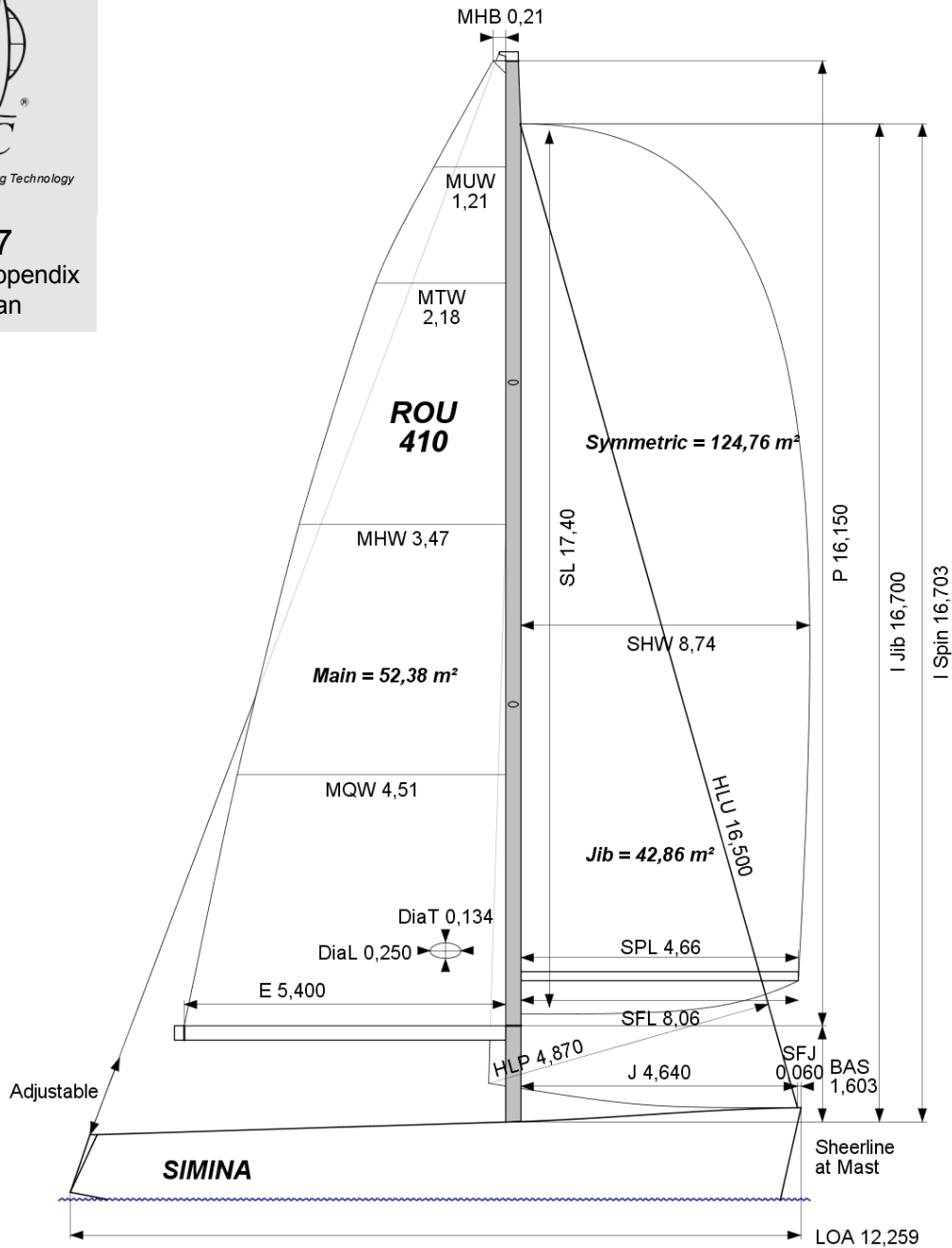
SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.210	1.21	2.18	3.47	4.51	52.38	53.42	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	17.40	17.40	17.40	8.74	8.06	124.76		SL · (SFL + 4·SHW) / 6	
Asymmetric									
Not Available									

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	Fly	Meas.Date	Material	Comment
0.10	0.81	1.49	2.69	3.79	4.87	16.50	42.86			28/04/2017	Carbon	3DL-2017
0.11	0.73	1.37	2.49	3.61	4.80	16.37	40.47			08/05/2015	Unknow	3DI
0.11	0.70	1.31	2.48	3.61	4.77	16.35	40.08			08/05/2015	Unknow	3DI
0.09	0.66	1.24	2.30	3.44	4.65	16.27	38.01			08/05/2015	Unknow	3DL
0.07	0.35	0.66	1.35	2.11	2.89	8.04	11.28			23/04/2016	Dacron	JL=8,04



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Sail Plan



SAILS INVENTORY

MAINSAIL (3)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0.210	1.21	2.18	3.47	4.51	52.38	Adrian Nita	08/05/2015		Unknown	3DI
M2	0.180	1.11	1.98	3.40	4.49	51.18	A.Panait	23/04/2016	NS	Kev lar	

HEADSAILS (5)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
JL	0.10	0.81	1.49	2.69	3.79	4.87	16.50	105%	42.86			A.Panait	28/04/2017	North Sails	Carbon	3DL- 2017
H2	0.11	0.73	1.37	2.49	3.61	4.80	16.37	103%	40.47			Adrian	08/05/2015	North Sail	Unknow	3DI
H3	0.11	0.70	1.31	2.48	3.61	4.77	16.35	103%	40.08			Adrian	08/05/2015	North Sail	Unknow	3DI
H4	0.09	0.66	1.24	2.30	3.44	4.65	16.27	100%	38.01			Adrian	08/05/2015	North Sail	Unknow	3DL
Storm	0.07	0.35	0.66	1.35	2.11	2.89	8.04	62%	11.28			A.Panait	23/04/2016	ELS	Dacron	JL=8,04

SYMMETRIC SPINNAKERS (3)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2	17.40	17.40	17.40	8.74	8.06	124.76	Adrian Nita	08/05/2015		Unknown	
S3	17.36	17.36	17.36	8.62	8.24	123.60	Adrian Nita	08/05/2015		Unknown	
S1.L	17.52	17.52	17.52	8.44	8.55	123.55	A.Panait	23/04/2017	North Sails	Nylon	Red 2016

ASYMMETRIC SPINNAKERS (0)

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