

BOAT Name MAKANAKI V Sail Nr ESP-8876	GPH 576.3	HULL Length Overall 12.350m Maximum Beam 3.646m Displacement 7,406kg Draft 2.521m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.022% Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class X-41 OD Designer JEPPESEN Builder X YATCHS Series 01/2006 Age 04/2008 Age Allowance 0.455% Offset File X41.OD.OFF - 23/02/2015 18:29:08 Measurement by - 20/07/2018		IMSL 11.260m VCGD -0.101m Sink 23.58kg/mm RL 10.139m VCGM -0.143m WS 31.62m² LSM0 11.184m Displacement/Length ratio 5.2941



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	560.4			625.8		
Time on Time	1.0706			1.0786		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	656.8	511.2	458.0	847.8	628.4	548.1
Time on Time	1.0277	1.3204	1.4739	0.7962	1.0741	1.2316

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	948.7	782.5	695.6	663.2	650.1	643.3	630.1
52°	624.1	524.6	481.4	467.1	461.6	458.9	451.6
60°	591.3	504.1	469.2	455.2	449.4	446.2	439.9
75°	566.3	490.6	460.5	443.8	432.3	425.9	420.2
90°	571.6	492.1	460.1	441.3	425.0	410.6	393.0
110°	591.8	490.9	452.0	428.9	413.0	400.8	381.9
120°	607.6	500.6	456.8	431.3	406.7	386.0	362.5
135°	673.6	544.9	478.8	448.6	424.7	400.0	351.6
150°	800.6	636.9	538.2	479.8	450.7	428.2	383.0
Run VMG	924.5	735.5	621.4	548.3	499.9	463.8	419.0

Certificate
Number **887601**
ORC Ref **03510000PP3**
Issued On **03/09/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default **808kg**
Maximum **716kg**
Minimum* **537kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **606.1 0.9899**
Non Spin OSN **589.7 1.0175**

Selected Courses							
Windward / Leeward	936.6	759.0	658.5	605.8	575.0	553.5	524.6
Circular Random	790.3	639.3	559.2	513.2	485.1	466.3	440.9
Coastal / Long Distance	935.4	713.9	595.3	530.3	495.5	467.3	422.4
Non Spinnaker	844.1	677.4	587.3	534.8	502.4	480.9	452.7

Sails Limitations
Headsails **6** Spinnakers **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	42.8°	41.3°	39.9°	38.6°	38.1°	37.9°	38.1°
Beat VMG	3.79	4.60	5.18	5.43	5.54	5.60	5.71
52°	5.77	6.86	7.48	7.71	7.80	7.84	7.97
60°	6.09	7.14	7.67	7.91	8.01	8.07	8.18
75°	6.36	7.34	7.82	8.11	8.33	8.45	8.57
90°	6.30	7.32	7.82	8.16	8.47	8.77	9.16
110°	6.08	7.33	7.96	8.39	8.72	8.98	9.43
120°	5.92	7.19	7.88	8.35	8.85	9.33	9.93
135°	5.34	6.61	7.52	8.02	8.48	9.00	10.24
150°	4.50	5.65	6.69	7.50	7.99	8.41	9.40
Run VMG	3.89	4.89	5.79	6.57	7.20	7.76	8.59
Gybe Angles	142.5°	147.5°	150.0°	155.5°	170.0°	180.0°	180.0°

Class Division Length
CDL = **10.692**

Storm Sails Areas
Heavy Weather Jib **39.32**
Storm Jib (JL=11.10) **14.57**
Storm Trysail **15.29**

Owner

BOAT	
Name MAKANAKI V	Sail Nr ESP-8876
File E8876	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 2
Inner Stay None Fitted	Runners/Checkstays 0
Carbon Mast Yes	Jib Furler No
Fiber Rigging No	Main Furler No
Non-Circular Rigging No	
Articulated Bowsprit No	
P 16.140	E 5.410 MDT1 0.133 MW 0.258
IG 16.995	J 4.870 MDL1 0.258 GO 0.278
ISP 17.025	SFJ 0.315 MDT2 0.127 BD 0.270
BAS 1.847	SPL 4.925 MDL2 0.209 MWT 216.00
FSD 0.038	TPS TL 0.810 MCG 5.630

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 10/07/2018		SG 1.0250
FFM 1.426	FF 1.426	SFFP 0.200
FAM 1.069	FA 1.069	SAFP 11.995
W1 99.4	PD1 525.3	WD 13.970
W2 99.4	PD2 523.0	GSA 1.0
W3 99.4	PD3 523.0	RSA 1.0
W4 99.4	PD4 523.0	PLM 9000.0
LCF from stem on CL / on sheer		6.962 / 7.177
Maximum beam station from stem		8.432
RM Measured		208.9kg-m
RM Default		209.2kg-m
Limit of positive stability / Stab.Index		125.6° / 130.3
Freeboard at mast at 5.185		1.188



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0.437	
Type Folding 2 blades	PBW 0.127	
Twin Screw No	PIPA 0.0041	
ST1 0.065	ST3 0.180 ST5 0.325	
ST2 0.180	ST4 0.110 EDL 1.887	

Certificate	
Number 887601	ORC Ref 03510000PP3
Issued On 03/09/2020	VPP Ver. 2020 1.02
Valid until 31/12/2020	

COMMENTS	
603,4 kg. plomo en sentina 04/2015.	

MOVABLE BALLAST	
N/A	



CENTERBOARD	
N/A	

SAILS (Maximum Areas)						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	0.21	1.19	2.13	3.51	4.53	52.41 53.45 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	
	16.86	16.86	16.86	8.67	8.47	121.25 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	Flying	Meas.Date	Material	Comment
0.21	0.89	1.59	2.85	4.03	5.21	16.50	45.79	Y	No	01/09/2020	Kevlar	2018
0.21	0.84	1.51	2.72	3.96	5.21	16.62	45.06	Y	No	01/09/2020	Kevlar	2018
0.10		1.11	2.22		4.70	16.49	38.44	Y	No	22/06/2011	Kevlar	

MEASUREMENT INVENTORY				
Measurer				
Date 10/07/2018				
Comment				
Internal Ballast total = 603.4				
Id	Item	Weight	Distance	VCG Description
Id	Item	Weight Description		

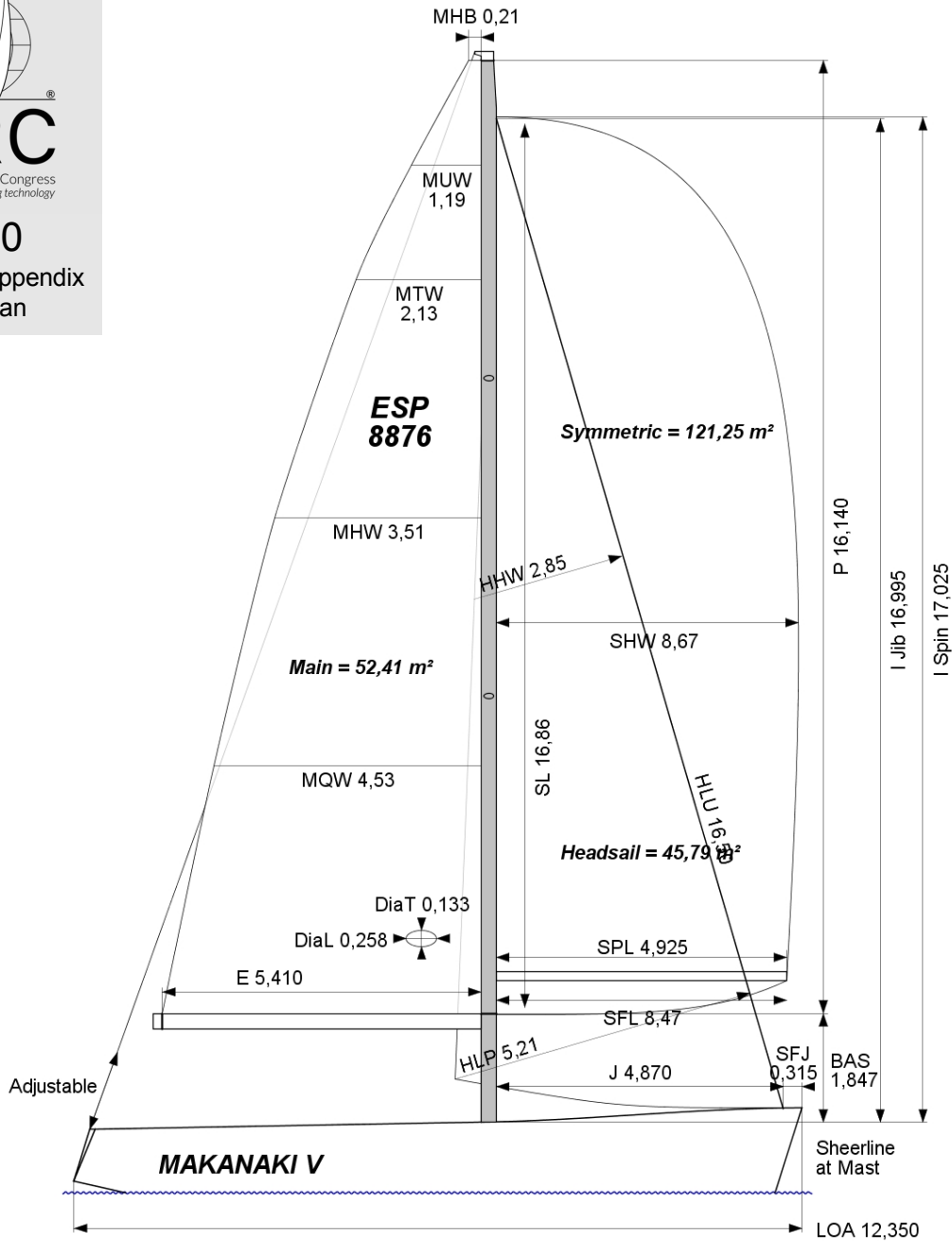
MEASUREMENT INVENTORY				
Id	Item	Weight	Distance	VCG Description
001	Ballast	603.4		ver esquema abordo



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2018	0.21	1.19	2.13	3.51	4.53	52.42		01/09/2020	NS	Kevlar	2018

HEADSAILS (3)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
LM2018	0.21	0.89	1.59	2.85	4.03	5.21	16.50	107%	45.79	Y	No		01/09/2020	NS	Kevlar	2018
MH2018	0.21	0.84	1.51	2.72	3.96	5.21	16.62	107%	45.06	Y	No		01/09/2020	NS	Kevlar	2018
3,5	0.10		1.11	2.22		4.70	16.49	97%	38.44	Y	No		22/06/2011	NS	Kevlar	

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S 1,5	16.86	16.86	16.86	8.67	8.47	121.26		01/09/2020	NS	Nylon	2018
S 2	17.04	17.04	17.04	8.52	8.52	120.99		01/09/2020	NS	Polyester	2018

ASYMMETRIC SPINNAKERS (0)

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