

<b>BOAT</b> Name <b>SOPU DOS</b> Sail Nr <b>FIN-11826</b>	<b>GPH</b> <b>576.4</b>	<b>HULL</b> Length Overall <b>12.520m</b> Maximum Beam <b>3.940m</b> Displacement <b>9 051kg</b> Draft <b>2.427m</b> Plan Review IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0.207%</b> Hull Construction <b>Cored</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>AZUREE 41</b> Designer <b>Rob Humphries</b> Builder <b>SIRENA MARINE</b> Series <b>01.2016</b> Age <b>01.2017</b> Age Allowance <b>0.130%</b> Offset File <b>AZUREE41.off - 20.09.2018 22.30.12</b> Measurement by - <b>24.01.2020</b>		IMSL <b>12.142m</b> VCGD <b>-0.047m</b> Sink <b>27.06kg/mm</b> RL <b>9.834m</b> VCGM <b>0.018m</b> WS <b>35.73m<sup>2</sup></b> LSMO <b>12.009m</b> Displacement/Length ratio <b>5.2261</b>



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**Rating Office**  
FSBF Rating Office  
Joakim Majander  
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02230 Espoo



SUOMEN PURJEHDUS JA VENELY  
SEGILING OCH BÅTSPORT I FINLAND

SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time on Distance	<b>560.5</b>			<b>628.9</b>	
Time on Time	<b>1.0704</b>			<b>1.0733</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>661.8</b>	<b>509.9</b>	<b>455.0</b>	<b>857.1</b>	<b>632.5</b>	<b>547.7</b>
Time on Time	<b>1.0200</b>	<b>1.3238</b>	<b>1.4836</b>	<b>0.7875</b>	<b>1.0672</b>	<b>1.2325</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>990.9</b>	<b>813.4</b>	<b>719.9</b>	<b>673.4</b>	<b>655.2</b>	<b>647.8</b>	<b>631.3</b>
52°	<b>646.2</b>	<b>542.1</b>	<b>486.5</b>	<b>463.4</b>	<b>455.4</b>	<b>451.7</b>	<b>446.4</b>
60°	<b>609.7</b>	<b>516.4</b>	<b>469.9</b>	<b>450.6</b>	<b>442.0</b>	<b>438.3</b>	<b>435.0</b>
75°	<b>581.7</b>	<b>496.9</b>	<b>458.4</b>	<b>440.0</b>	<b>428.0</b>	<b>420.0</b>	<b>413.6</b>
90°	<b>585.7</b>	<b>487.9</b>	<b>453.5</b>	<b>438.3</b>	<b>423.6</b>	<b>410.3</b>	<b>389.5</b>
110°	<b>576.0</b>	<b>478.5</b>	<b>440.5</b>	<b>420.4</b>	<b>408.3</b>	<b>397.4</b>	<b>377.8</b>
120°	<b>590.1</b>	<b>487.4</b>	<b>444.9</b>	<b>421.6</b>	<b>399.4</b>	<b>382.2</b>	<b>359.7</b>
135°	<b>658.6</b>	<b>532.3</b>	<b>466.2</b>	<b>436.9</b>	<b>414.9</b>	<b>391.6</b>	<b>345.5</b>
150°	<b>782.8</b>	<b>623.7</b>	<b>528.0</b>	<b>471.9</b>	<b>444.2</b>	<b>423.6</b>	<b>381.5</b>
Run VMG	<b>903.9</b>	<b>720.2</b>	<b>609.6</b>	<b>544.9</b>	<b>496.4</b>	<b>458.3</b>	<b>415.7</b>

**Certificate**  
Number **11826**  
ORC Ref **03290000DNS**  
Issued On **23.02.2020**  
VPP Ver. **2020 1.01**  
Valid until **31.12.2020**

**Crew Weight**  
Default **894kg**  
Maximum **550kg**  
Minimum\* **413kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **614.1 0.9770**  
Non Spin OSN **595.9 1.0069**

Selected Courses							
Windward / Leeward	<b>947.4</b>	<b>766.8</b>	<b>664.8</b>	<b>609.1</b>	<b>575.8</b>	<b>553.1</b>	<b>523.5</b>
Circular Random	<b>794.9</b>	<b>641.1</b>	<b>559.0</b>	<b>511.7</b>	<b>482.8</b>	<b>463.5</b>	<b>437.8</b>
Coastal / Long Distance	<b>943.1</b>	<b>719.2</b>	<b>597.9</b>	<b>529.2</b>	<b>492.7</b>	<b>464.6</b>	<b>419.4</b>
Non Spinnaker	<b>864.4</b>	<b>689.8</b>	<b>594.5</b>	<b>538.3</b>	<b>503.4</b>	<b>480.3</b>	<b>450.4</b>

**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	<b>43.1°</b>	<b>41.3°</b>	<b>40.5°</b>	<b>40.5°</b>	<b>39.8°</b>	<b>39.4°</b>	<b>39.0°</b>
Beat VMG	<b>3.63</b>	<b>4.43</b>	<b>5.00</b>	<b>5.35</b>	<b>5.49</b>	<b>5.56</b>	<b>5.70</b>
52°	<b>5.57</b>	<b>6.64</b>	<b>7.40</b>	<b>7.77</b>	<b>7.91</b>	<b>7.97</b>	<b>8.06</b>
60°	<b>5.90</b>	<b>6.97</b>	<b>7.66</b>	<b>7.99</b>	<b>8.14</b>	<b>8.21</b>	<b>8.28</b>
75°	<b>6.19</b>	<b>7.24</b>	<b>7.85</b>	<b>8.18</b>	<b>8.41</b>	<b>8.57</b>	<b>8.70</b>
90°	<b>6.15</b>	<b>7.38</b>	<b>7.94</b>	<b>8.21</b>	<b>8.50</b>	<b>8.77</b>	<b>9.24</b>
110°	<b>6.25</b>	<b>7.52</b>	<b>8.17</b>	<b>8.56</b>	<b>8.82</b>	<b>9.06</b>	<b>9.53</b>
120°	<b>6.10</b>	<b>7.39</b>	<b>8.09</b>	<b>8.54</b>	<b>9.01</b>	<b>9.42</b>	<b>10.01</b>
135°	<b>5.47</b>	<b>6.76</b>	<b>7.72</b>	<b>8.24</b>	<b>8.68</b>	<b>9.19</b>	<b>10.42</b>
150°	<b>4.60</b>	<b>5.77</b>	<b>6.82</b>	<b>7.63</b>	<b>8.10</b>	<b>8.50</b>	<b>9.44</b>
Run VMG	<b>3.98</b>	<b>5.00</b>	<b>5.91</b>	<b>6.61</b>	<b>7.25</b>	<b>7.85</b>	<b>8.66</b>
Gybe Angles	<b>143.0°</b>	<b>147.0°</b>	<b>148.0°</b>	<b>150.0°</b>	<b>163.0°</b>	<b>180.0°</b>	<b>180.0°</b>

**Class Division Length**  
CDL = **10.982**

**Storm Sails Areas**  
Heavy Weather Jib **40.17**  
Storm Jib (JL=11.22) **14.88**  
Storm Trysail **16.26**

**Owner**  
Jorma Nuutinen  
TPS

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

<b>BOAT</b>	
Name <b>SOPU DOS</b>	Sail Nr <b>FIN-11826</b>
File <b>L11826</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>			
Inclining Test <b>Current Inclining</b>			
Flotation date <b>06.09.2018</b>		SG <b>1.0270</b>	
FFM <b>1.485</b>	FF <b>1.487</b>	SFFP <b>0.173</b>	
FAM <b>1.150</b>	FA <b>1.148</b>	SAFP <b>12.381</b>	
W1 <b>110.0</b>	PD1 <b>525.3</b>	WD <b>12.950</b>	
W2 <b>110.0</b>	PD2 <b>505.7</b>	GSA <b>1.0</b>	
W3 <b>110.0</b>	PD3 <b>516.6</b>	RSA <b>1.0</b>	
W4 <b>110.0</b>	PD4 <b>518.9</b>	PLM <b>9000.0</b>	
LCF from stem on CL / on sheer		<b>7.041 / 7.294</b>	
Maximum beam station from stem		<b>9.000</b>	
RM Measured		<b>217.2kg·m</b>	
RM Default		<b>215.0kg·m</b>	
Limit of positive stability / Stab.Index		<b>118.6° / 123.5</b>	
Freeboard at mast at 5.170		<b>1.299</b>	



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<b>RIG</b>			
Forestay Tension <b>Aft</b>	Runners/Checkstays <b>0</b>		Spreaders <b>2</b>
Inner Stay <b>None Fitted</b>	Jib Furler <b>No</b>		Main Furler <b>No</b>
Carbon Mast <b>No</b>	Fiber Rigging <b>No</b>		Non-Circular Rigging <b>No</b>
Articulated Bowsprit <b>No</b>			
P <b>16.300</b>	E <b>5.700</b>	MDT1 <b>0.131</b>	MW <b>0.245</b>
IG <b>17.230</b>	J <b>4.870</b>	MDL1 <b>0.245</b>	GO <b>0.250</b>
ISP <b>18.320</b>	SFJ <b>0.300</b>	MDT2 <b>0.131</b>	BD <b>0.225</b>
BAS <b>1.945</b>	SPL <b>4.870</b>	MDL2 <b>0.185</b>	MWT
FSD <b>0.035</b>	TPS <b>5.480</b>	TL <b>2.150</b>	MCG

<b>MIZZEN RIG AND SAILS</b>	
N/A	

<b>PROPELLER</b>			
Installation <b>Strut</b>	PRD <b>0.450</b>		
Type <b>Folding 2 blades</b>	PBW <b>0.120</b>		
Twin Screw <b>No</b>	PIPA <b>0.0038</b>		
ST1 <b>0.050</b>	ST3 <b>0.203</b>	ST5 <b>0.260</b>	
ST2 <b>0.203</b>	ST4 <b>0.112</b>	EDL <b>3.100</b>	

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SEGLING OCH BÅTSSPORT I FINLAND

<b>COMMENTS</b>	

<b>MOVABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.15	1.11	2.01	3.46	4.65	53.22	54.07	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	126.30		SL · (SFL + 4·SHW) / 6	
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	151.23		AS · (SFL + 4·SHW) / 6	

<b>HEADSAILS</b>												
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
0.12	0.82	1.48	2.71	3.89	4.98	16.66	44.04	Y	No	06.09.2018	Unknow	
0.12	0.82	1.46	2.68	3.87	4.97	16.66	43.77	Y	No	06.09.2018	Unknow	

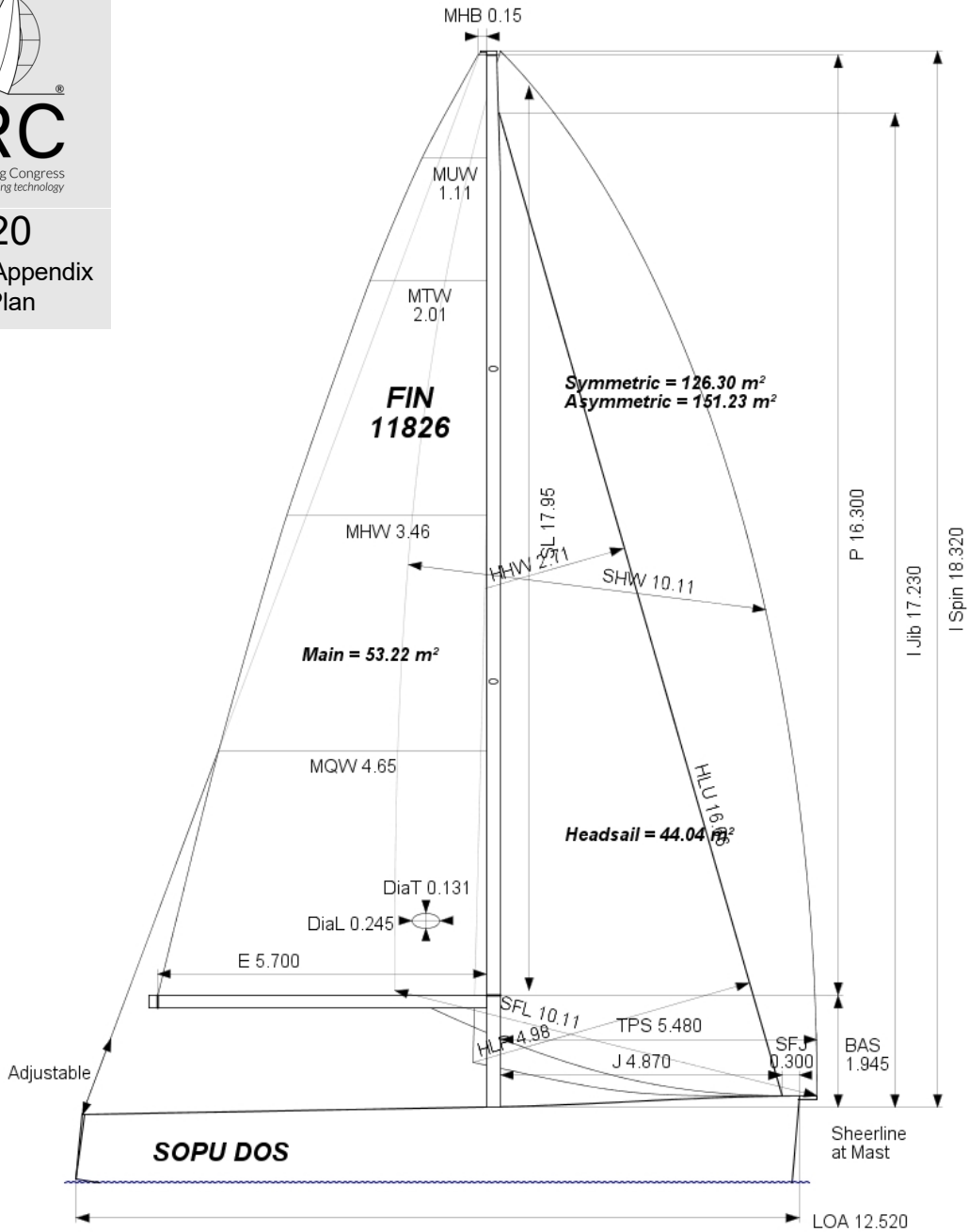
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>ESP 343</b>				
Date <b>06.09.2018</b>				
Comment <b>LCF:8,10</b>				
<b>Internal Ballast total = 0.0</b>				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
001	Engine	YANMAR	39 CV SD 60	
Id	Item	Weight Description		

<b>MEASUREMENT INVENTORY</b>								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
001	Tank	AGUA	PVC	300.0				0-0
002	Tank	GASOIL	PVC	150.0				10-0
Id	Item	Weight	Distance	VCG Description				



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Sail Plan



SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0.15	1.11	2.01	3.46	4.65	53.22		06.09.2018	Olimpic Sails	Unknown						
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HPL	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
J1.5B	0.12	0.82	1.48	2.71	3.89	4.98	16.66	102%	44.04	Y	No		06.09.2018	Olimpic Sails	Unknow	
J1.5A	0.12	0.82	1.46	2.68	3.87	4.97	16.66	102%	43.77	Y	No		06.09.2018	Olimpic Sails	Unknow	
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
S2	16.78	16.78	16.78	9.09	8.80	126.30		03.07.2019	Olimpic Sails	Unknown						
1	15.90	15.90	15.90	8.99	8.59	118.06	Manresa	11.05.2018		Unknown						
ASYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	18.95	16.95	17.95	10.11	10.11	151.23	asym		06.09.2018	Olimpic Sails	Unknown					
4	17.76	16.25	17.01	6.79	7.87	99.29	asym		24.01.2020		Unknown					
2	15.50	14.12	14.81	7.44	7.75	92.59	asym				Unknown					