

<b>BOAT</b> Name <b>Aspect</b> Sail Nr 1	<b>GPH</b> <b>471,8</b>	<b>HULL</b> Length Overall <b>13,700m</b> Maximum Beam <b>3,688m</b> Displacement <b>5 500kg</b> Draft <b>3,499m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0,001%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Carbon, Trim Tab, Light</b> Carbon Rudder <b>Yes</b> Crew Arm Extension
<b>GENERAL</b> Class 1 Designer <b>Ljung</b> Builder <b>Ljung</b> Series <b>02-2019</b> Age <b>02-2019</b> Age Allowance <b>0,000%</b> Offset File <b>Aspect 45.off - 2019-02-14 08:21:07</b> Measurement by 1 - <b>13-02-2019</b>		IMSL <b>13,505m</b> VCGD <b>-0,720m</b> Sink <b>24,26kg/mm</b> RL <b>13,725m</b> VCGM <b>-0,707m</b> WS <b>32,89m<sup>2</sup></b> LSMO <b>13,333m</b> Displacement/Length ratio <b>2,3205</b>



World Leader in Rating Technology

**2019 (Test)**  
ORC International  
Certificate

**Rating Office**  
Designer Data Designer  
Data Designer Data  
Designer Data

**INVALID FOR RACING**

<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time on Distance	<b>463,9</b>			<b>522,9</b>		
Time on Time	<b>1,2935</b>			<b>1,2909</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>527,3</b>	<b>424,9</b>	<b>370,3</b>	<b>687,8</b>	<b>530,0</b>	<b>452,3</b>
Time on Time	<b>1,2800</b>	<b>1,5886</b>	<b>1,8228</b>	<b>0,9814</b>	<b>1,2736</b>	<b>1,4923</b>

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>738,1</b>	<b>639,8</b>	<b>591,5</b>	<b>570,0</b>	<b>555,8</b>	<b>540,6</b>	<b>536,3</b>
52°	<b>481,8</b>	<b>434,3</b>	<b>415,0</b>	<b>405,8</b>	<b>400,0</b>	<b>392,9</b>	<b>383,9</b>
60°	<b>452,0</b>	<b>418,4</b>	<b>401,4</b>	<b>390,8</b>	<b>383,6</b>	<b>377,4</b>	<b>363,6</b>
75°	<b>428,5</b>	<b>400,2</b>	<b>383,4</b>	<b>367,0</b>	<b>356,7</b>	<b>350,1</b>	<b>335,8</b>
90°	<b>423,4</b>	<b>388,9</b>	<b>365,9</b>	<b>351,4</b>	<b>335,8</b>	<b>325,2</b>	<b>312,6</b>
110°	<b>445,3</b>	<b>405,7</b>	<b>375,2</b>	<b>345,1</b>	<b>321,1</b>	<b>305,7</b>	<b>280,1</b>
120°	<b>492,4</b>	<b>417,9</b>	<b>379,5</b>	<b>345,9</b>	<b>316,4</b>	<b>301,0</b>	<b>266,0</b>
135°	<b>558,0</b>	<b>442,6</b>	<b>397,3</b>	<b>356,9</b>	<b>320,1</b>	<b>294,7</b>	<b>256,0</b>
150°	<b>667,2</b>	<b>522,0</b>	<b>443,5</b>	<b>397,1</b>	<b>365,5</b>	<b>329,1</b>	<b>262,8</b>
Run VMG	<b>770,4</b>	<b>602,8</b>	<b>512,1</b>	<b>462,2</b>	<b>422,1</b>	<b>380,1</b>	<b>303,5</b>

**Certificate**  
Number 1  
ORC Ref **N/A**  
Issued On **2019-11-26**  
VPP Ver. **2019 1.01**  
**Invalid for Racing**

**Crew Weight**  
Default 1 037kg  
Maximum **700kg**  
Minimum\* **525kg**  
*\*when applied by the NoR and SI*  
Non Manual Pwr **Yes**

**Special Scoring**  
ToD ToT  
Non Spin GPH **516,6 1,1614**  
Non Spin OSN **505,9 1,1860**

<b>Selected Courses</b>							
	754,3	621,3	551,8	516,1	489,0	460,3	419,9
Windward / Leeward	<b>754,3</b>	<b>621,3</b>	<b>551,8</b>	<b>516,1</b>	<b>489,0</b>	<b>460,3</b>	<b>419,9</b>
Circular Random	<b>636,2</b>	<b>521,1</b>	<b>459,6</b>	<b>422,5</b>	<b>397,3</b>	<b>378,2</b>	<b>349,2</b>
Coastal / Long Distance	<b>755,9</b>	<b>584,4</b>	<b>497,7</b>	<b>445,5</b>	<b>411,0</b>	<b>380,0</b>	<b>330,2</b>
Non Spinnaker	<b>719,8</b>	<b>578,4</b>	<b>501,3</b>	<b>454,8</b>	<b>424,2</b>	<b>402,2</b>	<b>371,4</b>

**Sails Limitations**  
Headsails 7 | Spinnakers 5

<b>Velocity Prediction in Knots for True Wind Speeds</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>42,7°</b>	<b>40,5°</b>	<b>38,2°</b>	<b>37,1°</b>	<b>36,6°</b>	<b>35,6°</b>	<b>35,8°</b>
Beat VMG	<b>4,88</b>	<b>5,63</b>	<b>6,09</b>	<b>6,32</b>	<b>6,48</b>	<b>6,66</b>	<b>6,71</b>
52°	<b>7,47</b>	<b>8,29</b>	<b>8,67</b>	<b>8,87</b>	<b>9,00</b>	<b>9,16</b>	<b>9,38</b>
60°	<b>7,96</b>	<b>8,60</b>	<b>8,97</b>	<b>9,21</b>	<b>9,38</b>	<b>9,54</b>	<b>9,90</b>
75°	<b>8,40</b>	<b>9,00</b>	<b>9,39</b>	<b>9,81</b>	<b>10,09</b>	<b>10,28</b>	<b>10,72</b>
90°	<b>8,50</b>	<b>9,26</b>	<b>9,84</b>	<b>10,25</b>	<b>10,72</b>	<b>11,07</b>	<b>11,51</b>
110°	<b>8,08</b>	<b>8,87</b>	<b>9,60</b>	<b>10,43</b>	<b>11,21</b>	<b>11,78</b>	<b>12,85</b>
120°	<b>7,31</b>	<b>8,61</b>	<b>9,49</b>	<b>10,41</b>	<b>11,38</b>	<b>11,96</b>	<b>13,54</b>
135°	<b>6,45</b>	<b>8,13</b>	<b>9,06</b>	<b>10,09</b>	<b>11,25</b>	<b>12,22</b>	<b>14,06</b>
150°	<b>5,40</b>	<b>6,90</b>	<b>8,12</b>	<b>9,07</b>	<b>9,85</b>	<b>10,94</b>	<b>13,70</b>
Run VMG	<b>4,67</b>	<b>5,97</b>	<b>7,03</b>	<b>7,79</b>	<b>8,53</b>	<b>9,47</b>	<b>11,86</b>
Gybe Angles	<b>142,1°</b>	<b>143,3°</b>	<b>148,5°</b>	<b>152,5°</b>	<b>149,0°</b>	<b>146,9°</b>	<b>145,9°</b>

**Class Division Length**  
CDL = **13,617**

**Storm Sails Areas**  
Heavy Weather Jib **41,82**  
Storm Jib (JL=11,44) **15,49**  
Storm Trysail **18,17**

**Owner**  
1  
1  
1  
1

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

Signature

<b>BOAT</b>	
Name <b>Aspect</b>	Sail Nr <b>1</b>
File <b>Aspect</b>	Data in <b>meters/kilograms</b>

<b>RIG</b>	
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>
Inner Stay <b>Adjustable</b>	Runners <b>0</b>
Carbon Mast <b>Yes</b>	Jumper Struts <b>Yes</b>
Taper Hollows	Jib Furler <b>No</b>
Fiber Rigging <b>Yes</b>	Main Furler
Lenticular Rigging <b>No</b>	Without Backstay <b>No</b>
Articulated Bowsprit <b>No</b>	
P <b>17,900</b>	E <b>5,800</b> MDT1 <b>0,170</b> MW <b>0,250</b>
IG <b>17,600</b>	J <b>5,860</b> MDL1 <b>0,250</b> GO <b>0,250</b>
ISP <b>19,570</b>	SFJ <b>0,500</b> MDT2 <b>0,130</b> BD <b>0,300</b>
BAS <b>1,514</b>	SPL <b>0,000</b> MDL2 <b>0,190</b> MWT
FSP <b>0,080</b>	TPS <b>9,255</b> TL <b>1,200</b> MCG

<b>INCLINING TEST AND FREEBOARDS</b>	
Inclining Test <b>Enter VCG directly</b>	
Flotation date <b>13-02-2019</b>	SG <b>1,000</b>
VCGDe <b>-0,720</b>	
FFM <b>1,328</b>	FF <b>1,336</b> SFFP <b>0,114</b>
FAM <b>1,102</b>	FA <b>1,106</b> SAFB <b>13,573</b>
LCF from stem on CL / on sheer <b>7,459 / 7,665</b>	
Maximum beam station from stem <b>9,867</b>	
RM Measured <b>193,7kg·m</b>	
RM Default <b>202,2kg·m</b>	
Limit of positive stability / Stab.Index <b>138,9° / 139,2</b>	
Freeboard at mast at 6,360 <b>1,160</b>	



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**2019**

IMS Measurement Certificate

**Certificate**

Number 1  
 ORC Ref **N/A**  
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 VPP Ver. **2019 1.01**  
**Invalid for Racing**

<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>0,119</b>
Twin Screw	PIPA <b>0,0040</b>
ST1 <b>0,050</b>	ST3 <b>0,180</b> ST5 <b>0,309</b>
ST2 <b>0,180</b>	ST4 <b>0,112</b> EDL <b>3,000</b>

<b>COMMENTS</b>	
1 1 1 1	

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

<b>CENTERBOARD</b>	
N/A	

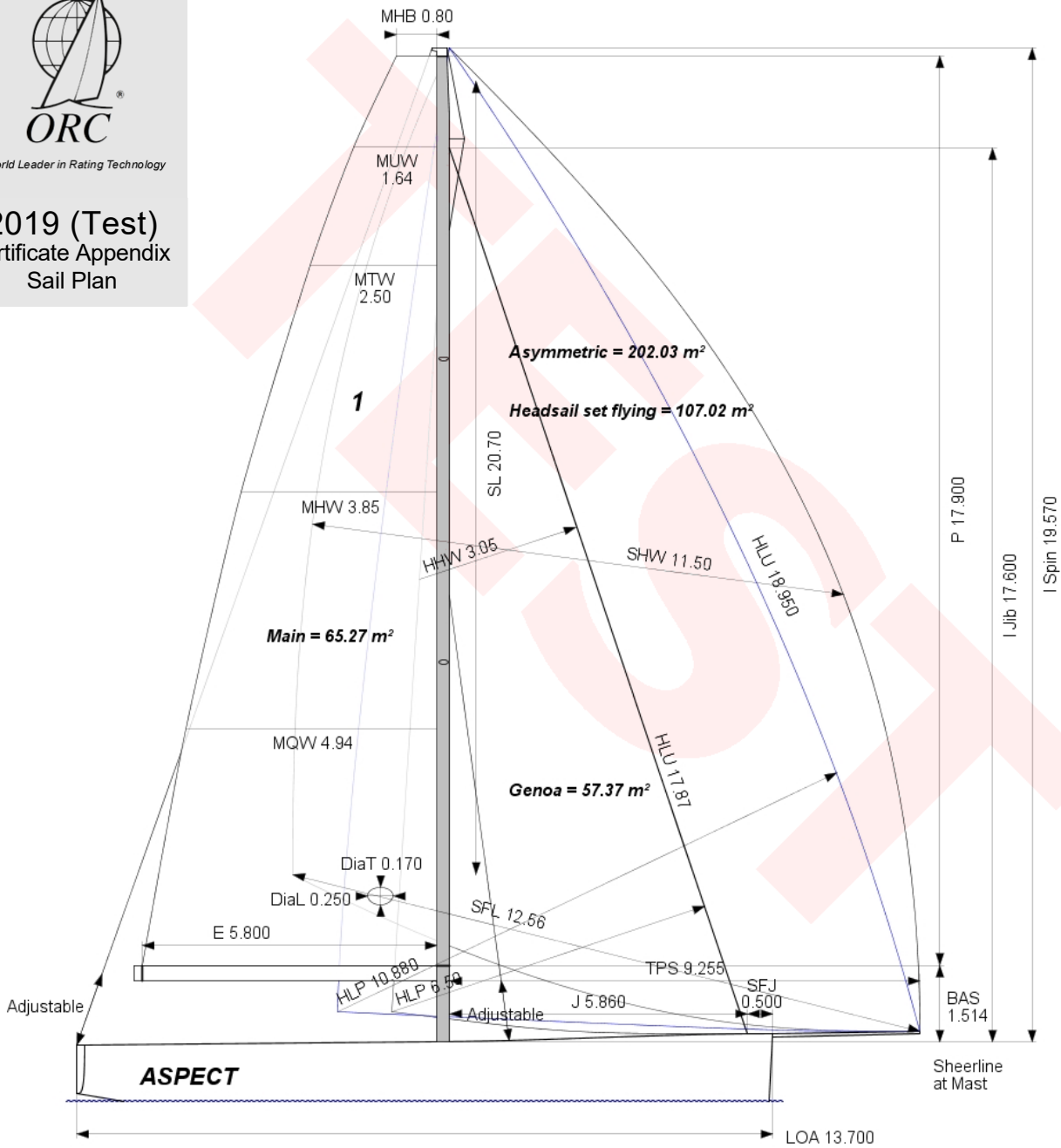
<b>SAILS (Maximum Areas)</b>						
Mainsail	MHB	MUW	MTW	MHW	MQW	Area Area (r) Formula
	0,800	1,64	2,50	3,85	4,94	65,27 66,65 P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
<b>Symmetric</b>						
Not Available						
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area Formula
	23,20	18,20	20,70	11,50	12,56	202,03 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	Fly	Meas.Date	Material	Comment
0,08	1,52	2,99	5,79	8,43	10,88	18,95	107,03		Y		Carbon	
0,12	0,95	1,72	3,05	4,73	6,50	17,87	57,38	Y	N		Carbon	
0,12	0,93	1,54	2,60	3,80	5,05	15,95	41,98	Y	N		Carbon	



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2019 (Test)  
Certificate Appendix  
Sail Plan



SAILS INVENTORY																
<b>MAINSAIL (1)</b>																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0,80	1,64	2,50	3,85	4,94	65,27				Carbon						
<b>HEADSAILS (3)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
6	0,08	1,52	2,99	5,79	8,43	10,88	18,95	186%	107,03		Y				Carbon	
2	0,12	0,95	1,72	3,05	4,73	6,50	17,87	111%	57,38	Y	N				Carbon	
5	0,12	0,93	1,54	2,60	3,80	5,05	15,95	86%	41,98	Y	N				Carbon	
<b>SYMMETRIC SPINNAKERS (0)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
<b>ASYMMETRIC SPINNAKERS (2)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
3	23,20	18,20	20,70	11,50	12,56	202,04	asym				Nylon					
4	19,50	16,00	17,75	9,00	12,00	142,00	asym				Carbon					