



World Leader in Rating Technology

## 2017 ORC Club Certificate

### Rating Office

Žemaites 6  
LT-03117 Vilnius  
Lithuania  
+370 650 28392



### Certificate

Number **LT2245**  
Issued On **2017-07-24**  
ORC Ref **lt00000287**  
VPP Ver. **2017 1.00**  
Valid until **2017-12-31**

### Crew Weight

Declared **884kg**  
Default\* **884kg**  
Non Manual Pwr **No**

### Special Scoring

ToD ToT  
Non Spin GPH **630.7 0.9513**  
Non Spin OSN **610.3 0.9831**

### Sails Limitations

Headsails **6** Spinnakers **4**

### Spinnaker configuration

Symmetric: **Yes 130.33**  
Asymmetric: **Yes 116.14**  
Flying H/S: **No**  
Spin. Pole: **Yes**

### Class Division Length

**CDL = 10.665**

### Stability (Estimated)

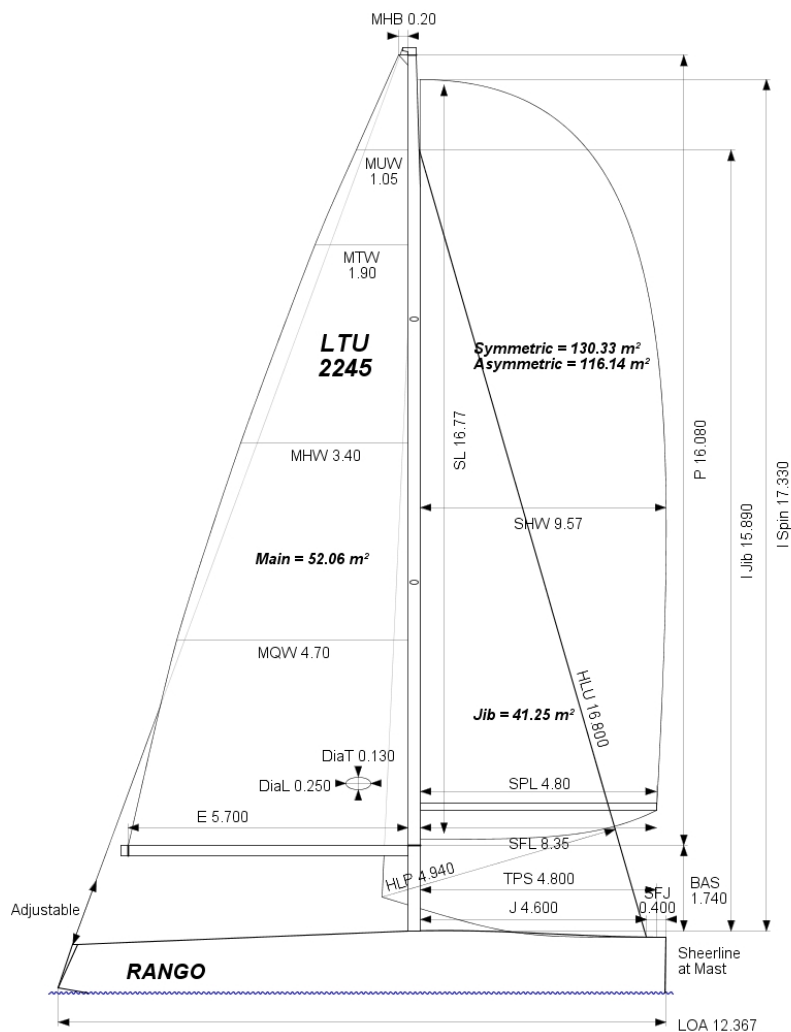
Limit Positive Stab.: **115.3°**  
Stability Index: **120.7**

### Owner

UAB SOMI Network  
Vilnius  
Lietuva

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

Signature



<b>BOAT</b> Name <b>RANGO</b> Sail Nr <b>LTU 2245</b>		<b>GPH</b> <b>594.5</b>	<b>HULL</b> Data File <b>Rango LTU</b> LOA <b>12.367m</b> Offset File <b>Dehler 42.off</b> MB <b>3.924m</b> Displacement <b>9,189kg</b> Draft <b>2.424m</b>			
<b>CLASS</b> Class <b>DEHLER 42</b> Designer <b>JUDEL/VROLIJK</b> Builder <b>DEHLER</b> Series <b>01-2016</b> Age Date <b>02-2016</b> Age Allowance <b>0.033%</b>			IMS Division <b>Cruiser/Racer</b> Dynamic All. <b>0.249%</b> Fwd Accom. <b>Yes</b> Construction <b>Cored</b> Fiber Rigging <b>No</b> Aramid Core <b>No</b> Crew Arm Ex Carbon Rudder <b>No</b> Light Stanchions <b>No</b>			
<b>COMMENTS</b>			IMSL <b>11.991m</b> VCGD <b>0.004m</b> Sink <b>28.17kg/mm</b> RL <b>9.337m</b> VCGM <b>0.057m</b> WS <b>36.40m<sup>2</sup></b> LSM0 <b>11.922m</b> Displacement/Length ratio <b>5.4228</b>			
<b>PROPELLER</b> Installation <b>Strut</b> PRD <b>0.300</b> Type <b>Folding 2 blades</b> PIPA <b>0.0037</b>			<b>CENTERBOARD</b> <b>N/A</b>			
<b>SCORING OPTIONS</b>						
	<b>COASTAL / LONG DISTANCE</b>			<b>WINDWARD / LEEWARD</b>		
Time On Distance	<b>575.8</b>			<b>645.7</b>		
Time On Time	<b>1.0420</b>			<b>1.0453</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>698.5</b>	<b>522.7</b>	<b>454.9</b>	<b>910.8</b>	<b>653.9</b>	<b>548.9</b>
Time on Time	<b>0.9664</b>	<b>1.2913</b>	<b>1.4840</b>	<b>0.7411</b>	<b>1.0323</b>	<b>1.2298</b>

<b>BOAT</b>	
Name <b>RANGO</b>	Sail Nr <b>LTU 2245</b>
File <b>Rango LTU</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Club Estimated VCG</b>		
Flotation date <b>13-11-2016</b>	SG <b>1.0030</b>	
FFM <b>1.130</b>	FF <b>1.140</b>	SFFP <b>0.259</b>
FAM <b>0.980</b>	FA <b>0.985</b>	SAFP <b>11.970</b>
LCF from stem on CL / on sheer		<b>6.871 / 7.131</b>
Maximum beam station from stem		<b>8.642</b>
RM Measured		<b>259.7kg·m</b>
RM Default		<b>252.1kg·m</b>
Limit of positive stability / Stab.Index		<b>115.3° / 120.7</b>
Freeboard at mast at 5.000		<b>1.257</b>

<b>RIG</b>					
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>				
Inner Stay <b>None Fitted</b>	Runners <b>0</b>				
Carbon Mast <b>No</b>	Jumper Struts <b>None</b>				
Taper Hollows <b>No</b>	Jib Furler <b>Yes</b>				
Fiber Rigging <b>No</b>	Main Furler <b>No</b>				
Lenticular Rigging <b>No</b>	Without Backstay <b>No</b>				
Articulated Bowsprit <b>No</b>					
P <b>16.080</b>	E <b>5.700</b>	MDT1 <b>0.130</b>	MW <b>0.250</b>		
IG <b>15.890</b>	J <b>4.600</b>	MDL1 <b>0.250</b>	GO <b>0.275</b>		
ISP <b>17.330</b>	SFJ <b>0.400</b>	MDT2 <b>0.125</b>	BD		
BAS <b>1.740</b>	SPL <b>4.800</b>	MDL2 <b>0.170</b>	MWT <b>282.00</b>		
FSP <b>0.072</b>	TPS <b>4.800</b>	TL <b>2.710</b>	MCG <b>6.520</b>		



World Leader in Rating Technology


## 2017 Measurements Datasheet

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

<b>PROPELLER</b>		
Installation <b>Strut</b>	PRD <b>0.300</b>	
Type <b>Folding 2 blades</b>	PBW	
Twin Screw	PIPA <b>0.0037</b>	
ST1 <b>0.065</b>	ST3 <b>0.180</b>	ST5 <b>0.200</b>
ST2 <b>0.180</b>	ST4 <b>0.110</b>	EDL <b>2.000</b>

**Certificate**

Number **LT2245**  
 ORC Ref **lt00000287**  
 Issued On **2017-07-24**  
 VPP Ver. **2017 1.00**  
 Valid until **2017-12-31**



<b>COMMENTS</b>

<b>MOVEABLE BALLAST</b>
N/A

<b>CENTERBOARD</b>
N/A

<b>SAILS INVENTORY</b>																
<b>MAINSAIL (1)</b>																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	0.200	1.05	1.90	3.40	4.70	52.06		20-06-2017		Kevlar						
<b>HEADSAILS (1)</b>																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.06	0.63	1.22	2.43	3.67	4.94	16.80	107%	41.26	Y			20-06-2017		Kevlar	
<b>SYMMETRIC SPINNAKERS (1)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	16.77	16.77	16.77	9.57	8.35	130.33		20-06-2017		Nylon						
<b>ASYMMETRIC SPINNAKERS (1)</b>																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	18.03	15.92	16.98	8.18	8.33	116.14	asym		20-06-2017		Nylon					



World Leader in Rating Technology

# 2017

## ORC Club Certificate Appendix

BOAT	
Name	<b>RANGO</b>
Certificate Number	<b>LT2245</b>
Sail Nr	<b>LTU 2245</b>
Issued On	<b>2017-07-24</b>

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>1063.3</b>	<b>869.8</b>	<b>764.3</b>	<b>691.0</b>	<b>655.9</b>	<b>640.1</b>	<b>627.0</b>
52°	<b>685.6</b>	<b>570.1</b>	<b>503.1</b>	<b>467.8</b>	<b>452.9</b>	<b>447.1</b>	<b>442.3</b>
60°	<b>640.6</b>	<b>536.6</b>	<b>479.9</b>	<b>453.4</b>	<b>439.9</b>	<b>433.6</b>	<b>428.3</b>
75°	<b>604.4</b>	<b>509.1</b>	<b>464.0</b>	<b>442.7</b>	<b>427.5</b>	<b>415.2</b>	<b>403.0</b>
90°	<b>605.8</b>	<b>500.2</b>	<b>452.4</b>	<b>432.5</b>	<b>424.7</b>	<b>411.3</b>	<b>382.9</b>
110°	<b>608.6</b>	<b>498.2</b>	<b>450.1</b>	<b>426.4</b>	<b>406.5</b>	<b>389.4</b>	<b>369.3</b>
120°	<b>627.0</b>	<b>512.2</b>	<b>456.9</b>	<b>431.6</b>	<b>409.7</b>	<b>386.6</b>	<b>352.4</b>
135°	<b>695.7</b>	<b>561.6</b>	<b>484.2</b>	<b>447.9</b>	<b>426.5</b>	<b>405.4</b>	<b>361.3</b>
150°	<b>828.0</b>	<b>653.0</b>	<b>550.4</b>	<b>485.1</b>	<b>449.9</b>	<b>429.4</b>	<b>389.8</b>
Run VMG	<b>956.1</b>	<b>754.0</b>	<b>635.6</b>	<b>556.1</b>	<b>504.6</b>	<b>464.7</b>	<b>421.7</b>

Selected Courses							
Windward / Leeward	<b>1009.7</b>	<b>811.9</b>	<b>699.9</b>	<b>623.6</b>	<b>580.3</b>	<b>552.4</b>	<b>524.4</b>
Circular Random	<b>834.2</b>	<b>667.3</b>	<b>576.0</b>	<b>521.8</b>	<b>487.7</b>	<b>465.1</b>	<b>437.0</b>
Ocean for PCS	<b>1026.2</b>	<b>785.5</b>	<b>648.2</b>	<b>563.4</b>	<b>507.9</b>	<b>469.3</b>	<b>416.2</b>
Non Spinnaker	<b>898.5</b>	<b>713.1</b>	<b>610.3</b>	<b>548.3</b>	<b>509.1</b>	<b>483.3</b>	<b>452.0</b>

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>44.2°</b>	<b>42.7°</b>	<b>42.3°</b>	<b>41.8°</b>	<b>40.4°</b>	<b>39.5°</b>	<b>38.8°</b>
Beat VMG	<b>3.39</b>	<b>4.14</b>	<b>4.71</b>	<b>5.21</b>	<b>5.49</b>	<b>5.62</b>	<b>5.74</b>
52°	<b>5.25</b>	<b>6.32</b>	<b>7.16</b>	<b>7.70</b>	<b>7.95</b>	<b>8.05</b>	<b>8.14</b>
60°	<b>5.62</b>	<b>6.71</b>	<b>7.50</b>	<b>7.94</b>	<b>8.18</b>	<b>8.30</b>	<b>8.40</b>
75°	<b>5.96</b>	<b>7.07</b>	<b>7.76</b>	<b>8.13</b>	<b>8.42</b>	<b>8.67</b>	<b>8.93</b>
90°	<b>5.94</b>	<b>7.20</b>	<b>7.96</b>	<b>8.32</b>	<b>8.48</b>	<b>8.75</b>	<b>9.40</b>
110°	<b>5.92</b>	<b>7.23</b>	<b>8.00</b>	<b>8.44</b>	<b>8.86</b>	<b>9.24</b>	<b>9.75</b>
120°	<b>5.74</b>	<b>7.03</b>	<b>7.88</b>	<b>8.34</b>	<b>8.79</b>	<b>9.31</b>	<b>10.21</b>
135°	<b>5.17</b>	<b>6.41</b>	<b>7.44</b>	<b>8.04</b>	<b>8.44</b>	<b>8.88</b>	<b>9.96</b>
150°	<b>4.35</b>	<b>5.51</b>	<b>6.54</b>	<b>7.42</b>	<b>8.00</b>	<b>8.38</b>	<b>9.24</b>
Run VMG	<b>3.77</b>	<b>4.77</b>	<b>5.66</b>	<b>6.47</b>	<b>7.13</b>	<b>7.75</b>	<b>8.54</b>
Gybe Angles	<b>144.1°</b>	<b>148.3°</b>	<b>150.1°</b>	<b>153.7°</b>	<b>162.3°</b>	<b>180.0°</b>	<b>180.0°</b>