



World Leader in Rating Technology

2018 ORC Club Certificate

Rating Office

Žemaites 6
LT-03117 Vilnius
Lithuania
+370 650 28392



Certificate

Number **LT2255**
Issued On **2018-07-22**
ORC Ref **lt00000671**
VPP Ver. **2018 0.02b**
Valid until **2018-12-31**

Crew Weight

Declared **508kg**
Default* **432kg**
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **779,8 0,7694**
Non Spin OSN **753,4 0,7964**

Sails Limitations

Headsails **5** Spinnakers **3**

Spinnaker configuration

Symmetric: **Yes 68,24**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = **6,480**

Stability (Estimated)

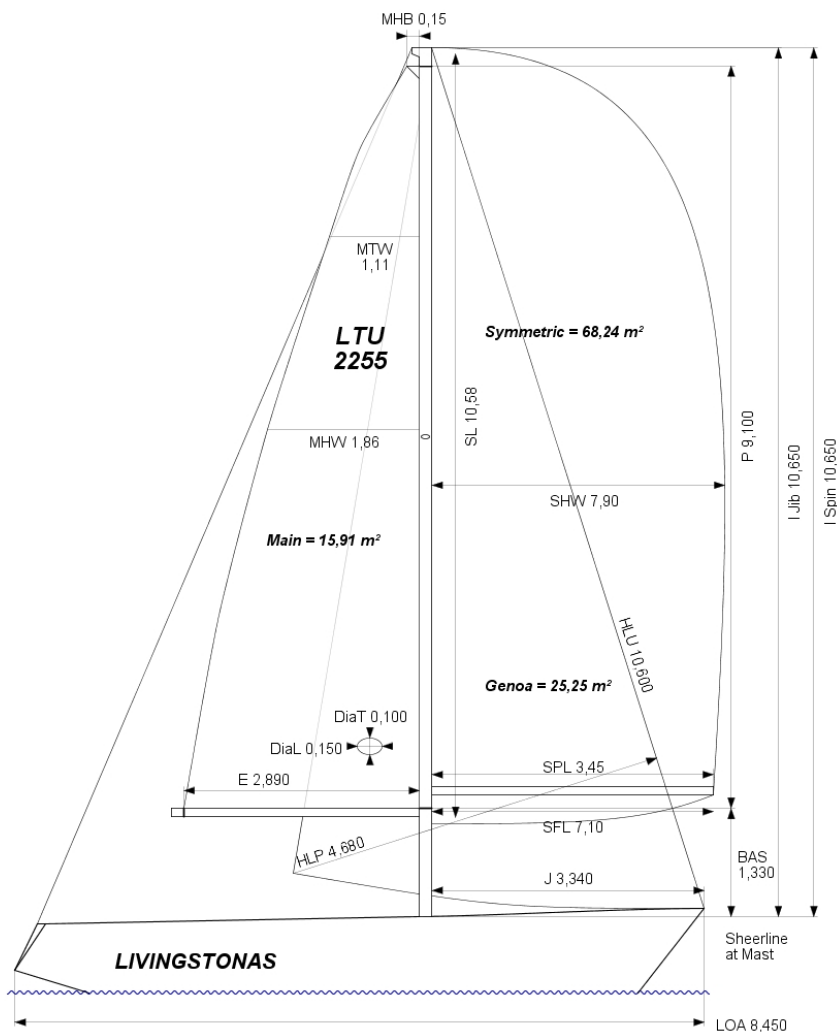
Limit Positive Stab.: **111,7°**
Stability Index: **110,0**

Owner

Sigitas Šmatavičius
Kaunas

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

Signature



| | | | | | | |
|---|---------------|--|---------------|--|--|---------------|
| BOAT Name LIVINGSTONAS Sail Nr LTU 2255 | | GPH 736,4 | | HULL Data File Livingstonas LOA 8,450m Offset File HC33901.off MB 2,992m Displacement 3.263kg Draft 1,319m | | |
| CLASS Class First 28 * 1.35 Designer Groupe Finot Builder Benetau Series 01-1982 Age Date 01-1982 Age Allowance 0,487% | | IMS Division Cruiser/Racer Dynamic All. 0,406% Fwd Accom. Yes Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No | | | IMSL 7,351m VCGD 0,042m Sink 11,94kg/mm RL 5,608m VCGM 0,070m WS 16,27m² LSM0 7,213m Displacement/Length ratio 8,6950 | |
| COMMENTS | | Water Ballast 0 Trim Tab No | | | Sails Limitations Headsails 5 Spinnakers 3 | |
| PROPELLER Installation Shaft exposed PRD 0,310 Type Folding 2 blades PBW 0,080 PIPA 0,0009 | | CENTERBOARD N/A | | | Spinnaker configuration Symmetric: Yes 68,24 Asymmetric: No Flying H/S: No Spin. Pole: Yes | |
| SCORING OPTIONS | | COASTAL / LONG DISTANCE | | | WINDWARD / LEEWARD | |
| Time On Distance | 714,5 | | | 797,8 | | |
| Time On Time | 0,8398 | | | 0,8461 | | |
| Triple Number | Low | Medium | High | Low | Medium | High |
| Time on Distance | 852,5 | 650,5 | 574,7 | 1097,4 | 805,3 | 689,1 |
| Time on Time | 0,7918 | 1,0377 | 1,1745 | 0,6151 | 0,8382 | 0,9795 |

| | |
|--------------------------|---------------------------------|
| BOAT | |
| Name LIVINGSTONAS | Sail Nr LTU 2255 |
| File Livingstonas | Data in meters/kilograms |

| | | | |
|--|-----------------|-----------------------|--|
| INCLINING TEST AND FREEBOARDS | | | |
| Inclining Test Club Estimated VCG | | | |
| Flotation date | | SG 1,000 | |
| FFM 1,030 | FF 1,048 | SFFP 0,286 | |
| FAM 0,840 | FA 0,852 | SAFP 8,078 | |
| LCF from stem on CL / on sheer | | 4,771 / 4,990 | |
| Maximum beam station from stem | | 5,238 | |
| RM Measured | | 54,2kg-m | |
| RM Default | | 52,6kg-m | |
| Limit of positive stability / Stab.Index | | 111,7° / 110,0 | |
| Freeboard at mast at 3,340 | | 0,930 | |

| | | | | |
|--------------------------------|----------------------------|-------------------|-----------------|--|
| RIG | | | | |
| Forestay Tension Fixed | Spreaders 1 | | | |
| Inner Stay None Fitted | Runners 0 | | | |
| Carbon Mast No | 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 9,100 | E 2,890 | MDT1 0,100 | MW 0,000 | |
| IG 10,650 | J 3,340 | MDL1 0,150 | GO 0,000 | |
| ISP 10,650 | SFJ 0,000 | MDT2 0,000 | BD 0,000 | |
| BAS 1,330 | SPL 3,450 | MDL2 0,000 | MWT | |
| FSP -2,000 | TPS | TL -3,000 | MCG | |



World Leader in Rating Technology

2018 Measurements Datasheet

| | |
|-----------------------------|--|
| MIZZEN RIG AND SAILS | |
| N/A | |

| | | | |
|-----------------------------------|--------------------|------------------|------------------|
| PROPELLER | | | |
| Installation Shaft exposed | PRD 0,310 | | |
| Type Folding 2 blades | PBW 0,080 | | |
| Twin Screw No | PIPA 0,0009 | | |
| PSA 0,000 | PHL 0,000 | ST3 0,000 | ESL 0,000 |
| PSD 0,000 | ST1 0,000 | ST4 0,000 | |
| PHD 0,000 | ST2 0,000 | ST5 0,000 | |

Certificate

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| | |
|-----------------|--|
| COMMENTS | |
| | |

| | |
|-------------------------|--|
| MOVEABLE BALLAST | |
| N/A | |

| | |
|--------------------|--|
| CENTERBOARD | |
| N/A | |

| SAILS INVENTORY | | | | | | | | | | | | | | | | |
|----------------------------------|-------|-------|-------|------|------|-------|----------|------------|-------------|-------------|----------|----------|------------|-------------|----------|---------|
| MANSAL (2) | | | | | | | | | | | | | | | | |
| Id | MHB | MUW | MTW | MHW | MQW | Area | Measurer | Meas.Date | Manufacture | Material | Comment | | | | | |
| Gr1 | | | 1,11 | 1,86 | | 15,91 | 110 | 06-06-2009 | | Unknown | | | | | | |
| Gr2 | | | 1,05 | 1,83 | | 15,74 | | 01-01-1985 | | Unknown | | | | | | |
| HEADSAILS (3) | | | | | | | | | | | | | | | | |
| Id | HHB | HUW | HTW | HHW | HQW | HLP | HLU | Ovrlp | Area | Btn | Fly | Measurer | Meas.Date | Manufacture | Material | Comment |
| G | | | | | | 4,68 | 10,60 | 140% | 25,25 | | | | 01-01-2013 | | Unknown | |
| G#1 | | | | | | 4,80 | 10,30 | 144% | 25,17 | | | | 01-01-2009 | | Unknown | |
| S1 | | | | | | 3,40 | 8,70 | 102% | 15,06 | | | | 01-01-2000 | | Unknown | |
| SYMMETRIC SPINNAKERS (2) | | | | | | | | | | | | | | | | |
| Id | SLU | SLE | SL | SHW | SFL | Area | Measurer | Meas.Date | Manufacture | Material | Comment | | | | | |
| Sp1 | 10,58 | 10,58 | 10,58 | 7,90 | 7,10 | 68,24 | | | | Unknown | | | | | | |
| Sp2 | 8,30 | 8,30 | 8,30 | 4,67 | 4,70 | 32,34 | | | | Unknown | | | | | | |
| ASYMMETRIC SPINNAKERS (0) | | | | | | | | | | | | | | | | |
| Id | SLU | SLE | SL | SHW | SFL | Area | Kind | Measurer | Meas.Date | Manufacture | Material | Comment | | | | |

| | | | | |
|------------------------------|--------|-------------|-------------|-----------------|
| MEASUREMENT INVENTORY | | | | |
| Measurer | Date | Comment | | |
| Id | Item | Weight | Distance | VCG Description |
| Id | Item | Maker | Model | |
| 1 | Engine | Volvo Penta | | |
| Id | Item | Weight | Description | |

| | | | | |
|------------------------------|---------|--------|----------|-----------------|
| MEASUREMENT INVENTORY | | | | |
| Id | Item | Weight | Distance | VCG Description |
| 1 | Battery | 37,0 | 6,20 | |



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2018

ORC Club Certificate Appendix

| BOAT | | | |
|-------------|---------------------|--------------------|-------------------|
| Name | LIVINGSTONAS | Certificate Number | LT2255 |
| Sail Nr | LTU 2255 | Issued On | 2018-07-22 |

| TIME ALLOWANCES | | | | | | | |
|------------------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Wind Velocity | 6 kt | 8 kt | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
| Beat VMG | 1305,8 | 1096,9 | 979,3 | 891,6 | 840,6 | 824,1 | 827,9 |
| 52° | 851,0 | 723,5 | 641,8 | 598,9 | 578,2 | 568,8 | 565,9 |
| 60° | 805,2 | 683,9 | 612,8 | 580,6 | 562,7 | 551,9 | 545,4 |
| 75° | 770,7 | 652,6 | 593,5 | 566,7 | 548,3 | 533,4 | 513,8 |
| 90° | 764,0 | 627,8 | 570,5 | 547,1 | 535,5 | 526,0 | 497,8 |
| 110° | 732,1 | 605,7 | 557,9 | 529,3 | 505,3 | 487,1 | 469,0 |
| 120° | 758,0 | 614,1 | 561,9 | 532,2 | 504,7 | 481,9 | 451,2 |
| 135° | 829,7 | 668,6 | 581,3 | 547,9 | 521,2 | 495,6 | 453,5 |
| 150° | 954,8 | 766,0 | 642,3 | 576,6 | 547,3 | 522,9 | 478,2 |
| Run VMG | 1102,5 | 884,5 | 741,6 | 649,8 | 591,4 | 557,9 | 510,8 |

| Selected Courses | | | | | | | |
|-------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Windward / Leeward | 1204,1 | 990,7 | 860,5 | 770,7 | 716,0 | 691,0 | 669,4 |
| Circular Random | 1020,3 | 821,9 | 714,2 | 650,8 | 611,7 | 586,9 | 558,7 |
| Ocean for PCS | 1239,2 | 959,6 | 800,0 | 701,0 | 636,3 | 591,6 | 531,0 |
| Non Spinnaker | 1093,9 | 875,9 | 755,7 | 683,7 | 638,5 | 609,5 | 576,4 |

| 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 | 43,8° | 42,3° | 43,0° | 42,9° | 41,5° | 41,2° | 42,1° |
| Beat VMG | 2,76 | 3,28 | 3,68 | 4,04 | 4,28 | 4,37 | 4,35 |
| 52° | 4,23 | 4,98 | 5,61 | 6,01 | 6,23 | 6,33 | 6,36 |
| 60° | 4,47 | 5,26 | 5,87 | 6,20 | 6,40 | 6,52 | 6,60 |
| 75° | 4,67 | 5,52 | 6,07 | 6,35 | 6,57 | 6,75 | 7,01 |
| 90° | 4,71 | 5,73 | 6,31 | 6,58 | 6,72 | 6,84 | 7,23 |
| 110° | 4,92 | 5,94 | 6,45 | 6,80 | 7,12 | 7,39 | 7,68 |
| 120° | 4,75 | 5,86 | 6,41 | 6,76 | 7,13 | 7,47 | 7,98 |
| 135° | 4,34 | 5,38 | 6,19 | 6,57 | 6,91 | 7,26 | 7,94 |
| 150° | 3,77 | 4,70 | 5,61 | 6,24 | 6,58 | 6,89 | 7,53 |
| Run VMG | 3,27 | 4,07 | 4,85 | 5,54 | 6,09 | 6,45 | 7,05 |
| Gybe Angles | 148,3° | 151,9° | 149,9° | 160,1° | 180,0° | 180,0° | 180,0° |