



World Leader in Rating Technology

2018 ORC Club Certificate

Rating Office

EYU
Regati 1
11911, Tallinn
Estonia

Certificate

Number **EST475**
Issued On **7/29/2018**
ORC Ref **EST00000321**
VPP Ver. **2018 1.00**
Valid until **12/31/2018**

Crew Weight

Default 790kg
Maximum **900kg**
Minimum* **675kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

| | ToD | ToT |
|--------------|--------------|---------------|
| Double H.GPH | 578.6 | 1.0371 |
| Double H.OSN | 564.0 | 1.0638 |
| Non Spin GPH | 607.0 | 0.9885 |
| Non Spin OSN | 589.5 | 1.0179 |

Sails Limitations

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

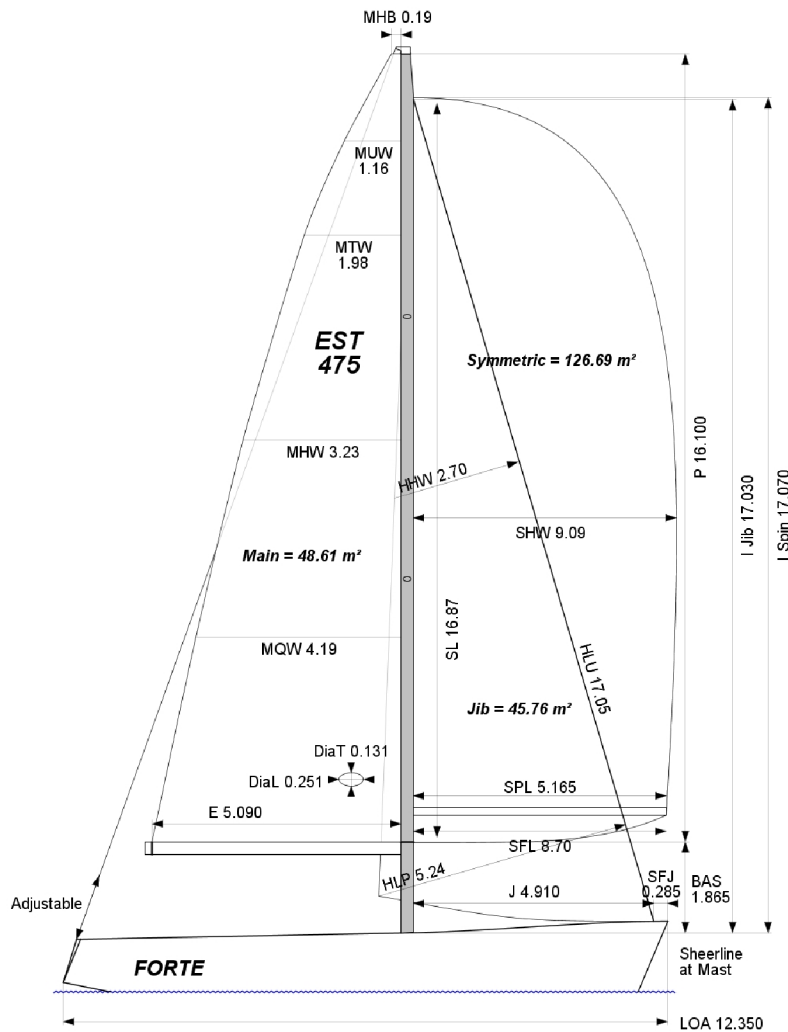
Spinnaker configuration
Symmetric: **Yes** 126.69
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 10.698

Stability (Measured)

Limit Positive Stab.: **122.9°**
Stability Index: **126.4**



| BOAT | | GPH | | HULL | | |
|------------------------|--------------------------------|---------------|---------------|---------------------------|---|---------------|
| Name | FORTE | | 573.8 | Data File | Est0475 LOA 12.350m | |
| Sail Nr | EST 475 | | | Offset File | X41.OFF MB 3.646m | |
| | | | | Displacement | 6,895kg Draft 2.498m | |
| CLASS | | | | IMS Division | Cruiser/Racer Dynamic All. 0.054% | |
| Class | X-41 | | | Fwd Accom. | Yes Construction Cored | |
| Designer | JEPPESEN | | | Fiber Rigging | No Aramid Core No | |
| Builder | X YACHTS | | | Crew Arm Ex | Carbon Rudder No | |
| Series | 01/2006 | | | Light Stanchions | | |
| Age Date | 05/2007 | | | IMSL | 11.114m VCGD -0.050m Sink 23.10kg/mm | |
| Age Allowance | 0.390% | | | RL | 10.280m VCGM -0.070m WS 30.86m² | |
| COMMENTS | | | | LSM0 | 11.017m Displacement/Length ratio 5.1564 | |
| | | | | Water Ballast | 0 Trim Tab No | |
| | | | | BLR Index | 0.0000 | |
| PROPELLER | | | | CENTERBOARD | | |
| Installation | Strut | PRD | 0.430 | | | |
| Type | Folding 2 blades | PBW | 0.125 | | | |
| | | PIPA | 0.0032 | N/A | | |
| SCORING OPTIONS | | | | | | |
| | COASTAL / LONG DISTANCE | | | WINDWARD / LEEWARD | | |
| Time on Distance | 557.2 | | | 622.6 | | |
| Time on Time | 1.0768 | | | 1.0842 | | |
| Triple Number | Low | Medium | High | Low | Medium | High |
| Time on Distance | 656.6 | 508.2 | 454.4 | 845.7 | 624.4 | 545.2 |
| Time on Time | 1.0281 | 1.3282 | 1.4854 | 0.7982 | 1.0811 | 1.2381 |

| | |
|---------------------|---------------------------------|
| BOAT | |
| Name FORTE | Sail Nr EST 475 |
| File Est0475 | Data in meters/kilograms |

| | | | |
|--|------------------|-----------------------|--|
| INCLINING TEST AND FREEBOARDS | | | |
| Inclining Test Current Inclining | | | |
| Flotation date 31/08/2015 | | SG 1.0000 | |
| FFM 1.445 | FF 1.455 | SFFP 0.200 | |
| FAM 1.080 | FA 1.087 | SAFP 11.995 | |
| W1 103.2 | PD1 225.0 | WD 11.900 | |
| W2 103.2 | PD2 224.0 | GSA 12.6 | |
| W3 103.2 | PD3 224.0 | RSA 4298.7 | |
| W4 103.2 | PD4 224.0 | PLM 2005.0 | |
| LCF from stem on CL / on sheer | | 6.949 / 7.157 | |
| Maximum beam station from stem | | 8.432 | |
| RM Measured | | 191.6kg·m | |
| RM Default | | 200.2kg·m | |
| Limit of positive stability / Stab.Index | | 122.9° / 126.4 | |
| Freeboard at mast at 5.195 | | 1.212 | |



2018
Measurements
Datasheet

| | | | |
|--------------------------------|----------------------------|-------------------|-------------------|
| RIG | | | |
| Forestay Tension Aft | Spreaders 2 | | |
| Inner Stay None Fitted | Runners 0 | | |
| Carbon Mast Yes | 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 16.100 | E 5.090 | MDT1 0.131 | MW 0.251 |
| IG 17.030 | J 4.910 | MDL1 0.251 | GO 0.276 |
| ISP 17.070 | SFJ 0.285 | MDT2 0.122 | BD 0.270 |
| BAS 1.865 | SPL 5.165 | MDL2 0.190 | MWT 204.00 |
| FSP 0.072 | TPS | TL 0.850 | MCG 5.810 |

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| ORC Ref EST00000321 | |
| Issued On 7/29/2018 | |
| VPP Ver. 2018 1.00 | |
| Valid until 12/31/2018 | |

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

| | | | |
|------------------------------|--------------------|------------------|--|
| PROPELLER | | | |
| Installation Strut | PRD 0.430 | | |
| Type Folding 2 blades | PBW 0.125 | | |
| Twin Screw No | PIPA 0.0032 | | |
| ST1 0.060 | ST3 | ST5 0.325 | |
| ST2 | ST4 0.092 | EDL 1.540 | |

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

| | |
|------------------------|--|
| MOVABLE BALLAST | |
| N/A | |

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

| SAILS INVENTORY | | | | | | | | | | | | | | | | |
|----------------------------------|-------|-------|-------|------|------|--------|----------|------------|-------------|-------------|--------------|----------|-----------|-------------|----------|-------------|
| MAINSAIL (1) | | | | | | | | | | | | | | | | |
| Id | MHB | MUW | MTW | MHW | MQW | Area | Measurer | Meas.Date | Manufacture | Material | Comment | | | | | |
| 6 | 0.190 | 1.16 | 1.98 | 3.23 | 4.19 | 48.61 | | | | Unknown | P16,10;E5,09 | | | | | |
| HEADSAILS (3) | | | | | | | | | | | | | | | | |
| Id | HHB | HUW | HTW | HHW | HQW | HLP | HLU | Ovrlp | Area | Btn | Fly | Measurer | Meas.Date | Manufacture | Material | Comment |
| 9 | 0.12 | 0.76 | 1.42 | 2.70 | 3.97 | 5.24 | 17.05 | 107% | 45.77 | Y | | | | | Unknown | 2015 medium |
| 8 | 0.11 | 0.76 | 1.43 | 2.72 | 4.00 | 5.23 | 16.90 | 107% | 45.55 | Y | | | | | Unknown | 2014 light |
| 5 | 0.09 | 0.56 | 1.08 | 2.19 | 3.40 | 4.70 | 16.49 | 96% | 37.47 | Y | D206 | | | | Unknown | G3,5 |
| SYMMETRIC SPINNAKERS (3) | | | | | | | | | | | | | | | | |
| Id | SLU | SLE | SL | SHW | SFL | Area | Measurer | Meas.Date | Manufacture | Material | Comment | | | | | |
| 6 | 16.87 | 16.87 | 16.87 | 9.09 | 8.70 | 126.69 | | | | Unknown | runner 2015 | | | | | |
| 7 | 16.92 | 16.92 | 16.92 | 9.00 | 8.70 | 126.05 | | | | Unknown | heavy S4 | | | | | |
| 3 | 16.94 | 16.94 | 16.94 | 8.63 | 8.70 | 122.02 | EST 2 | 01/07/2011 | | Unknown | reacher | | | | | |
| ASYMMETRIC SPINNAKERS (0) | | | | | | | | | | | | | | | | |
| Id | SLU | SLE | SL | SHW | SFL | Area | Kind | Measurer | Meas.Date | Manufacture | Material | Comment | | | | |

| MEASUREMENT INVENTORY | | | | |
|--------------------------------|--------|-------------|-------------|-----------------|
| Measurer Tetsmann EST 1 | | | | |
| Date 31/08/2015 | | | | |
| Comment | | | | |
| Id | Item | Weight | Distance | VCG Description |
| Id | Item | Maker | Model | |
| 1 | Engine | Volvo-Penta | D2 (29 kW) | |
| Id | Item | Weight | Description | |

| MEASUREMENT INVENTORY | | | | | | | | |
|------------------------------|---------|----------|-----------|--------|-------------------|-----|-------|-------------|
| Id | Item | Tank Use | Tank Type | Capcty | Dist. | VCG | Condn | Description |
| 1 | Tank | Fuel | metal | 90.0 | 7.00 | | | 5-0 |
| 2 | Tank | Water | plastic | 180.0 | 6.00 | | | 0-0 |
| 3 | Tank | Waste | metal | 15.0 | 4.00 | | | 0-0 |
| 4 | Tank | Boiler | metal | 15.0 | 10.00 | | | 0-0 |
| Id | Item | Weight | Distance | VCG | Description | | | |
| 1 | Battery | 25.0 | 8.00 | | Engine battery | | | |
| 2 | Battery | 120.0 | 5.00 | | Service batteries | | | |



World Leader in Rating Technology

2018

ORC Club Certificate Appendix

| BOAT | |
|--------------------|------------------|
| Name | FORTE |
| Certificate Number | EST475 |
| Sail Nr | EST 475 |
| Issued On | 7/29/2018 |

| TIME ALLOWANCES | | | | | | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Wind Velocity | 6 kt | 8 kt | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
| Beat VMG | 951.6 | 782.3 | 691.3 | 658.6 | 646.2 | 640.9 | 627.2 |
| 52° | 627.4 | 524.4 | 479.7 | 465.1 | 459.8 | 457.3 | 450.1 |
| 60° | 595.6 | 503.9 | 467.8 | 453.3 | 447.4 | 444.4 | 437.9 |
| 75° | 572.9 | 491.0 | 459.5 | 441.8 | 429.4 | 422.8 | 417.4 |
| 90° | 580.7 | 494.3 | 459.2 | 440.0 | 422.4 | 407.0 | 389.4 |
| 110° | 591.7 | 488.0 | 449.1 | 425.1 | 409.0 | 396.0 | 376.2 |
| 120° | 606.9 | 497.7 | 454.0 | 426.9 | 400.9 | 380.4 | 356.2 |
| 135° | 670.2 | 540.9 | 475.8 | 445.7 | 420.2 | 394.3 | 343.0 |
| 150° | 795.4 | 632.5 | 533.7 | 476.3 | 447.7 | 424.1 | 377.2 |
| Run VMG | 918.4 | 730.3 | 616.3 | 544.1 | 497.3 | 461.7 | 415.5 |
| Selected Courses | | | | | | | |
| Windward / Leeward | 935.0 | 756.3 | 653.8 | 601.4 | 571.7 | 551.3 | 521.3 |
| Circular Random | 789.5 | 637.4 | 556.6 | 510.2 | 481.8 | 462.8 | 436.8 |
| Coastal / Long Distance | 933.4 | 711.5 | 591.4 | 526.7 | 492.1 | 464.0 | 418.4 |
| Non Spinnaker | 849.0 | 679.6 | 587.9 | 534.3 | 501.2 | 479.3 | 450.5 |

| 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 | 42.5° | 41.2° | 39.8° | 38.4° | 38.3° | 38.2° | 37.9° |
| Beat VMG | 3.78 | 4.60 | 5.21 | 5.47 | 5.57 | 5.62 | 5.74 |
| 52° | 5.74 | 6.87 | 7.51 | 7.74 | 7.83 | 7.87 | 8.00 |
| 60° | 6.04 | 7.14 | 7.70 | 7.94 | 8.05 | 8.10 | 8.22 |
| 75° | 6.28 | 7.33 | 7.83 | 8.15 | 8.38 | 8.51 | 8.63 |
| 90° | 6.20 | 7.28 | 7.84 | 8.18 | 8.52 | 8.84 | 9.25 |
| 110° | 6.08 | 7.38 | 8.02 | 8.47 | 8.80 | 9.09 | 9.57 |
| 120° | 5.93 | 7.23 | 7.93 | 8.43 | 8.98 | 9.46 | 10.11 |
| 135° | 5.37 | 6.66 | 7.57 | 8.08 | 8.57 | 9.13 | 10.50 |
| 150° | 4.53 | 5.69 | 6.75 | 7.56 | 8.04 | 8.49 | 9.54 |
| Run VMG | 3.92 | 4.93 | 5.84 | 6.62 | 7.24 | 7.80 | 8.66 |
| Gybe Angles | 142.3° | 147.5° | 149.8° | 155.5° | 168.6° | 180.0° | 180.0° |