

| |
|---|
| BOAT |
| Name VIOLA Sail Nr SWE 1 |

| |
|--------------|
| GPH |
| 565.9 |

| | | | | | |
|-------------------|----------------------|-------------|----------------------------|------|--------------|
| HULL | | | | | |
| Length Overall | 13.135 m | | | | |
| Maximum Beam | 3.944 m | | | | |
| Displacement | 9 584 kg | | | | |
| Draft | 2.565 m | | | | |
| IMS Reg. Division | Cruiser/Racer | | | | |
| Dynamic Allowance | 0.185% | | | | |
| Fwd Accommodation | Yes | | | | |
| Hull Construction | Cored | | | | |
| Carbon Rudder | No | | | | |
| Trim Tab | No | | | | |
| IMS L | 12.569 | VCGD | 0.042 | VCGM | 0.124 |
| Sink | 30.29 kg/mm | Wetted Area | 39.02 m² | | |



2010
ORC International
Certificate

| |
|---|
| GENERAL |
| Class ARCONA 430 |
| Designer STEFAN QVIBERG |
| Builder ARCONA YACHTS |
| Series 05-2009 |
| Age 05-2009 |
| Age Allowance 0.065% |
| Offset File ARCON430.OFF - 2009-05-19 11:10:00 |
| Measurement by M. Lindqvist - 22-04-2009 |

| | | | | | | |
|------------------------|-------------------------|---------------|---------------|--------------------|---------------|---------------|
| SCORING OPTIONS | | | | | | |
| | OFFSHORE | | | INSHORE | | |
| | COASTAL / LONG DISTANCE | | | WINDWARD / LEEWARD | | |
| Time On Distance | 565.9 | | | 634.5 | | |
| Time On Time | 1.0603 | | | 1.0639 | | |
| Performance Line | PLT | PLD | | PLT | PLD | |
| | 0.904 | 88.2 | | 1.073 | 274.6 | |
| Triple Number | Low | Medium | High | Low | Medium | High |
| | 1.0286 | 1.3515 | 1.5340 | 0.7776 | 1.0750 | 1.2586 |

Rating Office
Svenska Seglarförbundet
af Pontins väg 6
115 21 Stockholm

| | | | | | | | |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| TIME ALLOWANCES | | | | | | | |
| Wind Velocity | 6 kt | 8 kt | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
| Beat VMG | 963.7 | 781.7 | 693.9 | 651.3 | 626.3 | 613.6 | 614.5 |
| 52° | 617.9 | 510.8 | 468.2 | 449.5 | 438.3 | 431.2 | 427.6 |
| 60° | 573.9 | 487.8 | 448.8 | 431.8 | 421.9 | 415.6 | 410.4 |
| 75° | 539.8 | 471.7 | 434.8 | 412.1 | 401.1 | 394.4 | 386.9 |
| 90° | 535.4 | 459.9 | 421.9 | 402.4 | 393.4 | 380.5 | 368.6 |
| 110° | 552.2 | 474.8 | 434.9 | 406.6 | 384.2 | 365.9 | 347.4 |
| 120° | 593.9 | 494.3 | 449.0 | 418.7 | 394.3 | 372.3 | 335.3 |
| 135° | 694.8 | 552.8 | 483.4 | 444.9 | 417.8 | 395.9 | 355.1 |
| 150° | 838.7 | 657.0 | 549.1 | 487.3 | 450.0 | 423.3 | 383.0 |
| Run VMG | 968.4 | 758.7 | 634.1 | 556.3 | 503.0 | 465.2 | 414.1 |

| | |
|--------------------|--------------------|
| Certificate | |
| Number | 6173 |
| ORC Ref | SWE00002442 |
| Issued On | 2010-07-06 |
| VPP Ver. | 2010 1.10 |
| Valid until | 2010-12-31 |

| | |
|--------------------|---------------|
| Crew Weight | |
| Declared | 786 kg |
| Default* | 988 kg |
| Non Manual Power | No |

| | |
|------------------------|---------------------|
| Special Scoring | |
| ToD | ToT |
| Double Handed | 568.0 1.0563 |
| Non Spinnaker | 596.3 1.0062 |
| N/S Perf. Line | 55.9 0.805 |

| | | | | | | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Selected Courses | | | | | | | |
| Windward / Leeward | 983.1 | 782.8 | 674.4 | 611.5 | 571.6 | 545.7 | 519.7 |
| Circular Random | 786.7 | 632.1 | 548.6 | 499.6 | 469.2 | 449.3 | 425.5 |
| Ocean for PCS | 842.1 | 661.7 | 560.9 | 499.0 | 458.3 | 429.5 | 389.8 |
| Non Spinnaker | 841.8 | 671.1 | 577.4 | 521.5 | 486.4 | 463.5 | 436.2 |

| | | |
|---|----------|------------|
| Sails Limitations | | |
| Genoa | Jibs | Spinnakers |
| 4 | 3 | 4 |
| Spinnaker configuration Asymmetric-Pole | | |

| | | | | | | | |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 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 | 44.8° | 44.1° | 41.3° | 39.1° | 38.2° | 37.6° | 38.2° |
| Beat VMG | 3.74 | 4.61 | 5.19 | 5.53 | 5.75 | 5.87 | 5.86 |
| 52° | 5.83 | 7.05 | 7.69 | 8.01 | 8.21 | 8.35 | 8.42 |
| 60° | 6.27 | 7.38 | 8.02 | 8.34 | 8.53 | 8.66 | 8.77 |
| 75° | 6.67 | 7.63 | 8.28 | 8.74 | 8.98 | 9.13 | 9.30 |
| 90° | 6.72 | 7.83 | 8.53 | 8.95 | 9.15 | 9.46 | 9.77 |
| 110° | 6.52 | 7.58 | 8.28 | 8.85 | 9.37 | 9.84 | 10.36 |
| 120° | 6.06 | 7.28 | 8.02 | 8.60 | 9.13 | 9.67 | 10.74 |
| 135° | 5.18 | 6.51 | 7.45 | 8.09 | 8.62 | 9.09 | 10.14 |
| 150° | 4.29 | 5.48 | 6.56 | 7.39 | 8.00 | 8.50 | 9.40 |
| Run VMG | 3.72 | 4.75 | 5.68 | 6.47 | 7.16 | 7.74 | 8.69 |
| Gybe Angles | 141.1° | 145.0° | 148.8° | 158.2° | 166.1° | 170.3° | 180.0° |

| | |
|--------------------------|--------------|
| Storm Sails Areas | |
| Heavy Weather Jib | 42.00 |
| Storm Jib (JL=11.47) | 15.56 |
| Storm Trysail | 18.05 |

Owner
STEFAN ENGSTRÖM
NATTVIOLVÄGEN 4
139 35 VÄRMDÖ

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

Signature

| | |
|---|---|
| BOAT | |
| Name VIOLA File 6173.dxt | Sail Nr SWE 1 Data in meters/kilograms |

| | |
|-----------------------------------|---|
| RIG | |
| Forestay Tension Aft | Spreaders 3 |
| Inner Forestay None Fitted | Runners 0 |
| Carbon Mast No | Jumpers None |
| Taper Hollows No | Jib Furler No |
| Fiber Rigging No | w/o Backstay No |
| P 17.205 | E 5.995 MDT1 0.130 TL 3.190 |
| IG 17.700 | J 4.913 MDL1 0.263 MWT 330.00 |
| ISP 17.795 | SFJ 0.273 MDT2 0.136 MCG 6.550 |
| SPS | SPL 5.050 MDL2 0.190 CPW 2.600 |
| BAS 1.760 | TPS MW 0.263 BD 0.200 |
| BAL 0.152 | FSP 0.070 GO 0.246 BWT |

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

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

| | | | |
|---|------------------|--------------------|----------------------|
| INCLINING TEST AND FREEBOARDS | | | |
| Inclining Test Current Inclining | | | |
| Flotation date 22-04-2009 | | SG 1.0050 | |
| FFM 1.458 | FF 1.466 | SFFP 0.112 | |
| FAM 1.131 | FA 1.137 | SAFP 12.415 | |
| W1 27.400 | PD1 97.0 | WD 13.460 | |
| W2 61.100 | PD2 219.3 | GSA 1.0 | |
| W3 91.600 | PD3 328.9 | RSA 1.0 | |
| W4 125.20 | PD4 451.1 | PLM 9000.0 | |
| Maximum beam station from stern | | | 8.610 |
| RM Measured / Default | | | 293.0 / 305.8 |
| Limit of positive stability | | | 109.7° |
| Stability Index | | | 115.6 |
| Freeboard at mast at 5.186 | | | 1.254 |

| | | | |
|---------------------------------|--------------------|------------------|--|
| PROPELLER | | | |
| Installation Strut | PRD 0.460 | | |
| Type Feathering 3 blades | PBW 0.128 | | |
| Twin Screw No | PIPA 0.0031 | | |
| ST1 0.042 | ST3 0.180 | ST5 0.352 | |
| ST2 0.180 | ST4 0.094 | EDL 3.472 | |

| | |
|----------------------|--|
| WATER BALLAST | |
| N/A | |

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




World Leader in Rating Technology

2010
IMS Measurement
Certificate

Certificate

Number **6173**
ORC Ref **SWE00002442**
Issued On **2010-07-06**
VPP Ver. **2010 1.10**
Valid until **2010-12-31**



| SAILS (Maximum Areas) | | | | | | | | | | |
|------------------------------|-------|-------|-------|------|------|-------|-------|----------|--|-------------------------|
| Mainsail | HB | MGT | MGU | MGM | MGL | MSW | Area | Area (r) | Formula | |
| | 0.160 | 1.15 | 2.15 | 3.77 | 5.01 | 42.30 | 60.24 | 61.31 | P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB) | |
| Jib/Genoa | JH | JGT | JGU | JGM | JGL | JL | LPG | | | |
| | 0.05 | 0.96 | 1.87 | 3.70 | 5.52 | 17.50 | 7.34 | 64.62 | 0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH) | |
| Symmetric | SL | SMG | SF | | | | | | | |
| | 17.50 | 9.36 | 9.00 | | | | | 135.45 | SL · (SF + 4·SMG) / 6 | |
| Asymmetric | SLU | SLE | ASL | AMG | ASF | | | | | |
| | 17.90 | 16.10 | 17.00 | 6.38 | 8.40 | | | 96.11 | 101.19 | ASL · (ASF + 4·AMG) / 6 |

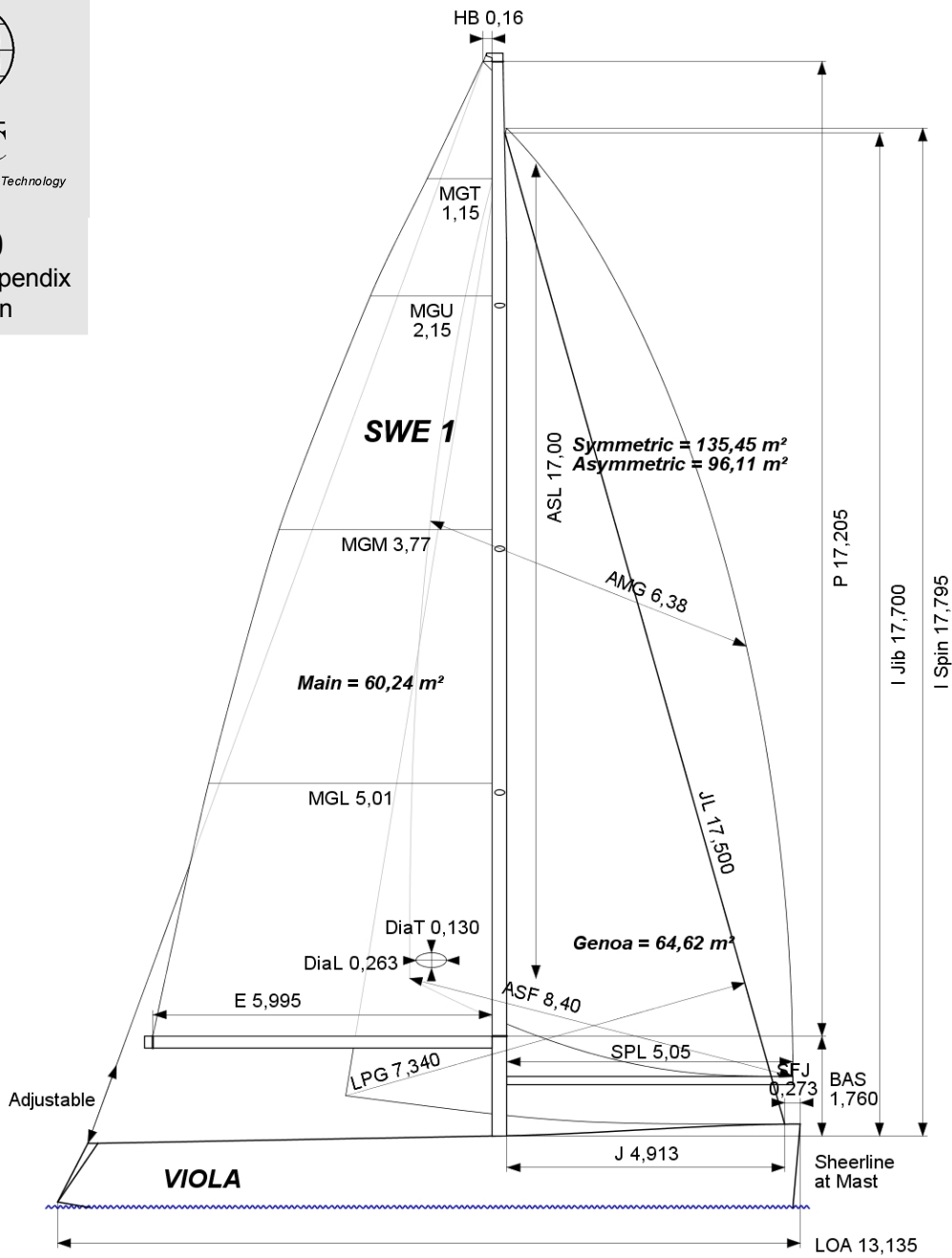
| MEASUREMENT INVENTORY | | | |
|---------------------------------------|-----------|--------------|---------------------|
| Measurer MIKAEL LINDQVIST 1121 | | | |
| Date | | | |
| Comment | | | |
| Id | Item | Weight | Distanc Description |
| A1 | Anchor | 20.5 | 6.30 BRUCE + CHAIN |
| A2 | Anchor | 23.0 | 6.30 BRUCE |
| TO | Tools | 10.0 | 6.30 |
| Id | Item | Maker | Model |
| E | Engine | YANMAR 54 hk | 4jh4AE |
| Id | Item | Weight | Description |
| DG | Deck Gear | 11.0 | |

| MEASUREMENT INVENTORY | | | | | | |
|------------------------------|-------------|----------|-----------|-------------|-------|-------------------|
| Id | Item | Tank Use | Tank Type | Capct | Dist. | Condt Description |
| T1 | Liquid Tank | WATER | SS | 285.0 | 6.30 | 0.0 |
| T2 | Liquid Tank | FUEL | SS | 165.0 | 6.30 | 165.0 |
| T3 | Liquid Tank | HOLDING | SS | 58.0 | 8.10 | 0.0 |
| T4 | Liquid Tank | HOLDING | SS | 53.0 | 4.60 | 0.0 |
| Id | Item | Weight | Distanc | Description | | |
| B2 | Battery | | 10.20 | 1 * 75 Ah | | |
| B1 | Battery | | 10.20 | 3 * 110 Ah | | |



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2010
Certificate Appendix
Sail Plan



SAILS INVENTORY

MANSAIL

| Id | HB | MGT | MGU | MGM | MGL | MSW | Area | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|-------|------|------|------|------|-------|-------|----------|-----------|-------------|----------|---------|
| 1 | 0.160 | 1.15 | 2.15 | 3.77 | 5.01 | 42.30 | 60.24 | | | | Unknown | |

JIBS / GENOAS

| Id | JH | JGT | JGU | JGM | JGL | LPG | JL | Overlp | Area | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|------|-----|-----|-----|-----|------|-------|--------|-------|----------|-----------|-------------|----------|---------|
| 1 | 0.05 | | | | | 7.34 | 17.50 | 149% | 64.28 | | | | Unknown | |

SYMMETRIC SPINNAKERS

| Id | SL | SMG | SF | Area | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|-------|------|------|--------|----------|-----------|-------------|----------|---------|
| 1 | 17.50 | 9.36 | 9.00 | 135.45 | | | | Unknown | |

ASYMMETRIC SPINNAKERS

| Id | SLU | SLE | ASL | AMG | ASF | Area | Kind | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|-------|-------|-------|------|------|-------|------|----------|-----------|-------------|----------|---------|
| 1 | 17.90 | 16.10 | 17.00 | 6.38 | 8.40 | 96.11 | asym | | | | Unknown | |