

| | | |
|--|----------------------------|---|
| BOAT Name BLUE SHARK Sail Nr GRE-1961 | GPH 609.2 | HULL Length Overall 9.550m Maximum Beam 2.964m Displacement 2,809kg Draft 2.084m IMS Reg. Division Performance Dynamic Allowance 0.162% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension |
| GENERAL Class GRAND SURPRISE Designer JOUBERT/NIVELT Builder ARCHAMBAULT Series 10/1999 Age 01/2009 Age Allowance 0.487% Offset File H00301.off - 27/06/2000 10:18:42 Measurement by - 09/04/2009 | | IMSL 9.350m VCGD -0.224m Sink 14.69kg/mm RL 9.069m VCGM -0.188m WS 18.96m² LSM0 9.398m Displacement/Length ratio 3.3841 |



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| SCORING OPTIONS | | | | | | |
|------------------------|--------------------------------|---------------|---------------|---------------------------|---------------|---------------|
| | COASTAL / LONG DISTANCE | | | WINDWARD / LEEWARD | | |
| Time on Distance | 591.9 | | | 666.2 | | |
| Time on Time | 1.0137 | | | 1.0131 | | |
| Triple Number | Low | Medium | High | Low | Medium | High |
| Time on Distance | 693.6 | 541.6 | 478.5 | 895.1 | 666.6 | 584.4 |
| Time on Time | 0.9732 | 1.2464 | 1.4107 | 0.7541 | 1.0126 | 1.1551 |

| TIME ALLOWANCES | | | | | | | |
|------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Wind Velocity | 6 kt | 8 kt | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
| Beat VMG | 1032.0 | 848.1 | 743.1 | 701.2 | 686.0 | 679.4 | 664.8 |
| 52° | 677.0 | 568.7 | 523.9 | 505.9 | 498.1 | 493.9 | 484.7 |
| 60° | 640.5 | 547.0 | 512.1 | 493.0 | 482.2 | 476.2 | 467.1 |
| 75° | 615.2 | 532.4 | 502.2 | 478.6 | 457.7 | 445.0 | 434.8 |
| 90° | 607.6 | 519.3 | 493.1 | 475.0 | 449.3 | 425.6 | 396.9 |
| 110° | 599.1 | 512.0 | 474.5 | 443.3 | 424.0 | 409.2 | 377.5 |
| 120° | 616.8 | 518.9 | 479.8 | 441.0 | 406.8 | 384.6 | 353.1 |
| 135° | 691.2 | 556.9 | 502.6 | 467.0 | 428.6 | 390.3 | 319.5 |
| 150° | 819.9 | 652.7 | 553.7 | 507.9 | 482.0 | 452.8 | 375.1 |
| Run VMG | 946.7 | 753.6 | 639.4 | 585.7 | 553.5 | 512.9 | 433.2 |

Certificate
Number **000331**
ORC Ref **GRE01015372**
Issued On **09/04/2019**
VPP Ver. **2019 1.01**
Valid until **28/02/2020**

Crew Weight
Default **630kg**
Maximum **630kg**
Minimum* **473kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **654.0 0.9174**
Non Spin OSN **633.4 0.9473**

| Selected Courses | | | | | | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Windward / Leeward | 989.4 | 800.8 | 691.2 | 643.5 | 619.8 | 596.2 | 549.0 |
| Circular Random | 835.2 | 676.1 | 591.5 | 542.2 | 510.7 | 487.8 | 451.6 |
| Coastal / Long Distance | 985.1 | 752.6 | 627.5 | 562.0 | 524.7 | 491.1 | 431.8 |
| Non Spinnaker | 919.1 | 734.2 | 633.5 | 573.8 | 536.0 | 510.1 | 474.0 |

Sails Limitations
Headsails **5** | Spinnakers **3**

| 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 | 42.4° | 40.8° | 39.0° | 37.0° | 36.3° | 36.0° | 36.2° |
| Beat VMG | 3.49 | 4.24 | 4.84 | 5.13 | 5.25 | 5.30 | 5.42 |
| 52° | 5.32 | 6.33 | 6.87 | 7.12 | 7.23 | 7.29 | 7.43 |
| 60° | 5.62 | 6.58 | 7.03 | 7.30 | 7.47 | 7.56 | 7.71 |
| 75° | 5.85 | 6.76 | 7.17 | 7.52 | 7.87 | 8.09 | 8.28 |
| 90° | 5.92 | 6.93 | 7.30 | 7.58 | 8.01 | 8.46 | 9.07 |
| 110° | 6.01 | 7.03 | 7.59 | 8.12 | 8.49 | 8.80 | 9.54 |
| 120° | 5.84 | 6.94 | 7.50 | 8.16 | 8.85 | 9.36 | 10.19 |
| 135° | 5.21 | 6.46 | 7.16 | 7.71 | 8.40 | 9.22 | 11.27 |
| 150° | 4.39 | 5.52 | 6.50 | 7.09 | 7.47 | 7.95 | 9.60 |
| Run VMG | 3.80 | 4.78 | 5.63 | 6.15 | 6.50 | 7.02 | 8.31 |
| Gybe Angles | 143.5° | 146.8° | 149.1° | 151.1° | 174.2° | 177.1° | 142.2° |

Class Division Length
CDL = **9.210**

Storm Sails Areas
Heavy Weather Jib **21.00**
Storm Jib (JL=8.11) **7.78**
Storm Trysail **9.36**

Owner

| | |
|------------------------|---------------------------------|
| BOAT | |
| Name BLUE SHARK | Sail Nr GRE-1961 |
| File GR1961 | Data in meters/kilograms |

| | | | |
|--|------------------|-----------------------|--|
| INCLINING TEST AND FREEBOARDS | | | |
| Inclining Test Current Inclining | | | |
| Flotation date 08/04/2009 | | SG 1.0270 | |
| FFM 0.949 | FF 0.957 | SFFP 0.230 | |
| FAM 0.703 | FA 0.703 | SAFP 9.178 | |
| W1 56.1 | PD1 261.0 | WD 9.190 | |
| W2 56.1 | PD2 261.0 | GSA 41.9 | |
| W3 56.1 | PD3 261.0 | RSA 6082.1 | |
| W4 56.1 | PD4 261.0 | PLM 2110.0 | |
| LCF from stem on CL / on sheer | | 5.312 / 5.509 | |
| Maximum beam station from stem | | 5.905 | |
| RM Measured | | 72.4kg·m | |
| RM Default | | 67.2kg·m | |
| Limit of positive stability / Stab.Index | | 115.6° / 112.8 | |
| Freeboard at mast at 3.555 | | 0.776 | |



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|--------------------------------|----------------------------|-------------------|-----------------|--|
| RIG | | | | |
| Forestay Tension Aft | Spreaders 2 | | | |
| 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 12.195 | E 4.385 | MDT1 0.106 | MW 0.161 | |
| IG 12.463 | J 3.423 | MDL1 0.161 | GO 0.163 | |
| ISP 13.533 | SFJ 0.132 | MDT2 0.072 | BD 0.146 | |
| BAS 1.333 | SPL | MDL2 0.130 | MWT | |
| FSP 0.054 | TPS 4.925 | TL 0.350 | MCG | |

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

| | | | |
|-----------------------------------|--------------------|------------------|------------------|
| PROPELLER | | | |
| Installation Shaft exposed | PRD 0.380 | | |
| Type Folding 2 blades | PBW 0.101 | | |
| Twin Screw No | PIPA 0.0040 | | |
| PSA 16.386 | PHL 0.114 | ST3 0.086 | ESL 0.805 |
| PSD 0.025 | ST1 0.017 | ST4 0.048 | |
| PHD 0.068 | ST2 0.077 | ST5 0.170 | |

| | |
|-------------------------------|--|
| Certificate | |
| Number 000331 | |
| ORC Ref GRE01015372 | |
| Issued On 09/04/2019 | |
| VPP Ver. 2019 1.01 | |
| Valid until 28/02/2020 | |

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

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

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



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| | | | | | | | | | |
|------------------------------|-------|-------|-------|------|------|-------|------------------------|--|--|
| SAILS (Maximum Areas) | | | | | | | | | |
| Mainsail | MHB | MUW | MTW | MHW | MQW | Area | Area (r) | Formula | |
| | 0.170 | 0.90 | 1.66 | 2.82 | 3.68 | 31.80 | 32.47 | P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB) | |
| Symmetric Not Available | | | | | | | | | |
| Asymmetric on centerline | SLU | SLE | SL | SHW | SFL | Area | Formula | | |
| | 15.07 | 12.76 | 13.91 | 7.78 | 7.95 | 90.61 | AS · (SFL + 4·SHW) / 6 | | |

| | | | | | | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------------|-----------------|----------------|
| HEADSAILS | | | | | | | | | | | | |
| 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 |
| 0.09 | 0.54 | 1.01 | 1.88 | 2.72 | 3.56 | 12.22 | 22.61 | Y | | 18/02/2019 | Carbon | No 2 |
| 0.10 | 0.55 | 1.01 | 1.89 | 2.75 | 3.55 | 11.98 | 22.27 | Y | N | 17/03/2019 | Kevlar | |
| 0.10 | 0.45 | 0.83 | 1.60 | 2.39 | 3.14 | 11.51 | 18.47 | | | 09/04/2009 | Kevlar | No 3 |
| | | | | | 2.87 | 10.65 | 15.56 | | | 09/04/2009 | Dacron | No 4 (HW jib) |

| | | | | |
|------------------------------|-------------|---------------------------|-----------------|------------------------|
| MEASUREMENT INVENTORY | | | | |
| Measurer GRE-21 | | | | |
| Date 08/04/2009 | | | | |
| Comment | | | | |
| Id | Item | Weight | Distance | VCG Description |
| 4 | Anchor | 11.0 | 4.20 | DELTA |
| 2 | Anchor | 4.0 | 4.20 | DANFORTH |
| 4 | Chain | 15.0 | 4.20 | 8mm, 10m |
| 2 | Chain | 15.0 | 4.20 | 8mm, 10m |
| 4 | Tools | 10.0 | 4.40 | |
| Id | Item | Maker | Model | |
| 1 | Engine | NANNI | 2.14 (14 HP) | |
| Id | Item | Weight Description | | |

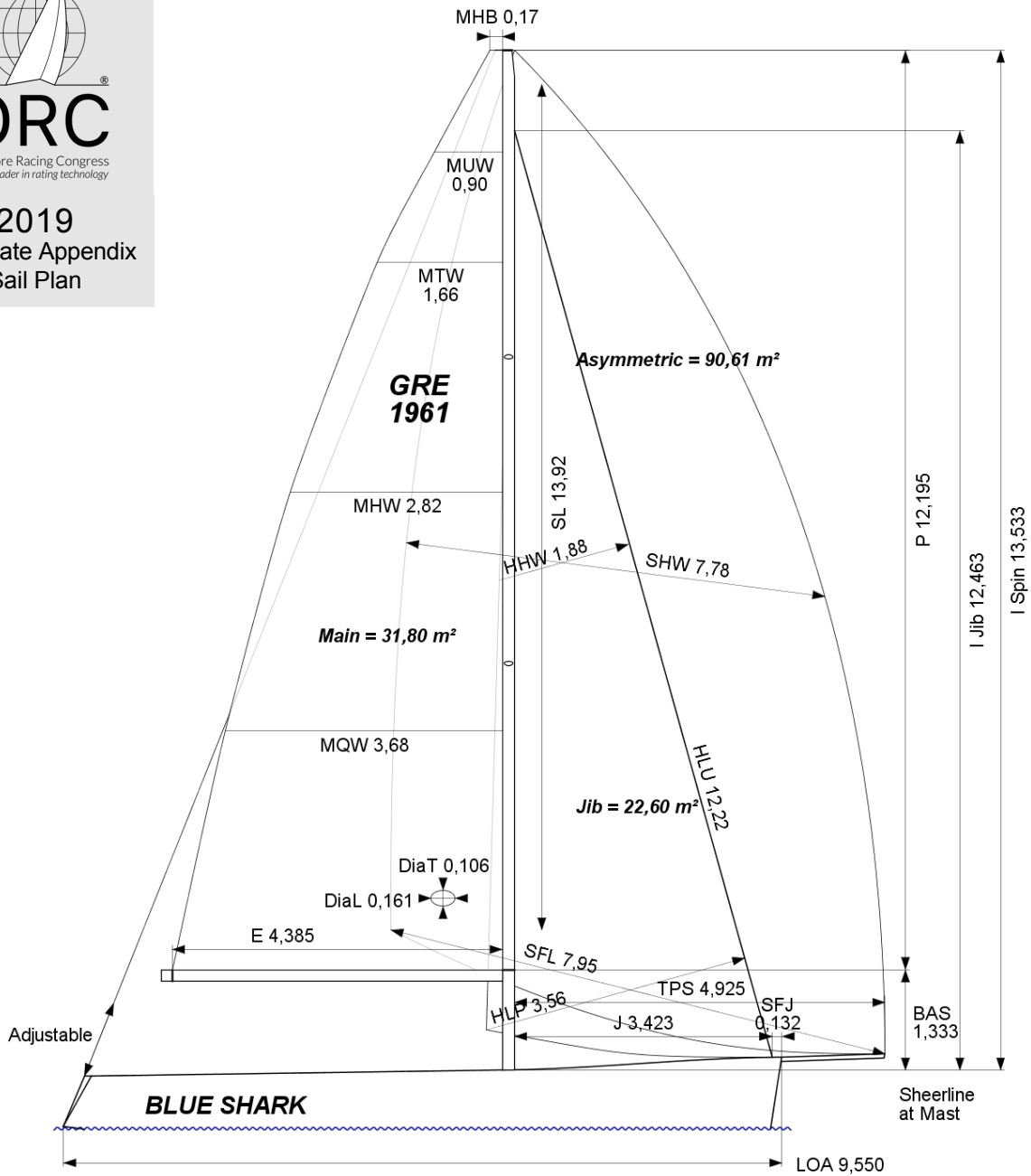
| | | | | | | | |
|------------------------------|-------------|-----------------|------------------|------------------------|--------------|------------|---------------------------|
| MEASUREMENT INVENTORY | | | | | | | |
| Id | Item | Tank Use | Tank Type | Capcty | Dist. | VCG | Condtn Description |
| 1 | Tank | FUEL | PVC hard | 30.0 | 7.70 | | 0-0 |
| 2 | Tank | WATER | PVC soft | 40.0 | 3.40 | | 0-0 |
| Id | Item | Weight | Distance | VCG Description | | | |
| 1 | Battery | 30.0 | 4.90 | 70 Ah | | | |
| 2 | Battery | 24.5 | 4.90 | 50 Ah | | | |



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

| Id | MHB | MUW | MTW | MHW | MQW | Area | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|------|------|------|------|------|-------|----------|------------|-------------|----------|---------|
| 1 | 0.17 | 0.90 | 1.66 | 2.82 | 3.68 | 31.80 | | 18/02/2019 | QUANTUM | Carbon | |

| Id | HHB | HUW | HTW | HHW | HQW | HLP | HLU | Ovrlp | Area | Btn | Fly | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|------|------|------|------|------|------|-------|-------|-------|-----|-----|----------|------------|-------------|----------|---------------|
| 1 | 0.09 | 0.54 | 1.01 | 1.88 | 2.72 | 3.56 | 12.22 | 104% | 22.61 | Y | | | 18/02/2019 | QUANTUM | Carbon | No 2 |
| 2 | 0.10 | 0.55 | 1.01 | 1.89 | 2.75 | 3.55 | 11.98 | 104% | 22.27 | Y | N | | 17/03/2019 | QUANTUM | Kevlar | |
| 3 | 0.10 | 0.45 | 0.83 | 1.60 | 2.39 | 3.14 | 11.51 | 92% | 18.47 | | | | 09/04/2009 | QUANTUM | Kevlar | No 3 |
| 4 | | | | | | 2.87 | 10.65 | 84% | 15.56 | | | | 09/04/2009 | QUANTUM | Dacron | No 4 (HW jib) |

SYMMETRIC SPINNAKERS (0)

| Id | SLU | SLE | SL | SHW | SFL | Area | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|-----|-----|----|-----|-----|------|----------|-----------|-------------|----------|---------|
|----|-----|-----|----|-----|-----|------|----------|-----------|-------------|----------|---------|

ASYMMETRIC SPINNAKERS (2)

| Id | SLU | SLE | SL | SHW | SFL | Area | Kind | Measurer | Meas.Date | Manufacture | Material | Comment |
|----|-------|-------|-------|------|------|-------|------|----------|------------|-------------|----------|---------|
| 2 | 15.07 | 12.76 | 13.91 | 7.78 | 7.95 | 90.61 | asym | | 03/04/2018 | QUANTUM | Nylon | 0.9 |
| 1 | 15.12 | 12.96 | 14.04 | 7.51 | 8.41 | 89.98 | asym | | 03/04/2018 | QUANTUM | Nylon | 0.5 |