

| | | |
|---|----------------------------|---|
| BOAT Name ARTEMIS Sail Nr USA 21 | GPH 546.7 | HULL Length Overall 13.980m Maximum Beam 4.272m Displacement 10,913kg Draft 2.569m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.057% Hull Construction Cored Carbon Rudder No Crew Arm Extension IMSL 12.951m VCGD 0.053m Sink 30.09kg/mm RL 10.768m VCGM 0.073m WS 40.78m² LSM0 12.852m Displacement/Length ratio 5.1408 |
| GENERAL Class Italia 13.98 Designer COSSUTTI Builder BARUFFALDI Series 07/2012 Age 06/2019 Age Allowance 0.260% Offset File IY1398.OFF - 29/03/2013 16:57:12 Measurement by - 20/12/2019 | | |



2020
ORC International
Certificate

Rating Office

Offshore
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| SCORING OPTIONS | | | | | | |
|------------------------|--------------------------------|---------------|---------------|---------------------------|---------------|---------------|
| | COASTAL / LONG DISTANCE | | | WINDWARD / LEEWARD | | |
| Time on Distance | 534.1 | | | 603.6 | | |
| Time on Time | 1.1235 | | | 1.1182 | | |
| Triple Number | Low | Medium | High | Low | Medium | High |
| Time on Distance | 621.9 | 484.7 | 436.9 | 812.7 | 604.4 | 533.6 |
| Time on Time | 1.0853 | 1.3926 | 1.5451 | 0.8306 | 1.1169 | 1.2651 |

| TIME ALLOWANCES | | | | | | | |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Wind Velocity | 6 kt | 8 kt | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
| Beat VMG | 926.6 | 760.5 | 678.1 | 643.5 | 628.0 | 620.4 | 604.4 |
| 52° | 603.3 | 505.3 | 459.2 | 443.5 | 437.0 | 433.8 | 426.5 |
| 60° | 568.1 | 481.1 | 444.4 | 430.2 | 424.3 | 421.1 | 415.7 |
| 75° | 535.0 | 459.0 | 433.7 | 418.5 | 408.6 | 402.9 | 397.5 |
| 90° | 515.6 | 445.1 | 420.2 | 407.1 | 398.3 | 388.8 | 372.7 |
| 110° | 532.3 | 451.8 | 421.2 | 401.0 | 381.5 | 365.0 | 344.4 |
| 120° | 562.1 | 464.8 | 425.1 | 402.4 | 380.7 | 365.7 | 332.9 |
| 135° | 633.3 | 507.7 | 444.7 | 417.1 | 395.0 | 371.7 | 326.7 |
| 150° | 753.9 | 600.3 | 505.5 | 449.8 | 425.4 | 408.4 | 372.3 |
| Run VMG | 870.5 | 693.2 | 583.6 | 519.4 | 489.5 | 461.6 | 414.3 |

Certificate
Number **US6509**
ORC Ref **0341000QPW**
Issued On **21/09/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default **985kg**
Maximum **985kg**
Minimum* **739kg**
**when applied by the NoR and SI*
Non Manual Pwr **Sheets**

Special Scoring
ToD ToT
Non Spin GPH **582.7 1.0297**
Non Spin OSN **568.5 1.0554**

| Selected Courses | | | | | | | |
|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Windward / Leeward | 898.5 | 726.8 | 630.9 | 581.4 | 558.7 | 541.0 | 509.3 |
| Circular Random | 748.8 | 605.8 | 530.3 | 487.5 | 461.6 | 444.3 | 419.8 |
| Coastal / Long Distance | 895.7 | 681.0 | 566.8 | 504.0 | 472.7 | 447.2 | 400.8 |
| Non Spinnaker | 815.3 | 652.8 | 564.5 | 512.7 | 480.4 | 459.0 | 431.4 |

Sails Limitations
Headsails **7** Spinnakers **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 | 43.5° | 41.6° | 40.9° | 40.1° | 39.4° | 39.2° | 38.6° |
| Beat VMG | 3.89 | 4.73 | 5.31 | 5.59 | 5.73 | 5.80 | 5.96 |
| 52° | 5.97 | 7.12 | 7.84 | 8.12 | 8.24 | 8.30 | 8.44 |
| 60° | 6.34 | 7.48 | 8.10 | 8.37 | 8.48 | 8.55 | 8.66 |
| 75° | 6.73 | 7.84 | 8.30 | 8.60 | 8.81 | 8.93 | 9.06 |
| 90° | 6.98 | 8.09 | 8.57 | 8.84 | 9.04 | 9.26 | 9.66 |
| 110° | 6.76 | 7.97 | 8.55 | 8.98 | 9.44 | 9.86 | 10.45 |
| 120° | 6.40 | 7.75 | 8.47 | 8.95 | 9.46 | 9.84 | 10.81 |
| 135° | 5.68 | 7.09 | 8.09 | 8.63 | 9.11 | 9.69 | 11.02 |
| 150° | 4.78 | 6.00 | 7.12 | 8.00 | 8.46 | 8.81 | 9.67 |
| Run VMG | 4.14 | 5.19 | 6.17 | 6.93 | 7.35 | 7.80 | 8.69 |
| Gybe Angles | 143.0° | 146.0° | 147.0° | 150.5° | 151.8° | 175.0° | 178.0° |

Class Division Length
CDL = **11.856**

Storm Sails Areas
Heavy Weather Jib **44.98**
Storm Jib (JL=11.87) **16.66**
Storm Trysail **20.41**

Owner

| | |
|---------------------|---------------------------------|
| BOAT | |
| Name ARTEMIS | Sail Nr USA 21 |
| File US6509 | Data in meters/kilograms |

| | | |
|--|------------------|-----------------------|
| INCLINING TEST AND FREEBOARDS | | |
| Inclining Test Boom Inclining | LCFD | 7.654 |
| Flotation date 20/12/2019 | SG | 1.0090 |
| FFM 1.318 | FF 1.327 | SFFP 0.777 |
| FAM 1.025 | FA 1.040 | SAFP 13.214 |
| W1 127.6 | PD1 235.7 | WD 6.118 |
| W2 127.6 | PD2 236.0 | GSA 1.0 |
| W3 127.6 | PD3 237.1 | RSA 1.0 |
| W4 127.6 | PD4 237.7 | PLM 9000.0 |
| LCF from stem on CL / on sheer | | 7.738 / 8.006 |
| Maximum beam station from stem | | 9.397 |
| RM Measured | | 259.8kg-m |
| RM Default | | 293.0kg-m |
| Limit of positive stability / Stab.Index | | 118.8° / 124.2 |
| Freeboard at mast at 5.630 | | 1.424 |



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| | | | |
|--------------------------------|-----------------------------|-------------------|-----------------|
| RIG | | | |
| Forestay Tension Aft | Spreaders 2 | | |
| Inner Stay None Fitted | Runners/Checkstays 0 | | |
| Carbon Mast No | Jib Furler No | | |
| Fiber Rigging No | Main Furler No | | |
| Non-Circular Rigging No | | | |
| Articulated Bowsprit No | | | |
| P 18.135 | E 6.430 | MDT1 0.145 | MW 0.280 |
| IG 18.185 | J 5.365 | MDL1 0.285 | GO 0.300 |
| ISP 19.805 | SFJ 0.265 | MDT2 0.145 | BD 0.200 |
| BAS 1.770 | SPL 0.000 | MDL2 0.217 | MWT |
| FSD 0.040 | TPS 5.570 | TL 0.800 | MCG |

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

| | | |
|------------------------------|--------------------|------------------|
| PROPELLER | | |
| Installation Strut | PRD 0.457 | |
| Type Folding 3 blades | PBW 0.135 | |
| Twin Screw No | PIPA 0.0039 | |
| ST1 0.065 | ST3 0.180 | ST5 0.220 |
| ST2 0.180 | ST4 0.110 | EDL 2.990 |

| | |
|-------------------------------|--|
| Certificate | |
| Number US6509 | |
| ORC Ref 03410000QPW | |
| Issued On 21/09/2020 | |
| VPP Ver. 2020 1.02 | |
| Valid until 31/12/2020 | |

| | |
|-----------------|--|
| 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 | |
| | 0.16 | 1.26 | 2.28 | 3.98 | 5.32 | 67.53 | 68.72 | 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 | | |
| | 21.24 | 19.32 | 20.28 | 10.96 | 10.89 | 184.99 | 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 | Flying | Meas.Date | Material | Comment |
| 0.10 | 1.00 | 1.84 | 3.32 | 4.80 | 5.80 | 18.54 | 59.30 | Y | No | 04/02/2020 | Unknow | |

| | | | | |
|------------------------------|-------------------------------------|---------------------------|-----------------|------------------------|
| MEASUREMENT INVENTORY | | | | |
| Measurer | Date 20/12/2019 | | | |
| Comment | Internal Ballast total = 0.0 | | | |
| <i>Id</i> | <i>Item</i> | <i>Weight</i> | <i>Distance</i> | <i>VCG Description</i> |
| Feels | | | | |
| <i>Id</i> | <i>Item</i> | <i>Maker</i> | <i>Model</i> | |
| 1 | Engine | Volvo 4 cyl 55 hp | D2-50 | |
| <i>Id</i> | <i>Item</i> | <i>Weight Description</i> | | |

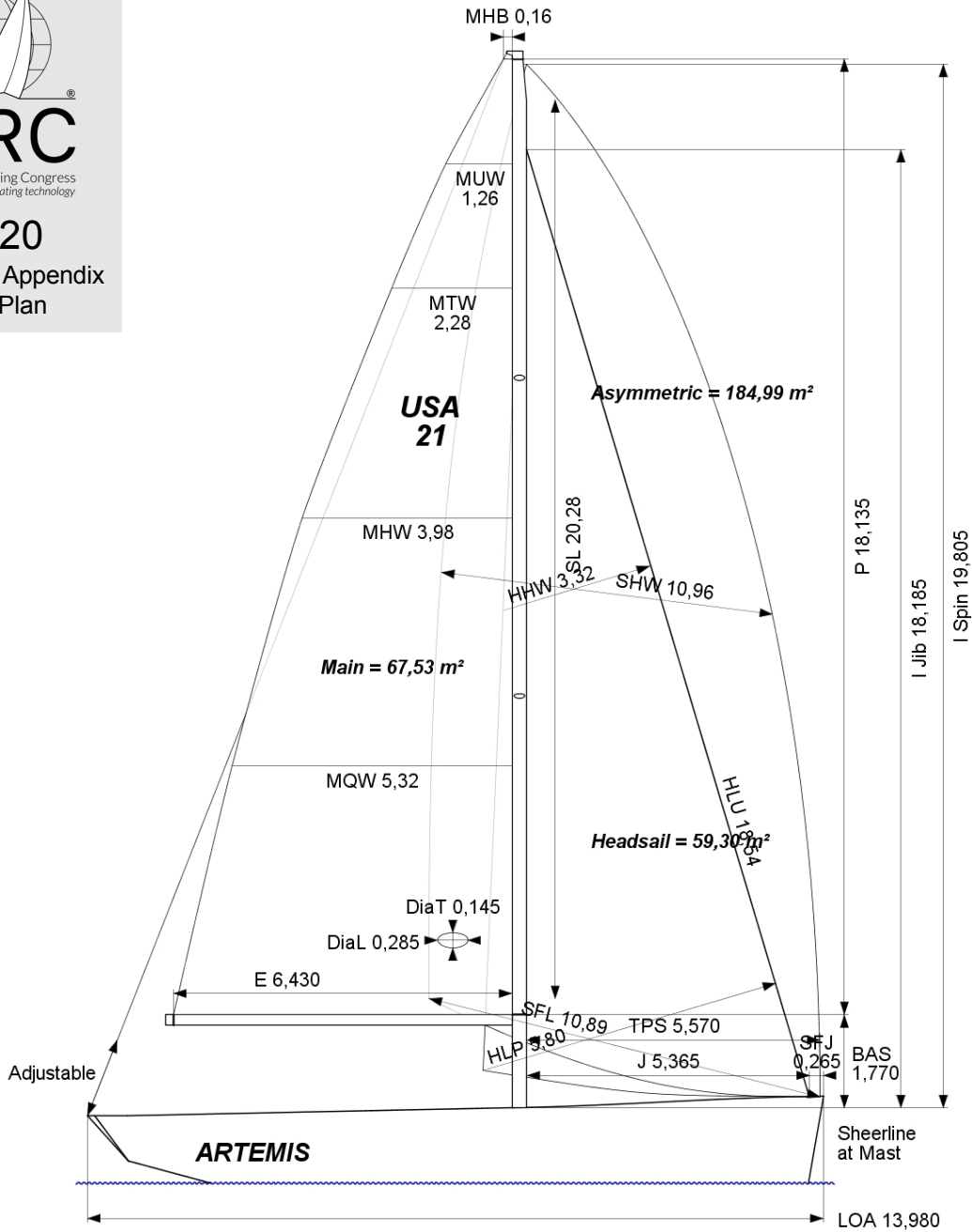
| | | | | | | | | |
|------------------------------|-------------|-----------------|------------------|------------------------|--------------------------------------|------------|---------------|--------------------|
| MEASUREMENT INVENTORY | | | | | | | | |
| <i>Id</i> | <i>Item</i> | <i>Tank Use</i> | <i>Tank Type</i> | <i>Capcty</i> | <i>Dist.</i> | <i>VCG</i> | <i>Condtn</i> | <i>Description</i> |
| 5 | Tank | Waste | PVC | 42.0 | 9.90 | 0.00 | 0-0 | Port side |
| 4 | Tank | Waste | PVC | 42.0 | 4.80 | 0.00 | 0-0 | Stbd side |
| 3 | Tank | Water | Alum | 200.0 | 6.40 | 0.00 | 0-0 | Stbd side |
| 2 | Tank | Water | Alum | 255.0 | 12.40 | 0.00 | 0-0 | Port side |
| 1 | Tank | Fuel | Alum | 250.0 | 8.60 | 0.00 | 224-0 | Stbd side |
| <i>Id</i> | <i>Item</i> | <i>Weight</i> | <i>Distance</i> | <i>VCG Description</i> | | | | |
| 2 | Battery | 20.0 | 6.40 | 0.00 | 12V 90 Ah group 27 engine battery | | | |
| 1 | Battery | 60.0 | 6.40 | 0.00 | 2 x House 130 Ah 12V AGM31 port side | | | |



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Sail Plan



SAILS INVENTORY

| MAINSAIL (1) | | | | | | | | | | | | | | | | |
|---------------------------|-------|-------|-------|-------|-------|--------|----------|------------|-------------|-------------|----------|----------|------------|-------------|----------|---------|
| Id | MHB | MUW | MTW | MHW | MQW | Area | Measurer | Meas.Date | Manufacture | Material | Comment | | | | | |
| 1 | 0.16 | 1.26 | 2.28 | 3.98 | 5.32 | 67.54 | | 04/02/2020 | Quantum | Carbon | | | | | | |
| HEADSAILS (1) | | | | | | | | | | | | | | | | |
| Id | HHB | HUW | HTW | HHW | HQW | HLP | HLU | Ovrlp | Area | Btn | Flying | Measurer | Meas.Date | Manufacture | Material | Comment |
| 1 | 0.10 | 1.00 | 1.84 | 3.32 | 4.80 | 5.80 | 18.54 | 108% | 59.30 | Y | No | | 04/02/2020 | Quantum | Unknown | |
| 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 | | | | |
| A2 | 21.24 | 19.32 | 20.28 | 10.96 | 10.89 | 184.99 | asym | | 04/02/2020 | Quantum | Unknown | | | | | |
| A0 | 19.93 | 19.32 | 19.63 | 7.51 | 9.99 | 130.94 | asy76 | | 10/02/2020 | Quantum | Unknown | | | | | |