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# STONEWAYS VPRS

# Rating Certificate

| Yacht            | Vesper IV | Rig                | Berm     | udian Sloop |
|------------------|-----------|--------------------|----------|-------------|
| Sail number      | BRA2447   | Design             | Soto S40 |             |
| TCC              | 1.190     | Series / built     | 2008     |             |
| No spinnaker TCC | 1.133     | Default crew limit | 10       | people      |

#### **Performance indicators**

| Mainsail area        | <b>58.96</b> m <sup>2</sup>  | Sailing weight             | 5337  | kg                    |
|----------------------|------------------------------|----------------------------|-------|-----------------------|
| Mizzen area          | m²                           | Displacement / length      | 81    | (sailing weight)      |
| Upwind headsail area | <b>40.56</b> m <sup>2</sup>  | Sail area / wetted surface | 3.55  | (main + u/w headsail) |
| D/wind headsail area | <b>182.82</b> m <sup>2</sup> | Sail area / displacement   | 33.11 | (main + u/w headsail) |

| II                   |   |   |  | source   |
|----------------------|---|---|--|--|
| Hull Length          | LH  | 12.30   | m  | D  |
| Bow overhang         | ВО  | 0.07  | m  | D  |
| Stern overhang       | so  | 0.24  | m  | D  |
| Waterline length     | LWL   | 11.99   | m  | С  |
| Stern height         | Y   | 0.04  | m  | D  |
| Beam                 | MB  | 3.80  | m  | D  |
| Topside overhang     | TSO   | 0.61  | m  | D  |
| Freeboard at mast    | FBI   | 1.20  | m  | D  |
| Draught              | Τ   | 2.61  | m  | D  |
| Empty weight         | EW  | 4290  | kg   | D  |
| Fixed ballast weight | KW  | 2180  | kg   | P  |
| Moveable ballast     |   | None  |  |  |
|                      | Hull Length Bow overhang Stern overhang Waterline length Stern height Beam Topside overhang Freeboard at mast Draught Empty weight Fixed ballast weight | Hull Length  Bow overhang  Stern overhang  Waterline length  Stern height  Y  Beam  Topside overhang  Treeboard at mast  Draught  Empty weight  Fixed ballast weight  LWL  Y  BO  LWL  Y  EMPT  LWL  Y  BEAM  LWL  FWL  FWL  FWL  FWL  FWL  FWL  FW | Hull Length         LH         12.30           Bow overhang         BO         0.07           Stern overhang         SO         0.24           Waterline length         LWL         11.99           Stern height         Y         0.04           Beam         MB         3.80           Topside overhang         TSO         0.61           Freeboard at mast         FBI         1.20           Draught         T         2.61           Empty weight         EW         4290           Fixed ballast weight         KW         2180 | Hull Length         LH         12.30 m           Bow overhang         BO         0.07 m           Stern overhang         SO         0.24 m           Waterline length         LWL         11.99 m           Stern height         Y         0.04 m           Beam         MB         3.80 m           Topside overhang         TSO         0.61 m           Freeboard at mast         FBI         1.20 m           Draught         T         2.61 m           Empty weight         EW         4290 kg           Fixed ballast weight         KW         2180 kg |

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| Moveable ballast     |     | None  |       |   |

| Appendages & propelle | r   |               |   |
|-----------------------|-----|---------------|---|
| Keel type             |     | R2R1R1N1      |   |
| Keel depth            | KD  | <b>2.29</b> m | D |
| Keel chord            | KC  | <b>0.56</b> m | D |
| Rudder type           |     | Spade         |   |
| Rudder depth          | RD  | <b>1.98</b> m | D |
| Rudder chord          | RC  | <b>0.36</b> m | D |
| Propeller type        |     | Folding       |   |
| Propeller blades      | PRN | 2             |   |
| Propeller diameter    | PRD | <b>0.43</b> m | Ε |
| -                     |     |               |   |

| Mizzen               |     |   |  |
|----------------------|-----|---|--|
| Mizzen hoist         | PY  | m |  |
| Mizzen foot          | PE  | m |  |
| Staysail luff length | LLY | m |  |
| Staysail luff perp   | LPY | m |  |

| Rig |                   |    |                |   |
|-----|-------------------|----|----------------|---|
|     | Spar material     |    | Carbon fibre   |   |
|     | Forestay length   | FL | <b>16.81</b> m | D |
|     | Foretriangle base | J  | <b>4.85</b> m  | D |
|     | Mainsail hoist    | P  | <b>16.10</b> m | 0 |

Ε

**5.70** m

Mainsail outhaul

| Main sail           |     |               |   |
|---------------------|-----|---------------|---|
| Half width          | MHW | <b>3.92</b> m | Α |
| Three quarter width | MTW | <b>2.75</b> m | Α |
| Upper width         | MUW | <b>2.01</b> m | Α |
| Construction        |     | Laminated     |   |
| Reefing             |     | Slab          |   |

| Upwing neadsail     |     |                |   |
|---------------------|-----|----------------|---|
| Luff length         | HLU | <b>15.97</b> m | Α |
| Luff perpendicular  | HLP | <b>4.94</b> m  | Α |
| Half width          | HHW | <b>2.58</b> m  | Α |
| Three quarter width | HTW | <b>1.35</b> m  | Α |
| Foot height         | HFH | <b>0.20</b> m  | Α |
| Construction        |     | Laminated      |   |
| Reefing             |     | Change Sail    |   |
|                     |     | •              |   |

| Downwind hea | adsail    |     |                |   |
|--------------|-----------|-----|----------------|---|
| T            | ack type  |     | Bow sprit      |   |
| Pole / tac   | k length  | STL | <b>7.33</b> m  | D |
| * Lu         | ff length | SLU | <b>20.57</b> m | D |
| * Leec       | h length  | SLE | <b>17.38</b> m | D |
| * H          | alf width | SHW | <b>11.61</b> m | D |
| * Fc         | oot width | SFL | <b>11.60</b> m | D |
| * OR         | Area      | SPA | m²             |   |

Measurement source: A=Authenticated; O=Owner measured; S=Sister vessel; P=Published; C=Calculated **System data source: D**=Database derived; **E**=Estimated TCC calculated on 27/01/2023 at 09:18:10

IMPORTANT: see notes on page 2 for appropriate use and validity

# Certificate notes

#### 1. Correct use of the published ratings

Multiply the elapsed time by the TCC to obtain corrected time.

The TCC is calculated for the declared sail plan, which may or may not include a downwind headsail (spinnaker). For boats without a downwind headsail the words "(no spinnaker)" appear after the TCC.

Boats with a full sailplan also have a "no spinnaker TCC" for use only when racing in a non-spinnaker class.

If spinnaker and non-spinnaker boats race together, non-spinnaker boats will have an advantage on upwind legs, and a disadvantage off the wind.

#### 2. Data quality

The fairest ratings will result from accurate measurement; ratings calculated using a significant amount of estimated and published data are far more likely to be out of line with expectations than those using measured and sister ship data. Owners must notify the rating office of any changes or errors in the rating data.

#### 3. Applicability

This certificate is issued for the sole purpose of correcting elapsed times recorded in yacht races. It is not to be used for any other purpose.

#### 4. Validity

Unless stated to the contrary, or superseded, this certificate is valid until the end of the calendar year in which it was issued. The validity can be checked by referring to the certificates published at: www.vprs.org/ratings.html

#### Additional information

### 6. Stability

An SSS base value provides a guide to the stability of a boat but does not guarantee safety or freedom of risk from capsize or sinking. The safety of a boat is the sole responsibility of the skipper who must ensure that the boat is fully found, thoroughly seaworthy, and operated by a crew sufficient in number and experience who are physically fit to face bad weather. The SSS base value does not constitute any warranty as to the seaworthiness of any boat or the safety of any gear and shall not limit the absolute responsibility of the skipper of the boat.

Guard rails fitted Yes

Dayboat No

**SSS base value** 24 Valid only for data on this certificate.