

Yacht	<b>Witch IV</b>	Rig	<b>Bermudian Sloop</b>
Sail number	<b>60</b>	Design	<b>Hawk 20</b>
TCC	<b>0.808</b>	Series / built	<b>1993 / 1995</b>
No spinnaker TCC	<b>0.784</b>	Club(s)	<b>CCSC</b>

### Performance indicators

Mainsail area	<b>13.59</b> m <sup>2</sup>	Sailing weight	<b>1172</b> kg
Mizzen area	m <sup>2</sup>	Displacement / length	<b>207</b> (sailing weight)
Upwind headsail area	<b>7.49</b> m <sup>2</sup>	Sail area / wetted surface	<b>2.38</b> (main + u/w headsail)
D/wind headsail area	<b>20.88</b> m <sup>2</sup>	Sail area / displacement	<b>19.28</b> (main + u/w headsail)

### Hull

			source
Hull Length	LH	<b>6.10</b> m	P
Bow overhang	BO	<b>0.70</b> m	E
Stern overhang	SO	<b>0.20</b> m	E
Waterline length	LWL	<b>5.20</b> m	C
Stern height	Y	<b>0.06</b> m	E
Beam	MB	<b>2.26</b> m	P
Topside overhang	TSO	<b>0.19</b> m	E
Freeboard at mast	FBI	<b>0.60</b> m	E
Draught	T	<b>1.30</b> m	P
Empty weight	EW	<b>841</b> kg	P
Fixed ballast weight	KW	<b>392</b> kg	P
Moveable ballast		<b>None</b>	

### Rig

			source
Spar material		<b>Aluminium alloy</b>	
Forestay length	FL	<b>7.08</b> m	E
Foretriangle base	J	<b>2.12</b> m	E

### Main sail

Hoist	P	<b>8.05</b> m	E
Foot	E	<b>2.89</b> m	E
Half width	MHW	<b>1.85</b> m	S
Three quarter width	MTW	<b>1.06</b> m	S
Upper width	MUW	<b>0.59</b> m	S
Construction		<b>Woven</b>	
Reefing		<b>Slab</b>	

### Upwind headsail

Luff length	HLU	<b>6.24</b> m	S
Luff perpendicular	HLP	<b>2.39</b> m	S
Half width	HHW	<b>1.20</b> m	S
Three quarter width	HTW	<b>0.61</b> m	S
Foot height	HFH	<b>0.20</b> m	E
Construction		<b>Woven</b>	
Reefing		<b>Change Sail</b>	

### Downwind headsail

Tack type		<b>Spinnaker pole</b>	
Pole / tack length	STL	<b>2.38</b> m	E
* Luff length	SLU	<b>6.54</b> m	S
* Leech length	SLE	<b>6.54</b> m	S
* Half width	SHW	<b>3.83</b> m	S
* Foot width	SFL	<b>3.91</b> m	S
* OR ...	Area	SPA	m <sup>2</sup>

### Appendages & propeller

Keel type		<b>Z4P1F1S2</b>	
Keel depth	KD	<b>1.10</b> m	E
Keel chord	KC	<b>0.35</b> m	E
Rudder type		<b>Transom Hung</b>	
Rudder depth	RD	<b>0.80</b> m	E
Rudder chord	RC	<b>0.25</b> m	E
Propeller type		<b>None</b>	
Propeller blades	PRN		
Propeller diameter	PRD	m	

### Mizzen

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

**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 21/01/2020 at 10:33:40

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

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# Certificate notes

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## 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](http://www.vprs.org/ratings.html)

## 5. Additional information

*Empty weight includes outboard which must be carried when racing.*

## 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	No	
Dayboat	Yes	
<b>SSS base value</b>	<b>3</b>	Valid only for data on this certificate.