

APH ToD: **518.8** CDL: **8.341**

APH ToT: **1.1565** CertNo: **US6146**

BOAT

Class **Cheetah 30**
Designer **Bob Ames**
Builder **Corsair Marine**
Age date **01/1995**
Series date **01/1995**
Offset file **CHEETAH30-USA46830.OFF**
Data file **US6146**

HULL

Length Overall **8.585 m**
Maximum Beam **2.492 m**
Draft **2.256 m**
Displacement **1,143 kg**
DLR **2.3758**
IMS Division **Sportboat**
Dynamic Allowance **0.000%**
Age Allowance **0.487%**

PROPELLER

Installation **No Propeller**
Type **N/A**
Diameter **N/A**

CREW

Maximum weight **455 kg** (declared)
Minimum weight **325 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	28.11	29.02
Headsail Luffed	17.74	17.74
Headsail Flying	42.82	42.82
Symmetric		
Asymmetric	90.43	90.43

(All asymmetric spinnakers with SHW/SFL > 85%)

STORM SAIL AREAS (m²)

Trysail **6.96**
Storm Jib **4.60**
Heavy Weather Jib **12.42**

SAIL LIMITS

Headsails **5**
Spinnakers **4**

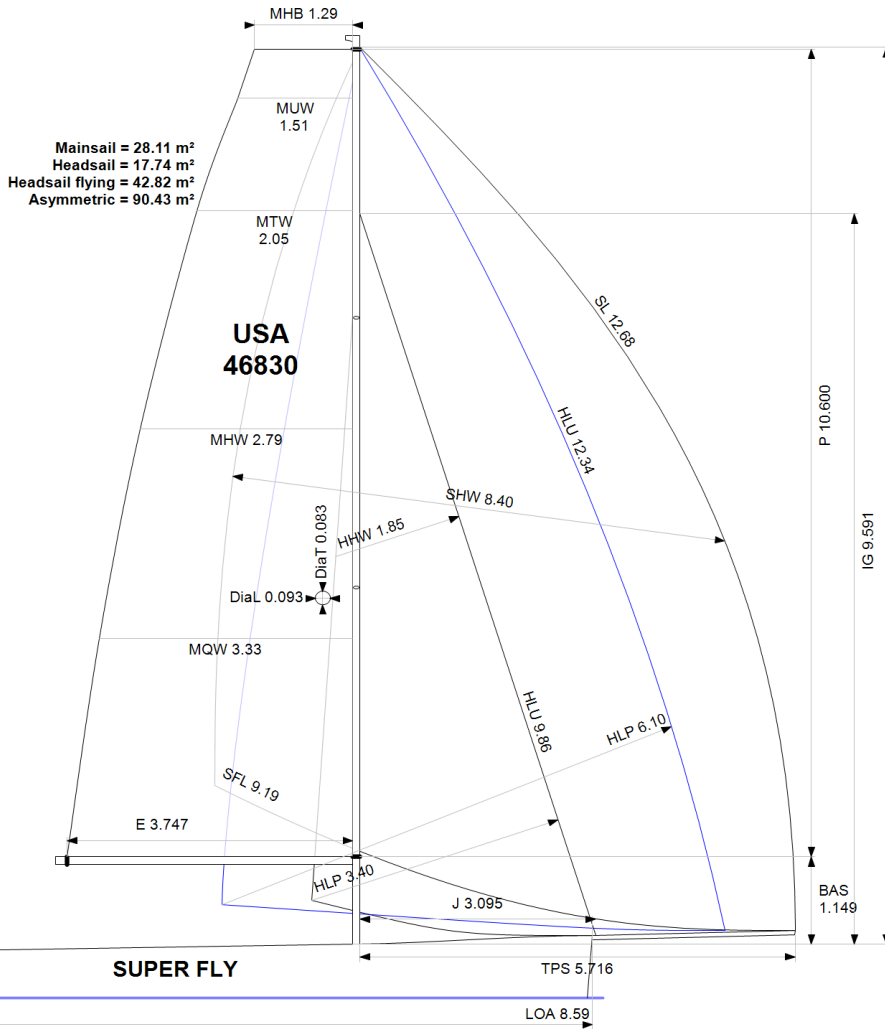
STABILITY

Righting Moment **32.1 kg·m**
Stability Index **99.7**

COMMENTS

Scale weight 1143 kg

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	44.6°	40.1°	38.7°	38.7°	38.7°	38.7°	39.0°	40.2°
Beat VMG	3.78	4.52	4.79	4.90	4.98	5.02	5.06	4.95
52°	5.86	6.59	6.87	7.03	7.15	7.24	7.36	7.30
60°	6.25	6.82	7.15	7.36	7.51	7.64	7.81	7.80
75°	6.58	7.11	7.57	7.88	8.13	8.34	8.61	8.78
90°	6.63	7.42	7.86	8.31	8.71	9.06	9.60	9.99
110°	6.31	7.24	8.14	8.86	9.38	9.86	10.77	11.60
120°	6.13	7.23	8.00	8.75	9.70	10.42	11.56	12.32
135°	5.47	6.80	7.84	8.94	9.99	10.81	12.45	14.46
150°	4.60	5.86	6.82	7.82	8.89	10.09	13.39	16.22
Run VMG	3.99	5.07	5.90	6.77	7.70	8.73	11.60	14.32
Gybe Angles	142.7°	146.2°	148.7°	148.5°	146.0°	145.6°	148.0°	152.0°



Time Allowances in secs/NM								
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	952.2	796.5	751.2	734.0	723.6	716.5	711.6	727.5
52°	614.4	546.4	523.7	512.1	503.8	497.1	489.1	493.1
60°	576.1	528.2	503.3	489.3	479.1	471.1	460.9	461.6
75°	547.0	506.4	475.6	457.1	442.9	431.6	418.2	410.2
90°	542.9	485.5	458.2	433.5	413.2	397.4	375.1	360.4
110°	570.5	497.3	442.4	406.1	383.9	365.2	334.3	310.2
120°	587.6	498.2	449.8	411.5	371.3	345.4	311.3	292.2
135°	658.0	529.4	459.3	402.6	360.5	333.1	289.1	249.0
150°	781.9	614.6	528.1	460.5	405.0	356.9	268.8	221.9
Run VMG	902.8	709.7	609.8	531.7	467.7	412.2	310.4	251.4
Selected Courses								
Windward / Leeward	927.5	753.1	680.5	632.8	595.6	564.3	511.0	489.4
All purpose	706.2	594.4	542.7	507.6	480.5	459.1	425.1	409.0

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	648.8	0.9249
All purpose	518.8	1.1565

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	650.3	0.9226
Triple Number AP Medium	519.8	1.1543
Triple Number AP High	451.7	1.3283
Triple Number Windward/Leeward Low	840.3	0.7140
Triple Number Windward/Leeward Medium	649.4	0.9239
Triple Number Windward/Leeward High	552.2	1.0866
Single Number Predominant Upwind	575.1	1.0432
Single Number Predominant Reaching	486.4	1.2336
Single Number Predominant Downwind	508.9	1.1789
Predominant Upwind - Low	714.4	0.8398
Predominant Upwind - Low/Med	620.0	0.9677
Predominant Upwind - Medium	564.8	1.0624
Predominant Upwind - Med/High	529.3	1.1336
Predominant Upwind - High	509.6	1.1773
Predominant Downwind Low	707.4	0.8482
Predominant Downwind Low/Med	583.0	1.0292
Predominant Downwind Medium	492.8	1.2176
Predominant Downwind Med/High	419.1	1.4318
Predominant Downwind High	367.9	1.6308
Predominant Reaching Low	627.3	0.9565
Predominant Reaching Low/Med	538.0	1.1153
Predominant Reaching Medium	475.0	1.2631
Predominant Reaching Med/High	426.1	1.4080
Predominant Reaching High	395.2	1.5181

SA/DSPL Upwind	41.92	SA/DSPL Downwind	108.38
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Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	887.9	0.6757
5-Band Windward/Leeward Low/Med	735.4	0.8158
5-Band Windward/Leeward Medium	638.8	0.9392
5-Band Windward/Leeward Med/High	566.4	1.0593
5-Band Windward/Leeward High	516.5	1.1617
Windward/Leeward 60-40 Low	893.7	0.6713
Windward/Leeward 60-40 Low/Med	747.2	0.8030
Windward/Leeward 60-40 Medium	658.8	0.9107
Windward/Leeward 60-40 Med/High	596.8	1.0054
Windward/Leeward 60-40 High	556.2	1.0787
5-Band AP Low	680.8	0.8813
5-Band AP Low/Med	579.8	1.0348
5-Band AP Medium	512.1	1.1717
5-Band AP Med/High	461.0	1.3014
5-Band AP High	428.2	1.4012
5-Band SF Bay Tour - Low	843.6	0.7113
5-Band SF Bay Tour - Low/Med	703.3	0.8531
5-Band SF Bay Tour - Medium	615.7	0.9745
5-Band SF Bay Tour - Med/High	552.4	1.0861
5-Band SF Bay Tour - High	511.0	1.1741
Chicago-Mac Upwind		1.0210
Chicago-Mac All Purpose		1.0834
Chicago-Mac Downwind		1.1557
Bayview-Mac Shore		1.0174
Harvest Moon Regatta	425.2	1.4111



Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Cheetah 30	LOA	8.585	VCGD	-0.205
Measurement	17/02/2024	Max. Beam	2.492	VCGM	-0.154
HIN		Draft	2.256	RM Rated (kg-m)	32.1
Plan review		Displacement	1,143	Limit of positive stability(°)	107.3
Hull construction	Cored	Wetted area	13.79	Stability Index	99.7
Carbon Rudder	Yes	IMS L	8.404	Default crew weight	486
Light stanchions	No	LSM0	7.835	Declared crew weight	455
Trim tab	No	Acc. length	8.099		
		Sink (kg/mm)	10.40		

PROPELLER

Propeller Type	No Propeller
Hydro generator	No

RIG

Forestay tension	Fixed	P	10.600	E	3.747	<table> <tr> <th colspan="3">Flying Headsail Foretriangles</th> </tr> <tr> <th>Id</th> <th>ISP</th> <th>TPS</th> </tr> <tr> <td>1</td> <td>11.774</td> <td>4.794</td> </tr> </table>	Flying Headsail Foretriangles			Id	ISP	TPS	1	11.774	4.794
Flying Headsail Foretriangles															
Id	ISP	TPS													
1	11.774	4.794													
Inner stay	None Fitted	IG	9.591	J	3.095										
Mast material	Aluminum	ISP	11.774	BAS	1.149										
Single headsail furler	No	MDT1	0.083	FSD	0.000										
Mainsail furler	No	MDL1	0.093	SFJ	-0.044										
Articulated bowsprit	No	MDT2	0.079	SPL	0.000										
Non-circular rigging	No	MDL2	0.092	WPL											
Fiber rigging	No	TL	1.549	TPS	5.716										
Adjustable mast foot	No	MW	0.126	BD	0.100										
Runners/Checkstays	0	GO	0.126	MWT	50.00										
Spreaders	2			MCG	4.636										
Rotating mast	No														

FLOTATION AND STABILITY

Calculation method	Boom inclining	SFFP	0.272	SAFP	7.785	W1	26.0	PD1	182.9	WD	3.067
Flotation Date	17/02/2024	FFM	0.815	FAM	0.566	W2	26.0	PD2	196.8	PLM	9000.00
		FF	0.815	FA	0.566	W3	26.0	PD3	204.5	GSA	1.0
		LCFcl	4.650	LCFsh	4.807	W4	26.0	PD4	200.7	RSA	1.0
		SG	1.0250	HBI	0.703	LCFD	5.384			RM	32.1



Club
Certificate
2024

Boat
SUPER FLY
USA 46830

US SAILING
1 ROGER WILLIAMS UNI WAY
BRISTOL, RI 02809
USA



MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
1	1.29	1.51	2.05	2.79	3.33	28.11		

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying</i>	<i>FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
J-0	0.04	1.04	2.02	3.80	5.17	6.10	12.34	No	Yes	1	42.82	09/11/2023	186312
LM Jib	0.08	0.55	1.02	1.85	2.63	3.40	9.86	Yes	No		17.74	03/05/2024	

ASYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Ratio</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
A2-2020	13.92	11.44	12.68	8.40	9.19	91%	90.43	08/03/2020	