

APH: **513.9**

CDL: **9.258**

GPH: **575.6**

CertNo: **US8975**

BOAT

Class **Hobie 33 Mod**
Designer **Hobie Alter**
Builder **Hobie Cat**
Age date **01/2003**
Series date **01/1982**
Offset file **US17666-USA8975.off**
Data file **USA 8975**

HULL

Length Overall **9.933 m**
Maximum Beam **2.451 m**
Draft **1.615 m**
Displacement **1,794 kg**
DLR **2.5588**
IMS Division **Performance**
Dynamic Allowance **0.010%**
Age Allowance **0.487%**

PROPELLER

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

CREW

Maximum weight **581 kg**
Minimum weight **436 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	25.63	26.29
Headsail Luffed	28.83	28.83
Headsail Flying		
Symmetric		
Asymmetric	89.00	89.00

(1 asymmetric(s) with SHW/SFL < 85%)

STORM SAIL AREAS (m²)

Trysail **7.24**
Storm Jib **5.32**
Heavy Weather Jib **14.36**

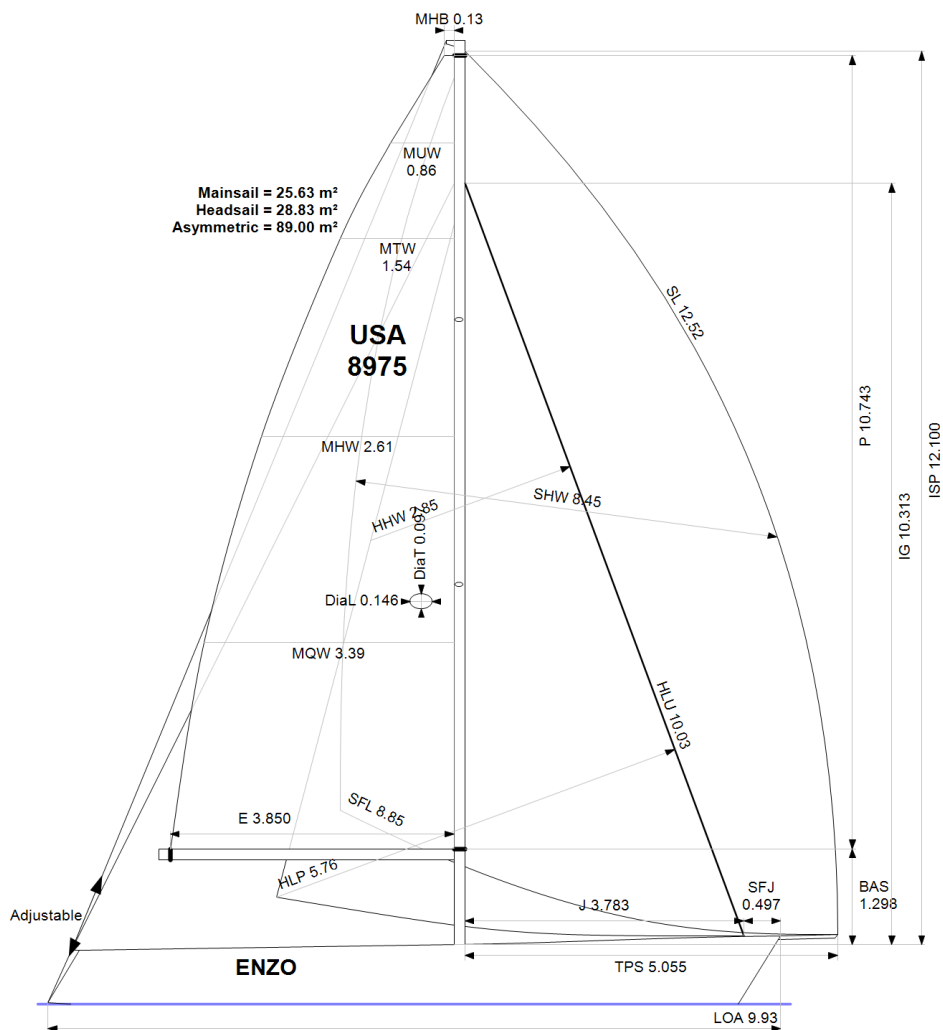
SAIL LIMITS

Headsails **5**
Spinnakers **4** * Asymmetric SHALL NOT be tacked on the pole

STABILITY

Righting Moment **N/A**
Stability Index **N/A**

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
Beat Angles	43.6°	40.8°	38.8°	38.2°	37.6°	37.5°	37.9°
Beat VMG	3.82	4.64	5.02	5.20	5.30	5.36	5.38
52°	5.87	6.79	7.17	7.36	7.49	7.59	7.69
60°	6.21	7.00	7.41	7.65	7.82	7.95	8.11
75°	6.42	7.14	7.65	8.07	8.35	8.57	8.87
90°	6.45	7.25	7.71	8.26	8.80	9.20	9.78
110°	6.36	7.30	8.05	8.72	9.25	9.76	10.64
120°	6.06	7.16	7.96	8.76	9.64	10.38	11.68
135°	5.31	6.70	7.59	8.48	9.55	10.69	12.76
150°	4.47	5.70	6.73	7.55	8.32	9.36	11.99
Run VMG	3.87	4.94	5.83	6.53	7.20	8.10	10.38
Gybe Angles	143.0°	145.6°	148.7°	149.6°	146.9°	144.7°	145.1°



Time Allowances in secs/NM							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	942.5	776.4	717.1	692.5	679.4	671.3	669.6
52°	613.2	530.0	502.4	489.3	480.6	474.1	468.0
60°	580.0	514.4	486.2	470.5	460.1	452.8	444.1
75°	560.9	503.9	470.4	445.9	431.2	420.2	405.6
90°	557.7	496.7	466.9	435.8	409.2	391.5	368.0
110°	566.3	493.0	447.1	413.0	389.0	368.9	338.2
120°	594.6	502.9	452.5	410.9	373.6	346.7	308.4
135°	678.6	537.1	474.6	424.4	377.1	336.7	282.1
150°	805.9	631.6	535.0	477.1	432.9	384.8	300.3
Run VMG	930.6	729.3	617.7	550.9	499.9	444.3	346.7
Selected Courses							
Windward / Leeward	936.6	752.8	667.4	621.7	589.6	557.8	508.2
All purpose	714.1	593.2	536.6	501.4	475.0	451.9	418.3

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	641.2	0.9357
All purpose	513.9	1.1676

Custom scoring options for United States of America

Scoring Option	Time On Distance	Time On Time
Triple Number All Purpose Low	653.6	0.9180
Triple Number All Purpose Medium	514.2	1.1669
Triple Number All Purpose High	445.1	1.3481
Triple Number Windward/Leeward Low	844.7	0.7103
Triple Number Windward/Leeward Medium	639.9	0.9377
Triple Number Windward/Leeward High	547.1	1.0966
Predominantly Upwind	562.5	1.0668
Predominantly Downwind	514.3	1.1667
Predominantly Upwind Low	724.1	0.8286
Predominantly Upwind Medium	587.7	1.0210
Predominantly Upwind High	551.3	1.0883
Predominantly Downwind Low	719.8	0.8336
Predominantly Downwind Medium	514.6	1.1660
Predominantly Downwind High	395.3	1.5179
Chicago-Mac Upwind		1.0474
Chicago-Mac All Purpose		1.0912
Chicago-Mac Downwind		1.1417
Bayview-Mac Cove Island		1.0197
Bayview-Mac Shore		1.0277
Harvest Moon Regatta	428.2	1.4012

Scoring Option	Time On Distance	Time On Time
San Francisco Bay Heavy	531.9	1.1280
San Francisco Bay Medium	624.8	0.9603
Predominantly Reaching	482.3	1.2441
Predominantly Reaching Low	591.0	1.0152
Predominantly Reaching Medium	481.6	1.2459
Predominantly Reaching High	403.1	1.4883
Windward/Leeward 60-40 Low	847.6	0.7078
Windward/Leeward 60-40 Medium	661.8	0.9066
Windward/Leeward 60-40 High	589.9	1.0172

5-Band Windward/Leeward	Time On Distance	Time On Time
5-Band Low	922.4	0.6505
5-Band Low / Medium	775.8	0.7734
5-Band Medium	629.5	0.9531
5-Band Medium / High	560.2	1.0710
5-Band High	516.7	1.1611



Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Hobie 33 Mod	LOA	9.933	VCGD	-0.357
Measurement		Max. Beam	2.451	VCGM	-0.353
HIN		Draft	1.615	RM Rated (kg·m)	45.2
Plan review		Displacement	1,794	Limit of positive stability(°)	N/A
Hull construction	Cored	Wetted area	15.35	Stability Index	N/A
Carbon Rudder	No	IMS L	9.218		
Light stanchions	No	LSM0	8.883		
Trim tab	No	Acc. length	7.964		
		Sink (kg/mm)	11.60		

PROPELLER

Propeller Type	No Propeller
Hydro generator	No PIPA 0.0000

RIG

Forestay tension	Aft	P	10.743	E	3.850
Inner stay	None Fitted	IG	10.313	J	3.783
Carbon mast	No	ISP	12.100	BAS	1.298
Headsail furler	No	MDT1	0.097	FSD	0.031
Mainsail furler	No	MDL1	0.146	SFJ	0.497
Articulated bowsprit	No	MDT2		SPL	3.903
Non-circular rigging	No	MDL2		WPL	
Fiber rigging	No	TL	2.001	TPS	5.055
Runners/Checkstays	1	MW		BD	0.146
Spreaders	2	GO		MWT	
Rotating mast	No			MCG	

FLOTATION AND STABILITY

Calculation method	RM estimated	SFFP	0.314	SAFP	9.510
Flotation Date	13/03/2022	FFM		FAM	
Measurer		FF	0.918	FA	0.705
Comment		LCFcl	5.654	LCFsh	5.784
		SG	1.0240	HBI	0.806



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>
0	0.13	0.86	1.54	2.61	3.39	25.63	29/08/2022	

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 FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
1	0.05		1.44	2.85	4.29	5.76	10.03	No	No	28.83	04/08/2022	
2	0.12					5.12	10.03	No	No	26.22		
3	0.04		0.86	1.69	2.57	3.60	9.75	Yes	No	17.02	04/08/2022	

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>
A1	13.72	11.32	12.52	8.45	8.85	95%	89.00	10/02/2023	
C0	12.49	11.67	12.08	6.63	8.67	76%	70.85	06/09/2023	C0-MCZ4
Frac	11.52	10.61	11.07	5.79	6.10	95%	53.96	01/10/2020	