



Club
Certificate
2023

Boat
LEVERAGE
USA83

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



APH: **502.3** CDL: **9.396**
GPH: **559.6** CertNo: **US8310**

BOAT
Class: **Flying Tiger 10**
Designer: **Robert H. Perry**
Builder: **Hansheng Yachts**
Age date: **02/2007**
Series date: **01/2007**
Offset file: **FlyTgr10.off**
Data file: **USA83-FT10**

HULL
Length Overall: **9.960 m**
Maximum Beam: **2.792 m**
Draft: **2.259 m**
Displacement: **1,985 kg**
DLR: **3.3227**
IMS Division: **Performance**
Dynamic Allowance: **0.000%**
Age Allowance: **0.487%**

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

CREW
Maximum weight: **550 kg**
Minimum weight: **413 kg** *when applied
Non Manual Power: **No**
Crew Arm Extension:

SAIL AREAS (m²)

	Measured	Rated
Mainsail	35.40	36.57
Headsail Luffed	22.74	22.74
Headsail Flying		
Symmetric		
Asymmetric	101.36	101.36

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

STORM SAIL AREAS (m²)

Trysail	9.73
Storm Jib	7.17
Heavy Weather Jib	19.35

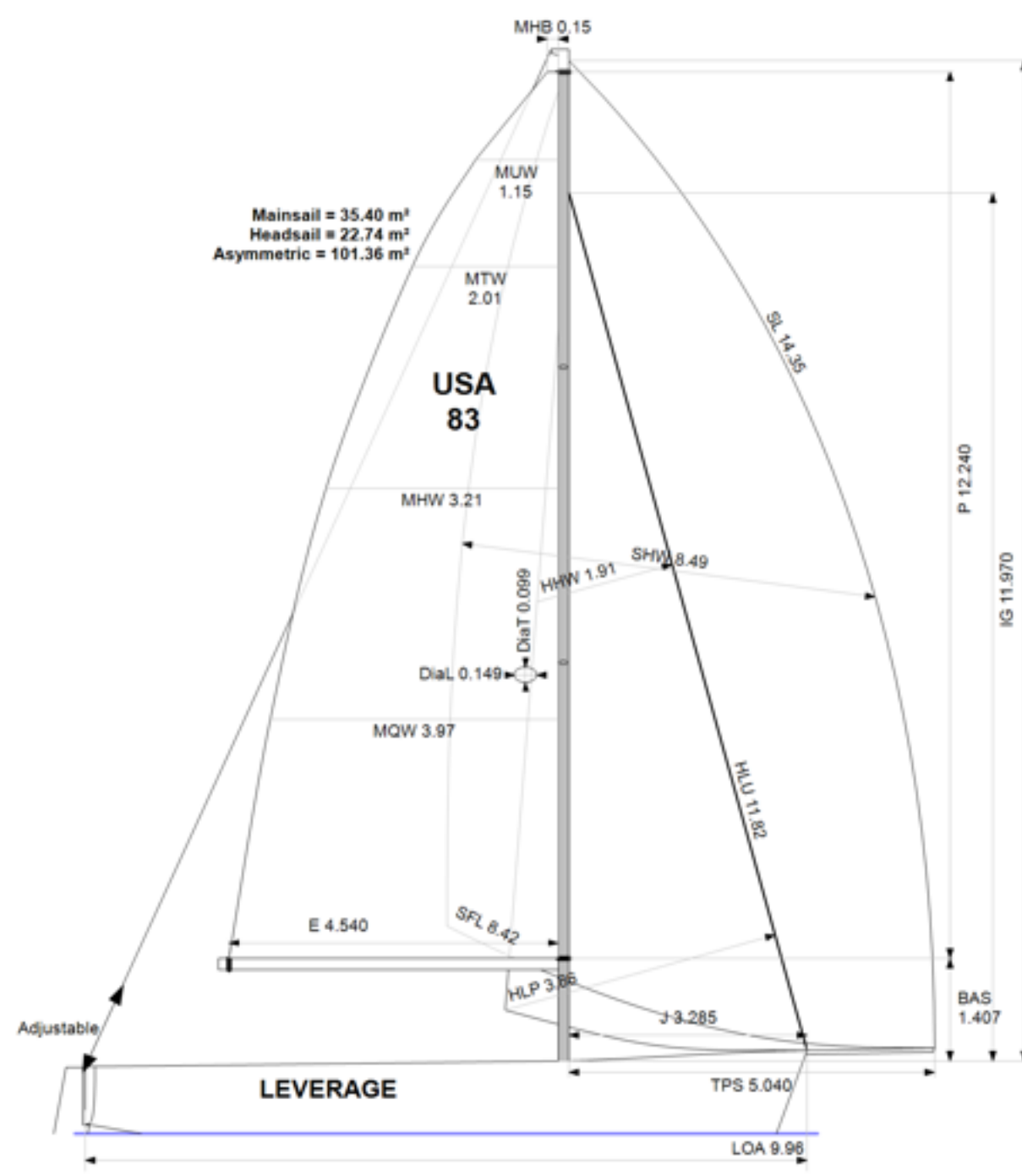
SAIL LIMITS

Headsails	5
Spinnakers	4

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	41.8°	39.3°	37.6°	36.9°	36.4°	36.4°	37.0°
Beat VMG	4.06	4.83	5.17	5.33	5.41	5.46	5.44
52°	6.10	6.95	7.28	7.46	7.57	7.66	7.72
60°	6.38	7.15	7.54	7.75	7.90	8.00	8.11
75°	6.57	7.28	7.82	8.19	8.42	8.60	8.84
90°	6.47	7.24	7.83	8.42	8.91	9.26	9.76
110°	6.51	7.46	8.07	8.53	8.97	9.41	10.90
120°	6.37	7.41	8.21	8.90	9.47	10.06	11.21
135°	5.70	7.00	7.83	8.72	9.80	10.99	12.93
150°	4.79	6.05	7.00	7.77	8.55	9.58	12.65
Run VMG	4.15	5.24	6.06	6.73	7.40	8.29	10.96
Gybe Angles	142.6°	146.0°	150.1°	150.1°	146.9°	145.1°	144.7°

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Time Allowances in secs/NM

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	887.2	745.0	696.4	675.6	664.9	659.1	661.3
52°	590.5	517.7	494.5	482.8	475.3	470.1	466.6
60°	564.3	503.5	477.8	464.7	455.9	449.9	444.1
75°	547.9	494.4	460.1	439.6	427.4	418.5	407.2
90°	556.6	497.1	459.8	427.5	404.1	388.9	368.7
110°	553.4	482.9	445.8	422.0	401.3	382.7	330.4
120°	565.0	485.9	438.3	404.7	380.0	357.9	321.0
135°	631.3	514.5	459.9	412.7	367.3	327.5	278.5
150°	751.4	595.5	514.3	463.3	421.1	376.0	284.5
Run VMG	867.7	687.6	593.7	534.9	486.3	434.1	328.5

Selected Courses

Windward / Leeward	877.4	716.3	645.0	605.3	575.6	546.6	494.9
All purpose	678.8	572.0	522.7	492.0	468.4	447.6	412.6

Single Number Scoring Options

Course	Time On Distance	Time On Time
Windward / Leeward	620.6	0.9668
All purpose	502.3	1.1944

Custom scoring options for United States of America

Scoring Option	Time On Distance	Time On Time
Triple Number All Purpose Low	625.4	0.9594
Triple Number All Purpose Medium	503.0	1.1929
Triple Number All Purpose High	439.7	1.3646
Triple Number Windward/Leeward Low	796.8	0.7530
Triple Number Windward/Leeward Medium	620.3	0.9672
Triple Number Windward/Leeward High	534.5	1.1226
Predominantly Upwind	549.1	1.0928
Predominantly Downwind	498.9	1.2027
Predominantly Upwind Low	691.8	0.8674
Predominantly Upwind Medium	574.5	1.0444
Predominantly Upwind High	543.9	1.1031
Predominantly Downwind Low	681.3	0.8807
Predominantly Downwind Medium	498.7	1.2031
Predominantly Downwind High	385.5	1.5564
Chicago-Mac Upwind		1.0741
Chicago-Mac All Purpose		1.1227
Chicago-Mac Downwind		1.1783
Bayview-Mac Cove Island		1.0537
Bayview-Mac Shore		1.0604
Harvest Moon Regatta		422.6

Scoring Option	Time On Distance	Time On Time
San Francisco Bay Heavy	521.2	1.1512
San Francisco Bay Medium	604.8	0.9920
Predominantly Reaching	472.0	1.2711
Predominantly Reaching Low	571.0	1.0508
Predominantly Reaching Medium	471.0	1.2739
Predominantly Reaching High	397.6	1.5089
Windward/Leeward 60-40 Low	800.7	0.7493
Windward/Leeward 60-40 Medium	642.6	0.9338
Windward/Leeward 60-40 High	577.6	1.0387

5-Band Windward/Leeward	Time On Distance	Time On Time
5-Band Low	865.0	0.6936
5-Band Low / Medium	737.4	0.8137
5-Band Medium	611.2	0.9816
5-Band Medium / High	547.8	1.0954
5-Band High	503.8	1.1908

AUS AUT BRA BUL CAN CYP DEN ESP EST FIN FRA GER GRE HUN
ISR JPN KOR LTU NED NOR POR RSA RUS SLO SUI SWE UKR USA

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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Flying Tiger 10	LOA	9.960	VCGD	-0.550
Measurement	24/12/2015	Max. Beam	2.792	VCGM	-0.495
HIN		Draft	2.259	RM Rated (kg-m)	61.6
Plan review		Displacement	1,985	Limit of positive stability(°)	N/A
Hull construction	Cored	Wetted area	16.70	Stability Index	N/A
Carbon Rudder	Yes	IMS L	9.022		
Light stanchions	No	LSM0	8.421		
Trim tab	No	Acc. length	9.074		
		Sink (kg/mm)	12.50		

PROPELLER
Propeller Type: **No Propeller**
Hydro generator: **No** PIPA: **0.0000**

RIG

Forestay tension	Aft	P	12.240	E	4.540
Inner stay	None Fitted	IG	11.970	J	3.285
Carbon mast	Yes	ISP	13.800	BAS	1.407
Headsail furler	No	MDT1	0.099	FSD	0.006
Mainsail furler	No	MDL1	0.149	SFJ	
Articulated bowsprit	No	MDT2		SPL	
Non-circular rigging	No	MDL2		WPL	
Fiber rigging	No	TL	1.800	TPS	5.040
Runners/Checkstays	0	MW		BD	0.148
Spreader	2	GO		MWT	
Rotating mast	No			MCG	

FLOTATION AND STABILITY

Calculation method	VCG entered directly	SFFP	0.308	SAPP	9.760
VCG entered	-0.550	FFM		FAM	
Flotation Date	24/12/2015	FF	1.137	FA	0.902
Measurer		LCFcl	5.320	LCFsh	5.495
Comment		SG	1.0248	HBI	1.008

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MAINSAIL

Id	MHB	MUW	MTW	MHW	MQW	Area	Meas.Date	Comment
Main	0.15	1.15	2.01	3.21	3.97	35.40	21/09/2021	

HEADSAIL

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Btn	Flying FT	Area	Meas.Date	Comment
Medium	0.08	0.50	0.95	1.91	2.87	3.86	11.82	No	No	22.74	21/09/2021	

ASYMMETRIC SPINNAKER

Id	SLU	SLE	SL	SHW	SFL	Ratio	Area	Meas.Date	Comment
A2	15.75	12.95	14.35	8.49	8.42	101%	101.36	23/10/2021	

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