



Club Certificate
2025

EDERSAIL
USA 7319

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



APH ToD: **596.3**

CDL: **8.207**

APH ToT: **1.0062**

CertNo: **US7319**

BOAT

Class **SUN ODYSSEY 349**
Designer **Marc Lombard**
Builder **Jeanneau**
Age date **07/2017**
Series date **07/2015**
Offset file **sunodyssey349.off**
Data file **USA 7319**

HULL

Length Overall **9.972 m**
Maximum Beam **3.440 m**
Draft **1.962 m**
Displacement **5,484 kg**
DLR **6.7926**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.260%**
Age Allowance **0.325%**

PROPELLER

Installation **Shaft exposed**
Type **Solid 3 blades**
Diameter **0.366m**

CREW

Maximum weight **426 kg** (declared)
Minimum weight **296 kg** * when applied
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	33.46	34.25
Headsail Luffed	26.29	26.29
Headsail Flying		
Symmetric		
Asymmetric	89.42	89.42

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

STORM SAIL AREAS (m²)

Trysail **9.02**
Storm Jib **9.04**
Heavy Weather Jib **24.39**

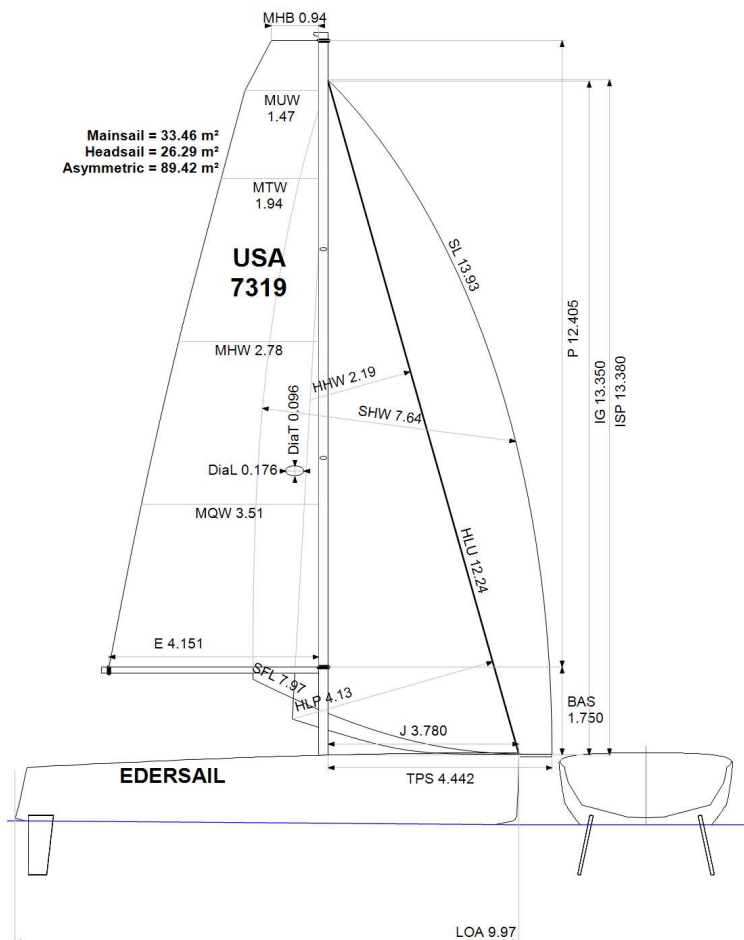
SAIL LIMITS

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	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	44.5°	44.5°	42.3°	41.0°	40.5°	40.4°	40.4°	41.1°	42.5°
Beat VMG	2.13	2.99	3.69	4.19	4.50	4.63	4.69	4.68	4.54
52°	3.37	4.61	5.55	6.21	6.61	6.79	6.87	6.90	6.83
60°	3.62	4.89	5.82	6.46	6.85	7.05	7.13	7.19	7.16
75°	3.76	5.08	6.03	6.67	7.06	7.30	7.47	7.61	7.66
90°	3.88	5.30	6.36	6.99	7.27	7.44	7.62	7.99	8.19
110°	3.95	5.44	6.56	7.20	7.61	7.96	8.20	8.56	8.85
120°	3.80	5.28	6.42	7.12	7.56	7.97	8.36	8.98	9.40
135°	3.32	4.70	5.87	6.74	7.28	7.70	8.12	8.99	10.18
150°	2.74	3.96	5.06	6.00	6.72	7.20	7.56	8.26	9.04
Run VMG	2.37	3.43	4.39	5.19	5.83	6.30	6.71	7.35	7.97
Gybe Angles	143.5°	143.5°	147.1°	148.4°	151.0°	155.9°	161.0°	163.3°	161.7°



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Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	1689.0	1205.1	975.6	858.6	799.6	777.2	767.7	770.0	793.6
52°	1067.1	781.1	649.0	579.8	544.8	529.9	524.0	521.4	527.3
60°	995.6	736.3	618.6	557.1	525.4	510.7	504.7	500.4	503.1
75°	956.8	708.6	596.7	539.6	509.8	492.8	482.2	473.0	470.1
90°	927.5	678.9	566.2	515.3	495.3	484.1	472.4	450.5	439.8
110°	911.3	661.9	548.9	500.2	473.2	452.3	438.9	420.7	406.8
120°	946.7	682.3	560.6	506.0	476.2	451.8	430.4	400.9	383.1
135°	1085.1	766.6	613.4	533.8	494.4	467.6	443.6	400.4	353.6
150°	1315.2	909.8	711.0	600.2	535.5	500.2	476.4	435.6	398.0
Run VMG	1518.4	1050.5	821.0	693.0	617.8	571.1	536.4	489.6	451.9
Selected Courses									
Windward / Leeward	1603.2	1127.8	898.3	775.8	708.7	674.1	652.1	629.8	622.7
All purpose	1206.4	862.4	699.4	615.8	571.9	548.0	532.3	513.2	503.6

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	745.5	0.8048
All purpose	596.3	1.0062

Custom scoring options for United States of America

Scoring Option	TOD	TOT
Triple Number AP Low	780.9	0.7684
Triple Number AP Medium	591.3	1.0148
Triple Number AP High	529.1	1.1341
Triple Number Windward/Leeward Low	1059.9	0.5661
Triple Number Windward/Leeward Medium	738.3	0.8127
Triple Number Windward/Leeward High	649.2	0.9242
Single Number Predominant Upwind	685.6	0.8752
Single Number Predominant Reaching	589.8	1.0173
Single Number Predominant Downwind	625.7	0.9589
Predominant Upwind - Low	969.3	0.6190
Predominant Upwind - Low/Med	725.7	0.8268
Predominant Upwind - Medium	631.3	0.9504
Predominant Upwind - Med/High	589.2	1.0183
Predominant Upwind - High	576.5	1.0408
Predominant Downwind Low	928.5	0.6462
Predominant Downwind Low/Med	677.9	0.8851
Predominant Downwind Medium	574.7	1.0440
Predominant Downwind Med/High	514.9	1.1652
Predominant Downwind High	480.4	1.2490
Predominant Reaching Low	834.9	0.7186
Predominant Reaching Low/Med	626.9	0.9571
Predominant Reaching Medium	546.8	1.0973
Predominant Reaching Med/High	503.9	1.1907
Predominant Reaching High	479.2	1.2522

SA/DSPL Upwind	19.11	SA/DSPL Downwind	39.29
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Scoring Option	TOD	TOT
5-Band Windward/Leeward Low	1189.4	0.5045
5-Band Windward/Leeward Low/Med	860.9	0.6969
5-Band Windward/Leeward Medium	725.2	0.8274
5-Band Windward/Leeward Med/High	656.8	0.9135
5-Band Windward/Leeward High	632.4	0.9487
Windward/Leeward 60-40 Low	1205.3	0.4978
Windward/Leeward 60-40 Low/Med	877.2	0.6840
Windward/Leeward 60-40 Medium	743.7	0.8068
Windward/Leeward 60-40 Med/High	679.9	0.8825
Windward/Leeward 60-40 High	660.7	0.9082
5-Band AP Low	860.9	0.6970
5-Band AP Low/Med	675.1	0.8887
5-Band AP Medium	582.5	1.0300
5-Band AP Med/High	535.1	1.1214
5-Band AP High	514.8	1.1654
5-Band SF Bay Tour - Low	1024.4	0.5857
5-Band SF Bay Tour - Low/Med	824.2	0.7280
5-Band SF Bay Tour - Medium	699.3	0.8581
5-Band SF Bay Tour - Med/High	637.9	0.9407
5-Band SF Bay Tour - High	615.9	0.9742
Chicago-Mac Upwind		0.8467
Chicago-Mac All Purpose		0.8875
Chicago-Mac Downwind		0.9239
Bayview-Mac Cove Island		0.6381
Bayview-Mac Shore		0.6422
Harvest Moon Regatta	508.5	1.1799



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Data in **meters/kilograms (Metric)**

HULL AND APPENDAGES (Lightship Trim)

Class	SUN ODYSSEY 349	LOA	9.972	VCGD	0.119
Measurement	16/04/2024	Max. Beam	3.440	VCGM	0.124
HIN		Draft	1.962	RM Rated (kg·m)	109.0
Plan review		Displacement	5,484	Limit of positive stability(°)	N/A
Hull construction	Cored	Wetted area	25.62	Stability Index	N/A
Carbon rudder	No	IMS L	9.438	Default crew weight	622
Light stanchions	No	LSM0	9.310	Declared crew weight	426
Trim tab	No	Acc. length	9.972		
		Sink (kg/mm)	18.98		

PROPELLER

Propeller Type	Solid 3 blades					
Installation	Shaft exposed	PRD	0.366	PSD	0.025	PSA 19.0° ST1 0.020 ST4 0.050
Twin screw	No	PBW	0.131	PHD	0.025	ESL 0.980 ST2 0.090 ST5 0.225
Hydro generator	No	PIPA	0.0183	PHL	0.060	ST3 0.080

RIG

Forestay tension	Fixed	P	12.405	E	4.151
Inner stay	None Fitted	IG	13.350	J	3.780
Mast material	Aluminum	ISP	13.380	BAS	1.750
Single headsail furler	No	MDT1	0.096	FSD	0.036
Mainsail furler	No	MDL1	0.176	SFJ	0.000
Articulated bowsprit	No	MDT2	0.096	SPL	
Non-circular rigging	No	MDL2	0.176	WPL	
Fiber rigging	No	TL		TPS	4.442
Adjustable mast foot	No	MW	0.176	BD	0.131
Running backstays	0	GO	0.201	MWT	
Checkstays				MCG	
Spreaders	2				
Rotating mast	No				

FLOTATION AND STABILITY

Calculation method	Boom inclining	W1	81.9	PD1	195.1	WD	3.363
Flotation Date	16/04/2024	W2	81.9	PD2	196.0	PLM	9000.00
		W3	81.9	PD3	195.7	GSA	1.0
		W4	81.9	PD4	196.9	RSA	1.0
		LCFD	6.048			RM	110.7

INVENTORY

TANKS	Id	Description	Sp.Wght	Capacity	Condition	LCG	VCG
	4	PVC waste tank port outboard	Water	61	0	6.14	1.01
	3	PVC tank under V-berth	Water	103	0	1.98	0.11
	2	SS hot water tank under stbd settee	Water	42	0	4.38	0.00
	1	PVC tank under aft stbd berth	Fuel	133	433	7.94	0.00
			Total deductible		112	7.94	0.00
OTHER ITEMS	Id	Kind Description	Weight	LCG	VCG		
	2	Battery 12V Group 24 AGM engine battery	26	8.44	0.00		
	1	Battery 4x 12V Group 24 AGM house batteries under aft port berth	101	8.34	0.00		
	3	Engine Yanmar 3YM 20					
			Total deductible		0		



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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>
Main	0.94	1.47	1.94	2.78	3.51	33.46	09/07/2024	

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>
J2	0.07	0.61	1.16	2.19	3.18	4.13	12.24	Yes	No	26.29	09/10/2024	
AP jib	0.05	0.46	0.91	1.98	3.11	4.19	12.31	Yes	No	25.04	09/07/2024	

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	14.73	13.12	13.93	7.64	7.97	96%	89.42	30/03/2023	

CRUISER/RACER REQUIREMENTS*

Accommodation length	10.0 m	Table area	0.44 m ²	Headroom	1.70 m
Minimum number of berths	4	Personal gear stowage	0.16 m ³	Fresh water capacity	80 l
Minimum number of seats in cockpit	4	Food stowage	0.24 m ³	Fuel capacity	50 l
Cabin sole		Stoves		Sinks	
Galley gear stowage		Toilet		Wash basin	
Navigation area		Hanging locker			

* This list is a summary of the requirements. See IMS Appendix 1 for details.