

El Sueño Beneteau 47.7 TM DK 46307

Class: Beneteau 47.7 TM DK Configuration: Sail Number: 46307 Year Built: 2001 Builder: BENETEAU Owner(s): Alberts, Brad																												
Certificate #: EZ11606 Valid Year: 2023 Type: Renew Cert Issue Date: 2023-01-23 Exp. Date: 2023-12-31 Offsets_file: F190.OFF Cert Group: ORR-Ez SOCAL Comment:																												
Rig Type: Sloop Forestay: Fractional Keel Type: Fixed Prop Type: Feathering Prop Install: Exposed Prop Blades: 2																												
LOA: 47.59 ft LWL: 41.33 ft Rated Length: 42.30 ft Beam Max: 14.76 ft Draft: 9.14 ft Disp Empty: 25388 lbs Disp Sailing: 27990 lbs Crew: 1800 lbs Water Ballast: 0 lbs Wetted Area: 464.8 ft ² LPS: 118.8 ° RM20: 2473.2 ft-lbs Stab Index: 123 °																												
Spinnaker: Asymmetrical only flown with spinnaker pole Code Zero: Yes Genoa/Jib Leech: No Roach - Leech is straight Large Roach Headsail: No Jib Furler: No Main Roller Furling: No																												
<table border="1"> <thead> <tr> <th>Rig Dimensions</th> <th>Mainsail Meas.</th> <th>Jib/Genoa Meas.</th> <th>Asymmetric Spin. Meas.</th> </tr> </thead> <tbody> <tr> <td>IG: 59.22 ft</td> <td>HB: 0.85 ft</td> <td>LP: 26.65 ft</td> <td>ASLU: 68.24 ft</td> </tr> <tr> <td>ISP: 63.50 ft</td> <td>MGT: 4.66 ft</td> <td>LPG %: 155.0 %</td> <td>ASLE: 64.83 ft</td> </tr> <tr> <td>J: 17.19 ft</td> <td>MGU: 8.04 ft</td> <td>J Luff: 58.40 ft</td> <td>AMG: 30.95 ft</td> </tr> <tr> <td>P: 57.58 ft</td> <td>MGM: 13.75 ft</td> <td>J Leech: 55.77 ft</td> <td>ASF: 34.02 ft</td> </tr> <tr> <td>E: 21.16 ft</td> <td>MGL: 18.41 ft</td> <td>Area: 778.1 ft²</td> <td>Area: 1750.3 ft²</td> </tr> <tr> <td>SPL: 18.90 ft</td> <td>Area: 756.5 ft²</td> <td></td> <td></td> </tr> </tbody> </table>	Rig Dimensions	Mainsail Meas.	Jib/Genoa Meas.	Asymmetric Spin. Meas.	IG: 59.22 ft	HB: 0.85 ft	LP: 26.65 ft	ASLU: 68.24 ft	ISP: 63.50 ft	MGT: 4.66 ft	LPG %: 155.0 %	ASLE: 64.83 ft	J: 17.19 ft	MGU: 8.04 ft	J Luff: 58.40 ft	AMG: 30.95 ft	P: 57.58 ft	MGM: 13.75 ft	J Leech: 55.77 ft	ASF: 34.02 ft	E: 21.16 ft	MGL: 18.41 ft	Area: 778.1 ft ²	Area: 1750.3 ft ²	SPL: 18.90 ft	Area: 756.5 ft ²		
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Table of Time Allowances (sec/mile)* (at True Wind Angles)

True Wind Speed	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
Opt Beat Angle	46.8	45.4	43.7	41.9	39.2	36.3	35.3	35.5
Beat VMG	1,310.04	943.52	769.44	677.26	631.35	589.82	574.36	568.45
52°	826.81	601.97	497.27	457.74	441.34	425.40	417.55	413.14
60°	756.00	559.27	471.11	440.46	426.74	412.44	404.89	400.39
75°	681.33	517.14	450.22	422.49	409.04	392.28	381.70	374.29
90°	643.60	492.46	433.37	409.40	394.18	373.84	360.66	351.26
110°	647.80	495.02	434.87	404.28	382.88	356.99	338.64	325.11
120°	685.88	517.52	447.07	416.15	394.48	358.29	330.15	312.59
135°	877.67	624.59	502.75	453.77	425.39	384.25	348.82	310.48
150°	1,074.92	764.97	615.24	529.01	469.11	411.15	373.77	339.80
165°	1,198.91	853.21	686.22	590.04	519.69	436.01	392.71	359.20
Run VMG	1,241.21	883.31	710.42	610.85	538.02	449.24	402.61	368.69
Opt Run Angle	130.5	132.8	135.8	144.8	155.2	172.0	174.8	174.4

Performance Metrics

SA/D Dnwind:	43.520
SA/D Average:	35.25
SA/D Upwind:	26.970
D/Length:	165.1
Ave Perf Screen:	21.400
DnWind Perf	26.4
Screen:	

* Sec/mile rating assume gybing downwind when target angles are deeper than best VMG angles.

Standard Ratings

	TOT (Spin)				TOD (Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.461	0.730	0.978	1.153	1,041.1	656.6	490.5	415.9
W50/L50	0.450	0.719	0.980	1.183	1,304.7	816.9	599.0	496.1
W60/L40	0.457	0.728	0.985	1.168	1,311.8	823.4	608.5	513.4
MOSTLY WW	0.488	0.764	0.999	1.122	1,236.0	789.6	604.2	538.1
MOSTLY LW	0.462	0.718	0.957	1.203	1,024.5	659.2	494.4	393.7

Benchmark Ratings

	TOT (Spin)	TOD (Spin)
GPH	0.970	545.1
IR#	0.978	547.4

ORR-Ez PHRF

TOD (Spin)
11.1

ORR-Ez PHRF are based on the Farr 40 MH as Scratch Boat.

Standard PCS Ratings

	TOD (Spin)							
	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
RANDOM LEG	1,042.2	746.8	605.4	529.8	485.6	439.1	414.6	397.8
W50/L50	1,304.7	931.4	751.9	653.0	592.1	525.4	493.3	473.1
W60/L40	1,311.9	937.7	758.0	660.2	601.7	539.6	510.6	493.3
MOSTLY WW	1,235.9	892.4	729.9	643.8	598.3	554.2	535.8	526.8
MOSTLY LW	1,024.4	743.0	611.0	539.6	489.9	426.9	390.8	366.2
MOSTLY REACH								

ORR-Ez PHRF Time Allowance 4 Winds

	TOD (Spin)			
	V.Light	Light	Medium	Heavy
RANDOM LEG	50.7	23.3	8.6	12.3
W50/L50	97.8	48.5	12.3	9.7
W60/L40	95.7	48.8	12.4	7.9
MOSTLY WW	68.9	38.9	4.5	-3.3
MOSTLY LW	80.0	39.3	16.6	19.6

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True Wind Speed	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
Opt Beat Angle	46.8	45.4	43.7	41.9	39.2	36.3	35.3	35.5
Beat VMG	1,310.04	943.52	769.44	677.26	631.35	589.82	574.36	568.45
52°	826.81	601.97	497.27	457.74	441.34	425.40	417.55	413.14
60°	756.00	559.27	471.11	440.46	426.74	412.44	404.89	400.39
75°	680.11	517.14	451.29	422.49	409.04	394.53	386.20	380.32
90°	669.12	511.08	448.69	419.35	399.61	381.18	370.84	362.70
110°	749.78	557.70	473.01	439.80	417.35	383.93	357.10	345.44
120°	842.20	616.82	513.20	462.45	435.32	397.86	368.42	341.94
135°	1,168.53	809.06	631.14	536.92	476.39	421.19	385.98	356.14
150°	1,480.45	992.80	749.03	613.08	529.02	441.05	399.10	367.42
165°	1,577.91	1,062.92	805.60	652.93	558.02	450.92	402.88	368.48
Run VMG	1,607.00	1,081.76	819.30	663.28	565.98	456.14	407.40	373.06
Opt Run Angle	172.0	172.1	172.2	171.8	172.2	173.0	173.4	173.0

* Sec/mile rating assume gybing downwind when target angles are deeper than best VMG angles.

Performance Metrics

SA/D:	26.97
D/Length:	165.1
Perf Screen:	16.3

Standard Ratings

	TOT (Non-Spin)				TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.419	0.678	0.934	1.118	1,144.9	707.0	513.4	428.7
W50/L50	0.400	0.667	0.957	1.178	1,467.1	880.5	613.6	498.5
W60/L40	0.416	0.686	0.966	1.163	1,441.3	874.3	620.3	515.3
MOSTLY WW	0.475	0.751	0.993	1.119	1,271.3	804.1	607.6	539.6
MOSTLY LW	0.378	0.628	0.902	1.153	1,253.0	753.8	524.8	410.5

Benchmark Ratings

	TOT (Non-Spin)	TOD (Non-Spin)
GPH	0.913	578.9
IR#	0.948	565.0

ORR-Ez PHRF

TOD (Non-Spin)
28.7

ORR-Ez PHRF are based on the Farr 40 MH as Scratch Boat.

Standard PCS Ratings

	TOD (Non-Spin)							
	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
RANDOM LEG	1,150.5	813.9	650.3	561.1	508.3	453.5	426.9	410.8
W50/L50	1,479.1	1,028.3	805.7	680.7	606.6	529.3	495.7	475.3
W60/L40	1,450.9	1,015.2	801.2	682.4	613.3	542.7	512.5	495.0
MOSTLY WW	1,273.7	914.1	742.4	650.1	601.6	555.6	537.3	528.3
MOSTLY LW	1,267.3	882.0	691.9	584.3	520.3	446.2	408.5	380.2
MOSTLY REACH								

ORR-Ez PHRF Allowance 4 Winds

	TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy
RANDOM LEG	154.5	73.7	31.5	25.1
W50/L50	260.2	112.1	26.9	12.1
W60/L40	225.2	99.7	24.2	9.8
MOSTLY WW	104.2	53.4	7.9	-1.8
MOSTLY LW	308.5	133.9	47.0	36.4