

## PI Beneteau First 36.7 90

Class: Beneteau First 36.7 Configuration: One Design Sail Number: 90 Year Built: 2003 Builder: Beneteau Owner(s): Smith, Larry			
Certificate #: EZ10760-OD-9 Valid Year: 2023 Type: OD Cert Issue Date: 2023-08-19 Exp. Date: 2023-12-31 Offsets_file: F196.OFF Cert Group: ORR-Ez SOCAL Comment:			
Rig Type: Sloop Forestay: Fractional Keel Type: Fin Prop Type: Folding Prop Install: Strut Drive Prop Blades: 2			
LOA: 35.00 ft LWL: 32.19 ft Rated Length: 31.98 ft Beam Max: 11.32 ft Draft: 7.28 ft Disp Empty: 12156 lbs Disp Sailing: 13860 lbs Crew: 1501 lbs Water Ballast: 0 lbs Wetted Area: 284.4 ft <sup>2</sup> LPS: 109.8 ° RM20: 800.3 ft-lbs Stab Index: 112 °			
Spinnaker: Symmetrical flown with spinnaker pole Code Zero: No Genoa/Jib Leech: No Roach - Leech is straight Large Roach Headsail: No Jib Furler: No Main Roller Furling: No			
<b>Rig Dimensions</b> IG: 46.26 ft ISP: 46.49 ft J: 13.12 ft P: 45.44 ft E: 15.58 ft SPL: 13.12 ft	<b>Mainsail Meas.</b> HB: 0.57 ft MGT: 3.43 ft MGU: 5.92 ft MGM: 10.13 ft MGL: 13.25 ft Area: 434.4 ft <sup>2</sup>	<b>Jib/Genoa Meas.</b> LP: 20.21 ft LPG %: 154.0 % J Luff: 47.08 ft J Leech: 0.00 ft Area: 475.9 ft <sup>2</sup>	<b>Symmetric Spin. Meas.</b> SL: 45.80 ft SMW: 23.49 ft SF: 22.83 ft Area: 891.6 ft <sup>2</sup>

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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	45.6	44.7	43.6	40.4	38.1	36.0	35.8	36.1
Beat VMG	1,423.32	1,026.75	838.91	752.26	712.22	678.26	667.28	665.09
52°	903.32	662.23	551.64	519.20	504.83	491.03	484.10	481.33
60°	820.76	616.06	528.60	501.61	489.06	476.20	469.39	466.22
75°	745.88	574.36	509.81	480.98	468.95	453.13	442.88	436.40
90°	746.95	568.37	496.46	467.20	451.76	432.05	420.20	411.95
110°	743.48	569.40	501.69	468.34	443.81	412.34	394.78	382.75
120°	794.12	599.89	519.01	484.57	459.22	416.60	382.44	366.60
135°	1,071.28	747.23	588.93	524.54	490.45	442.80	402.41	357.94
150°	1,312.05	915.16	719.66	596.80	529.88	467.67	426.21	387.94
165°	1,463.40	1,020.73	802.67	665.65	576.83	490.67	444.87	407.76
Run VMG	1,515.02	1,056.74	830.99	689.13	597.17	504.27	455.46	418.12
Opt Run Angle	130.4	133.3	137.1	149.3	161.5	173.0	173.7	173.0

#### Performance Metrics

SA/D Dnwind:	36.770
SA/D Average:	31.01
SA/D Upwind:	25.240
D/Length:	189.1
Ave Perf Screen:	16.400
DnWind Perf	19.4
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	0.405	0.642	0.858	0.998	1,184.8	746.6	559.0	480.4
W50/L50	0.392	0.635	0.873	1.031	1,498.3	925.4	672.5	569.4
W60/L40	0.403	0.647	0.877	1.015	1,489.2	926.2	683.6	590.7
MOSTLY WW	0.443	0.692	0.887	0.968	1,364.1	872.3	680.6	623.5
MOSTLY LW	0.390	0.618	0.845	1.050	1,214.0	765.6	560.2	450.9

#### Benchmark Ratings

	TOT (Spin)	TOD (Spin)
GPH	0.852	620.2
IR#	0.868	617.0

#### ORR-Ez PHRF

TOD (Spin)
80.7

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	1,185.7	849.1	687.8	602.2	553.3	504.0	479.2	462.6
W50/L50	1,498.4	1,060.8	848.2	731.8	663.9	597.7	566.8	546.8
W60/L40	1,489.2	1,058.4	849.9	738.5	675.4	615.2	588.2	571.8
MOSTLY WW	1,364.0	983.9	803.9	717.4	674.7	636.2	621.4	615.1
MOSTLY LW	1,214.2	871.0	707.0	613.6	553.5	486.6	447.4	422.2
MOSTLY REACH								

#### ORR-Ez PHRF Time Allowance 4 Winds

	TOD (Spin)			
	V.Light	Light	Medium	Heavy
RANDOM LEG	194.4	113.3	77.1	76.8
W50/L50	291.4	157.0	85.8	83.0
W60/L40	273.1	151.6	87.5	85.2
MOSTLY WW	197.0	121.6	80.9	82.1
MOSTLY LW	269.5	145.7	82.4	76.8

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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	45.6	44.7	43.6	40.4	38.1	36.0	35.8	36.1
Beat VMG	1,423.32	1,026.75	838.91	752.26	712.22	678.26	667.28	665.09
52°	903.32	662.23	551.64	519.20	504.83	491.03	484.10	481.33
60°	820.76	616.06	528.60	501.61	489.06	476.20	469.39	466.22
75°	745.88	574.36	509.81	480.98	468.95	455.33	447.23	442.00
90°	738.29	570.26	508.31	476.75	455.64	439.30	428.85	421.25
110°	836.37	627.23	537.58	501.83	476.56	437.99	411.54	401.17
120°	956.61	698.30	578.67	525.85	495.76	453.09	418.32	395.57
135°	1,299.03	897.29	698.16	592.79	533.34	474.86	435.45	400.13
150°	1,590.88	1,066.95	805.04	664.24	573.92	492.00	447.58	411.55
165°	1,686.66	1,136.22	861.20	701.17	601.32	500.21	450.79	412.66
Run VMG	1,714.86	1,154.36	874.27	711.03	609.34	505.80	455.97	418.12
Opt Run Angle	171.9	171.9	172.0	172.1	172.0	173.4	173.7	173.0

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

#### Performance Metrics

SA/D:	25.24
D/Length:	189.1
Perf Screen:	13.3

#### Standard Ratings

	TOT (Non-Spin)				TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.382	0.614	0.832	0.976	1,255.0	781.4	576.1	491.3
W50/L50	0.373	0.617	0.867	1.031	1,576.0	951.8	677.4	569.5
W60/L40	0.386	0.633	0.872	1.015	1,551.0	947.4	687.6	590.8
MOSTLY WW	0.438	0.687	0.885	0.967	1,379.2	878.3	682.1	624.4
MOSTLY LW	0.347	0.576	0.817	1.019	1,362.8	821.3	579.5	464.6

#### Benchmark Ratings

	TOT (Non-Spin)	TOD (Non-Spin)
GPH	0.820	644.8
IR#	0.855	626.0

#### ORR-Ez PHRF

TOD (Non-Spin)
89.7

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	1,261.1	896.2	719.7	625.4	570.7	515.9	489.8	474.1
W50/L50	1,588.7	1,107.8	870.9	743.2	670.0	598.7	567.1	546.8
W60/L40	1,561.1	1,096.0	868.1	747.7	680.4	616.0	588.4	571.7
MOSTLY WW	1,381.6	993.9	809.4	720.6	676.3	637.1	622.3	616.0
MOSTLY LW	1,378.1	959.2	752.5	641.1	574.2	502.0	462.0	433.8
MOSTLY REACH								

#### ORR-Ez PHRF Allowance 4 Winds

	TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy
RANDOM LEG	264.6	148.1	94.2	87.7
W50/L50	369.1	183.4	90.7	83.1
W60/L40	334.9	172.8	91.5	85.3
MOSTLY WW	212.1	127.6	82.4	83.0
MOSTLY LW	418.3	201.4	101.7	90.5