

Spirited J/120 R Carbon Rig 52511

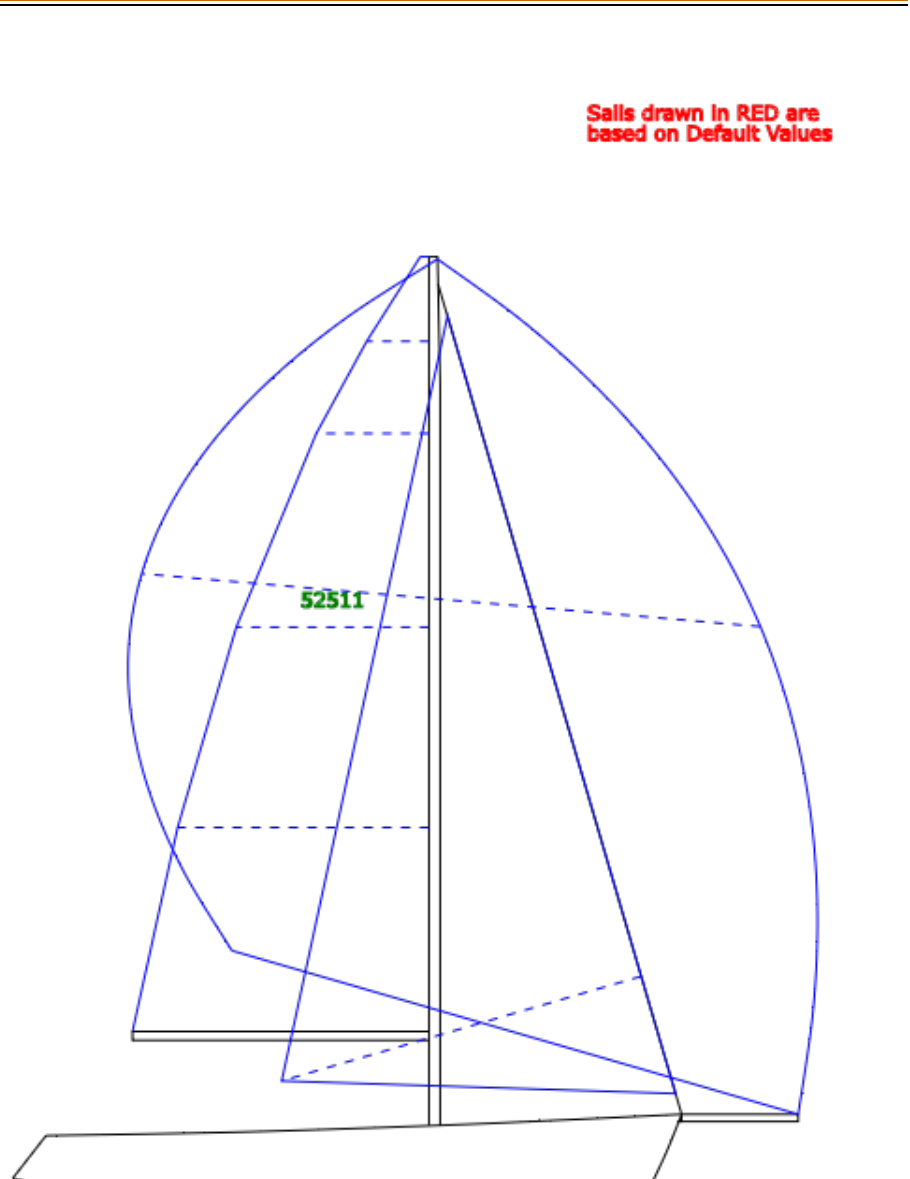
Spinnaker	GPH: 0.922 / 574.3	IR#: 0.929 / 576.9	PHRF BM: 40.7
Non-Spin	GPH: 0.859 / 616.8	IR#: 0.896 / 598.6	PHRF BM: 62.4

Class: J/120 R Carbon Rig
 Configuration:
 Sail Number: 52511
 Year Built: 2001
 Builder: TILLOTSON-PEARSON
 Owner(s): Karris, George

Certificate #: EZ11793
 Valid Year: 2024
 Type: Renew Chg
 Issue Date: 2024-03-21
 Exp.Date: 2024-12-31
 Offsets_file: US30532.OFF
 Cert Group: ORR-Ez SOCAL
 Comment:

Rig Type: Sloop
 Forestay: Masthead
 Keel Type: Fin with Bulb
 Prop Type: Folding
 Prop Install: Exposed
 Prop Blades: 2

LOA: 40.17 ft
 LWL: 35.00 ft
 Rated Length: 37.52 ft
 Beam Max: 12.00 ft
 Draft: 7.11 ft
 Disp Empty: 15395 lbs
 Disp Sailing: 17580 lbs
 Crew: 2035 lbs
 Water Ballast: 0 lbs
 Wetted Area: 353.8 ft²
 LPS: 121.3 °
 RM20: 1267.6 ft·lbs
 Stab Index: 125 °



Spinnaker: Asymmetrical tacked centerline on bow, sprit or prod
 Genoa/Jib Leech: No Roach - Leech is straight
 Large Roach Headsail: No
 Jib Furler: Yes Above Deck
 Main Roller Furling: No

Rig Dimensions	Mainsail Meas.	Jib/Genoa Meas.	Asymmetric Spin. Meas.
IG: 50.50 ft	HB: 0.52 ft	LP: 22.48 ft	ASLU: 64.30 ft
ISP: 52.00 ft	MGT: 3.74 ft	LPG %: 155.0 %	ASLE: 52.00 ft
J: 14.50 ft	MGU: 6.77 ft	J Luff: 49.90 ft	AMG: 37.14 ft
P: 46.50 ft	MGM: 11.57 ft	J Leech: 47.97 ft	ASF: 34.00 ft
E: 17.80 ft	MGL: 15.09 ft	Area: 560.9 ft ²	Area: 1769.4 ft ²
TPS: 21.50 ft	Area: 508.1 ft ²		

Spinnaker

Polar Time Allowances

True Wind Speed	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
Opt Beat Angle	47.5	45.9	44.0	42.4	39.8	36.7	35.5	35.6
Beat VMG	1,450.44	1,038.48	841.06	735.74	681.48	630.64	610.23	602.96
52°	907.19	656.47	538.34	490.11	469.28	449.01	439.65	434.29
60°	824.42	605.47	505.48	468.04	451.03	433.32	424.47	419.06
75°	740.94	556.37	477.62	446.79	429.28	407.81	395.17	387.18
90°	686.26	522.05	455.85	428.91	411.12	387.18	371.43	360.76
110°	678.49	516.65	451.73	418.91	397.80	368.83	346.27	328.36
120°	707.52	535.01	463.50	429.54	404.34	363.28	336.43	314.66
135°	906.22	638.89	511.57	466.18	436.88	391.78	348.95	299.76
150°	1,109.89	782.47	622.65	539.45	485.05	426.08	384.92	344.86
165°	1,237.93	872.74	694.48	601.68	538.40	460.28	413.76	377.19
Run VMG	1,281.59	903.52	718.98	622.90	557.40	470.74	420.25	381.92
Opt Run Angle	133.1	134.9	137.2	145.2	154.1	172.8	172.9	172.2

Benchmark Ratings

	TOT (Spin)	TOD (Spin)
GPH	0.922	574.3
IR#	0.929	576.9

Performance Metrics

SA/D Dnwind:	53.910
SA/D Average:	39.72
SA/D Upwind:	25.520
D/Length:	148.5
Ave Perf Screen:	26.700
DnWind Perf Screen:	36.3

PCS Ratings

	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
RANDOM LEG	1,107.0	791.0	639.2	558.2	510.6	459.9	431.9	412.0
W50/L50	1,393.0	989.2	793.7	689.3	627.0	556.8	520.3	497.2
W60/L40	1,410.9	1,003.2	806.0	701.1	639.8	572.9	539.5	519.6
MOSTLY WW	1,488.7	1,057.0	847.9	734.4	669.0	603.7	576.3	564.7
MOSTLY LW	1,183.0	839.0	672.2	579.8	521.7	452.5	410.8	381.1
MOSTLY REACH	1,006.4	723.2	588.2	518.1	477.5	434.1	407.9	386.8

Non-Spinnaker

Polar Time Allowances

True Wind Speed	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
Opt Beat Angle	47.5	45.9	44.0	42.4	39.8	36.7	35.5	35.6
Beat VMG	1,450.44	1,038.48	841.06	735.74	681.48	630.64	610.23	602.96
52°	907.19	656.47	538.34	490.11	469.28	449.01	439.65	434.29
60°	824.42	605.47	505.48	468.04	451.03	433.32	424.47	419.06
75°	738.17	556.37	479.95	446.79	429.28	411.85	402.14	395.32
90°	728.13	550.71	477.22	444.13	421.43	397.09	384.97	375.53
110°	819.11	604.26	507.24	468.27	442.54	404.37	373.08	355.72
120°	929.44	674.76	555.50	494.59	462.98	420.29	386.49	355.33
135°	1,297.20	885.50	680.41	575.77	507.96	445.34	405.81	371.85
150°	1,599.43	1,063.36	795.33	649.66	560.03	465.75	419.64	384.20
165°	1,636.29	1,097.96	828.86	671.49	574.25	467.45	416.26	377.28
Run VMG	1,659.37	1,112.93	839.79	679.71	580.72	472.14	420.72	381.92
Opt Run Angle	172.1	172.1	172.2	172.2	172.1	172.8	172.9	172.2

Benchmark Ratings

	TOT (Non-Spin)	TOD (Non-Spin)
GPH	0.859	616.8
IR#	0.896	598.6

Performance Metrics

SA/D:	25.52
D/Length:	148.5
Perf Screen:	17.2

PCS Ratings

	4 kts	6 kts	8 kts	10 kts	12 kts	16 kts	20 kts	24 kts
RANDOM LEG	1,240.4	874.1	695.2	597.5	539.3	478.4	448.2	429.4
W50/L50	1,575.4	1,091.8	852.5	718.7	639.6	557.8	520.5	497.2
W60/L40	1,556.3	1,085.2	853.2	724.7	649.9	573.8	539.7	519.5
MOSTLY WW	1,522.8	1,077.3	860.6	742.2	673.6	605.5	577.7	566.0
MOSTLY LW	1,413.6	978.2	762.7	639.9	563.9	478.1	430.8	396.7
MOSTLY REACH	1,134.8	804.6	644.5	558.8	508.2	455.8	428.6	411.1

Spinnaker

Standard 5 Winds

	TOT (Spin)					TOD (Spin)				
	V.Light <5	Light 5-7	Lt/Med 7-9	Medium 9-15	Heavy >15	V.Light <5	Light 5-7	Lt/Med 7-9	Medium 9-15	Heavy >15
RANDOM LEG	0.470	0.615	0.785	0.949	1.198	1,107.0	845.8	662.8	548.3	434.6
W50/L50	0.456	0.600	0.770	0.940	1.209	1,393.0	1,058.6	824.1	675.5	524.8
W60/L40	0.459	0.604	0.774	0.941	1.191	1,410.9	1,073.4	836.8	688.3	544.0
MOSTLY WW	0.462	0.607	0.781	0.952	1.182	1,488.7	1,131.2	879.8	721.9	581.5
MOSTLY LW	0.447	0.589	0.759	0.936	1.275	1,183.0	898.1	697.0	565.2	414.8
MOSTLY REACH	0.482	0.628	0.796	0.952	1.185	1,006.3	772.6	609.9	509.9	409.6

Standard Single Wind

	TOT (Spin) Single	TOD (Spin) Single
RANDOM LEG	0.921	565.1
W50/L50	0.912	696.1
W60/L40	0.912	710.4
MOSTLY WW	0.918	748.1
MOSTLY LW	0.913	579.3
MOSTLY REACH	0.925	524.8

Legacy 4 Winds

	TOT (Spin)				TOD (Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.434	0.692	0.931	1.108	1,107.0	694.9	516.2	433.9
W50/L50	0.422	0.680	0.928	1.123	1,393.0	865.4	633.8	523.7
W60/L40	0.426	0.684	0.929	1.106	1,410.9	878.4	646.8	542.9
MOSTLY WW	0.423	0.681	0.929	1.085	1,488.7	924.1	677.2	580.2
MOSTLY LW	0.411	0.664	0.921	1.175	1,183.0	732.5	527.6	413.8
MOSTLY REACH	0.448	0.706	0.934	1.101	1,006.3	638.2	482.2	409.2

Non-Spinnaker

Standard 5 Winds

	TOT (Non-Spin)					TOD (Non-Spin)				
	V.Light <5	Light 5-7	Lt/Med 7-9	Medium 9-15	Heavy >15	V.Light <5	Light 5-7	Lt/Med 7-9	Medium 9-15	Heavy >15
RANDOM LEG	0.420	0.556	0.721	0.889	1.152	1,240.4	936.5	722.3	585.2	452.0
W50/L50	0.403	0.541	0.715	0.904	1.208	1,575.4	1,173.2	887.7	702.4	525.2
W60/L40	0.416	0.556	0.730	0.913	1.190	1,556.3	1,164.9	887.7	709.9	544.3
MOSTLY WW	0.451	0.596	0.769	0.943	1.178	1,522.8	1,153.6	893.4	729.0	583.1
MOSTLY LW	0.374	0.503	0.666	0.850	1.215	1,413.6	1,051.5	793.6	621.9	435.2
MOSTLY REACH	0.428	0.564	0.725	0.885	1.124	1,134.8	861.3	669.3	548.4	431.8

Standard Single Wind

	TOT (Non-Spin) Single	TOD (Non-Spin) Single
RANDOM LEG	0.860	605.4
W50/L50	0.869	730.2
W60/L40	0.878	737.7
MOSTLY WW	0.909	756.2
MOSTLY LW	0.823	642.3
MOSTLY REACH	0.857	566.7

Legacy 4 Winds

	TOT (Non-Spin)				TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.388	0.632	0.880	1.066	1,240.4	760.2	546.2	451.1
W50/L50	0.373	0.627	0.906	1.123	1,575.4	938.7	649.2	524.0
W60/L40	0.386	0.641	0.911	1.106	1,556.3	937.1	659.1	543.2
MOSTLY WW	0.413	0.670	0.922	1.082	1,522.8	939.4	682.3	581.7
MOSTLY LW	0.344	0.579	0.850	1.120	1,413.6	839.8	572.2	434.1
MOSTLY REACH	0.397	0.641	0.876	1.045	1,134.8	703.1	514.3	431.0

Spinnaker

PHRF Benchmark

40.7

Aligned Ratings are based on the Farr
 40 MH as Scratch Boat.

PHRF Single Wind

RANDOM LEG	44.6
W50/L50	61.4
W60/L40	62.6
MOSTLY WW	61.0
MOSTLY LW	50.5
MOSTLY REACH	39.3

PHRF 5 Winds

	V.Light <5	Light 5-7	Lt/Med 7-9	Medium 9-15	Heavy >15
RANDOM LEG	118.1	83.6	58.1	40.6	31.5
W50/L50	185.5	130.0	87.7	55.9	36.9
W60/L40	191.4	134.9	91.3	57.4	33.9
MOSTLY WW	182.1	129.2	89.2	57.9	27.2
MOSTLY LW	121.2	87.1	62.5	46.3	43.8
MOSTLY REACH	99.5	70.6	49.4	35.8	28.0

Non-Spinnaker

PHRF Benchmark

62.4

Aligned Ratings are based on the Farr
 40 MH as Scratch Boat.

PHRF Single Wind

RANDOM LEG	84.9
W50/L50	95.5
W60/L40	89.9
MOSTLY WW	69.1
MOSTLY LW	113.5
MOSTLY REACH	81.2

PHRF 5 Winds

	V.Light <5	Light 5-7	Lt/Med 7-9	Medium 9-15	Heavy >15
RANDOM LEG	251.5	174.3	117.6	77.5	48.9
W50/L50	367.9	244.6	151.3	82.8	37.3
W60/L40	336.8	226.4	142.2	79.0	34.2
MOSTLY WW	216.2	151.6	102.8	65.0	28.8
MOSTLY LW	351.8	240.5	159.1	103.0	64.2
MOSTLY REACH	228.0	159.3	108.8	74.3	50.2

