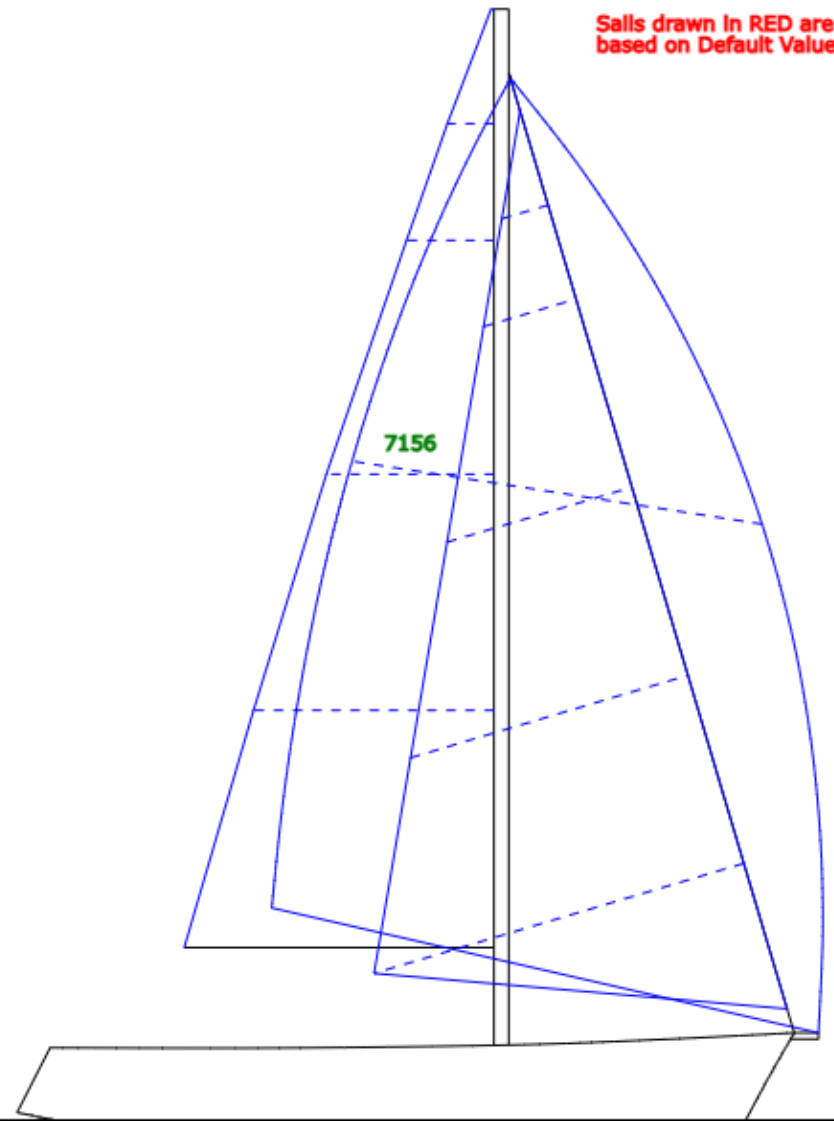


Imagine Too Catalina 445 7156

Class: Catalina 445 Configuration: Sail Number: 7156 Year Built: 2010 Builder: CATALINA Owner(s): Goshorn, Larry			
Certificate #: EZ11608 Valid Year: 2023 Type: Renew Cert Issue Date: 2023-01-23 Exp.Date: 2023-12-31 Offsets_file: CAT445JT.off Cert Group: ORR-Ez SOCAL Comment:			
Rig Type: Sloop Forestay: Masthead Keel Type: Fin Prop Type: Fixed Prop Install: Exposed Prop Blades: 3 Prop Diameter: 1.67 ft			
LOA: 43.99 ft LWL: 38.33 ft Rated Length: 39.21 ft Beam Max: 13.18 ft Draft: 6.86 ft Disp Empty: 22269 lbs Disp Sailing: 24630 lbs Crew: 1500 lbs Water Ballast: 0 lbs Wetted Area: 412.5 ft ² LPS: 107.3 ° RM20: 1414.3 ft-lbs Stab Index: 113 °			
Spinnaker: Asymmetrical tacked centerline on bow, sprit or prod Code Zero: Yes Genoa/Jib Leech: No Roach - Leech is straight Large Roach Headsail: No Jib Furler: Yes Above Deck Main Roller Furling: Yes In Mast			
Rig Dimensions IG: 53.35 ft ISP: 53.35 ft J: 15.67 ft P: 51.50 ft E: 17.00 ft TPS: 17.00 ft	Mainsail Meas. HB: 0.16 ft MGT: 2.56 ft MGU: 4.80 ft MGM: 9.20 ft MGL: 13.20 ft Area: 463.7 ft ²	Jib/Genoa Meas. LP: 21.17 ft LPG %: 135.1 % J Luff: 51.41 ft J Leech: 48.00 ft Area: 544.1 ft ²	Asymmetric Spin. Meas. ASLU: 55.05 ft ASLE: 47.84 ft AMG: 22.50 ft ASF: 30.01 ft Area: 1029.0 ft ²

Imagine Too Catalina 445 7156

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	48.2	46.8	45.2	44.2	43.6	40.9	39.9	40.4
Beat VMG	1,799.46	1,253.61	984.49	852.86	778.66	711.07	685.56	678.31
52°	1,098.40	778.75	623.65	540.05	506.49	480.35	469.46	464.34
60°	970.48	699.15	570.34	502.27	477.81	457.79	448.82	442.22
75°	870.97	625.86	509.02	464.08	446.26	425.85	414.85	407.87
90°	807.05	588.70	487.42	446.69	427.08	405.55	392.53	384.22
110°	831.43	604.77	499.02	456.99	431.04	393.55	371.39	359.55
120°	889.61	645.83	531.67	477.41	448.58	408.88	376.70	348.84
135°	1,123.23	790.87	640.25	548.60	490.03	435.52	400.56	370.80
150°	1,375.67	968.62	769.69	645.22	560.55	466.39	423.43	392.52
165°	1,534.37	1,080.35	858.47	719.60	624.04	502.32	445.95	411.42
Run VMG	1,588.49	1,118.46	888.76	744.99	646.05	520.04	458.98	422.20
Opt Run Angle	127.5	133.7	144.4	150.7	154.6	164.9	172.1	173.6

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

Performance Metrics

SA/D Dnwind:	28.220
SA/D Average:	23.75
SA/D Upwind:	19.280
D/Length:	182.3
Ave Perf Screen:	13.000
DnWind Perf	15.5
Screen:	

Standard Ratings

	TOT (Spin)				TOD (Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.363	0.594	0.829	1.005	1,319.6	807.6	578.4	476.9
W50/L50	0.341	0.563	0.803	1.006	1,722.8	1,043.0	731.1	583.6
W60/L40	0.344	0.568	0.805	0.989	1,742.7	1,055.3	744.9	606.3
MOSTLY WW	0.360	0.593	0.816	0.946	1,678.9	1,018.5	739.5	637.9
MOSTLY LW	0.356	0.576	0.807	1.046	1,329.2	822.5	586.7	452.6

Benchmark Ratings

	TOT (Spin)	TOD (Spin)
GPH	0.808	654.7
IR#	0.813	658.2

ORR-Ez PHRF

TOD (Spin)
121.9

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	1,321.1	930.3	739.3	634.5	571.7	505.8	474.6	457.5
W50/L50	1,723.0	1,205.6	951.3	809.7	721.3	622.9	578.2	555.9
W60/L40	1,742.8	1,219.2	961.9	821.0	735.0	642.1	601.1	581.7
MOSTLY WW	1,678.7	1,173.6	925.2	801.5	730.2	661.4	633.6	623.3
MOSTLY LW	1,329.4	942.9	755.5	648.7	580.3	494.7	448.7	418.5
MOSTLY REACH								

ORR-Ez PHRF Time Allowance 4 Winds

	TOD (Spin)			
	V.Light	Light	Medium	Heavy
RANDOM LEG	329.2	174.3	96.5	73.3
W50/L50	515.9	274.6	144.4	97.2
W60/L40	526.6	280.7	148.8	100.8
MOSTLY WW	511.8	267.8	139.8	96.5
MOSTLY LW	384.7	202.6	108.9	78.5

Imagine Too Catalina 445 7156

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	48.2	46.8	45.2	44.2	43.6	40.9	39.9	40.4
Beat VMG	1,799.46	1,253.61	984.49	852.86	778.66	711.07	685.56	678.31
52°	1,098.40	778.75	623.65	540.05	506.49	480.35	469.46	464.34
60°	970.48	699.15	570.34	502.27	477.81	457.79	448.82	444.35
75°	866.70	630.78	520.84	471.74	446.58	429.82	421.76	417.05
90°	861.57	627.75	519.03	471.59	445.11	414.73	404.87	398.21
110°	993.65	716.55	585.20	509.40	472.64	430.56	400.76	381.67
120°	1,189.22	827.13	648.41	559.07	499.52	446.22	413.10	385.92
135°	1,556.42	1,041.91	784.69	646.13	564.02	470.88	428.51	398.01
150°	1,787.31	1,182.89	880.76	713.71	610.65	491.72	440.17	406.89
165°	1,837.20	1,225.87	920.17	741.75	629.07	499.28	441.49	405.55
Run VMG	1,860.18	1,240.91	931.27	750.50	636.33	504.97	446.50	410.46
Opt Run Angle	171.5	171.5	171.6	171.7	171.9	172.2	173.2	173.4

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

Performance Metrics

SA/D:	19.28
D/Length:	182.3
Perf Screen:	10.6

Standard Ratings

	TOT (Non-Spin)				TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy	V.Light	Light	Medium	Heavy
RANDOM LEG	0.334	0.557	0.798	0.984	1,436.3	861.5	600.9	487.3
W50/L50	0.319	0.546	0.807	1.018	1,840.0	1,075.3	727.3	577.0
W60/L40	0.326	0.554	0.808	0.997	1,836.3	1,081.2	741.9	601.0
MOSTLY WW	0.353	0.587	0.815	0.946	1,709.4	1,028.6	740.4	637.8
MOSTLY LW	0.300	0.519	0.783	1.028	1,576.2	911.8	605.0	460.7

Benchmark Ratings

	TOT (Non-Spin)	TOD (Non-Spin)
GPH	0.768	688.7
IR#	0.803	666.4

ORR-Ez PHRF

TOD (Non-Spin)
130.1

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	1,440.5	1,001.8	785.3	665.5	593.4	518.5	484.5	466.6
W50/L50	1,846.7	1,263.3	972.9	813.1	716.9	615.4	571.8	549.9
W60/L40	1,841.5	1,265.4	979.1	823.8	731.5	636.1	596.0	576.9
MOSTLY WW	1,710.7	1,189.8	932.6	804.5	731.1	660.8	633.6	623.5
MOSTLY LW	1,584.3	1,076.7	823.4	684.2	595.8	502.1	457.0	427.4
MOSTLY REACH								

ORR-Ez PHRF Allowance 4 Winds

	TOD (Non-Spin)			
	V.Light	Light	Medium	Heavy
RANDOM LEG	445.9	228.2	119.0	83.7
W50/L50	633.1	306.9	140.6	90.6
W60/L40	620.2	306.6	145.8	95.5
MOSTLY WW	542.3	277.9	140.7	96.4
MOSTLY LW	631.7	291.9	127.2	86.6