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**2020
ORC Club
Certificate**

Rating Office

**Offshore
Racing
Congress**



Certificate

Number **US6473**
Issued On **15/10/2020**
ORC Ref **03410000S1C**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight

Default 589kg
Maximum **480kg**
Minimum* **360kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	653.7	0.9179
Non Spin OSN	634.6	0.9454

Sails Limitations

Headsails **5** Spinnakers **4**

Asymmetric on centerline

Spinnaker configuration
Symmetric: **No**
Asymmetric: **Yes 99.78**
Flying H/S: **No**
Spin. Pole: **No**

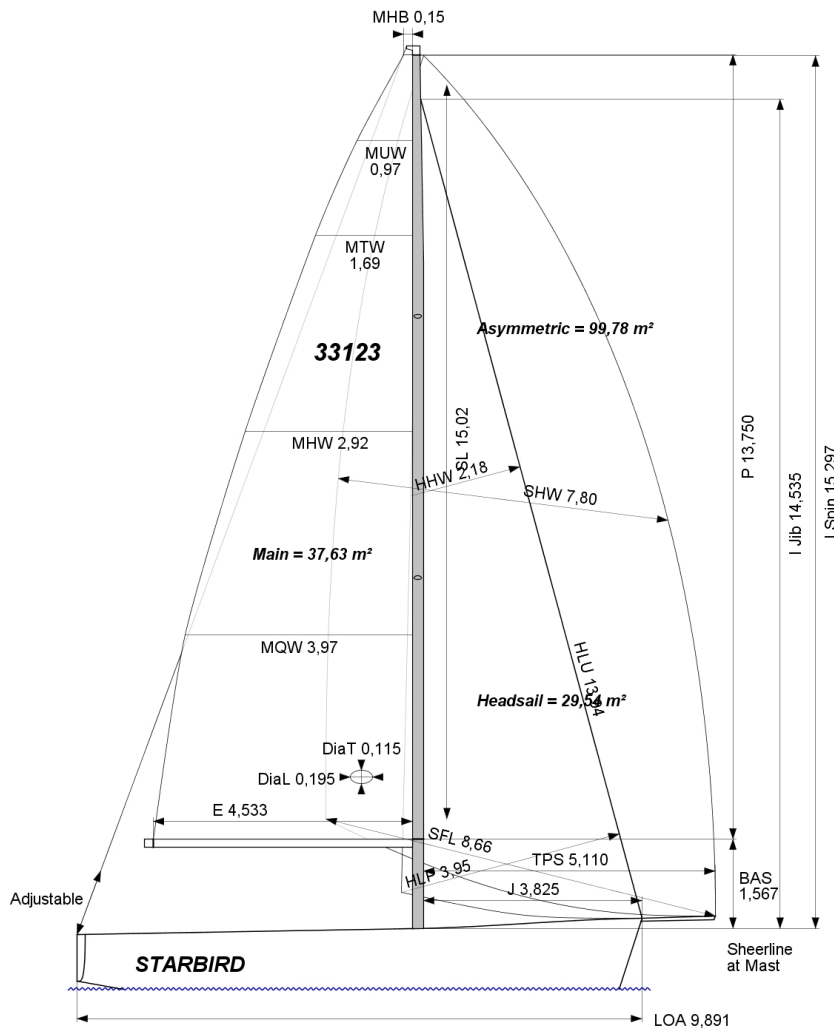
Class Division Length

CDL = 8.886

Stability (Measured)

Limit Positive Stab.: **114.5°**
Stability Index: **113.1**

Owner



BOAT	GPH	HULL
Name STARBIRD Sail Nr 33123	616.1	Data File US6473 LOA 9.891m Offset File US42491.off MB 3.304m Displacement 4,161kg Draft 1.990m
CLASS Class Tartan 101 Designer Tom McNeil Builder Tartan Yachts Series 06/2013 Age Date 11/2017 Age Allowance 0.228%		IMS Division Cruiser/Racer Dynamic All. 0.047% Plan Review Construction Cored Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions No
COMMENTS		IMSL 9.155m VCGD -0.004m Sink 17.70kg/mm RL 8.631m VCGM 0.011m WS 22.42m² LSM0 8.967m Displacement/Length ratio 5.7711
PROPELLER Installation Strut PRD 0.397 Type Folding 3 blades PBW 0.112 PIPA 0.0036		Water Ballast 0 Trim Tab No BLR Index 0.0000
		CENTERBOARD N/A
SCORING OPTIONS		
	COASTAL / LONG DISTANCE	WINDWARD / LEEWARD
Time on Distance	600.8	674.3
Time on Time	0.9986	1.0010
Triple Number	Low Medium High	Low Medium High
Time on Distance	692.5 549.2 497.7	890.0 674.9 602.7
Time on Time	0.9747 1.2290 1.3562	0.7584 1.0001 1.1199

2020

ORC Club Certificate Appendix

BOAT			
Name	STARBIRD	Certificate Number	US6473
Sail Nr	33123	Issued On	15/10/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1024.2	847.2	750.4	718.7	708.0	700.5	694.1
52°	675.4	568.8	523.3	509.2	504.1	502.0	494.7
60°	639.6	548.0	511.2	496.0	490.2	487.4	479.1
75°	613.0	534.5	502.5	482.7	469.2	462.5	457.8
90°	611.4	521.6	495.6	480.4	460.3	443.3	426.0
110°	604.5	516.1	481.3	455.3	439.8	426.6	404.4
120°	620.2	525.0	487.0	456.0	427.6	408.1	381.0
135°	687.5	563.3	507.8	477.0	447.1	418.9	356.9
150°	811.5	650.9	557.3	513.2	489.0	467.5	414.0
Run VMG	937.0	751.6	643.5	591.5	553.2	513.4	465.7
Selected Courses							
Windward / Leeward	980.6	799.4	696.9	655.1	630.6	606.9	579.9
Circular Random	835.9	679.9	598.3	552.4	524.6	505.8	479.4
Coastal / Long Distance	976.2	751.8	632.3	572.2	537.6	507.1	457.6
Non Spinnaker	907.7	729.4	633.6	578.0	543.9	521.3	491.6

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	42.4°	41.3°	39.8°	38.3°	38.3°	38.1°	38.6°
Beat VMG	3.52	4.25	4.80	5.01	5.09	5.14	5.19
52°	5.33	6.33	6.88	7.07	7.14	7.17	7.28
60°	5.63	6.57	7.04	7.26	7.34	7.39	7.51
75°	5.87	6.74	7.16	7.46	7.67	7.78	7.86
90°	5.89	6.90	7.26	7.49	7.82	8.12	8.45
110°	5.96	6.98	7.48	7.91	8.19	8.44	8.90
120°	5.80	6.86	7.39	7.89	8.42	8.82	9.45
135°	5.24	6.39	7.09	7.55	8.05	8.59	10.09
150°	4.44	5.53	6.46	7.01	7.36	7.70	8.69
Run VMG	3.84	4.79	5.59	6.09	6.51	7.01	7.73
Gybe Angles	144.0°	148.0°	149.5°	151.0°	174.0°	177.0°	177.0°