



World Leader in Rating Technology

2017 ORC Club Certificate

Rating Office

EYU
Regati 1
11911, Tallinn
Estonia

Certificate

Number **EST408**
Issued On **1.07.2017**
ORC Ref **EST00001461**
VPP Ver. **2017 1.00**
Valid until **31.12.2017**

Crew Weight

Declared **905kg**
Default* **872kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	588,5	1,0195
Double H.OSN	573,7	1,0458
Non Spin GPH	615,6	0,9747
Non Spin OSN	598,0	1,0033

Sails Limitations

Headsails **6** Spinnakers **4**

Spinnaker configuration

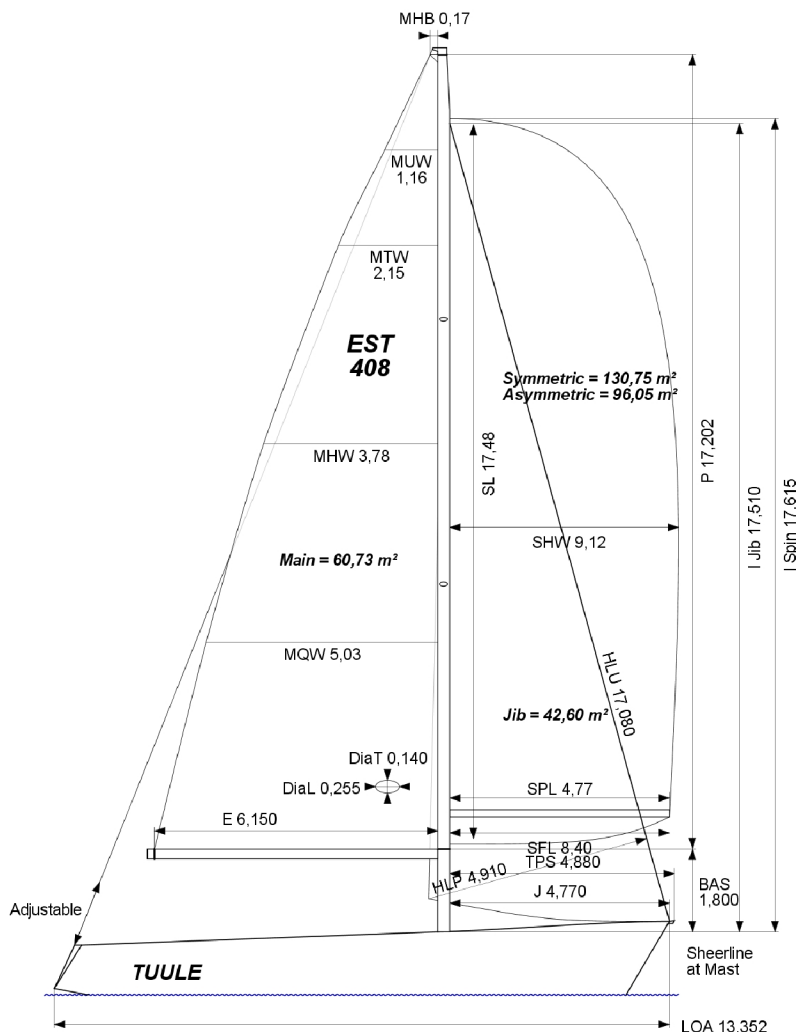
Symmetric: **Yes** **130,75**
Asymmetric: **Yes** **99,24**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 10,810

Stability (Measured)

Limit Positive Stab.: **107,5°**
Stability Index: **113,7**



BOAT	GPH	HULL
Name TUULE Sail Nr EST 408	585,1	Data File Est0408 LOA 13,352m Offset File F231.OFF MB 3,968m Displacement 9 954kg Draft 2,545m
CLASS Class First 44.7 Designer B.Farr Builder Beneteau S.A Series 11.2003 Age Date 05.2006 Age Allowance 0,455%		IMS Division Cruiser/Racer Dynamic All. 0,203% Fwd Accom. Yes Construction Solid Fiber Rigging No Aramid Core No Crew Arm Ex Carbon Rudder No Light Stanchions
COMMENTS		IMSL 11,954m VCGD 0,205m Sink 28,19kg/mm RL 9,664m VCGM 0,226m WS 36,92m² LSM0 11,802m Displacement/Length ratio 6,0552
PROPELLER Installation Strut PRD 0,470 Type Folding 2 blades PIPA 0,0031		Water Ballast 0 Trim Tab No
		CENTERBOARD N/A

SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	568,7			637,9	
Time On Time	1,0550			1,0581		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	678,7	516,2	456,5	883,7	643,3	549,7
Time on Time	0,9945	1,3077	1,4785	0,7638	1,0492	1,2279



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ORC Club Certificate Appendix

BOAT	
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Sail Nr EST 408	Issued On 1.07.2017

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1010,9	836,0	735,2	679,2	657,0	646,5	632,0
52°	656,7	550,4	489,6	464,1	455,3	451,0	445,2
60°	616,1	519,0	470,3	450,2	441,7	437,4	433,9
75°	582,9	494,7	457,3	438,5	425,7	417,3	410,5
90°	583,2	493,1	449,7	432,1	421,1	406,7	386,2
110°	597,4	491,0	447,1	424,5	407,1	391,8	374,0
120°	616,3	504,9	453,9	429,7	408,6	388,0	359,1
135°	685,7	555,3	480,7	446,2	425,4	405,2	364,6
150°	815,6	646,1	545,5	482,3	448,3	428,1	390,1
Run VMG	941,8	746,1	629,9	552,0	500,8	461,6	419,9

Selected Courses							
Windward / Leeward	976,4	791,0	682,5	615,6	578,9	554,0	526,0
Circular Random	812,3	653,2	567,2	517,0	486,0	465,7	440,3
Ocean for PCS	999,5	769,0	638,3	558,2	506,3	470,1	420,3
Non Spinnaker	867,3	692,2	596,2	539,0	503,3	479,9	451,3

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	43,4°	42,0°	41,9°	40,9°	39,8°	39,4°	39,1°
Beat VMG	3,56	4,31	4,90	5,30	5,48	5,57	5,70
52°	5,48	6,54	7,35	7,76	7,91	7,98	8,09
60°	5,84	6,94	7,65	8,00	8,15	8,23	8,30
75°	6,18	7,28	7,87	8,21	8,46	8,63	8,77
90°	6,17	7,30	8,00	8,33	8,55	8,85	9,32
110°	6,03	7,33	8,05	8,48	8,84	9,19	9,62
120°	5,84	7,13	7,93	8,38	8,81	9,28	10,03
135°	5,25	6,48	7,49	8,07	8,46	8,88	9,88
150°	4,41	5,57	6,60	7,46	8,03	8,41	9,23
Run VMG	3,82	4,83	5,72	6,52	7,19	7,80	8,57
Gybe Angles	143,8°	148,2°	150,4°	154,3°	164,4°	180,0°	180,0°