



ORC
Offshore Racing Congress
World leader in rating technology

**2019
ORC Club
Certificate**

Rating Office

**EYU
Purje 8
11911, Tallinn
Estonia**

Certificate

Number **EST475**
Issued On **8/25/2019**
ORC Ref **EST00000856**
VPP Ver. **2019 1.01**
Valid until **12/31/2019**

Crew Weight

Default 789kg
Maximum **900kg**
Minimum* **675kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	580.2	1.0341
Double H.OSN	565.7	1.0606
Non Spin GPH	602.9	0.9952
Non Spin OSN	586.3	1.0233

Sails Limitations

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

Spinnaker configuration

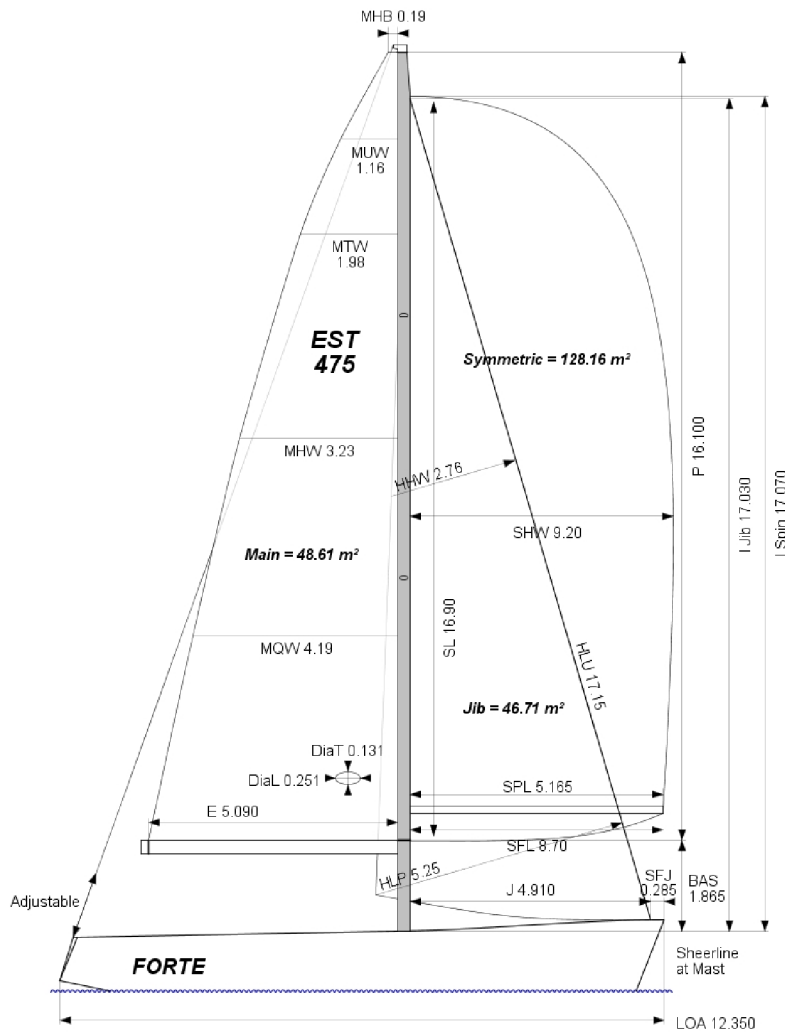
Symmetric: **Yes 128.16**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 10.769

Stability (Measured)

Limit Positive Stab.: **125.4°**
Stability Index: **128.9**



BOAT		GPH		HULL			
Name FORTE Sail Nr EST 475		570.3		Data File Est0475	LOA 12.350m		
				Offset File EST475.off	MB 3.646m		
				Displacement 6,835kg	Draft 2.496m		
CLASS				IMS Division Cruiser/Racer	Dynamic All. 0.030%		
Class X-41				Fwd Accom. Yes	Construction Cored		
Designer JEPPESEN				Fiber Rigging No	Aramid Core No		
Builder X YACHTS				Crew Arm Ex	Carbon Rudder No		
Series 01/2006				Light Stanchions			
Age Date 05/2007				IMSL 11.097m	VCGD -0.104m	Sink 23.00kg/mm	
Age Allowance 0.422%				RL 10.440m	VCGM -0.121m	WS 30.65m²	
COMMENTS				LSM0 11.004m	Displacement/Length ratio 5.1296		
				Water Ballast 0	Trim Tab No		
				BLR Index 0.0000			
PROPELLER				CENTERBOARD			
Installation Strut		PRD 0.430					
Type Folding 2 blades		PBW 0.125					
		PIPA 0.0032					
		N/A					
SCORING OPTIONS							
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD			
Time on Distance	554.3			618.8			
Time on Time	1.0825			1.0908			
Triple Number	Low	Medium	High	Low	Medium	High	
Time on Distance	650.8	505.8	451.8	839.7	620.9	541.5	
Time on Time	1.0372	1.3344	1.4940	0.8039	1.0872	1.2465	

BOAT	
Name FORTE	Sail Nr EST 475
File Est0475	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 12/05/2019		SG 1.0000	
FFM 1.444	FF 1.454	SFFP 0.200	
FAM 1.094	FA 1.101	SAFP 11.995	
W1 106.1	PD1 583.2	WD 13.506	
W2 106.1	PD2 589.2	GSA 1.0	
W3 106.1	PD3 575.5	RSA 1.0	
W4 106.1	PD4 553.0	PLM 9000.0	
LCF from stem on CL / on sheer		6.911 / 7.126	
Maximum beam station from stem		8.432	
RM Measured		196.3kg·m	
RM Default		199.5kg·m	
Limit of positive stability / Stab.Index		125.4° / 128.9	
Freeboard at mast at 5.195		1.212	



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2019
Measurements
Datasheet

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows No	Jib Furler No		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 16.100	E 5.090	MDT1 0.131	MW 0.251
IG 17.030	J 4.910	MDL1 0.251	GO 0.276
ISP 17.070	SFJ 0.285	MDT2 0.122	BD 0.270
BAS 1.865	SPL 5.165	MDL2 0.190	MWT 204.00
FSP 0.072	TPS	TL 0.850	MCG 5.810

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.430		
Type Folding 2 blades	PBW 0.125		
Twin Screw No	PIPA 0.0032		
ST1 0.060	ST3	ST5 0.325	
ST2	ST4 0.092	EDL 1.540	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
6	0.19	1.16	1.98	3.23	4.19	48.62				Unknown	P16,10;E5,09					
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
10	0.12	0.80	1.47	2.76	4.02	5.25	17.15	107%	46.71						Unknown	2019 light
9	0.12	0.76	1.42	2.70	3.97	5.24	17.05	107%	45.77	Y					Unknown	2015 medium
5	0.09	0.56	1.08	2.19	3.40	4.70	16.49	96%	37.47	Y	D206				Unknown	G3,5
SYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
8	16.90	16.90	16.90	9.20	8.70	128.16				Unknown	uus Doyle					
7	16.92	16.92	16.92	9.00	8.70	126.06				Unknown	heavy S4					
3	16.94	16.94	16.94	8.63	8.70	122.03	EST 2	01/07/2011		Unknown	reacher					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				

MEASUREMENT INVENTORY				
Measurer Grubiša, Pindozi				
Date 12/05/2019				
Comment Pirita				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	Volvo-Penta	D2 (29 kW)	
Id	Item	Weight	Description	

MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condn	Description
1	Tank	Fuel	metal	90.0	7.00		20.0	
2	Tank	Water	plastic	180.0	6.00		0.0	
3	Tank	Waste	metal	15.0	4.00		0.0	
4	Tank	Boiler	metal	15.0	10.00		0.0	
Id	Item	Weight	Distance	VCG Description				
1	Battery	25.0	8.00	Engine battery				
2	Battery	120.0	5.00	Service batteries				

2009

ORC Club Certificate Appendix

BOAT	
Name FORTE	Certificate Number EST475
Sail Nr EST 475	Issued On 8/25/2019

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	942.3	775.3	685.6	653.5	640.6	633.7	620.4
52°	619.1	520.3	477.4	463.4	458.0	455.4	447.8
60°	586.2	500.6	466.1	451.8	445.8	442.5	435.6
75°	561.6	487.6	458.1	440.3	427.7	420.9	415.0
90°	568.2	489.2	458.0	438.6	420.7	405.1	387.1
110°	586.1	486.5	448.3	424.0	407.4	394.7	374.6
120°	601.7	495.2	453.0	425.9	399.6	378.8	355.7
135°	665.9	537.8	474.1	444.4	418.6	392.8	340.9
150°	790.8	630.4	532.2	475.4	446.9	423.1	375.9
Run VMG	913.2	727.9	614.6	543.1	496.4	461.2	414.7
Selected Courses							
Windward / Leeward	927.8	751.6	650.1	598.3	568.5	547.4	517.6
Circular Random	782.8	633.0	553.4	507.5	479.3	460.2	434.0
Coastal / Long Distance	926.3	707.1	588.4	524.3	489.8	461.3	416.3
Non Spinnaker	841.4	674.5	584.2	531.3	498.4	476.6	447.7

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	42.6°	41.2°	39.9°	38.1°	37.9°	37.6°	37.6°
Beat VMG	3.82	4.64	5.25	5.51	5.62	5.68	5.80
52°	5.82	6.92	7.54	7.77	7.86	7.91	8.04
60°	6.14	7.19	7.72	7.97	8.08	8.14	8.27
75°	6.41	7.38	7.86	8.18	8.42	8.55	8.68
90°	6.34	7.36	7.86	8.21	8.56	8.89	9.30
110°	6.14	7.40	8.03	8.49	8.84	9.12	9.61
120°	5.98	7.27	7.95	8.45	9.01	9.50	10.12
135°	5.41	6.69	7.59	8.10	8.60	9.16	10.56
150°	4.55	5.71	6.76	7.57	8.06	8.51	9.58
Run VMG	3.94	4.95	5.86	6.63	7.25	7.81	8.68
Gybe Angles	142.2°	147.2°	149.6°	155.5°	168.8°	180.0°	180.0°