



ORC

Offshore Racing Congress
World leader in rating technology

**2019
ORC Club
Certificate**

Rating Office

**EYU
Purje 8
11911, Tallinn
Estonia**

Certificate

Number **EST407**
Issued On **4/30/2019**
ORC Ref **EST00000511**
VPP Ver. **2019 1.01**
Valid until **12/31/2019**

Crew Weight

Default 643kg
Maximum **665kg**
Minimum* **499kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	637.0	0.9419
Double H.OSN	620.1	0.9676
Non Spin GPH	658.9	0.9106
Non Spin OSN	638.6	0.9396

Sails Limitations

Headsails **5** Spinnakers **3**

Spinnaker configuration

Symmetric: **Yes 87.95**
Asymmetric: **No**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = 9.201

Stability (Measured)

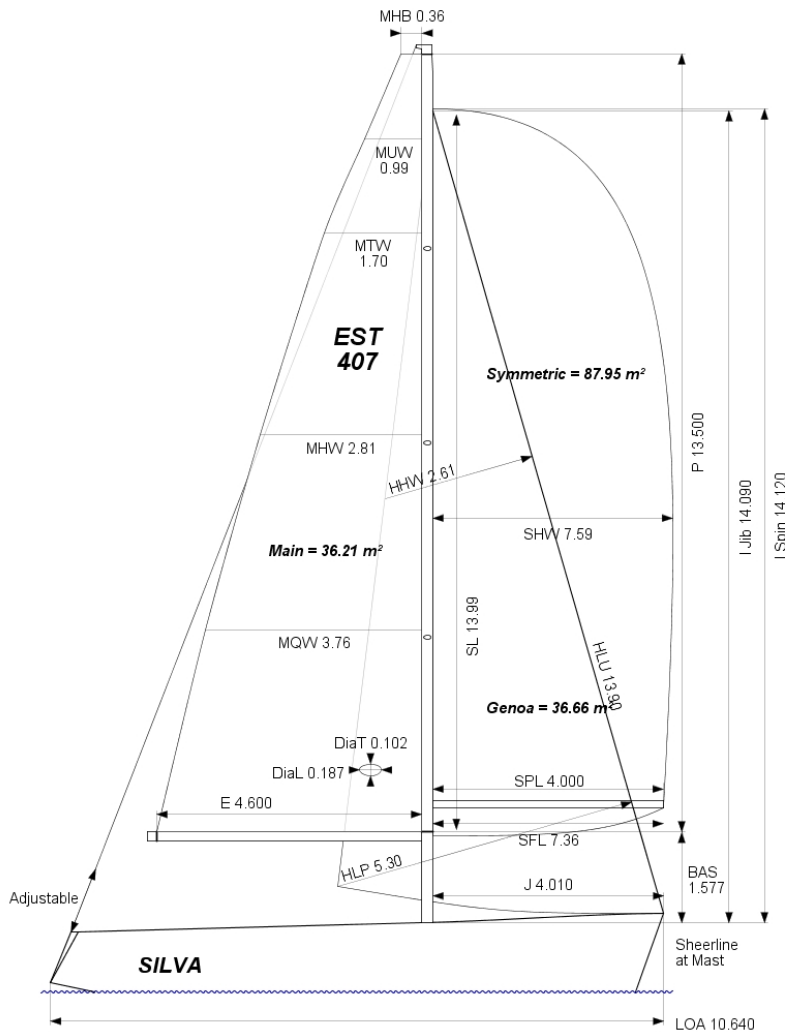
Limit Positive Stab.: **113.9°**
Stability Index: **116.2**

Owner

**JONGERT OÜ
Vinkli 4
Tallinn, Estonia
ESS Kalev JK**

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature



BOAT		GPH		HULL				
Name	SILVA	629.6	Data File	Est0407	LOA	10.640m		
Sail Nr	EST 407		Offset File	B367-NR.OFF	MB	3.458m		
			Displacement	5,780kg	Draft	2.232m		
CLASS				IMS Division	Cruiser/Racer	Dynamic All.	0.165%	
Class	First 36.7			Fwd Accom.	Yes	Construction	Solid	
Designer	B.Farr			Fiber Rigging	No	Aramid Core	No	
Builder	Beneteau S.A.			Crew Arm Ex		Carbon Rudder	Yes	
Series	01/2001						Light Stanchions	
Age Date	05/2006			IMSL	9.632m	VCGD	0.125m	
Age Allowance	0.487%			RL	8.768m	VCGM	0.104m	
				WS	25.30m²	LSM0	9.533m	
				Displacement/Length ratio				6.6717
COMMENTS				Water Ballast	0	Trim Tab	No	
				BLR Index	0.0000			
PROPELLER				CENTERBOARD				
Installation	Strut	PRD	0.410	N/A				
Type	Folding 2 blades	PIPA	0.0027					
SCORING OPTIONS								
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD				
Time on Distance	611.1			678.6				
Time on Time	0.9818			0.9947				
Triple Number	Low	Medium	High	Low	Medium	High		
Time on Distance	720.8	557.8	499.6	928.0	682.3	592.9		
Time on Time	0.9365	1.2101	1.3511	0.7274	0.9893	1.1385		

BOAT	
Name SILVA	Sail Nr EST 407
File Est0407	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 21/06/2012		SG 1.0020	
FFM 1.341	FF 1.351	SFFP 0.367	
FAM 1.028	FA 1.035	SAFP 10.162	
W1 77.8	PD1 479.4	WD 10.510	
W2 77.8	PD2 476.1	GSA 1.0	
W3 77.8	PD3 473.0	RSA 1.0	
W4 77.8	PD4 473.1	PLM 9000.0	
LCF from stem on CL / on sheer		5.919 / 6.148	
Maximum beam station from stem		6.980	
RM Measured		135.5kg·m	
RM Default		140.4kg·m	
Limit of positive stability / Stab.Index		113.9° / 116.2	
Freeboard at mast at 4.010		1.189	



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2019
Measurements
Datasheet

RIG			
Forestay Tension Aft	Spreaders 3		
Inner Stay None Fitted	Runners 0		
Carbon Mast No	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 13.500	E 4.600	MDT1 0.102	MW 0.187
IG 14.090	J 4.010	MDL1 0.187	GO 0.206
ISP 14.120	SFJ 0.000	MDT2 0.102	BD 0.160
BAS 1.577	SPL 4.000	MDL2 0.174	MWT 149.00
FSP 0.066	TPS	TL 0.370	MCG 5.100

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.410		
Type Folding 2 blades	PBW		
Twin Screw No	PIPA 0.0027		
ST1 0.042	ST3 0.180	ST5 0.280	
ST2 0.180	ST4 0.090	EDL 2.480	

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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					
4a	0.36	0.99	1.70	2.81	3.76	36.22	EST 7	14/04/2018	OneSails	Unknown						
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
8	0.08	0.69	1.32	2.61	3.93	5.30	13.90	132%	36.67			Sisil	02/04/2019	Nort	Unknown	Unknown
4b	0.09	0.67	1.30	2.58	3.88	5.27	13.67	131%	35.68			EST 7	14/04/2018	North	Unknown	Light-Medium
6a	0.10	0.63	1.22	2.48	3.83	5.29	13.71	132%	35.13			EST 7	14/04/2018	North	Unknown	Heavy
7a	0.10	0.56	1.05	2.05	3.06	4.02	13.83	100%	28.34			EST 7	14/04/2018		Unknown	G3
SYMMETRIC SPINNAKERS (5)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
1	13.99	13.99	13.99	7.59	7.36	87.96	D206	20/06/2006		Unknown	kollane					
8	13.93	13.93	13.93	7.61	7.39	87.83	Hemamali	02/04/2019	North	Unknown						
7	13.75	13.75	13.75	7.70	7.22	87.13	EST 7	14/04/2018		Unknown	S-1					
5	13.92	13.92	13.92	7.55	7.27	86.94	EST 2	28/05/2013		Unknown	S-2					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				

MEASUREMENT INVENTORY				
Measurer Veiko Rosme EST 2				
Date 21/06/2012				
Comment				
Id	Item	Weight	Distance	VCG Description
4	Anchor	40.0	5.40	Anchor-stb.
2	Anchor	40.0	5.40	Anchor-srb.
4	Tools	5.0	7.20	Toolbox, stb.
2	Tools	2.5	7.20	Toolbox, stb.
Id	Item	Maker	Model	
1	Engine	Yanmar	3YM30	
Id	Item	Weight	Description	

MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condn	Description
1	Tank	Water	plastic	150.0	4.75		0-0	Fresh Water, stb.
2	Tank	Water	plastic	150.0	4.75		0-0	Fresh Water, ports.
3	Tank	Fuel	plastic	75.0	8.80		0-0	Fuel Tank
Id	Item	Weight	Distance	VCG Description				
1	Battery		6.90	2x100 Ah under engine cover				
2	Battery		7.90	100 Ah, stb				
1	Misc		8.00	Boiler Quick Nautic, ports.				
2	Misc		10.00	Heater Eberspracher				
3	Misc	8.0	7.20	Life jackets				

2019

ORC Club Certificate Appendix

BOAT	
Name SILVA	Certificate Number EST407
Sail Nr EST 407	Issued On 4/30/2019

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1040.7	868.6	765.7	713.1	695.6	688.8	687.9
52°	686.3	582.9	529.3	507.4	499.0	495.4	494.2
60°	651.3	557.9	516.0	496.8	486.9	482.7	480.3
75°	625.6	541.1	506.5	487.6	473.8	463.8	456.1
90°	633.4	542.1	500.6	482.2	469.4	454.4	432.0
110°	646.3	537.2	494.7	470.6	449.4	434.1	415.8
120°	665.5	549.4	500.4	474.9	451.9	429.7	398.2
135°	734.5	599.6	524.6	491.4	468.6	445.8	403.0
150°	869.2	691.9	586.6	522.7	492.3	470.8	429.0
Run VMG	1003.6	798.9	676.7	595.2	539.1	502.6	459.8
Selected Courses							
Windward / Leeward	1022.2	833.8	721.2	654.2	617.4	595.7	573.9
Circular Random	864.9	699.4	610.8	559.7	528.7	508.8	485.0
Coastal / Long Distance	1020.3	784.1	651.9	575.6	538.1	509.3	463.7
Non Spinnaker	918.0	736.8	638.5	581.1	545.9	523.3	496.0

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	42.2°	40.6°	40.0°	38.5°	37.7°	37.3°	38.2°
Beat VMG	3.46	4.14	4.70	5.05	5.18	5.23	5.23
52°	5.25	6.18	6.80	7.10	7.21	7.27	7.28
60°	5.53	6.45	6.98	7.25	7.39	7.46	7.50
75°	5.75	6.65	7.11	7.38	7.60	7.76	7.89
90°	5.68	6.64	7.19	7.47	7.67	7.92	8.33
110°	5.57	6.70	7.28	7.65	8.01	8.29	8.66
120°	5.41	6.55	7.19	7.58	7.97	8.38	9.04
135°	4.90	6.00	6.86	7.33	7.68	8.08	8.93
150°	4.14	5.20	6.14	6.89	7.31	7.65	8.39
Run VMG	3.59	4.51	5.32	6.05	6.68	7.16	7.83
Gybe Angles	145.3°	149.8°	151.2°	157.2°	175.2°	180.0°	180.0°