



World Leader in Rating Technology

2017 ORC Club Certificate

Rating Office

Žemaites 6
LT-03117 Vilnius
Lithuania
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Certificate

Number **LT422**
Issued On **2017-07-21**
ORC Ref **lt00000244**
VPP Ver. **2017 1.00**
Valid until **2017-12-31**

Crew Weight

Declared **410kg**
Default* **483kg**
Non Manual Pwr **No**

Special Scoring

ToD ToT
Non Spin GPH **697.2 0.8606**
Non Spin OSN **678.4 0.8844**

Sails Limitations

Headsails **1** Spinnakers **3**

Spinnaker configuration

Symmetric: **No**
Asymmetric: **Yes 55.94**
Flying H/S: **No**
Spin. Pole: **No**

Class Division Length

CDL = **7.544**

Stability (Measured)

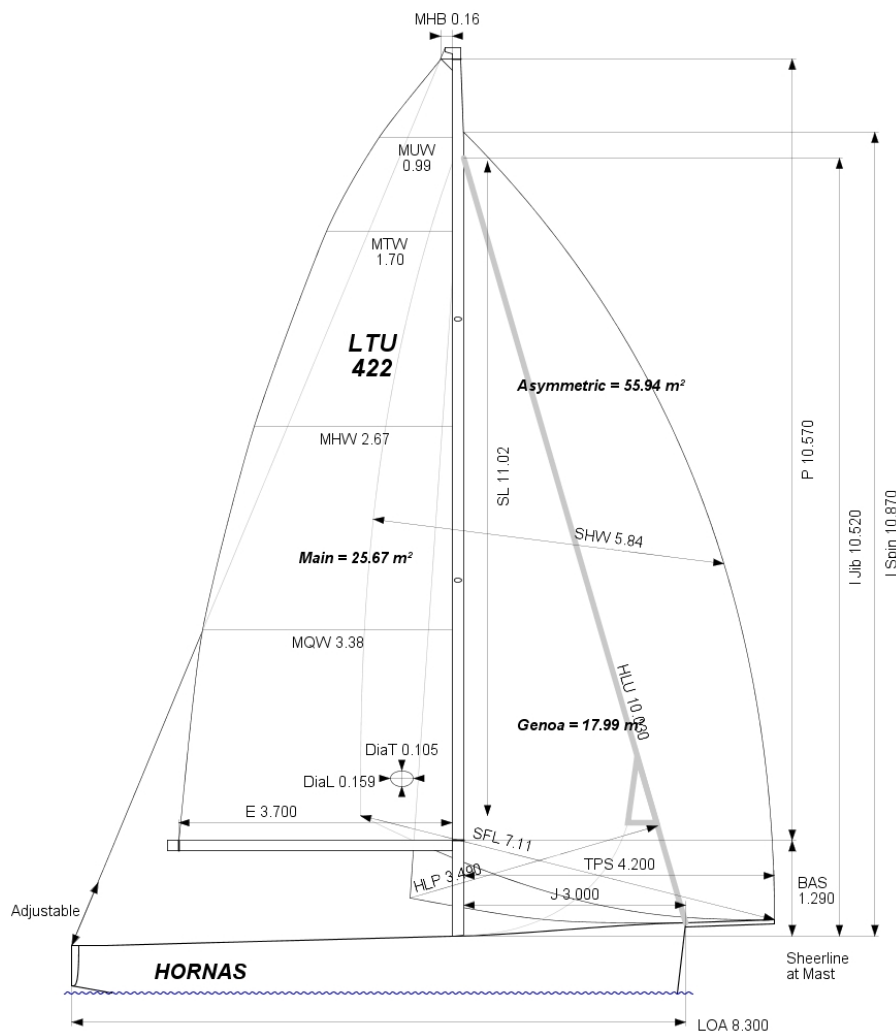
Limit Positive Stab.: **104.5°**
Stability Index: **99.6**

Owner

BK "Nautikus"
Kaunas
Lithuania

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

Signature



BOAT		GPH		HULL		
Name Hornas Sail Nr LTU422		662.5		Data File Hornas LTU422	LOA 8.300m	
				Offset File RS280.OFF	MB 2.656m	
				Displacement 1,875kg	Draft 1.726m	
CLASS				IMS Division Sportboat	Dynamic All. 0.186%	
Class RS 280				Fwd Accom. Yes	Construction Cored	
Designer UAB Plastolitas				Fiber Rigging No	Aramid Core No	
Builder UAB Plastolitas				Crew Arm Ex	Carbon Rudder No	
Series 06-1998					Light Stanchions	
Age Date 06-2002				IMSL 7.983m	VCGD 0.022m	Sink 11.69kg/mm
Age Allowance 0.487%				RL 7.104m	VCGM 0.027m	WS 15.42m²
COMMENTS				LSM0 7.803m	Displacement/Length ratio 3.9465	
				Water Ballast 0	Trim Tab No	
PROPELLER				CENTERBOARD		
Type No Propeller				N/A		
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	647.3			735.1		
Time On Time	0.9269			0.9183		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	751.6	589.4	525.9	976.0	733.9	653.0
Time on Time	0.8981	1.1453	1.2835	0.6916	0.9198	1.0337

BOAT	
Name Hornas	Sail Nr LTU422
File Hornas LTU422	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date		SG 1.0000	
FFM 0.925	FF 0.935	SFFP 0.499	
FAM 0.642	FA 0.644	SAFP 7.839	
W1 33.5	PD1 248.0	WD 7.480	
W2 33.5	PD2 251.0	GSA 50.2	
W3 33.5	PD3 249.0	RSA 5407.9	
W4 33.5	PD4 251.0	PLM 2500.0	
LCF from stem on CL / on sheer		4.485 / 4.633	
Maximum beam station from stem		6.000	
RM Measured		43.5kg·m	
RM Default		48.3kg·m	
Limit of positive stability / Stab.Index		104.5° / 99.6	
Freeboard at mast at 3.000		0.769	



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2017 Measurements Datasheet

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast No	Jumper Struts None		
Taper Hollows Yes	Jib Furler Yes		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 10.570	E 3.700	MDT1 0.105	MW 0.159
IG 10.520	J 3.000	MDL1 0.159	GO 0.169
ISP 10.870	SFJ 0.000	MDT2 0.105	BD 0.130
BAS 1.290	SPL 0.000	MDL2 0.120	MWT 80.30
FSP 0.048	TPS 4.200	TL 1.124	MCG 4.440

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER	
Type No Propeller	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS INVENTORY																
MANSAL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
117	0.155	0.99	1.70	2.67	3.38	25.66	V.Gricius	01-07-2010	North Sail	Unknown						
M0036	0.165	0.97	1.68	2.69	3.28	25.38			North Sail	Unknown						
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
J0057	0.10	0.52	0.97	1.81	2.63	3.49	10.03	116%	18.00	Y			16-06-2017		Unknown	Unknow
J0035						3.49	10.03	116%	17.82					North Sail	Unknown	Unknow
J0042						3.49	10.00	116%	17.77					North Sail	Unknown	Unknow
215						3.43	9.97	114%	17.41						Unknown	Unknow
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
B/N	11.94	10.09	11.02	5.84	7.11	55.94	asym	V.Gricius	01-07-2010		Unknown					
B/N	11.81	10.20	11.00	5.84	7.10	55.87	asym			North Sail	Unknown					
419	12.03	9.97	11.00	5.80	7.03	55.42	asym			North Sail	Unknown					

MEASUREMENT INVENTORY					
Measurer Vytautas Gricius					
Date					
Comment					
Id	Item	Weight	Distance	VCG Description	
+	Anchor	5.0	3.00		
+	Chain	40.0	3.00		
+	Tools	5.0	3.40		
Id	Item	Weight	Description		

MEASUREMENT INVENTORY				
Id	Item	Weight	Distance	VCG Description
1	Battery	10.0	3.00	
1	Misc	5.0	3.00	Inkaro virve



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2017

ORC Club Certificate Appendix

BOAT	
Name	Hornas
Certificate Number	LT422
Sail Nr	LTU422
Issued On	2017-07-21

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1137.5	939.9	826.8	792.2	780.5	776.1	773.3
52°	736.8	615.7	564.1	549.7	543.7	540.3	533.4
60°	689.3	586.1	546.9	530.9	523.6	519.5	508.8
75°	650.0	566.0	532.1	504.3	487.8	479.5	473.0
90°	643.2	553.7	521.6	498.6	468.7	445.3	430.2
110°	644.8	552.3	511.0	470.1	448.0	427.9	399.5
120°	667.1	563.1	521.1	479.0	436.0	406.7	371.5
135°	745.4	604.9	546.0	509.2	469.6	429.7	348.4
150°	881.4	700.2	597.5	552.1	522.9	493.0	416.7
Run VMG	1017.8	808.5	690.0	635.3	581.9	543.8	481.2

Selected Courses							
Windward / Leeward	1077.6	874.2	758.4	713.7	681.2	660.0	627.2
Circular Random	905.3	734.0	643.3	591.0	558.4	535.7	502.7
Ocean for PCS	1111.8	862.2	722.4	636.5	579.2	536.9	473.1
Non Spinnaker	970.6	779.0	675.7	615.4	577.9	552.6	517.8

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	43.6°	42.6°	41.3°	39.9°	39.6°	39.6°	40.8°
Beat VMG	3.16	3.83	4.35	4.54	4.61	4.64	4.66
52°	4.89	5.85	6.38	6.55	6.62	6.66	6.75
60°	5.22	6.14	6.58	6.78	6.88	6.93	7.08
75°	5.54	6.36	6.77	7.14	7.38	7.51	7.61
90°	5.60	6.50	6.90	7.22	7.68	8.08	8.37
110°	5.58	6.52	7.04	7.66	8.03	8.41	9.01
120°	5.40	6.39	6.91	7.52	8.26	8.85	9.69
135°	4.83	5.95	6.59	7.07	7.67	8.38	10.33
150°	4.08	5.14	6.02	6.52	6.88	7.30	8.64
Run VMG	3.54	4.45	5.22	5.67	6.19	6.62	7.48
Gybe Angles	144.5°	147.8°	149.3°	151.5°	176.1°	177.9°	141.5°