



2020 ORC Club Certificate

Rating Office
Hellenic Sailing Federation
Offshore Committee
Επιτροπή
Ανοικτής Θαλάσσης
Ελληνικής
Ιστιοπλοϊκής Ομοσπονδίας

Certificate
 Number **00114**
 Issued On **30/09/2020**
 ORC Ref **03420000R3B**
 VPP Ver. **2020 1.02**
 Valid until **28/02/2021**

Crew Weight

Default	728kg
Maximum	550kg
Minimum*	413kg

**when applied by the NoR and SI*
 Non Manual Pwr **No**

Special Scoring

ToD	ToT
Non Spin GPH 653.0	0.9188
Non Spin OSN 633.6	0.9469

Sails Limitations

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

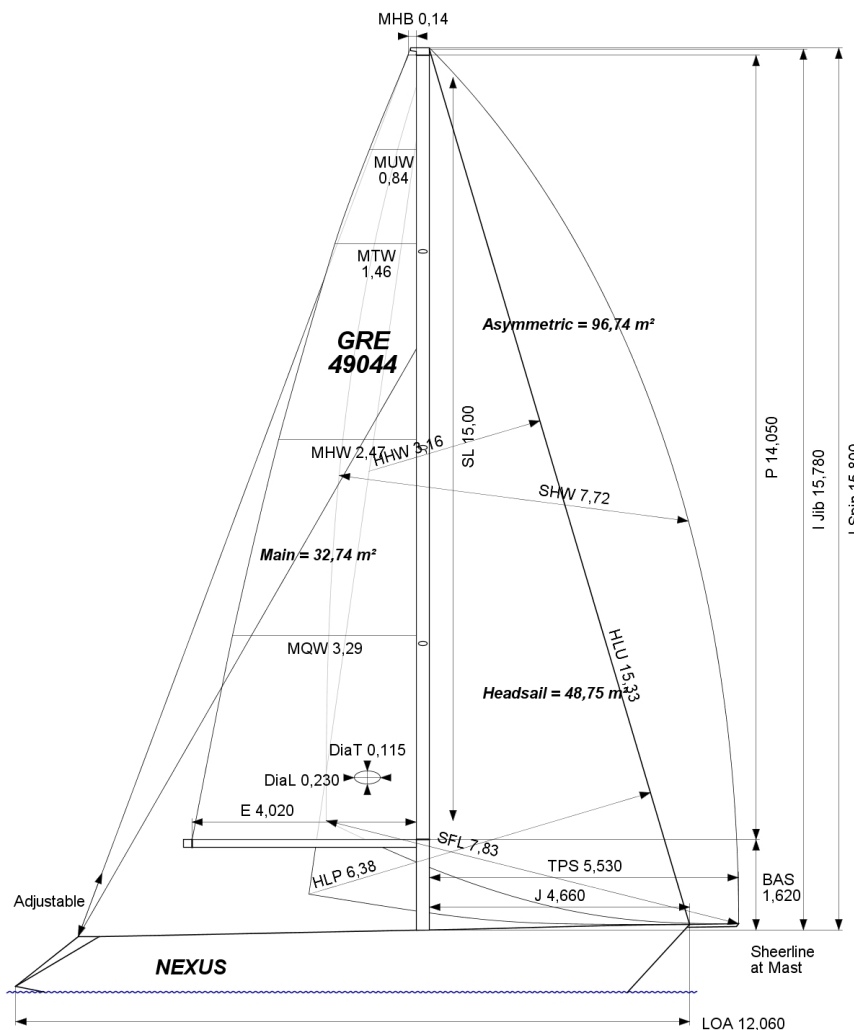
Asymmetric on centerline

Spinnaker configuration
 Symmetric: **No**
 Asymmetric: **Yes 96.74**
 Flying H/S: **No**
 Spin. Pole: **No**

Class Division Length
CDL = 9.774

Stability (Measured)
 Limit Positive Stab.: **107.0°**
 Stability Index: **107.4**

Owner



BOAT
 Name **NEXUS**
 Sail Nr **GRE-49044**

GPH
622.1

HULL

Data File	GR49044	LOA	12.060m
Offset File	NXS2K6D.OFF	MB	3.974m
Displacement	7,000kg	Draft	2.261m

CLASS

Class	X-402 DK Mod.
Designer	NIELS JEPPESEN
Builder	X-YACHTS
Series	02/1984
Age Date	01/1985
Age Allowance	0.487%

IMS Division	Cruiser/Racer	Dynamic All.	0.306%
Plan Review		Construction	Solid
Fiber Rigging	No	Aramid Core	No
Crew Arm Ex		Carbon Rudder	No
		Light Stanchions	No

IMSL	10.500m	VCGD	0.164m	Sink	21.98kg/mm
RL	9.056m	VCGM	0.145m	WS	29.24m²
LSM0	10.404m	Displacement/Length ratio		6.2158	

COMMENTS

Water Ballast **0** Trim Tab **No**
 BLR Index **0.0000**

PROPELLER

Installation	Shaft exposed	PRD	0.460
Type	Feathering 3 blades	PBW	0.146
		PIPA	0.0046

CENTERBOARD
N/A

SCORING OPTIONS

	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time on Distance	604.3			677.9		
Time on Time	0.9929			0.9958		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	713.6	550.3	494.1	920.9	681.8	596.3
Time on Time	0.9459	1.2267	1.3662	0.7330	0.9900	1.1319

BOAT	
Name NEXUS	Sail Nr GRE-49044
File GR49044	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS					
Inclining Test Current Inclining					
Flotation date 17/04/2018			SG		
FFM	1.195	FF	1.197	SFFP	0.490
FAM	0.995	FA	0.996	SAFP	10.570
W1	84.1	PD1	551.9	WD	12.700
W2	84.1	PD2	554.5	GSA	1.0
W3	84.1	PD3	550.1	RSA	1.0
W4	84.1	PD4	546.8	PLM	9000.0
LCF from stem on CL / on sheer				6.564 / 6.852	
Maximum beam station from stem				6.980	
RM Measured				152.7kg-m	
RM Default				161.1kg-m	
Limit of positive stability / Stab.Index				107.0° / 107.4	
Freeboard at mast at 4.660				1.110	



ORC
Offshore Racing Congress
World leader in rating technology

2020
Measurements
Datasheet

RIG					
Forestay Tension	Aft	Spreaders		3	
Inner Stay	None Fitted	Runners/Checkstays	1		
Carbon Mast	No	Jib Furler	No		
Fiber Rigging	No	Main Furler	No		
Non-Circular Rigging	No				
Articulated Bowsprit	No				
P	14.050	E	4.020	MDT1	0.115 MW
IG	15.780	J	4.660	MDL1	0.230 GO
ISP	15.800	SFJ	0.000	MDT2	BD
BAS	1.620	SPL		MDL2	MWT
FSD	0.040	TPS	5.530	TL	-3.000 MCG

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation	Shaft exposed	PRD	0.460
Type	Feathering 3 blades	PBW	0.146
Twin Screw	No	PIPA	0.0046
PSA	19.200	PHL	0.140 ST3
PSD	0.030	ST1	0.032 ST4
PHD	0.058	ST2	0.110 ST5
ESL	0.875		

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS INVENTORY																
MAINSAIL (2)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.14	0.84	1.46	2.47	3.29	32.74		04/04/2018	KAKITSIS	Dacron						
1	0.17	0.77	1.36	2.36	3.18	31.61		17/07/2012		Dacron						
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.05	0.79	1.57	3.16	4.78	6.38	15.33	137%	48.75		No		12/09/2020	KAKITSIS	Pentex	
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A1	15.50	14.49	15.00	7.72	7.83	96.75	asym		12/09/2020	KAKITSIS	Nylon					

MEASUREMENT INVENTORY				
Measurer GRE-33				
Date 17/04/2018				
Comment				
Internal Ballast total = 90.0				
Id	Item	Weight	Distance	VCG Description
3	Engine			Buhk 36 Hp
Id	Item	Weight	Distance	Description

MEASUREMENT INVENTORY									
Id	Item	Tank	Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
4d	Tank	Fuel		Inox	90.0	6.30			30-0
4c	Tank	Water		Inox	50.0	5.00			0-0
4b	Tank	Water		Inox	250.0	6.20			0-0
4a	Tank	Water		Inox	150.0	5.00			0-0
Id	Item	Weight	Distance	VCG	Description				
1	Ballast	90.0	5.00		4x18kgr Starboard, 1x18kgr Port				
2b	Battery	20.0	5.90		100 Ah				
2c	Battery	30.0	4.50		150 Ah				
2d	Battery	30.0	4.20		100 Ah AGM				
2a	Battery	20.0	5.90		100 Ah				
5g	Misc	12.0	7.00		Melamine covers 3mm x 1.77 x 2.50				
5j	Misc	15.0	0.80		Anchor Windlass Lewmar Sprint				
5k	Misc	15.0	10.50		Auto Pilot B&G Mechanism (RAM)				
5f	Misc	5.0	7.20		PSU VHF				

2020

ORC Club Certificate Appendix

BOAT	
Name	NEXUS
Sail Nr	GRE-49044
Certificate Number	00114
Issued On	30/09/2020

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1023.8	849.2	751.8	701.7	681.8	672.5	671.8
52°	674.1	570.3	516.5	495.2	486.2	481.9	479.3
60°	639.7	545.2	502.5	484.1	474.2	469.3	465.8
75°	615.2	528.3	492.4	474.3	461.7	452.0	442.3
90°	623.5	531.2	489.8	468.7	457.2	444.0	423.0
110°	644.0	530.5	483.6	460.1	440.1	422.6	403.7
120°	664.7	545.7	490.2	464.2	442.6	421.4	387.7
135°	740.2	599.8	518.0	480.8	458.2	436.7	395.7
150°	875.3	692.8	589.1	525.1	494.0	473.9	441.5
Run VMG	1010.7	799.9	680.2	606.3	569.7	528.2	473.7
Selected Courses							
Windward / Leeward	1017.2	824.6	716.0	654.0	625.8	600.4	572.7
Circular Random	856.6	691.4	603.3	552.8	522.4	502.9	479.1
Coastal / Long Distance	1016.6	775.4	645.1	569.3	533.4	503.2	456.7
Non Spinnaker	915.6	732.4	632.5	573.7	537.5	514.3	487.5

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°	40.5°	40.3°	39.0°	38.3°	37.7°	37.9°
Beat VMG	3.52	4.24	4.79	5.13	5.28	5.35	5.36
52°	5.34	6.31	6.97	7.27	7.40	7.47	7.51
60°	5.63	6.60	7.16	7.44	7.59	7.67	7.73
75°	5.85	6.81	7.31	7.59	7.80	7.96	8.14
90°	5.77	6.78	7.35	7.68	7.87	8.11	8.51
110°	5.59	6.79	7.44	7.82	8.18	8.52	8.92
120°	5.42	6.60	7.34	7.76	8.13	8.54	9.29
135°	4.86	6.00	6.95	7.49	7.86	8.24	9.10
150°	4.11	5.20	6.11	6.86	7.29	7.60	8.15
Run VMG	3.56	4.50	5.29	5.94	6.32	6.82	7.60
Gybe Angles	145.0°	147.5°	147.5°	148.3°	150.5°	175.0°	178.0°