

BOAT
Name Jai Alai Sail Nr NED 7439

GPH
625.1

HULL			
Length Overall	10.757m		
Maximum Beam	3.524m		
Displacement	5,554kg		
Draft	2.157m		
IMS Reg. Division	Cruiser/Racer		
Dynamic Allowance	0.083%		
Fwd Accommodation	Yes		
Hull Construction	Solid		
Carbon Rudder	No		
Crew Arm Extension			
IMSL	9.771m	VCGD	0.129m Sink 19.01kg/mm
RL	8.495m	VCGM	0.071m WS 25.64m²
LSM0	9.613m	Displacement/Length ratio	6.2521



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2016
ORC International
Certificate

GENERAL
Class J-109
Designer Johnstone
Builder J-Composite
Series 01/2001
Age 03/2005
Age Allowance 0.487%
Offset File f199.off - 12/03/2002 08:46:54
Measurement by L. Zandwijk - 13/10/2004

Rating Office

Offshore
Racing
Congress



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	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	608.9			683.2		
Time On Time	0.9854			0.9879		
Performance Line	0.688	50.9		0.890	241.5	
	Low	Medium	High	Low	Medium	High
Triple Number	0.9449	1.2180	1.3599	0.7281	0.9813	1.1268

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1069.6	887.6	780.7	724.5	698.9	685.5	675.9
52°	694.0	582.5	523.9	501.8	493.3	488.8	485.3
60°	651.4	550.5	507.0	488.5	479.7	474.7	470.3
75°	615.5	527.6	494.6	475.9	461.6	451.7	443.4
90°	617.4	526.8	490.1	475.9	459.0	442.6	420.3
110°	625.8	521.9	484.8	459.7	441.5	429.6	409.6
120°	644.5	533.4	490.9	465.3	439.3	415.9	391.5
135°	715.9	581.3	512.2	482.3	458.4	433.8	386.7
150°	843.4	673.0	571.7	517.8	492.5	474.7	435.7
Run VMG	973.9	777.2	660.1	597.9	564.5	518.4	472.9

Certificate	
Number	21274
ORC Ref	knw00005621
Issued On	04/07/2016
VPP Ver.	2016 1.01
Valid until	31/03/2017

Selected Courses							
Windward / Leeward	1021.7	832.4	720.4	661.2	631.7	601.9	574.4
Circular Random	858.3	694.0	606.5	556.2	525.5	505.4	480.0
Ocean for PCS	1052.8	815.0	681.2	599.7	546.8	509.8	459.2
Non Spinnaker	919.9	737.1	637.4	578.6	542.0	518.2	489.1

Crew Weight	
Declared	685kg
Default*	651kg
Non Manual Pwr	No

Special Scoring		
	ToD	ToT
Double H.GPH	630.0	0.9523
Double H.OSN	615.2	0.9752
Non Spin GPH	657.8	0.9121
Non Spin OSN	639.8	0.9378
N/S Perf. Line	13.4	0.598

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	43.9°	42.5°	42.4°	40.4°	38.9°	38.5°	38.3°
Beat VMG	3.37	4.06	4.61	4.97	5.15	5.25	5.33
52°	5.19	6.18	6.87	7.17	7.30	7.37	7.42
60°	5.53	6.54	7.10	7.37	7.50	7.58	7.65
75°	5.85	6.82	7.28	7.57	7.80	7.97	8.12
90°	5.83	6.83	7.35	7.56	7.84	8.13	8.57
110°	5.75	6.90	7.43	7.83	8.15	8.38	8.79
120°	5.59	6.75	7.33	7.74	8.20	8.65	9.20
135°	5.03	6.19	7.03	7.46	7.85	8.30	9.31
150°	4.27	5.35	6.30	6.95	7.31	7.58	8.26
Run VMG	3.70	4.63	5.45	6.02	6.38	6.94	7.61
Gybe Angles	144.8°	148.1°	148.0°	149.9°	173.8°	176.6°	178.1°

Sails Limitations	
Headsails	6
Spinnakers	3

Class Division Length
CDL = 9.134

Storm Sails Areas	
Heavy Weather Jib	27.48
Storm Jib (JL=9.27)	10.18
Storm Trysail	10.89

Owner

BOAT	
Name Jai Alai	Sail Nr NED 7439
File NEDC7439.dxt	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 27/06/2016		SG 1.0200	
FFM 1.250	FF 1.252	SFFP 0.420	
FAM 0.955	FA 0.956	SAFP 10.254	
W1 81.0	PD1 579.7	WD 10.800	
W2 81.0	PD2 569.3	GSA 1.0	
W3 81.0	PD3 586.1	RSA 1.0	
W4 81.0	PD4 564.5	PLM 9000.0	
LCF from stem on CL / on sheer		6.020 / 6.268	
Maximum beam station from stem		6.540	
RM Measured		119.9kg·m	
RM Default		126.2kg·m	
Limit of positive stability / Stab.Index		111.8° / 112.9	
Freeboard at mast at 4.060		1.083	

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 13.182	E 4.720	MDT1 0.123	MW 0.135
IG 14.110	J 4.060	MDL1 0.190	GO 0.180
ISP 15.150	SFJ 0.000	MDT2 0.102	BD 0.248
BAS 1.630	SPL 0.000	MDL2 0.120	MWT 120.00
FSP 0.072	TPS 5.750	TL 3.410	MCG 4.440

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.410		
Type Folding 2 blades	PBW 0.110		
Twin Screw No	PIPA 0.0032		
ST1 0.048	ST3 0.181	ST5 0.285	
ST2 0.181	ST4 0.100	EDL 1.980	


COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.200	1.01	1.77	3.02	3.93	36.88	37.65	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric									
Not Available									
Asymmetric	SLU	SLE	SL	SHW	SFL	Area	AS · (SFL + 4·SHW) / 6		
	16.98	13.39	15.19	8.53	8.08	106.80			

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.09	0.73	1.38	2.76	4.17	5.68	14.06	39.41			30/06/2016	Unknow	




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IMS Measurement Certificate

Certificate

Number **21274**
 ORC Ref **knw00005621**
 Issued On **04/07/2016**
 VPP Ver. **2016 1.01**
 Valid until **31/03/2017**

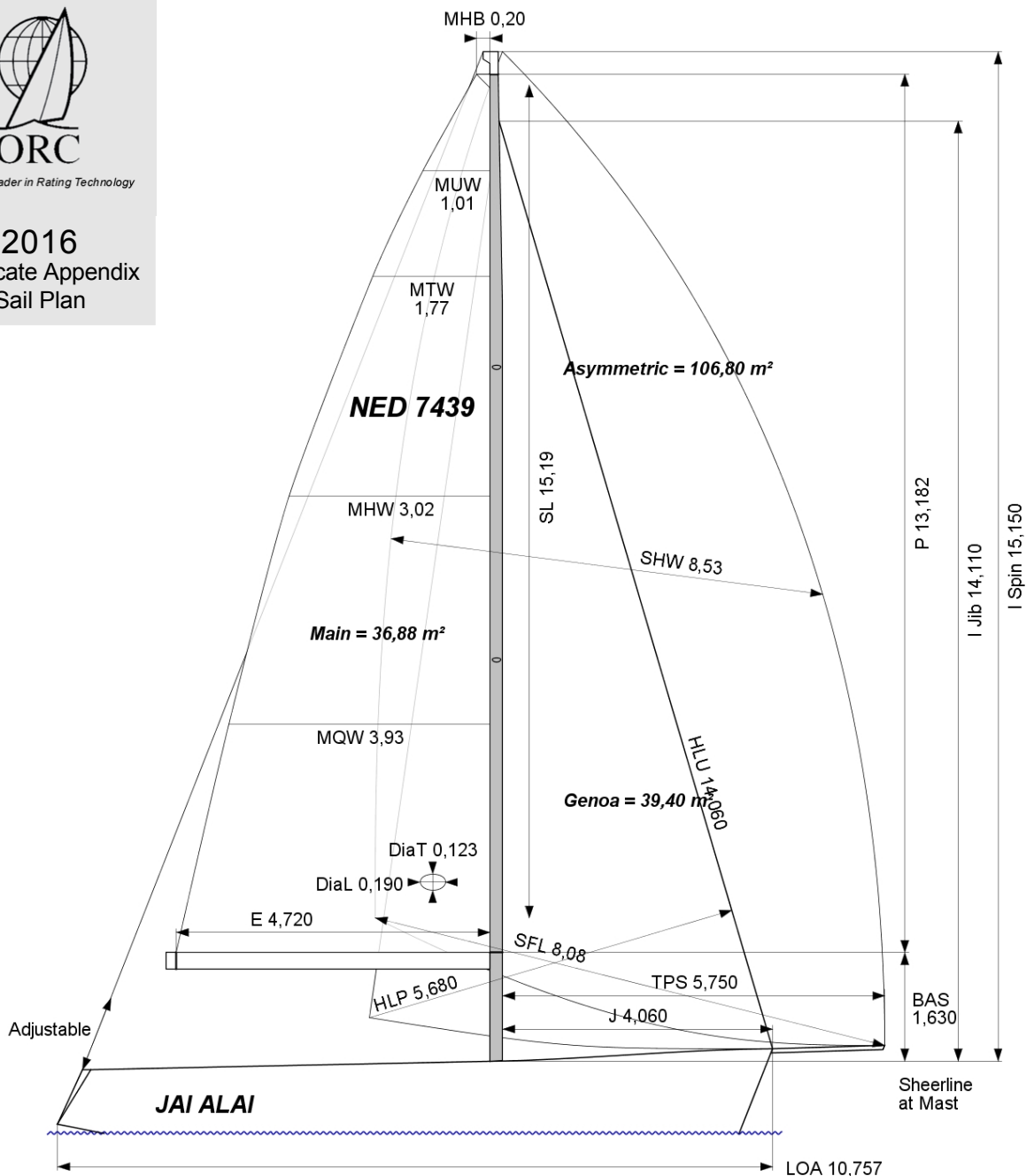


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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
2	0.200	1.01	1.77	3.02	3.93	36.88	h32	30/06/2016	north sails	Unknown	Comment

HEADSAILS

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
2	0.09	0.73	1.38	2.76	4.17	5.68	14.06	140%	39.41			h32	30/06/2016	north sails	Unknown	

SYMMETRIC SPINNAKERS

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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ASYMMETRIC SPINNAKERS

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
2	16.98	13.39	15.19	8.53	8.08	106.80	asym	h32	30/06/2016	north sails	Unknown	