

BOAT Name TICKET TO RIDE Sail Nr US 45454	GPH 529.5	HULL Length Overall 13.829m Maximum Beam 3.888m Displacement 9,973kg Draft 2.838m IMS Reg. Division Performance Dynamic Allowance 0.000% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Yes Crew Arm Extension 0.00
GENERAL Class SWAN 45 Designer FRERS Builder NAUTOR Series 03/2003 Age 03/2003 Age Allowance 0.487% Offset File US41495.OFF - 12/07/2018 13:32:46 Measurement by - 17/05/2003		IMSL 12.650m VCGD -0.217m Sink 26.83kg/mm RL 11.639m VCGM -0.277m WS 36.72m² LSM0 12.437m Displacement/Length ratio 5.1842



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	517.1			578.3		
Time on Time	1.1603			1.1672		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	589.9	473.9	430.3	759.0	580.3	517.2
Time on Time	1.1442	1.4243	1.5687	0.8893	1.1631	1.3050

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	852.0	711.5	645.9	619.0	605.6	593.9	581.6
52°	564.5	481.2	451.2	440.6	435.3	432.2	424.1
60°	535.4	464.5	440.1	429.6	424.1	420.7	413.0
75°	512.9	453.7	431.1	417.5	407.7	401.6	395.1
90°	516.2	454.0	429.5	413.2	398.6	385.8	370.0
110°	520.2	446.1	421.0	408.2	396.3	384.8	359.7
120°	533.0	449.9	420.0	398.1	382.8	370.8	345.3
135°	594.9	478.2	434.5	409.8	384.8	359.8	317.6
150°	706.6	568.7	482.5	436.7	417.8	399.0	359.2
Run VMG	815.9	656.7	557.2	503.5	480.2	450.6	408.6

Certificate
Number **US6231**
ORC Ref **USAX020H1V3**
Issued On **21/02/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **940kg**
Maximum **950kg**
Minimum* **713kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **563.2 1.0653**
Non Spin OSN **551.0 1.0889**

Selected Courses							
Windward / Leeward	834.0	684.1	601.5	561.2	542.9	522.3	495.1
Circular Random	713.7	582.7	514.6	476.4	453.0	437.0	413.8
Coastal / Long Distance	832.2	644.2	545.8	492.2	465.1	439.9	398.5
Non Spinnaker	775.4	626.6	546.7	499.9	470.5	450.7	424.6

Sails Limitations
Headsails **7** Spinnakers **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	41.8°	40.4°	39.2°	37.8°	37.2°	36.4°	36.4°
Beat VMG	4.23	5.06	5.57	5.82	5.94	6.06	6.19
52°	6.38	7.48	7.98	8.17	8.27	8.33	8.49
60°	6.72	7.75	8.18	8.38	8.49	8.56	8.72
75°	7.02	7.94	8.35	8.62	8.83	8.96	9.11
90°	6.97	7.93	8.38	8.71	9.03	9.33	9.73
110°	6.92	8.07	8.55	8.82	9.08	9.36	10.01
120°	6.75	8.00	8.57	9.04	9.40	9.71	10.43
135°	6.05	7.53	8.29	8.78	9.36	10.01	11.34
150°	5.09	6.33	7.46	8.24	8.62	9.02	10.02
Run VMG	4.41	5.48	6.46	7.15	7.50	7.99	8.81
Gybe Angles	143.2°	145.1°	148.1°	152.2°	152.7°	176.2°	177.4°

Class Division Length
CDL = **12.145**

Storm Sails Areas
Heavy Weather Jib **47.73**
Storm Jib (JL=12.23) **17.68**
Storm Trysail **21.72**

Owner

BOAT		
Name	TICKET TO RIDE	Sail Nr US 45454
File	US62317	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date	12/05/2014	SG 1.0100
FFM	1.460	FF 1.467 SFFP 0.295
FAM	1.181	FA 1.185 SAFF 13.301
W1	114.5	PD1 288.0 WD 12.470
W2	114.5	PD2 288.0 GSA 0.6
W3	114.5	PD3 288.0 RSA 71.7
W4	114.5	PD4 288.0 PLM 2975.0
LCF from stem on CL / on sheer	7.662 / 7.894	
Maximum beam station from stem	8.935	
RM Measured	256.0kg-m	
RM Default	270.1kg-m	
Limit of positive stability / Stab.Index	133.2° / 140.3	
Freeboard at mast at 5.435	1.259	



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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	18.660	E	6.650	MDT1 0.131 MW 0.258
IG	18.690	J	5.400	MDL1 0.258 GO 0.290
ISP	20.730	SFJ	0.035	MDT2 0.108 BD 0.303
BAS	1.830	SPL	0.000	MDL2 0.163 MWT 306.00
FSP	0.072	TPS	6.720	TL 1.570 MCG 6.885

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation	Strut	PRD 0.425
Type	Folding 2 blades	PBW 0.108
Twin Screw	No	PIPA 0.0033
ST1	0.048	ST3 0.170 ST5 0.330
ST2	0.170	ST4 0.098 EDL 2.770

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.230	1.60	2.75	4.47	5.64	76.30	78.27	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	23.13	20.17	21.65	12.27	12.14	220.90	AS · (SFL + 4·SHW) / 6		

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
0.88	1.58	2.96			5.67	18.85	55.10					

MEASUREMENT INVENTORY				
Measurer				
Date				
Comment				
Id	Item	Weight	Distance	VCG Description
a	Ancher	0-0	0-00	
Id	Item	Weight	Distance	Description

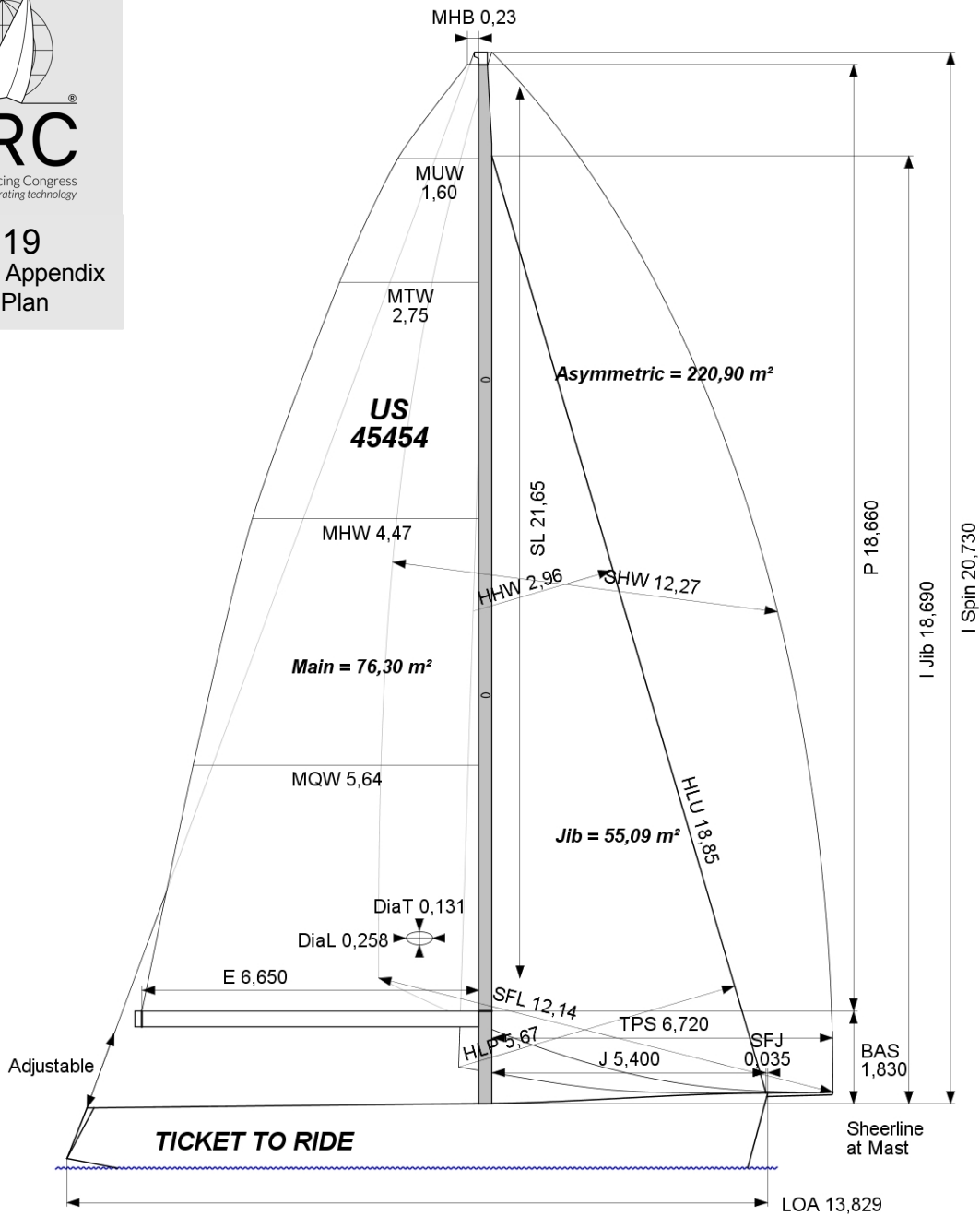
MEASUREMENT INVENTORY									
Id	Item	Tank	Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
		Tank				0.00	0.00	0-0	
Id	Item	Weight	Distance	VCG	Description				



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
532708	0.23	1.60	2.75	4.47	5.64	76.30										
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
532706		0.88	1.58	2.96		5.67	18.85	105%	55.10						Mark Plough	
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				
1951860	23.13	20.17	21.65	12.27	12.14	220.91	asym			JOHN W.		2017 A2				