

BOAT Name XOXO Sail Nr DEN 9750	GPH 546.2	HULL Length Overall 15.220m Maximum Beam 4.294m Displacement 13,009kg Draft 2.664m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.117% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Crew Arm Extension
GENERAL Class X-50 Designer Jeppesen Builder X-YACHTS Series 04/2005 Age 05/2006 Age Allowance 0.455% Offset File X50SD.OFF - 03/03/2007 11:25:38 Measurement by - 19/05/2014		IMSL 13.503m VCGD -0.019m Sink 33.55kg/mm RL 11.310m VCGM -0.036m WS 44.85m² LSM0 13.449m Displacement/Length ratio 5.3478



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	531.6			597.1		
Time on Time	1.1287			1.1305		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	631.4	482.2	428.2	821.5	600.9	516.4
Time on Time	1.0691	1.3999	1.5763	0.8217	1.1234	1.3071

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	920.3	753.8	665.3	627.9	611.8	604.4	587.9
52°	600.8	501.2	451.4	433.2	426.6	423.4	416.5
60°	567.0	477.6	436.6	420.7	414.4	411.1	406.2
75°	541.0	461.1	426.7	410.1	399.7	393.7	388.2
90°	545.9	463.4	424.5	408.4	394.4	382.1	365.3
110°	561.0	461.2	418.8	397.8	381.4	370.8	352.7
120°	578.6	473.4	425.2	401.8	381.6	362.2	336.5
135°	649.2	523.6	453.0	419.6	398.7	378.7	338.6
150°	777.6	618.2	521.2	458.0	422.8	402.2	364.4
Run VMG	897.9	713.8	601.8	526.4	477.2	439.9	396.0

Certificate
Number **34573**
ORC Ref **DEN00000572**
Issued On **06/06/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **1,050kg**
Maximum **800kg**
Minimum* **600kg**
**when applied by the NoR and SI*
Non Manual Pwr

Special Scoring

	ToD	ToT
Double H.GPH	551.0	1.0890
Double H.OSN	536.9	1.1176
Non Spin GPH	575.7	1.0422
Non Spin OSN	560.1	1.0713

Selected Courses							
Windward / Leeward	909.1	733.8	633.5	577.2	544.5	522.1	492.0
Circular Random	756.7	608.9	529.6	483.6	455.3	436.6	412.0
Coastal / Long Distance	908.0	688.7	568.5	500.2	464.6	437.2	393.5
Non Spinnaker	809.8	646.5	557.4	504.8	472.0	450.1	421.4

Sails Limitations

Headsails	Spinnakers
7	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	43.4°	41.6°	40.7°	39.7°	39.0°	38.9°	39.0°
Beat VMG	3.91	4.78	5.41	5.73	5.88	5.96	6.12
52°	5.99	7.18	7.98	8.31	8.44	8.50	8.64
60°	6.35	7.54	8.25	8.56	8.69	8.76	8.86
75°	6.65	7.81	8.44	8.78	9.01	9.14	9.27
90°	6.60	7.77	8.48	8.82	9.13	9.42	9.86
110°	6.42	7.81	8.60	9.05	9.44	9.71	10.21
120°	6.22	7.60	8.47	8.96	9.43	9.94	10.70
135°	5.54	6.88	7.95	8.58	9.03	9.51	10.63
150°	4.63	5.82	6.91	7.86	8.51	8.95	9.88
Run VMG	4.01	5.04	5.98	6.84	7.54	8.18	9.09
Gybe Angles	140.6°	146.5°	149.7°	152.9°	159.5°	180.0°	180.0°

Class Division Length
CDL = **12.408**

Storm Sails Areas
Heavy Weather Jib **57.49**
Storm Jib (JL=13.42) **21.30**
Storm Trysail **23.80**

Owner

BOAT	
Name XOXO	Sail Nr DEN 9750
File 34573 - X-50 - DEN	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 19/05/2014		SG 1.0200
FFM 1.712	FF 1.717	SFFP 0.350
FAM 1.345	FA 1.350	SAFP 14.588
W1 150.0	PD1 361.5	WD 11.850
W2 150.0	PD2 364.8	GSA 1.0
W3 150.0	PD3 365.6	RSA 1.0
W4 150.0	PD4 365.7	PLM 9000.0
LCF from stem on CL / on sheer		8.513 / 8.749
Maximum beam station from stem		9.685
RM Measured		384.1kg-m
RM Default		411.5kg-m
Limit of positive stability / Stab.Index		123.7° / 132.0
Freeboard at mast at 6.010		1.468



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RIG	
Forestay Tension Aft	Spreaders 3
Inner Stay None Fitted	Runners 0
Carbon Mast Yes	Jumper Struts None
Taper Hollows	Jib Furler Yes
Fiber Rigging	Main Furler Yes
Lenticular Rigging	Without Backstay
Articulated Bowsprit No	
P 19.680	E 6.910
IG 20.460	J 5.635
ISP 20.510	SFJ 0.375
BAS 1.950	SPL 5.640
FSP 0.110	TPS 5.980
MDT1 0.160	MW 0.272
MDL1 0.320	GO 0.320
MDT2 0.155	BD 0.264
MDL2 0.272	MWT
TL 1.020	MCG

MIZZEN RIG AND SAILS	
N/A	

PROPELLER	
Installation Strut	PRD 0.540
Type Folding 2 blades	PBW
Twin Screw No	PIPA 0.0039
ST1 0.048	ST3
ST2	ST4 0.112
	ST5 0.295
	EDL 3.680

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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
	0.140	1.26	2.19	3.99	5.43	74.70 75.54 P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)
Symmetric	SLU	SLE	SL	SHW	SFL	Area Formula
	20.15	20.15	20.15	8.76	10.06	151.46 SL · (SFL + 4·SHW) / 6
Asymmetric	SLU	SLE	SL	SHW	SFL	Area Formula
	21.80	19.40	20.60	8.76	10.06	154.84 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
0.08	0.91	1.61	2.94	4.41	5.98	20.07	60.30					

MEASUREMENT INVENTORY				
Measurer				
Date 19/05/2014				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
	Tools			
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	
4	Fwd Items	30.0	Bow thruster	

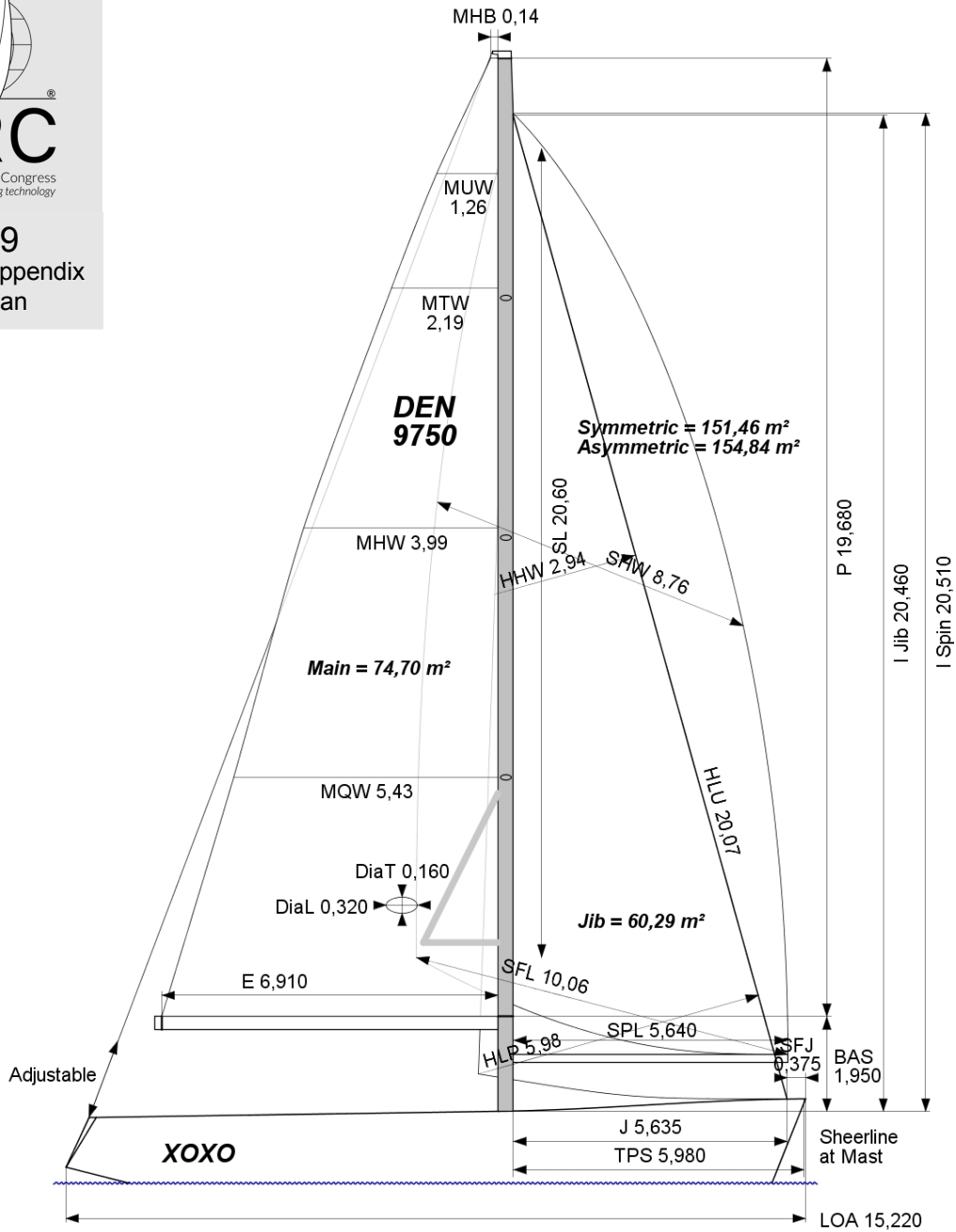
MEASUREMENT INVENTORY									
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condn</i>	<i>Description</i>	
5	Tank	holding 1 2		110.0	6.15		0-0	empty	
4	Tank	water 3		172.0	8.60		0-0	empty	
3	Tank	Water 1 and		281.0	7.40		0-0	empty	
2	Tank	fuel 2 and 3		175.0	9.50		70-0	70 tank 2 full	
1	Tank	fuel 1		172.0	8.60		0-0	empty	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG</i>	<i>Description</i>				
2	Battery		10.90	0.02	Battery 90 Ah 1 pies				
1	Battery		8.64	-0.18	Battery 120 Ah 5 pies				
3	Misc	25.0	10.70	0.04	Hot Water Tank				
2	Misc	70.0	11.40	0.54	Electric generator				
1	Misc	25.0	11.40	0.06	Water Generator				



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.14	1.26	2.19	3.99	5.43	74.70			NORTH	Kevlar	3DL Maraton

HEADSAILS (1)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.08	0.91	1.61	2.94	4.41	5.98	20.07	106%	60.30						NORTH	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	20.15	20.15	20.15	8.76	10.06	151.47				Unknown	

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
1	21.80	19.40	20.60	8.76	10.06	154.85	asym				Unknown	