

BOAT Name SYDBANK Sail Nr GER 7350	GPH 569.8	HULL Length Overall 12.350m Maximum Beam 3.646m Displacement 7,099kg Draft 2.507m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class X-41 Designer JEPPESEN Builder X-YACHTS Series 02/2006, CIN DK-YA41347D808 Age 02/2008 Age Allowance 0.422% Offset File X41.OD.OFF - 23/02/2015 18:29:08 Measurement by - 17/04/2017		IMSL 11.171m VCGD -0.101m Sink 23.31kg/mm RL 10.396m VCGM -0.130m WS 31.19m² LSM0 11.081m Displacement/Length ratio 5.2175



ORC
Offshore Racing Congress
World leader in rating technology

2019
ORC International
Certificate

Rating Office

Offshore
Racing
Congress



SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	554.4			618.6		
Time on Time	1.0823			1.0912		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	648.5	506.0	452.6	836.8	621.0	542.0
Time on Time	1.0409	1.3340	1.4915	0.8066	1.0869	1.2454

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	936.8	772.0	685.6	654.9	642.0	633.8	621.3
52°	616.2	518.3	477.4	464.3	458.9	456.2	448.4
60°	583.7	499.1	466.0	452.6	446.8	443.7	436.4
75°	559.0	486.6	457.8	440.9	429.1	422.7	416.8
90°	564.2	487.8	455.1	438.4	421.1	406.3	389.1
110°	580.6	484.6	448.2	424.2	406.0	393.4	373.7
120°	598.5	494.9	453.8	427.4	401.8	379.5	353.9
135°	665.7	538.2	474.5	445.2	420.1	394.7	344.0
150°	789.5	629.5	531.9	475.7	447.4	424.2	377.7
Run VMG	911.7	726.9	614.2	543.1	496.3	461.2	415.5

Certificate
Number **142138**
ORC Ref **GER30010109**
Issued On **13/05/2019**
VPP Ver. **2019 1.01**
Valid until **01/01/2020**

Crew Weight
Default **797kg**
Maximum **860kg**
Minimum* **645kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	578.8	1.0366
Double H.OSN	564.7	1.0625
Non Spin GPH	600.9	0.9985
Non Spin OSN	584.7	1.0261

Selected Courses							
Windward / Leeward	924.3	749.4	649.9	599.0	569.1	547.5	518.4
Circular Random	780.5	631.9	553.0	507.7	479.8	460.9	435.0
Coastal / Long Distance	923.0	705.1	588.2	525.1	490.8	462.1	416.8
Non Spinnaker	836.2	671.4	582.4	530.4	498.1	476.6	448.3

Sails Limitations

Headsails	Spinnakers
6	4

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	42.5°	41.2°	39.6°	38.1°	37.6°	37.6°	37.6°
Beat VMG	3.84	4.66	5.25	5.50	5.61	5.68	5.79
52°	5.84	6.95	7.54	7.75	7.85	7.89	8.03
60°	6.17	7.21	7.72	7.95	8.06	8.11	8.25
75°	6.44	7.40	7.86	8.17	8.39	8.52	8.64
90°	6.38	7.38	7.91	8.21	8.55	8.86	9.25
110°	6.20	7.43	8.03	8.49	8.87	9.15	9.63
120°	6.02	7.27	7.93	8.42	8.96	9.49	10.17
135°	5.41	6.69	7.59	8.09	8.57	9.12	10.46
150°	4.56	5.72	6.77	7.57	8.05	8.49	9.53
Run VMG	3.95	4.95	5.86	6.63	7.25	7.81	8.66
Gybe Angles	142.5°	147.2°	149.9°	155.7°	169.3°	180.0°	180.0°

Class Division Length
CDL = **10.784**

Storm Sails Areas
Heavy Weather Jib **39.57**
Storm Jib (JL=11.13) **14.66**
Storm Trysail **15.26**

Owner

BOAT	
Name SYDBANK	Sail Nr GER 7350
File GER7350	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 17/04/2017	SG 1.0130	
FFM 1.439	FF 1.446	SFFP 0.200
FAM 1.074	FA 1.077	SAFP 11.995
W1 110.0	PD1 533.9	WD 12.630
W2 110.0	PD2 548.3	GSA 1.0
W3 110.0	PD3 537.3	RSA 1.0
W4 110.0	PD4 538.7	PLM 9000.0
LCF from stem on CL / on sheer		6.963 / 7.173
Maximum beam station from stem		8.432
RM Measured		202.8kg-m
RM Default		205.6kg-m
Limit of positive stability / Stab.Index		125.3° / 129.4
Freeboard at mast at 5.165		1.204



ORC
Offshore Racing Congress
World leader in rating technology

2019
IMS Measurement
Certificate

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 15.850	E 5.500	MDT1 0.136	MW 0.254	
IG 17.035	J 4.915	MDL1 0.254	GO 0.278	
ISP 17.080	SFJ 0.250	MDT2 0.123	BD 0.192	
BAS 1.860	SPL 5.200	MDL2 0.203	MWT 190.00	
FSP 0.072	TPS	TL 1.255	MCG 5.685	

MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0.431	
Type Folding 2 blades	PBW	
Twin Screw No	PIPA 0.0034	
ST1 0.066	ST3 0.191	ST5 0.315
ST2 0.179	ST4 0.096	EDL 1.884

Certificate	
Number 142138	
ORC Ref GER30010109	
Issued On 13/05/2019	
VPP Ver. 2019 1.01	
Valid until 01/01/2020	

COMMENTS	
ex NOR 50	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



World Leader In Rating Technology

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.470	1.29	2.13	3.48	4.55	52.07	53.08	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	16.99	16.99	16.99	8.97	8.80	126.52		SL · (SFL + 4·SHW) / 6	
Asymmetric	SLU	SLE	SL	SHW	SFL				
	17.84	16.44	17.14	7.87	9.70	117.64		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
0.12	0.89	1.62	2.82	3.98	5.25	16.98	46.93			03/05/2016	Carbon	JIB 1b
0.12	0.86	1.55	2.73	3.91	5.18	16.96	45.81	Y		06/02/2019	Technor	C2 JIB
0.13	0.77	1.38	2.46	3.58	4.88	14.65	36.32	Y		29/04/2016	Technor	JIB 4
0.10	0.52	0.97	1.88	2.74	3.50	12.82	23.54		Y	04/03/2017	Technor	STAYSAIL 2017

MEASUREMENT INVENTORY				
Measurer 53				
Date 17/04/2017				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Weight Description		

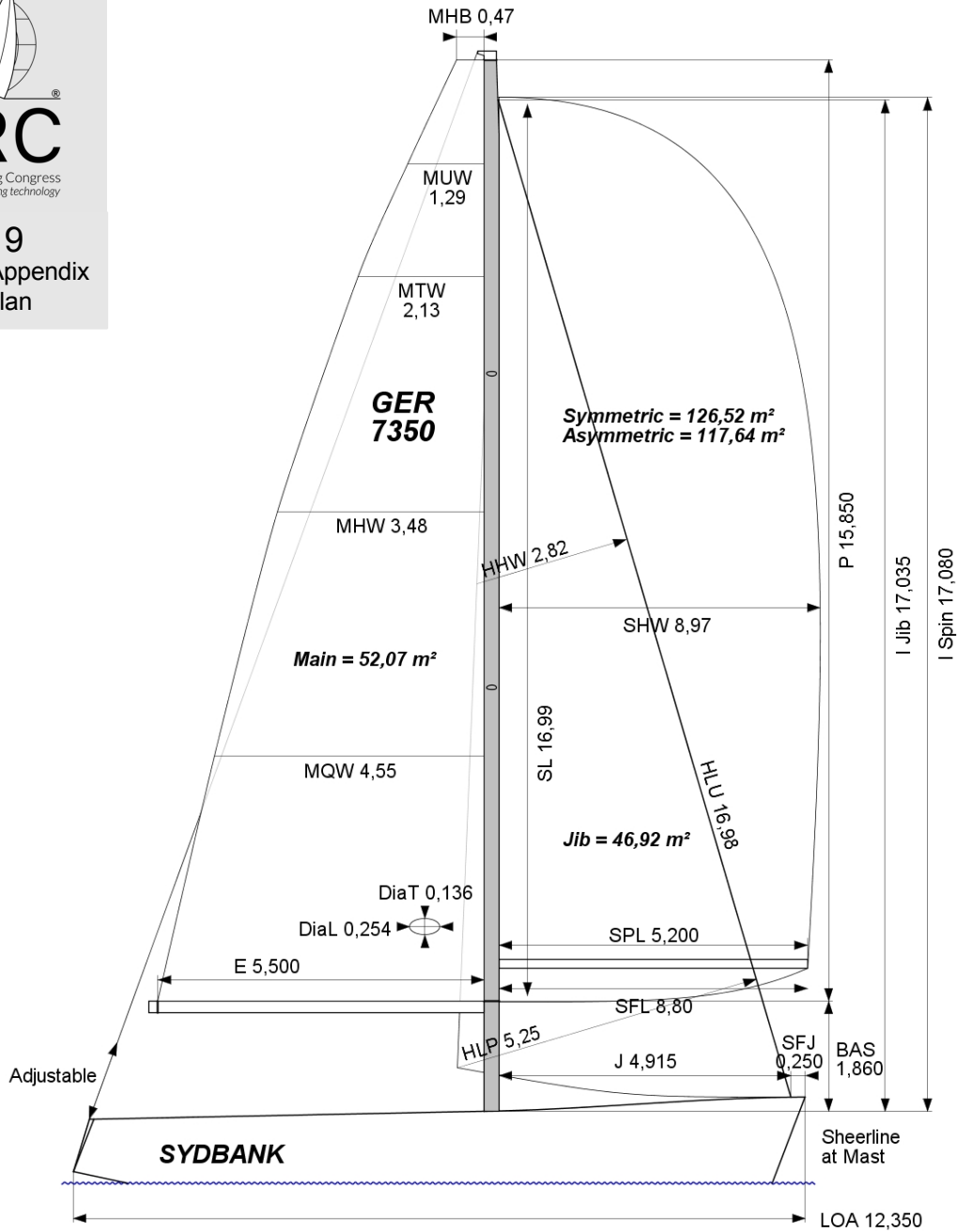
MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
06	Tank Holding		Pl.	45.0	4.30	0.77	0-0	
05	Tank Water		Pl.	180.0	5.55	-0.08	0-0	
04	Tank Fuel		St.	80.0	5.70	0.02	0-0	30 LITER
Id	Item	Weight	Distance	VCG Description				
01	Ballast	313.0	7.25	-0.33 26x11kg + 3x9kg lead				
03	Battery		7.55	-0.18 1 * 55 Ah Engine				
02	Battery		4.75	-0.03 2 * 90 Ah Servive				



ORC

Offshore Racing Congress
World leader in rating technology

2019
Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
92056	0.47	1.29	2.13	3.48	4.55	52.07		09/05/2016	ELVSTROEM	Carbon	MAIN 2

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
90752	0.12	0.89	1.62	2.82	3.98	5.25	16.98	107%	46.93				03/05/2016	ELVSTROEM	Carbon	JIB 1b
87270	0.12	0.86	1.55	2.73	3.91	5.18	16.96	105%	45.81	Y			06/02/2019	ELVSTROEM	Technor	C2 JIB
90741	0.13	0.77	1.38	2.46	3.58	4.88	14.65	99%	36.32	Y			29/04/2016	ELVSTROEM	Technor	JIB 4
92311	0.10	0.52	0.97	1.88	2.74	3.50	12.82	71%	23.54		Y		04/03/2017	ELVSTROEM	Technor	STAYSAIL 2017

SYMMETRIC SPINNAKERS (4)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
90755	16.99	16.99	16.99	8.97	8.80	126.52		28/04/2016	ELVSTROEM	Nylon	S1 0,4oz
92046	17.22	17.22	17.22	8.80	8.87	126.49		10/05/2016	ELVSTROEM	Nylon	S4 1,5oz
92315	17.26	17.26	17.26	8.77	8.80	126.23		23/03/2017	ELVSTROEM	Nylon	S3 0,75oz 2017
92810	16.98	16.98	16.98	8.96	8.75	126.19		29/01/2019	ELVSTROEM	Nylon	S1,5

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
85983	17.84	16.44	17.14	7.87	9.70	117.64	asym		03/05/2016	ELVSTROEM	Nylon	A1