

BOAT Name EX & HOPP Sail Nr GER 5217	GPH 625.3	HULL Length Overall 10.720m Maximum Beam 3.448m Displacement 4,971kg Draft 2.012m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.166% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension 0.00
GENERAL Class X-362 SPORT Designer JEPPESEN Builder X-YACHTS Series 01/1994 Age 01/2002 Age Allowance 0.487% Offset File X362SPSD.OFF - 17/09/2002 20:00:16 Measurement by - 13/04/2003		IMSL 9.621m VCGD 0.120m Sink 18.63kg/mm RL 8.690m VCGM 0.046m WS 24.53m² LSM0 9.577m Displacement/Length ratio 5.6592



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	607.7			676.9		
Time on Time	0.9873			0.9973		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	715.6	554.1	494.8	923.4	679.3	590.8
Time on Time	0.9433	1.2183	1.3642	0.7310	0.9936	1.1425

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1046.0	867.1	764.0	716.3	700.9	695.3	683.0
52°	685.4	579.6	527.3	506.9	499.5	496.1	490.9
60°	648.3	554.4	513.6	495.2	486.1	482.1	478.0
75°	621.0	537.3	503.4	484.2	469.8	459.7	452.2
90°	629.6	535.1	496.1	479.6	464.4	447.6	424.7
110°	633.6	529.4	489.9	464.1	441.2	426.8	406.2
120°	654.0	541.3	495.8	468.8	442.7	418.8	386.6
135°	725.6	590.7	519.4	487.2	461.9	436.2	387.6
150°	859.0	683.1	578.8	518.2	488.2	464.6	417.8
Run VMG	991.8	788.8	667.5	588.8	533.4	498.2	451.8

Certificate
Number **140278**
ORC Ref **GER20041571**
Issued On **13/08/2019**
VPP Ver. **2019 1.01**
Valid until **01/01/2020**

Crew Weight
Default **647kg**
Maximum **646kg**
Minimum* **485kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Double H.GPH **634.5 0.9457**
Double H.OSN **618.3 0.9704**
Non Spin GPH **657.4 0.9127**
Non Spin OSN **637.2 0.9416**

Selected Courses							
Windward / Leeward	1018.9	827.9	715.8	652.5	617.2	596.7	567.4
Circular Random	859.5	694.7	606.7	555.9	524.8	504.2	476.6
Coastal / Long Distance	1016.2	778.0	647.0	573.5	535.7	505.9	456.4
Non Spinnaker	917.4	735.5	637.0	579.4	544.0	520.8	491.2

Sails Limitations
Headsails **5** Spinnakers **3**

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°	41.0°	40.3°	38.7°	38.1°	38.0°	38.1°
Beat VMG	3.44	4.15	4.71	5.03	5.14	5.18	5.27
52°	5.25	6.21	6.83	7.10	7.21	7.26	7.33
60°	5.55	6.49	7.01	7.27	7.41	7.47	7.53
75°	5.80	6.70	7.15	7.44	7.66	7.83	7.96
90°	5.72	6.73	7.26	7.51	7.75	8.04	8.48
110°	5.68	6.80	7.35	7.76	8.16	8.43	8.86
120°	5.50	6.65	7.26	7.68	8.13	8.60	9.31
135°	4.96	6.09	6.93	7.39	7.79	8.25	9.29
150°	4.19	5.27	6.22	6.95	7.37	7.75	8.62
Run VMG	3.63	4.56	5.39	6.11	6.75	7.23	7.97
Gybe Angles	144.7°	149.3°	151.3°	157.9°	180.0°	180.0°	180.0°

Class Division Length
CDL = **9.156**

Storm Sails Areas
Heavy Weather Jib **27.60**
Storm Jib (JL=9.30) **10.23**
Storm Trysail **11.37**

Owner

BOAT	
Name EX & HOPP	Sail Nr GER 5217
File GER5217	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 13/04/2003		SG 1.0120	
FFM 1.241	FF 1.252	SFFP 0.332	
FAM 0.998	FA 1.001	SAFP 9.570	
W1 89.0	PD1 262.0	WD 10.480	
W2 89.0	PD2 262.0	GSA 1.0	
W3 89.0	PD3 262.0	RSA 1.0	
W4 89.0	PD4 262.0	PLM 4000.0	
LCF from stem on CL / on sheer		6.037 / 6.255	
Maximum beam station from stem		6.605	
RM Measured		124.6kg-m	
RM Default		125.1kg-m	
Limit of positive stability / Stab.Index		114.2° / 114.4	
Freeboard at mast at 4.145		1.131	



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RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast No	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 13.850	E 4.690	MDT1 0.110	MW 0.185
IG 14.260	J 3.800	MDL1 0.186	GO 0.195
ISP 14.260	SFJ 0.345	MDT2 0.101	BD 0.180
BAS 1.665	SPL 3.800	MDL2 0.171	MWT 150.00
FSP 0.070	TPS 0.000	TL 1.300	MCG 4.900

MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.406		
Type Folding 2 blades	PBW 0.000		
Twin Screw No	PIPA 0.0032		
ST1 0.042	ST3 0.180	ST5 0.238	
ST2 0.180	ST4 0.112	EDL 1.900	

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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	
	0.170	1.01	1.76	3.00	3.91	38.51	39.23	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	84.13		SL · (SFL + 4·SHW) / 6	
	14.08	14.08	14.08	7.23	6.93				
Asymmetric									
Not Available									

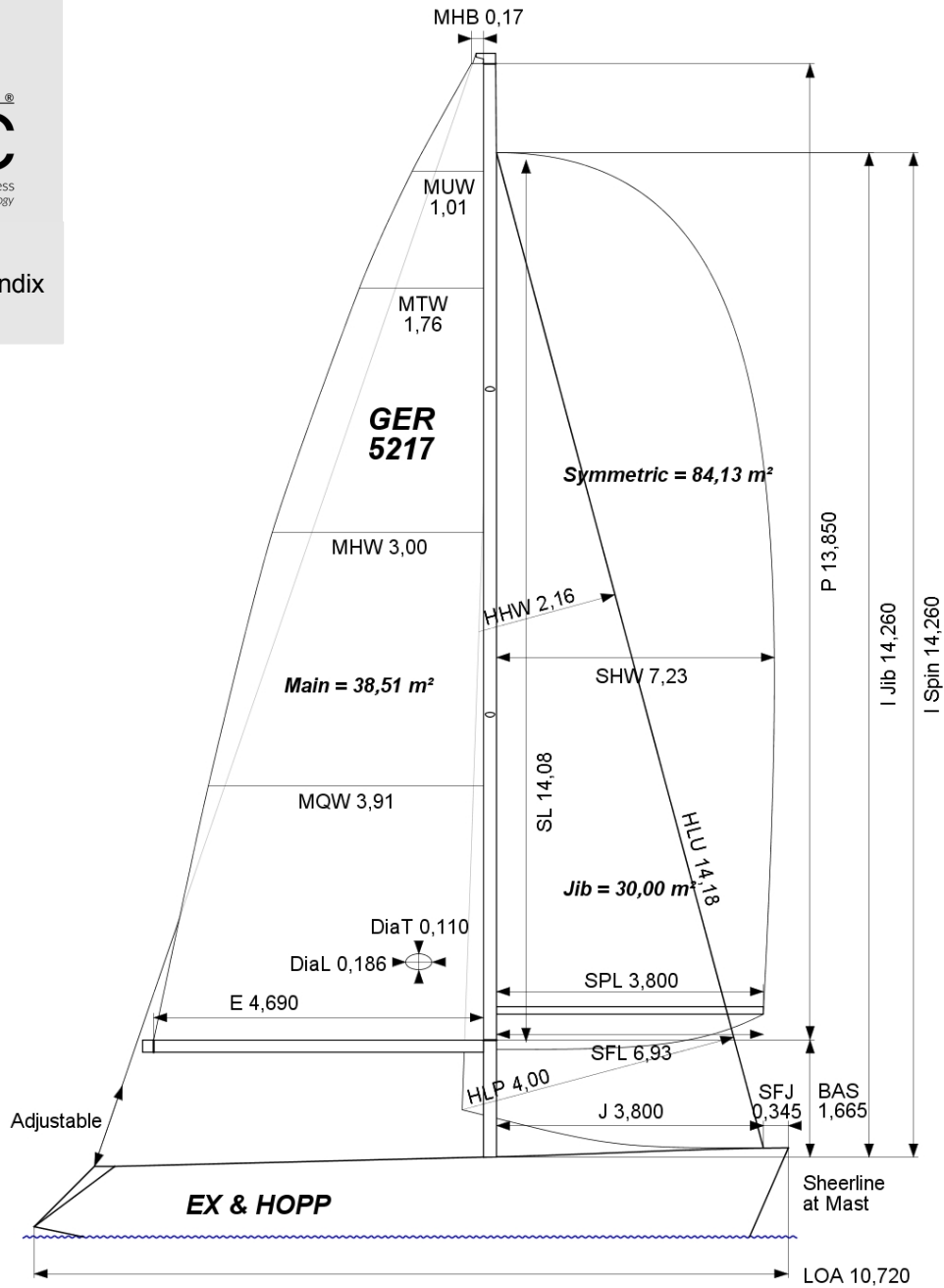
HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.12	0.67	1.20	2.16	3.09	4.00	14.18	30.01	Y		17/04/2018	Carbon	JIB 1
0.12	0.65	1.17	2.12	3.05	4.00	14.18	29.65	Y		31/05/2019	Carbon	JIB 2
0.10	0.55	1.02	1.94	2.90	3.94	13.43	26.45	Y		31/08/2018	Twaron	JIB 3-1

MEASUREMENT INVENTORY				
Measurer HEINRITZ				
Date 13/04/2003				
Comment				
Id	Item	Weight	Distance	VCG Description
RQ	Anchor	5.0	4.00	ROPE
BR	Anchor	10.0	4.00	ANCHOR
Box	Tools	8.0	5.00	
Id	Item	Maker	Model	
3	Engine	YANMAR	27hp	
Id	Item	Weight	Description	
2	Deck-Gear	20.0		

MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
2	Tank	FUEL	SS	80.0	8.20		0-0	DIESEL FUEL	
1	Tank	WATER	SS	180.0	5.70		0-0	FRESH WATER	
Id	Item	Weight	Distance	VCG Description					
1	Battery	51.0	7.30	Batteries 2 x 55AH					
2	Misc	12.0	8.00	BOILER					



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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
166081	0.17	1.01	1.76	3.00	3.91	38.52		17/07/2018	QUANTUM	Carbon	M1
ORC	0.16	0.84	1.54	2.78	3.79	36.47		03/03/2018			

HEADSAILS (3)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
123304	0.12	0.67	1.20	2.16	3.09	4.00	14.18	105%	30.01	Y			17/04/2018	QUANTUM	Carbon	JIB 1
132900	0.12	0.65	1.17	2.12	3.05	4.00	14.18	105%	29.65	Y			31/05/2019	QUANTUM	Carbon	JIB 2
166097	0.10	0.55	1.02	1.94	2.90	3.94	13.43	104%	26.45	Y			31/08/2018	QUANTUM	Twaron	JIB 3-1

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
166077	14.08	14.08	14.08	7.23	6.93	84.13		27/06/2018	QUANTUM	Nylon	S4
116623	13.90	13.90	13.90	6.74	6.68	77.94		03/04/2004	DOYLE	Nylon	S3

ASYMMETRIC SPINNAKERS (0)

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