

BOAT Name Czarodziejka Sail Nr POL 9658	GPH 746,5	HULL Length Overall 8,250m Maximum Beam 2,818m Displacement 2 581kg Draft 1,749m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,348% Fwd Accommodation No Hull Construction Solid Carbon Rudder No Crew Arm Extension IMSL 6,764m VCGD -0,211m Sink 9,61kg/mm RL 5,902m VCGM -0,081m WS 14,02m² LSM0 6,891m Displacement/Length 7,8875
GENERAL Class GRANADA 27 Designer ELVSTROEM/KJAERULF Builder GESTEN GLASFIBER Series 01-1976 Age 01-1979 Age Allowance 0,487% Offset File czarodziejka 2019.off - 2018-12-16 Measurement by P.Adamowicz - 15-12-2018		



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Rating Office
Designer Data Designer
Data Designer Data
Designer Data

INVALID
FOR
RACING

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	724,4			801,6		
Time on Time	0,8282			0,8420		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	844,4	663,3	603,8	1074,2	802,8	714,9
Time on Time	0,7994	1,0176	1,1180	0,6284	0,8408	0,9442

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1235,6	1041,3	927,6	869,2	851,6	847,7	865,3
52°	831,6	706,0	641,5	617,8	606,3	602,4	603,1
60°	796,8	676,0	625,9	604,1	591,4	585,1	583,4
75°	771,9	657,4	614,6	591,5	575,4	562,8	550,5
90°	765,5	638,9	597,9	582,8	570,2	552,9	526,6
110°	746,4	628,2	586,8	559,7	537,6	526,2	508,1
120°	766,9	638,0	592,0	561,9	534,6	512,0	489,3
135°	835,2	685,8	612,3	579,4	551,3	523,9	480,1
150°	970,2	779,2	663,5	607,3	578,0	552,2	503,6
Run VMG	1120,3	899,3	761,8	672,1	616,3	585,4	535,8
Selected Courses							
Windward / Leeward	1177,9	970,3	844,7	770,6	734,0	716,6	700,6
Circular Random	1016,6	825,4	724,5	667,5	634,1	613,6	590,9
Coastal / Long Distance	1172,2	912,9	767,1	685,8	645,0	613,3	564,0
Non Spinnaker	1090,6	877,6	763,0	697,0	657,6	633,3	606,2

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	41,1°	40,0°	40,7°	39,1°	38,6°	38,6°	39,9°
Beat VMG	2,91	3,46	3,88	4,14	4,23	4,25	4,16
52°	4,33	5,10	5,61	5,83	5,94	5,98	5,97
60°	4,52	5,33	5,75	5,96	6,09	6,15	6,17
75°	4,66	5,48	5,86	6,09	6,26	6,40	6,54
90°	4,70	5,63	6,02	6,18	6,31	6,51	6,84
110°	4,82	5,73	6,13	6,43	6,70	6,84	7,09
120°	4,69	5,64	6,08	6,41	6,73	7,03	7,36
135°	4,31	5,25	5,88	6,21	6,53	6,87	7,50
150°	3,71	4,62	5,43	5,93	6,23	6,52	7,15
Run VMG	3,21	4,00	4,73	5,36	5,84	6,15	6,72
Gybe Angles	148,2°	151,9°	152,6°	170,3°	180,0°	180,0°	180,0°

Certificate
Number
ORC Ref **N/A**
Issued On **2018-12-23**
VPP Ver. **2018 1.00**
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Crew Weight
Default 405kg
Maximum **300kg**
Minimum* **215kg**
*when applied by the NoR and
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **787,3 0,7621**
Non Spin OSN **759,8 0,7897**

Sails Limitations
Headsails 5 Spinnakers 3

Class Division Length
CDL = 6,334

Storm Sails Areas
Heavy Weather Jib **15,50**
Storm Jib (JL=6,97) **5,74**
Storm Triesail **4,64**

Owner
Tomasz Konnak

I certify that I understand my responsibilities
under ORC Rules and Regulations

Signature

BOAT			
Name	Czarodziejka	Sail Nr	POL 9658
File	czarodziejka_2019	Data in	meters/kilograms

RIG			
Forestay Tension	Aft	Spreaders	1
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	No		
P	9,528	E	2,780
IG	10,58	J	3,330
ISP	10,60	SFJ	0,632
BAS	0,973	SPL	3,300
FSP	0,000	TPS	
MDT1	0,106	MW	0,158
MDL1	0,158	GO	0,198
MDT2	0,106	BD	0,071
MDL2	0,158	MWT	60,13
TL	0,000	MCG	3,895

MIZZEN RIG AND SAILS			
N/A			


COMMENTS			

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date	10-05-2018	SG	1,003
FFM	1,008	FF	1,012
FAM	0,866	FA	0,877
W1	28,2	PD1	542,0
W2	28,2	PD2	542,0
W3	28,2	PD3	542,0
W4	28,2	PD4	542,0
LCF from stem on CL / on sheer	4,835 / 4,991		
Maximum beam station from stem	5,250		
RM Measured	36,9kg·m		
RM Default	33,5kg·m		
Limit of positive stability / Stab.Index	124,6° / 121,8		
Freeboard at mast at 3,962	0,979		

PROPELLER			
Installation	Strut	PRD	0,355
Type	Folding 2 blades	PBW	0,096
Twin Screw	No	PIPA	0,002
ST1	0,041	ST3	0,196
ST2	0,195	ST4	0,073
		ST5	0,276
		EDL	1,325

MOVABLE BALLAST			
N/A			

CENTERBOARD			
N/A			



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IMS Measurement Certificate

Certificate

Number

ORC Ref **N/A**

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VPP Ver. **2018 1.00**

Invalid for Racing

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,130	0,54	0,97	1,68	2,25	15,13	15,28	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	10,71	10,71	10,71	6,10	5,63	53,60		SL · (SFL + 4·SHW) / 6	
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	
0,04	0,49	0,96	1,96	3,01	4,07	10,55	21,09			26-08-	Dacron	Genua 1	
0,05	0,42	0,81	1,63	2,48	3,38	10,57	17,56			21-11-	Polyest	Geona 2, Flex	
0,05	0,33	0,65	1,31	2,01	2,72	10,57	14,15	Y		14-10-	Polyest	Fok 1, Flex	
0,03	0,28	0,56	1,20	1,92	2,66	7,98	10,07			25-05-	Dacron	Fok 2	

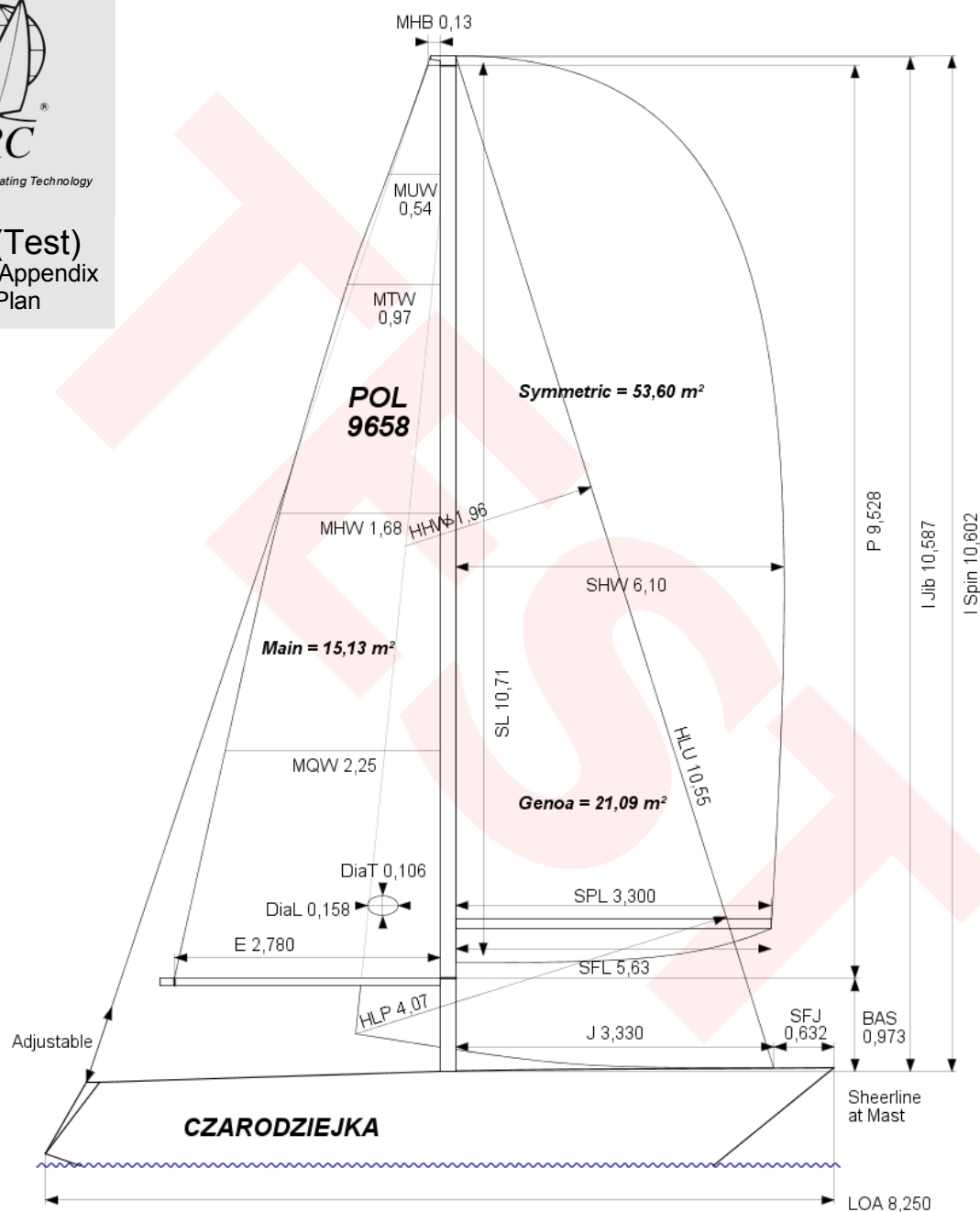
MEASUREMENT INVENTORY					
Measurer P.Adamowicz 16					
Date 10-05-2018					
Comment					
Id	Item	Weight	Distanc	VCG	Description
Id	Item	Maker	Model		
1	Engine	Volvo Penta	MD5B		
Id	Item	Weight	Description		

MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capct	Dist.	VCG	Condt Description
W	Tank Water	PCV		40,0	5,59		0,0
F	Tank Fuel	PCV		22,0	6,02		22,0
Id	Item	Weight	Distanc	VCG	Description		
A2	Battery	26,0	5,60		VARTA 140 Ah		
A1	Battery	18,0	5,60		70 Ah		



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacturer	Material	Comment
G	0,130	0,54	0,97	1,68	2,25	15,13	J.Górski	07-09-	Bryt Sails	Polyester	Flex

HEADSAILS (4)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacturer	Material	Comment
Ge1	0,04	0,49	0,96	1,96	3,01	4,07	10,55	122%	21,09			J.Górski	26-08-	Bryt Sails	Dacron	Genoa 1
Ge2	0,05	0,42	0,81	1,63	2,48	3,38	10,57	102%	17,56			T.Konnak	21-11-	Bryt Sails	Polyest	Geona 2, Flex
F1	0,05	0,33	0,65	1,31	2,01	2,72	10,57	82%	14,15	Y		P.Adamo	14-10-	Bryt Sails	Polyest	Fok 1, Flex
F2	0,03	0,28	0,56	1,20	1,92	2,66	7,98	80%	10,07			J.Górski	25-05-	DeVries	Dacron	Fok 2

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacturer	Material	Comment
S1	10,71	10,71	10,71	6,10	5,63	53,60	P.Adamowicz	12-10-	Bryt Sails	Nylon	3 kolory
S2	10,85	10,85	10,85	5,73	5,26	50,96	J.Górski	26-08-	Ocean Sails	Nylon	czarny

ASYMMETRIC SPINNAKERS (0)

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