


BOAT
Name Merelli
Sail Nr FIN-2545

GPH
765,8

HULL	
Length Overall	8,319 m
Maximum Beam	2,794 m
Displacement	2 549 kg
Draft	1,440 m
IMS Reg. Division	Cruiser/Racer
Dynamic Allowance	0,373%
Fwd Accommodation	Yes
Hull Construction	Solid
Carbon Rudder	No
Crew Arm Extension	
IMS L	7,258 VCGD -0,074 VCGM 0,006
Sink	10,75 kg/m² Wetted Area 14,87 m²



World Leader in Rating Technology

2012
ORC International
Certificate

GENERAL
Class Finn Express 83
Designer Eivind Still
Builder Nykra
Series 04.1981
Age 04.1981
Age Allowance 0,975%
Offset File L5280.BOF - 11.3.1996 16:40:30
Measurement by Sam ps a Kärrnä - 22.05.2012

SCORING OPTIONS	OFFSHORE			INSHORE		
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time On Distance	729,6			827,7		
Time On Time	0,8223			0,8155		
Performance Line	PLT 0,656	PLD 78,1		PLT 0,634	PLD 157,7	
Triple Number	Low 0,7162	Medium 0,9575	High 1,1584	Low 0,5734	Medium 0,8101	High 0,9529

Rating Office
FSBF Rating Office
Joakim Majander
Matinlahdenkatu 3 E25
02230 Espoo



SUOMEN PURJEHDUS JA VENEILY
SEGLING OCH BÅTSPORT I FINLAND

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1349,3	1082,3	956,8	892,0	856,8	835,0	819,2
52°	854,9	701,4	636,1	602,0	585,8	576,1	566,4
60°	790,0	664,5	611,4	580,9	562,5	553,3	543,2
75°	744,5	639,4	593,3	564,7	541,9	524,9	510,7
90°	755,1	643,4	588,9	554,7	528,9	514,5	492,6
110°	784,2	650,0	592,5	557,4	529,3	505,1	464,2
120°	827,7	672,2	605,7	568,2	539,1	514,2	471,0
135°	951,3	743,6	644,6	594,3	561,4	534,3	489,2
150°	1114,8	857,5	711,5	633,9	589,8	559,0	510,4
Run VMG	1287,3	989,6	811,9	702,4	634,6	592,5	537,2

Certificate
Number 02545
ORC Ref FIN00011776
Issued On 28.5.2012
VPP Ver. 2012 1.01
Valid until 31.12.2012

Selected Courses							
Windward / Leeward	1318,3	1035,9	884,4	797,2	745,7	713,7	678,2
Circular Random	1075,3	858,8	741,5	672,8	630,2	602,2	567,0
Ocean for PCS	1147,6	897,0	757,0	671,7	615,9	576,7	522,1
Non Spinnaker	1114,5	885,5	760,6	687,1	641,4	611,5	574,4

Crew Weight	
Declared	360 kg
Default*	412 kg
Non Manual Power	No

Special Scoring	
ToD	ToT
D. Hand OSN 733,4	0,8181
Non Spin. OSN 749,5	0,8005
N/S Perf. Line 60,7	0,617

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	45,5°	44,4°	43,0°	41,8°	40,6°	39,9°	39,8°
Beat VMG	2,67	3,33	3,76	4,04	4,20	4,31	4,39
52°	4,21	5,13	5,66	5,98	6,15	6,25	6,36
60°	4,56	5,42	5,89	6,20	6,40	6,51	6,63
75°	4,84	5,63	6,07	6,37	6,64	6,86	7,05
90°	4,77	5,60	6,11	6,49	6,81	7,00	7,31
110°	4,59	5,54	6,08	6,46	6,80	7,13	7,76
120°	4,35	5,36	5,94	6,34	6,68	7,00	7,64
135°	3,78	4,84	5,58	6,06	6,41	6,74	7,36
150°	3,23	4,20	5,06	5,68	6,10	6,44	7,05
Run VMG	2,80	3,64	4,43	5,13	5,67	6,08	6,70
Gybe Angles	149,3°	151,3°	161,1°	170,4°	176,2°	177,8°	178,3°

Sails Limitations		
Genoas	Jibs	Spinnakers
2	2	3
Spinnaker configuration Symmetric		

Storm Sails Areas	
Heavy Weather Jib	9,23
Storm Jib (JL=5,38)	3,42
Storm Trysail	5,82

Owner
Antti Salovuori
MP
I certify that I understand my responsibilities under ORC Rules and Regulations
Signature

BOAT	
Name Merelli	Sail Nr FIN-2545
File L-2545.dxt	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 Bowsprit No	
P 9,245	E 3,600 MDT1 0,091 TL 2,400
IG 8,255	J 2,682 MDL1 0,135 MWT 40,20
ISP 8,310	SFJ 0,095 MDT2 0,082 MCG 4,220
SPS 2,079	SPL 2,880 MDL2 0,087 CPW 1,840
BAS 1,195	TPS 0,000 MW 0,128 BD 0,085
BAL 0,165	FSP 0,000 GO 0,133 BWT

MIZZEN RIG AND SAILS	
N/A	


COMMENTS	

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 22.05.2012		SG 1,0050	
FFM 0,988	FF 0,994	SFFP 0,506	
FAM 0,780	FA 0,784	SAFP 7,893	
W1 38,500	PD1 591,6	WD 8,140	
W2 38,500	PD2 590,2	GSA 1,0	
W3 38,500	PD3 589,7	RSA 1,0	
W4 38,500	PD4 590,2	PLM 9000,0	
Maximum beam station from stem			4,666
RM Measured / Default			41,8 / 38,4
Limit of positive stability			115,4°
Stability Index			112,7
Freeboard at mast at 2,777			0,899

PROPELLER			
Installation Shaft	PRD 0,380		
Type Folding	PBW 0,096		
Twin Screw No	PIPA 0,0050		
PSA 25,000	PHL 0,143	ST3 0,081	ESL 0,720
PSD 0,025	ST1 0,024	ST4 0,048	
PHD 0,065	ST2 0,081	ST5 0,190	

WATER BALLAST	
N/A	

CENTERBOARD	
N/A	



World Leader in Rating Technology

2012

IMS Measurement Certificate

Certificate

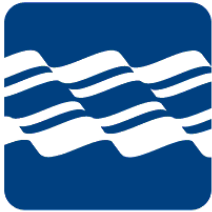
Number **02545**

ORC Ref **FIN00011776**

Issued On **28.5.2012**

VPP Ver. **2012 1.01**

Valid until **31.12.2012**



SUOMEN PURJEHDUS JA VENEILY
SEGLING OCH BÅTSPORT I FINLAND

SAILS (Maximum Areas)										
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Area (r)	Formula	
	0,135	0,75	1,40	2,38	3,06	6,00	20,11	20,65	P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB)	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG			
	0,05	0,53	1,05	2,08	3,14	8,31	4,19	17,41	0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)	
Symmetric	SL	SMG	SF							
	7,94	4,85	4,78					32,00	SL · (SF + 4·SMG) / 6	
Asymmetric										
Not Available										
Code Zero										
Not Available										

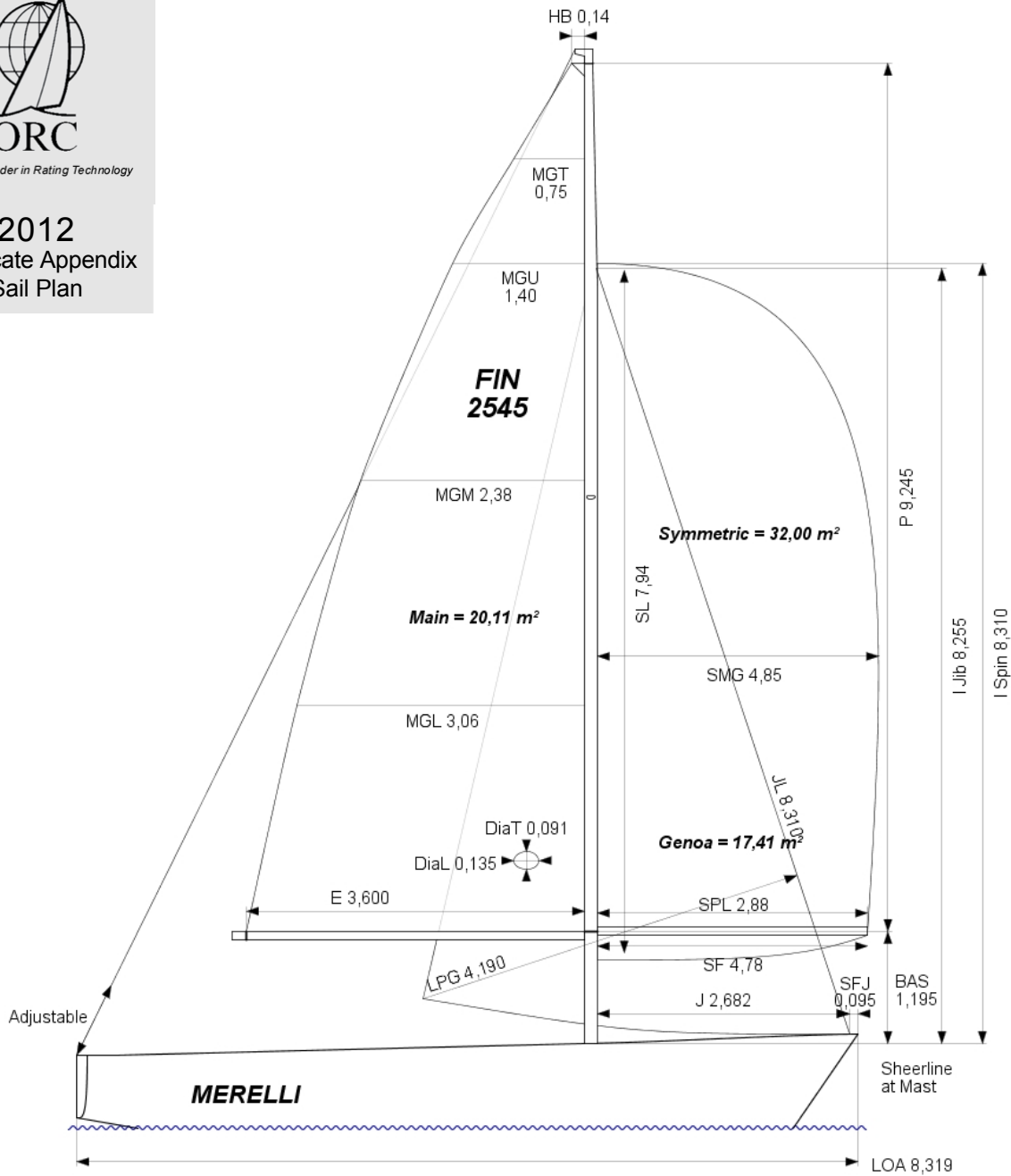
MEASUREMENT INVENTORY			
Measurer Sampsa Kärrnä			
Date 22.05.2012			
Comment			
Id	Item	Weight	VCG Description
1	Anchor	7,5	3,58
2	Anchor	7,5	4,63
1	Tools	15,0	4,78
Id	Item	Maker	Model
1	Engine	Yanmar	1GM
Id	Item	Weight Description	

MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
1	Tank Fuel		RST	20,0	6,88		20,0 FB +1.5 mm
2	Tank Waste		RST	25,0	1,93		0,0 Empty
3	Tank Water			50,0	1,53		0,0 Empty
Id	Item	Weight	Distance	VCG Description			
1	Battery		5,68	65Ah			
2	Battery		4,18	2x75Ah			



World Leader in Rating Technology

2012
Certificate Appendix
Sail Plan



SAILS INVENTORY														
MANSAIL														
Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Date	Manufacture	Material	Comment		
1	0,135	0,75	1,40	2,38	3,06	6,00	20,10	Olli Niemi	28.04.2011	WB-Sails	Kevlar	D4		
JIBS / GENOAS														
Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Measurer	Meas.Date	Manufacture	Material	Comment
G1	0,05	0,53	1,05	2,08	3,14	4,19	8,31	156%	17,41	Hannelius	22.02.2011	WB-Sails	Kevlar	
G3	0,05	0,35	0,69	1,38	2,12	2,91	8,20	109%	11,64	Olli Niemi	28.04.2011	WB-Sails	Kevlar	MAXX
SYMMETRIC SPINNAKERS														
Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
AP	7,94	4,85	4,78	32,00	Olli Niemi	28.04.2011	WB-Sails	Nylon	Blue/White					
ASYMMETRIC SPINNAKERS														
Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment		