

BOAT Name Spirit Sail Nr ISR 13	GPH 554.3	HULL Length Overall 13.352m Maximum Beam 3.968m Displacement 9,932kg Draft 2.639m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.003% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class First 44.7 Designer Farr Builder Benetau Series 01/2003 Age 01/2004 Age Allowance 0.487% Offset File F222.OFF - 02/04/2004 18:52:00 Measurement by Roni Raviv - 08/05/2015		IMSL 11.974m VCGD 0.251m Sink 27.80kg/mm RL 10.530m VCGM 0.274m WS 36.84m² LSM0 11.899m Displacement/Length ratio 5.8953



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	541.3			603.8		
Time on Time	1.1085			1.1179		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	623.9	493.8	447.9	803.6	605.9	533.3
Time on Time	1.0819	1.3669	1.5071	0.8400	1.1140	1.2657

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	902.3	749.5	678.6	650.7	637.2	632.6	620.2
52°	597.1	504.3	468.1	457.0	451.7	448.8	443.2
60°	567.4	484.8	455.1	445.0	440.1	437.4	432.9
75°	545.8	472.3	445.4	432.1	425.0	420.6	416.4
90°	551.3	473.9	443.4	426.9	414.1	403.8	393.4
110°	554.7	465.0	433.9	419.1	407.9	397.5	380.5
120°	568.5	471.7	436.0	414.5	396.1	383.9	363.7
135°	630.8	511.1	453.8	427.6	405.0	382.5	342.2
150°	746.2	607.1	509.7	455.0	429.9	409.0	367.1
Run VMG	861.6	701.0	588.5	518.9	477.7	444.9	403.4

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Crew Weight

Default **882kg**
Maximum **882kg**
Minimum* **662kg**
**when applied by the NoR and SI*
Non Manual Pwr **Yes**

Special Scoring

	ToD	ToT
Double H.GPH	562.4	1.0668
Double H.OSN	551.2	1.0885
Non Spin GPH	586.7	1.0227
Non Spin OSN	572.2	1.0486

Selected Courses							
Windward / Leeward	882.0	725.2	633.6	584.8	557.4	538.8	511.8
Circular Random	752.6	612.0	538.2	496.6	471.6	455.2	433.1
Coastal / Long Distance	879.9	682.1	572.7	512.9	481.6	457.2	416.9
Non Spinnaker	811.6	653.5	568.8	519.8	489.7	470.0	444.2

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	42.1°	40.7°	39.6°	38.6°	38.1°	37.9°	37.6°
Beat VMG	3.99	4.80	5.31	5.53	5.65	5.69	5.80
52°	6.03	7.14	7.69	7.88	7.97	8.02	8.12
60°	6.34	7.43	7.91	8.09	8.18	8.23	8.32
75°	6.60	7.62	8.08	8.33	8.47	8.56	8.64
90°	6.53	7.60	8.12	8.43	8.69	8.91	9.15
110°	6.49	7.74	8.30	8.59	8.82	9.06	9.46
120°	6.33	7.63	8.26	8.68	9.09	9.38	9.90
135°	5.71	7.04	7.93	8.42	8.89	9.41	10.52
150°	4.82	5.93	7.06	7.91	8.37	8.80	9.81
Run VMG	4.18	5.14	6.12	6.94	7.54	8.09	8.92
Gybe Angles	142.6°	147.0°	147.7°	155.7°	166.4°	180.0°	180.0°

Class Division Length

CDL = 11.253

Storm Sails Areas


Heavy Weather Jib **40.86**
Storm Jib (JL=11.31) **15.13**
Storm Trysail **18.81**

Owner

BOAT	
Name Spirit File ISR13	Sail Nr ISR 13 Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining		Flotation date 27/09/2017 SG 1.0290	
FFM 1.540	FF 1.528	SFFP 0.322	
FAM 1.130	FA 1.149	SAFP 12.761	
W1 80.0	PD1 398.3	WD 14.220	
W2 80.0	PD2 404.9	GSA 1.0	
W3 80.0	PD3 400.1	RSA 1.0	
W4 80.0	PD4 402.9	PLM 9000.0	
LCF from stem on CL / on sheer		7.389 / 7.635	
Maximum beam station from stem		8.675	
RM Measured		223.1kg·m	
RM Default		275.1kg·m	
Limit of positive stability / Stab.Index		105.5° / 111.7	
Freeboard at mast at 4.810		1.338	

RIG			
Forestay Tension Aft	Spreaders 3		
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 17.280	E 6.220	MDT1 0.120	MW 0.230
IG 17.300	J 4.810	MDL1 0.230	GO 0.257
ISP 18.920	SFJ	MDT2 0.120	BD 0.195
BAS 1.880	SPL 5.100	MDL2 0.160	MWT
FSP 0.080	TPS 5.710	TL 1.600	MCG




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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.430		
Type Feathering 3 blades	PBW		
Twin Screw No	PIPA 0.0040		
ST1 0.050	ST3 0.180	ST5 0.295	
ST2 0.180	ST4 0.112	EDL 2.630	

COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.270	1.37	2.36	4.04	5.23	64.38	65.80	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	137.73		SL · (SFL + 4·SHW) / 6	
	18.34	18.34	18.34	9.02	8.98				
Asymmetric	SLU	SLE	SL	SHW	SFL	181.69		AS · (SFL + 4·SHW) / 6	
	20.89	18.48	19.68	11.13	10.86				

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	0.88	1.72	3.44	5.22	7.01	17.04	59.32			29/12/2017	Spectra	
0.09	0.76	1.49	3.09	4.88	6.92	17.28	56.33			22/08/2015	Kevlar	
0.10	0.78	1.47	2.73	3.99	5.27	17.05	46.20	Y		29/12/2017	Dacron	

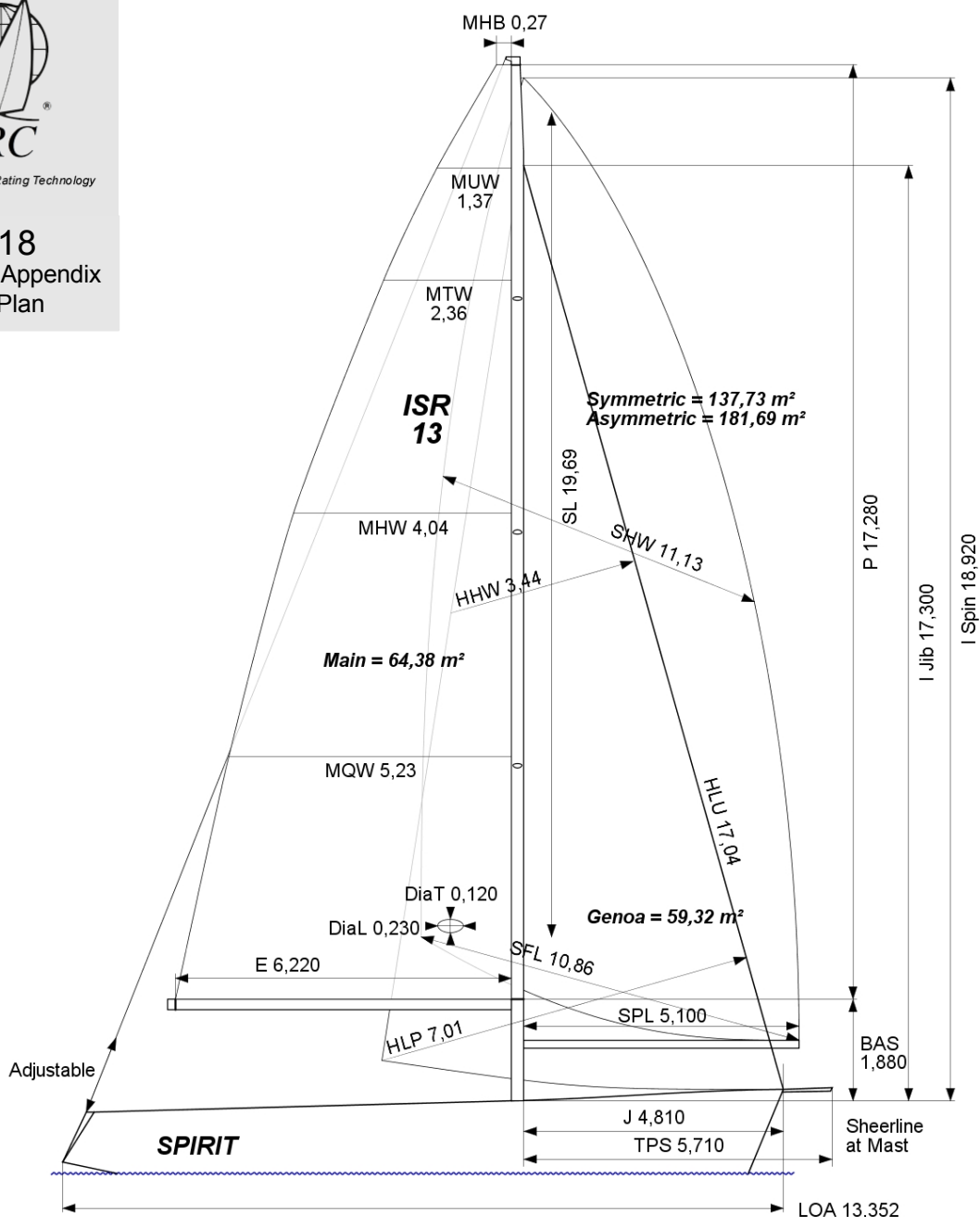
MEASUREMENT INVENTORY				
Measurer Roni Raviv ISR-1 Date 15/09/2017 Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
1	Engine	Yanmar	54HP	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

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>Condtn</i>	<i>Description</i>
2	Tank	Fuel	plastic	200.0	10.20	0.00	200.0	
1	Tank	Water	plastic	200.0	10.20	0.00	0.0	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>				



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Sail Plan



SAILS INVENTORY

MAINSAIL (2)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.270	1.37	2.36	4.04	5.23	64.38	ISR-1	22/08/2015		Carbon	
2	0.140	1.11	2.05	3.68	5.06	60.38	ISR-1	26/07/2018		Dacron	

HEADSAILS (3)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
JIB1	0.08	0.88	1.72	3.44	5.22	7.01	17.04	146%	59.32			ISR-1	29/12/2017		Spectra	
1	0.09	0.76	1.49	3.09	4.88	6.92	17.28	144%	56.33			ISR-1	22/08/2015		Kevlar	
JIB 2	0.10	0.78	1.47	2.73	3.99	5.27	17.05	110%	46.20	Y		ISR-1	29/12/2017		Dacron	

SYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	18.34	18.34	18.34	9.02	8.98	137.73	ISR-1	22/08/2015		Nylon	

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A1	20.89	18.48	19.69	11.13	10.86	181.69	asym	ISR-1	29/12/2017	Unkown	Nylon	