

BOAT
Name FARR 40 ONE DESIGN
Sail Nr F40

GPH
525.7

HULL			
Length Overall	12.411m	Maximum Beam	3.956m
Displacement	4,967kg	Draft	2.591m
IMS Reg. Division	Performance	Dynamic Allowance	0.001%
Fwd Accommodation	No	Hull Construction	Cored
Hull Construction	Cored	Carbon Rudder	Yes
Crew Arm Extension			
IMSL	11.218m	VCGD	-0.367m
RL	11.270m	VCGM	-0.364m
WS		WS	27.67m ²
LSM0	10.887m	Displacement/Length ratio	3.8492



World Leader in Rating Technology

2019 (Test)
ORC International
One Design Certificate

GENERAL
Class FARR 40 OD
Designer FARR
Builder CARROLL
Series 05/1997
Age 05/1998
Age Allowance 0.487%
Offset File farr40.od - 15/01/2019 18:33:02
Measurement by WILLIAMS - 01/01/2000

Rating Office

SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	512.8			574.2		
Time on Time	1.1700			1.1755		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	584.2	472.4	419.3	749.2	579.6	507.2
Time on Time	1.1554	1.4288	1.6098	0.9010	1.1645	1.3309

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	843.0	698.2	649.0	629.0	615.7	602.2	601.3
52°	553.1	477.2	458.5	450.3	445.6	438.5	432.3
60°	522.0	463.5	445.3	436.1	430.2	424.1	412.8
75°	500.5	453.3	429.2	412.8	403.4	397.5	383.3
90°	502.9	453.0	425.3	400.0	381.7	370.8	358.9
110°	523.5	451.9	423.8	403.1	385.2	365.7	324.1
120°	537.1	455.1	418.0	390.4	372.6	354.0	317.4
135°	592.1	479.9	436.9	400.1	364.6	330.9	289.8
150°	702.3	558.1	481.0	439.4	405.8	373.3	305.3
Run VMG	810.9	644.4	555.4	500.0	463.0	429.8	352.5

Certificate
Number FARR40
ORC Ref N/A
Issued On 15/01/2019
VPP Ver. 2019 1.01
Invalid for Racing

Crew Weight
Default 777kg
Maximum 760kg
Minimum* 570kg
<i>*when applied by the NoR and SI</i>
Non Manual Pwr No

Special Scoring	
ToD	ToT
Non Spin GPH 558.4	1.0745
Non Spin OSN 546.5	1.0978

Selected Courses							
Windward / Leeward	827.0	671.3	602.2	564.5	539.3	516.0	476.9
Circular Random	708.9	579.3	511.4	472.0	446.3	427.2	397.5
Coastal / Long Distance	825.4	633.5	546.2	493.6	460.9	430.7	380.3
Non Spinnaker	767.6	621.0	542.3	495.8	465.9	444.8	415.8

Sails Limitations	
Headsails 6	Spinnakers 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°	40.7°	38.2°	37.7°	36.9°	36.3°	36.9°
Beat VMG	4.27	5.16	5.55	5.72	5.85	5.98	5.99
52°	6.51	7.54	7.85	7.99	8.08	8.21	8.33
60°	6.90	7.77	8.09	8.26	8.37	8.49	8.72
75°	7.19	7.94	8.39	8.72	8.92	9.06	9.39
90°	7.16	7.95	8.46	9.00	9.43	9.71	10.03
110°	6.88	7.97	8.50	8.93	9.35	9.84	11.11
120°	6.70	7.91	8.61	9.22	9.66	10.17	11.34
135°	6.08	7.50	8.24	9.00	9.87	10.88	12.42
150°	5.13	6.45	7.48	8.19	8.87	9.64	11.79
Run VMG	4.44	5.59	6.48	7.20	7.78	8.38	10.21
Gybe Angles	143.5°	143.4°	150.1°	157.0°	171.3°	155.7°	144.8°

Class Division Length
CDL = 11.245

Storm Sails Areas	
Heavy Weather Jib	36.11
Storm Jib (JL=10.63)	13.38
Storm Trysail	17.25

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

BOAT	Name FARR 40 ONE	Sail Nr F40
	File Farr40	Data in meters/kilograms

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	16.700	E	5.900	MDT1	0.121	MW	0.240
IG	16.318	J	4.705	MDL1	0.240	GO	0.250
ISP	18.300	SFJ	0.000	MDT2	0.090	BD	0.225
BAS	1.760	SPL	5.200	MDL2	0.104	MWT	176.70
FSP	0.068	TPS		TL	1.993	MCG	5.497

MIZZEN RIG AND SAILS
N/A

COMMENTS
MASTHEAD SPINNAKER VALID ONLY IN CONJUNCTION WITH FARR 40 CLASS CERTIFICATE

INCLINING TEST AND FREEBOARDS

Inclining Test Enter RM directly			
Flotation date 14/01/2019		SG	
		RMCe 171.6	
FFM	1.346	FF	1.346
SFFP	0.152	FA	1.026
FAM	1.026	SAFP	11.954
LCF from stem on CL / on sheer		6.834 / 7.087	
Maximum beam station from stem		8.199	
RM Measured		171.6kg-m	
RM Default		166.3kg-m	
Limit of positive stability / Stab.Index		131.2° / 127.6	
Freeboard at mast at 4.705		1.204	

PROPELLER					
Installation Strut	PRD	0.407			
Type Folding 2 blades	PBW	0.100			
Twin Screw No	PIPA	0.0038			
ST1	0.065	ST3	0.180	ST5	0.268
ST2	0.180	ST4	0.110	EDL	0.702

MOVABLE BALLAST
N/A

CENTERBOARD
N/A



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2019

IMS Measurement Certificate

Certificate

Number **FARR40**
 ORC Ref **N/A**
 Issued On **15/01/2019**
 VPP Ver. **2019 1.01**

Invalid for Racing

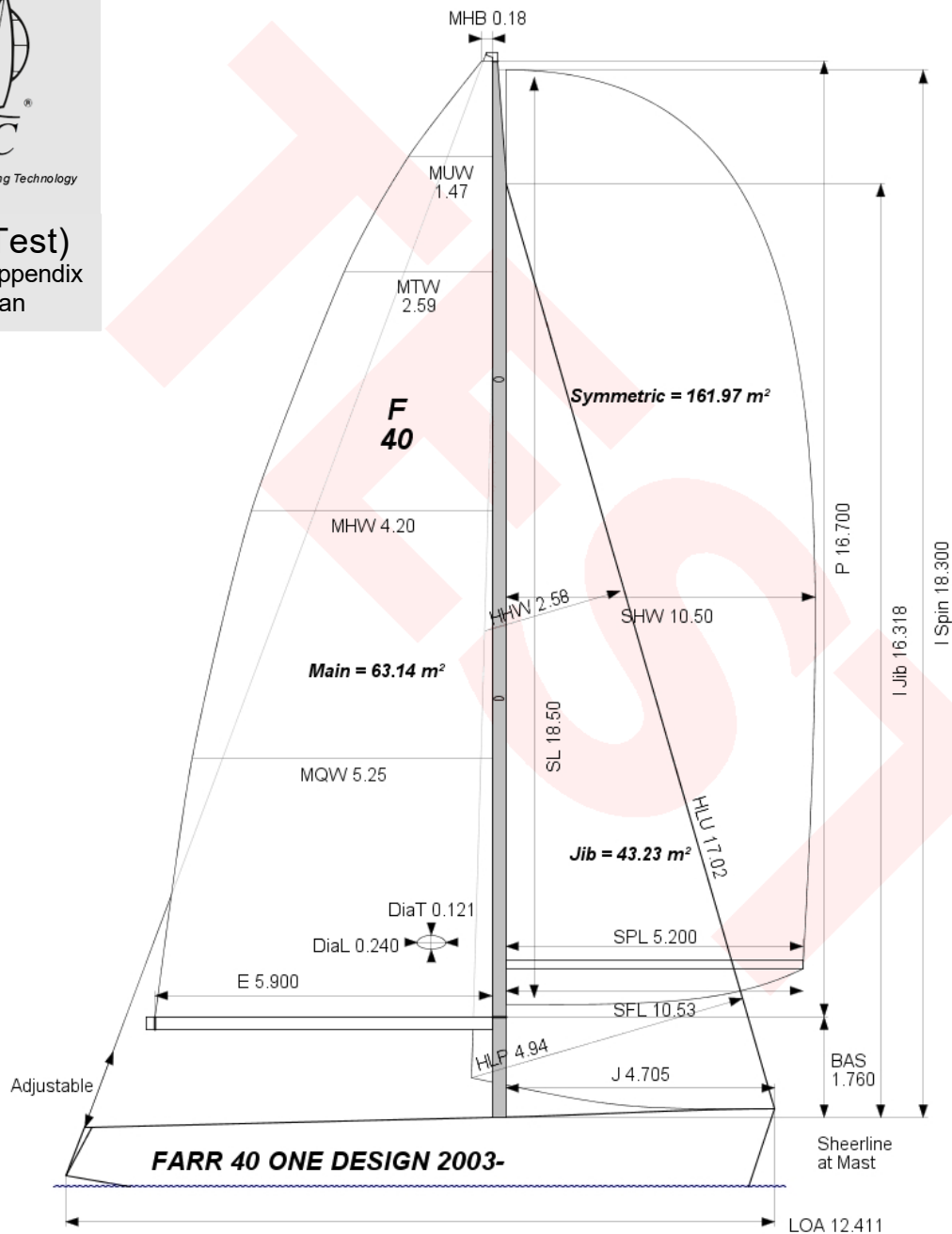
SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.180	1.47	2.59	4.20	5.25	63.14	65.04	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL			SL · (SFL + 4·SHW) / 6	
	18.50	18.50	18.50	10.50	10.53	161.97			
Asymmetric	Not Available								

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
0.15	0.68	1.34	2.58	3.76	4.94	43.23					Unknow	Class Rules



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Certificate Appendix
Sail Plan



SAILS INVENTORY

MAINSAIL (1)																	
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment						
ORC	0.18	1.47	2.59	4.20	5.25	63.14					Class Rules						
HEADSAILS (1)																	
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment	
1	0.15	0.68	1.34	2.58	3.76	4.94	11.02	105%	43.23							Unknow	Class Rules
SYMMETRIC SPINNAKERS (1)																	
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment						
ORC	18.50	18.50	18.50	10.50	10.53	161.97					Class Rules						
ASYMMETRIC SPINNAKERS (0)																	
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment					