

BOAT Name Toto Travel Sail Nr CRO 1745	GPH 519.0	HULL Length Overall 12.415m Maximum Beam 3.956m Displacement 5,143kg Draft 2.599m IMS Reg. Division Performance Dynamic Allowance 0.000% Fwd Accommodation No Hull Construction Cored Carbon Rudder Yes Crew Arm Extension IMSL 11.276m VCGD -0.237m Sink 21.26kg/mm RL 11.200m VCGM -0.243m WS 28.01m² LSM0 10.945m Displacement/Length ratio 3.9226
GENERAL Class Farr 40 Designer Farr Builder Carroll Series 05/1997 Age 05/1997 Age Allowance 0.487% Offset File FARR40.OD.OFF - 13/05/2015 19:45:08 Measurement by - 01/04/2019		



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SCORING OPTIONS						
Time on Distance	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	512.1			575.4		
Time on Time	1.1715			1.1731		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	569.7	470.4	418.0	738.9	581.2	506.9
Time on Time	1.1849	1.4351	1.6149	0.9135	1.1613	1.3315

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	798.0	699.2	652.1	631.0	620.0	604.9	602.6
52°	520.1	476.3	460.1	451.7	447.0	441.3	434.3
60°	490.8	460.1	446.9	438.0	432.1	427.7	415.7
75°	468.4	442.2	427.4	415.8	406.1	399.9	387.9
90°	462.7	431.3	410.9	397.3	386.5	373.9	361.5
110°	485.1	447.9	419.6	386.9	365.5	349.5	325.4
120°	524.6	450.2	414.7	389.8	359.3	338.5	307.3
135°	589.9	471.7	431.4	394.2	358.7	327.8	288.4
150°	702.9	560.1	478.4	432.5	403.6	370.7	298.1
Run VMG	811.6	646.8	552.4	500.9	466.1	428.0	344.2

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Selected Courses							
Windward / Leeward	804.8	673.0	602.2	565.9	543.0	516.5	473.4
Circular Random	689.2	569.0	506.1	469.1	444.4	425.7	396.8
Coastal / Long Distance	805.5	633.5	545.0	493.2	460.6	428.7	377.5
Non Spinnaker	781.9	631.0	549.8	501.9	471.2	449.9	421.1

Crew Weight
Default **783kg**
Maximum **800kg**
Minimum* **600kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **566.4 1.0593**
Non Spin OSN **553.7 1.0835**

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	43.0°	40.7°	38.5°	37.7°	37.0°	36.3°	36.6°
Beat VMG	4.51	5.15	5.52	5.71	5.81	5.95	5.97
52°	6.92	7.56	7.82	7.97	8.05	8.16	8.29
60°	7.34	7.82	8.06	8.22	8.33	8.42	8.66
75°	7.69	8.14	8.42	8.66	8.86	9.00	9.28
90°	7.78	8.35	8.76	9.06	9.31	9.63	9.96
110°	7.42	8.04	8.58	9.30	9.85	10.30	11.06
120°	6.86	8.00	8.68	9.24	10.02	10.64	11.71
135°	6.10	7.63	8.35	9.13	10.03	10.98	12.48
150°	5.12	6.43	7.53	8.32	8.92	9.71	12.08
Run VMG	4.44	5.57	6.52	7.19	7.72	8.41	10.46
Gybe Angles	142.6°	141.0°	149.1°	152.4°	149.1°	146.4°	144.4°

Sails Limitations
Headsails **6** Spinnakers **4**

Class Division Length
CDL = **11.239**

Storm Sails Areas
Heavy Weather Jib **35.39**
Storm Jib (JL=10.53) **13.11**
Storm Trysail **16.62**

Owner

BOAT	
Name Toto Travel	Sail Nr CRO 1745
File CRO1745	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 01/04/2019		SG 1.0300	
FFM 1.345	FF 1.343	SFFP 0.152	
FAM 1.013	FA 1.013	SAFP 11.954	
W1 80.0	PD1 445.6	WD 11.740	
W2 80.0	PD2 446.4	GSA 1.0	
W3 80.0	PD3 447.1	RSA 1.0	
W4 80.0	PD4 447.0	PLM 9000.0	
LCF from stem on CL / on sheer		6.859 / 7.116	
Maximum beam station from stem		8.199	
RM Measured		165.6kg-m	
RM Default		166.4kg-m	
Limit of positive stability / Stab.Index		127.0° / 123.5	
Freeboard at mast at 4.670		1.198	



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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 16.600	E 5.720	MDT1 0.122	MW 0.242
IG 16.163	J 4.670	MDL1 0.242	GO 0.250
ISP 18.275	SFJ 0.000	MDT2 0.090	BD 0.225
BAS 1.715	SPL 0.104	MDL2 0.104	MWT 176.70
FSP 0.068	TPS 5.900	TL 1.993	MCG 5.497

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.420		
Type Folding 2 blades	PBW 0.105		
Twin Screw No	PIPA 0.0036		
ST1 0.046	ST3 0.180	ST5 0.265	
ST2 0.180	ST4 0.112	EDL 0.690	

COMMENTS	
SPL = 5.17	

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	1.47	2.56	4.16	5.16	61.74	63.62	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	AS · (SFL + 4·SHW) / 6		
	21.30	18.47	19.89	11.86	11.52	195.40			

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HBB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.09	1.34	2.60	5.16	7.58	9.95	18.48	93.85	N	Y	15/09/2015	Carbon	
0.10	0.69	1.30	2.50	3.69	4.80	16.10	39.86			29/10/2018	Technor	G1
0.12	0.69	1.30	2.52	3.71	4.80	15.80	39.28			29/10/2018	Technor	G2
0.12	0.67	1.25	2.40	3.53	4.76	15.98	38.37	N		29/10/2018	Carbon	3DI

MEASUREMENT INVENTORY				
Measurer	Date 01/04/2019			
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	YANMAR	27HP	
Id	Item	Weight Description		

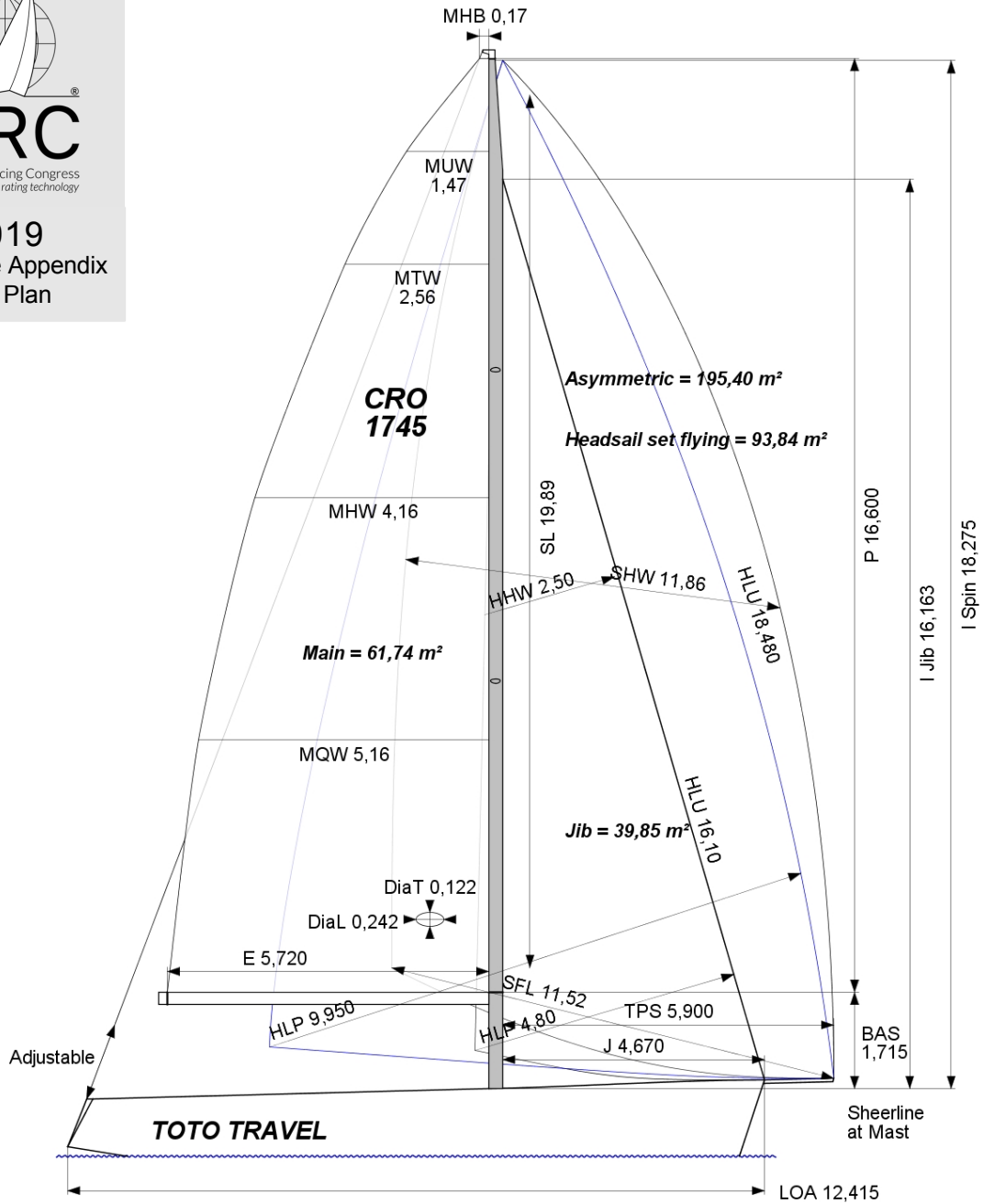
MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
A	Tank Fuel		INOX	80.0	8.68	0.00	10-0 10 l
B	Tank Water		PVC	100.0	7.70	0.00	0-0 Empty
C	Tank Water		PVC	100.0	7.70	0.00	0-0 Empty
Id	Item	Weight	Distance	VCG Description			
A	Battery	0.0	6.87	0.00 2 DA 105 AH Starboard			
B	Battery	0.0	7.00	0.00 1 DA 105 AH Port			



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SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
2	0.17	1.47	2.56	4.16	5.16	61.75		29/10/2018	North	Carbon	3DI					
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
1	0.09	1.34	2.60	5.16	7.58	9.95	18.48	213%	93.85	N	Y		15/09/2015	North Sails	Carbon	
2	0.10	0.69	1.30	2.50	3.69	4.80	16.10	103%	39.86				29/10/2018	Ullman	Technor	G1
3	0.12	0.69	1.30	2.52	3.71	4.80	15.80	103%	39.28				29/10/2018	Ullman	Technor	G2
4	0.12	0.67	1.25	2.40	3.53	4.76	15.98	102%	38.37	N			29/10/2018	North	Carbon	3DI
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
1	21.30	18.47	19.88	11.86	11.52	195.41	asym		16/06/2017	Quantum	Nylon					
2	21.20	18.10	19.65	10.10	10.48	166.64	asym		22/04/2016	Quantum	Nylon					
1	18.04	15.23	16.63	8.04	8.97	114.04	asym		24/02/2016	Ullman	Nylon					