

BOAT Name Flying Cloud Sail Nr ITA 14840	GPH 558.6	HULL Length Overall 12.005m Maximum Beam 4.018m Displacement 5,689kg Draft 2.572m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class Millenium 40 QB Designer Lostuzzi Builder Starmarina Series 09/2003 Age 06/2004 Age Allowance 0.455% Offset File I14840.off - 31/10/2014 16:44:10 Measurement by Panait - 09/07/2014		IMSL 11.428m VCGD -0.229m Sink 22.67kg/mm RL 10.487m VCGM -0.182m WS 29.38m² LSMO 11.324m Displacement/Length ratio 3.9177



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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	544.3			614.3	
Time On Time	1.1023			1.0987		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	635.7	496.8	439.7	825.9	616.6	539.4
Time on Time	1.0619	1.3588	1.5352	0.8173	1.0948	1.2515

TIME ALLOWANCES	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	940.2	775.9	688.0	652.1	634.2	620.3	608.0
52°	613.9	513.9	473.7	460.3	453.2	448.8	437.6
60°	577.2	491.3	460.3	446.1	438.0	432.8	419.6
75°	546.4	476.1	448.5	427.2	411.3	402.6	393.8
90°	547.3	472.0	447.1	423.2	399.2	380.0	361.7
110°	553.2	468.2	433.6	411.9	394.8	378.4	349.8
120°	569.3	475.6	439.8	405.8	380.9	364.0	332.9
135°	642.4	514.7	460.9	430.9	398.8	366.4	305.8
150°	764.6	610.3	514.9	465.3	442.5	418.7	356.3
Run VMG	882.9	704.7	594.6	536.6	509.7	474.2	411.5

Certificate

Number **019/17**
ORC Ref **ROU00076963**
Issued On **06/07/2017**
VPP Ver. **2017 1.00**
Valid until **31/12/2017**

Crew Weight

Declared **720kg**
Default* **822kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	593.6	1.0108
Non Spin OSN	579.3	1.0357

Selected Courses	911.6	740.3	641.3	594.3	571.9	547.2	509.8
Windward / Leeward	911.6	740.3	641.3	594.3	571.9	547.2	509.8
Circular Random	765.5	619.9	542.4	497.3	468.6	448.1	417.2
Ocean for PCS	941.0	728.4	609.0	535.7	487.1	451.5	398.1
Non Spinnaker	828.6	664.8	575.6	522.3	488.2	464.7	432.9

Sails Limitations

Headsails	Spinnakers
6	4

Velocity Prediction in Knots for True Wind Speeds	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	43.0°	41.9°	40.4°	38.5°	37.5°	36.6°	36.8°
Beat VMG	3.83	4.64	5.23	5.52	5.68	5.80	5.92
52°	5.86	7.01	7.60	7.82	7.94	8.02	8.23
60°	6.24	7.33	7.82	8.07	8.22	8.32	8.58
75°	6.59	7.56	8.03	8.43	8.75	8.94	9.14
90°	6.58	7.63	8.05	8.51	9.02	9.47	9.95
110°	6.51	7.69	8.30	8.74	9.12	9.51	10.29
120°	6.32	7.57	8.19	8.87	9.45	9.89	10.81
135°	5.60	6.99	7.81	8.36	9.03	9.82	11.77
150°	4.71	5.90	6.99	7.74	8.14	8.60	10.10
Run VMG	4.08	5.11	6.05	6.71	7.06	7.59	8.75
Gybe Angles	142.9°	145.9°	148.2°	151.3°	151.4°	176.3°	143.0°

Class Division Length

CDL = **10.958**

Storm Sails Areas

Heavy Weather Jib **38.52**
Storm Jib (JL=10.98) **14.27**
Storm Trysail **15.30**

Owner

BOAT	
Name Fyling Cloud	Sail Nr ITA14840
File ITA14840	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 24/06/2017		SG 1.0150	
FFM 1.377	FF 1.385	SFFP 0.198	
FAM 0.952	FA 0.954	SAFP 11.630	
W1 109.0	PD1 589.4	WD 12.020	
W2 109.0	PD2 580.1	GSA 1.0	
W3 109.0	PD3 585.3	RSA 1.0	
W4 109.0	PD4 582.6	PLM 9000.0	
LCF from stem on CL / on sheer		6.977 / 7.256	
Maximum beam station from stem		7.913	
RM Measured		176.6kg·m	
RM Default		172.6kg·m	
Limit of positive stability / Stab.Index		120.8° / 117.6	
Freeboard at mast at 4.800		1.124	

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 15.750	E 5.550	MDT1 0.110	MW 0.203
IG 16.840	J 4.800	MDL1 0.203	GO 0.218
ISP 17.930	SFJ	MDT2 0.100	BD 0.245
BAS 1.700	SPL 0.000	MDL2 0.175	MWT 129.00
FSP 0.066	TPS 5.800	TL 0.700	MCG 6.320



MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.435		
Type Folding 2 blades	PBW 0.115		
Twin Screw No	PIPA 0.0037		
ST1 0.051	ST3 0.200	ST5 0.260	
ST2 0.170	ST4 0.115	EDL 1.800	

Certificate	
Number 019/17	
ORC Ref ROU00076963	
Issued On 06/07/2017	
VPP Ver. 2017 1.00	
Valid until 31/12/2017	

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.500	1.34	2.18	3.56	4.62	52.70	53.82	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric	SLU	SLE	SL	SHW	SFL	155.17		AS · (SFL + 4·SHW) / 6	
	20.40	16.90	18.65	9.95	10.12				

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
0.18	0.84	1.55	2.80	3.92	4.87	16.45	43.92	N	N		Unknow	
0.12	0.78	1.42	2.59	3.71	4.79	16.35	41.37	N	N		Unknow	

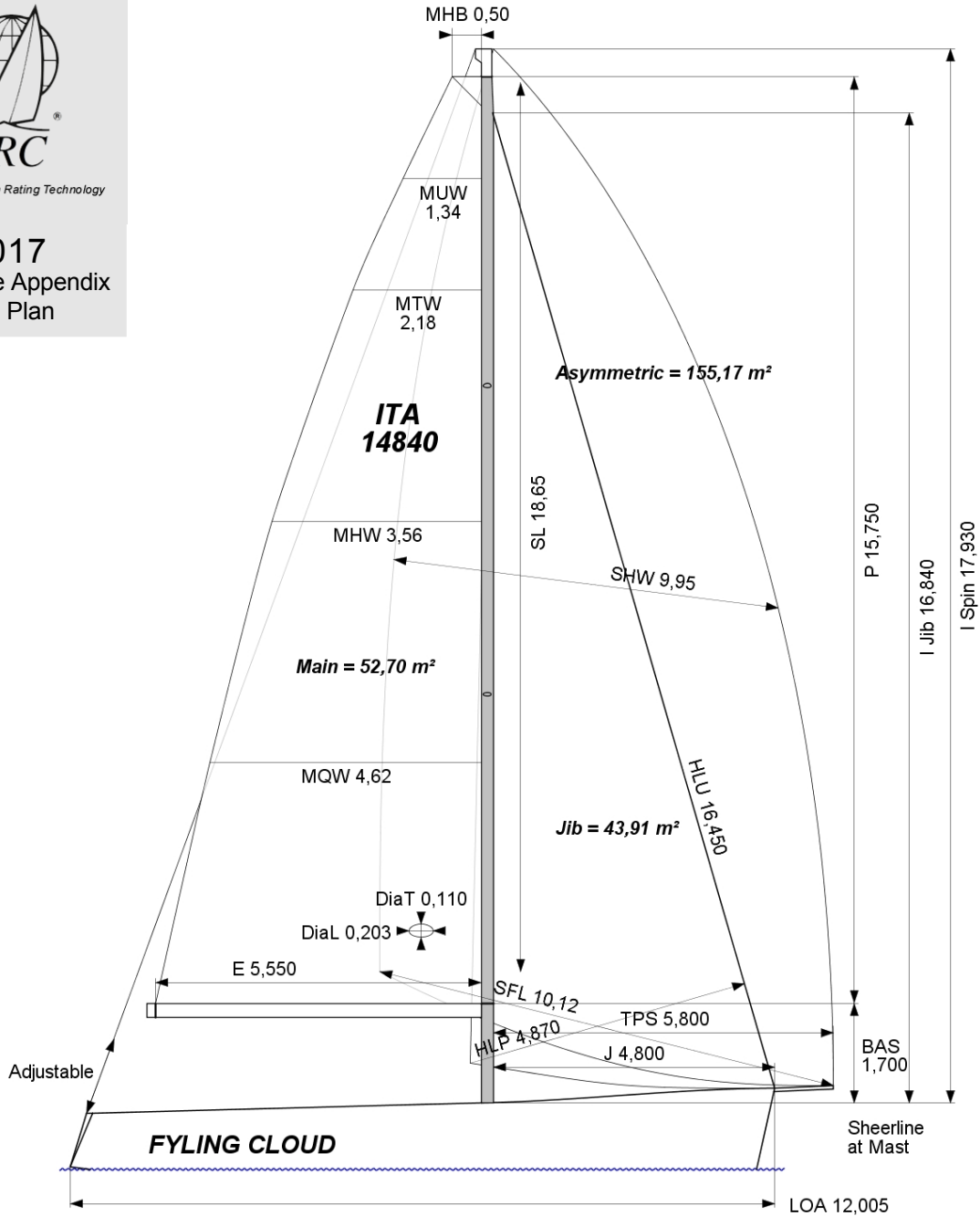
MEASUREMENT INVENTORY				
Measurer a. panait				
Date 05/07/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
SaS	Tools	38.0	5.48	0.00 Sailor-Services
<i>Id</i>	<i>Item</i>	<i>Maker</i>		<i>Model</i>
e	Engine	Lombardini		
<i>Id</i>	<i>Item</i>	<i>Weight Description</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>
d	Tank	diesel	aluminium	75.0	6.10			
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>				
b3	Battery	15.0	8.60					
b2	Battery	15.0	8.60					
b1	Battery	10.0	8.60					
frid	Misc	7.0	6.40					



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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					
C	0.500	1.34	2.18	3.56	4.62	52.70	NOCETI	09/07/2014		Kevlar						
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
D	0.18	0.84	1.55	2.80	3.92	4.87	16.45	101%	43.92	N	N					Unknow
E	0.12	0.78	1.42	2.59	3.71	4.79	16.35	100%	41.37	N	N					Unknow
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A	20.40	16.90	18.65	9.95	10.12	155.17	asym	NOCETI	06/11/2010	DOYLE	Nylon					
B	20.75	16.85	18.80	9.73	10.30	154.22	asym	NOCETI	06/11/2010	DOYLE	Nylon					