

BOAT Name MORGAN IV Sail Nr ITA-391	GPH 590.8	HULL Length Overall 11.820m Maximum Beam 3.694m Displacement 7,145kg Draft 2.149m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.097% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder Yes Crew Arm Extension
GENERAL Class G.S. 39 Designer MALETTO Builder DEL PARDO Series 06/2011 Age 04/2012 Age Allowance 0.260% Offset File ITA391A.OFF - 21/03/2014 12:51:48 Measurement by - 05/05/2019		IMSL 10.831m VCGD 0.087m Sink 22.86kg/mm RL 9.070m VCGM 0.086m WS 30.12m² LSM0 10.657m Displacement/Length ratio 5.9033



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	575.9			645.8		
Time on Time	1.0418			1.0453		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	670.6	524.4	473.4	867.8	647.5	569.5
Time on Time	1.0065	1.2871	1.4259	0.7778	1.0424	1.1852

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1005.8	829.2	736.3	701.1	687.6	682.0	672.6
52°	654.0	550.2	499.5	482.7	476.6	474.1	467.0
60°	616.0	524.1	483.6	468.3	462.7	460.0	454.0
75°	586.3	505.7	472.4	455.7	445.3	439.9	435.8
90°	590.7	497.8	468.1	452.2	437.2	424.2	408.6
110°	583.0	489.3	455.0	434.3	421.1	410.8	391.7
120°	598.0	497.5	458.9	434.6	411.3	393.4	370.6
135°	665.6	540.4	478.2	450.1	426.3	402.1	354.4
150°	787.6	629.5	534.3	482.1	454.3	432.3	388.4
Run VMG	909.4	726.9	616.9	549.9	501.9	466.9	423.2

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Number **3911**
ORC Ref **ITA00052245**
Issued On **07/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **754kg**
Maximum **715kg**
Minimum* **536kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	600.5	0.9992
Double H.OSN	586.9	1.0224
Non Spin GPH	626.6	0.9575
Non Spin OSN	609.8	0.9839

Selected Courses							
Windward / Leeward	957.6	778.1	676.6	625.5	594.7	574.4	547.9
Circular Random	807.7	654.2	573.2	527.3	499.6	481.5	457.4
Coastal / Long Distance	952.8	729.9	610.2	545.8	510.4	482.2	436.3
Non Spinnaker	873.7	700.5	607.0	552.8	519.7	498.3	471.4

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	43.4°	41.8°	40.9°	40.1°	39.7°	39.5°	39.9°
Beat VMG	3.58	4.34	4.89	5.13	5.24	5.28	5.35
52°	5.50	6.54	7.21	7.46	7.55	7.59	7.71
60°	5.84	6.87	7.44	7.69	7.78	7.83	7.93
75°	6.14	7.12	7.62	7.90	8.09	8.18	8.26
90°	6.09	7.23	7.69	7.96	8.23	8.49	8.81
110°	6.17	7.36	7.91	8.29	8.55	8.76	9.19
120°	6.02	7.24	7.84	8.28	8.75	9.15	9.71
135°	5.41	6.66	7.53	8.00	8.44	8.95	10.16
150°	4.57	5.72	6.74	7.47	7.92	8.33	9.27
Run VMG	3.96	4.95	5.84	6.55	7.17	7.71	8.51
Gybe Angles	143.6°	147.5°	148.7°	156.1°	171.3°	180.0°	180.0°

Class Division Length
CDL = **9.951**

Storm Sails Areas
Heavy Weather Jib **33.79**
Storm Jib (JL=10.29) **12.52**
Storm Trysail **14.18**

Owner

BOAT	
Name MORGAN IV	Sail Nr ITA-391
File I391	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 15.140	E 5.350 MDT1 0.110 MW 0.225
IG 15.700	J 4.660 MDL1 0.225 GO 0.260
ISP 17.360	SFJ 0.000 MDT2 0.110 BD 0.260
BAS 1.800	SPL 4.770 MDL2 0.200 MWT 179.70
FSP 0.080	TPS 6.060 TL 1.260 MCG 5.450

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 03/04/2019		SG 1.0260	
FFM 1.407	FF 1.404	SFFP 0.431	
FAM 1.089	FA 1.093	SAFP 10.824	
W1 99.9	PD1 580.7	WD 12.500	
W2 99.9	PD2 601.2	GSA 1.0	
W3 99.9	PD3 601.1	RSA 1.0	
W4 99.9	PD4 584.3	PLM 9000.0	
LCF from stem on CL / on sheer		6.457 / 6.709	
Maximum beam station from stem		7.228	
RM Measured		166.2kg-m	
RM Default		181.5kg-m	
Limit of positive stability / Stab.Index		121.2° / 124.4	
Freeboard at mast at 4.660		1.349	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.450		
Type Folding 2 blades	PBW 0.120		
Twin Screw No	PIPA 0.0041		
ST1 0.065	ST3 0.180	ST5 0.340	
ST2 0.180	ST4 0.110	EDL 2.960	

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COMMENTS	
FFM(SX)+ 43mm	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.370	1.23	2.10	3.50	4.52	49.12	50.21	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	16.83	16.83	16.83	8.55	8.37	119.41		SL · (SFL + 4·SHW) / 6	
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL				
	18.87	16.77	17.82	8.58	9.08	128.90		AS · (SFL + 4·SHW) / 6	

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
0.13	0.85	1.53	2.69	3.71	4.74	15.51	39.89	Y		05/05/2019	Carbon	J0
0.13	0.84	1.52	2.68	3.70	4.74	15.52	39.80	Y		05/05/2019	Carbon	J1

MEASUREMENT INVENTORY				
Measurer 162				
Date 03/04/2019				
Comment Excellent weather conditions				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	VOLVO	D240	
Id	Item	Weight Description		

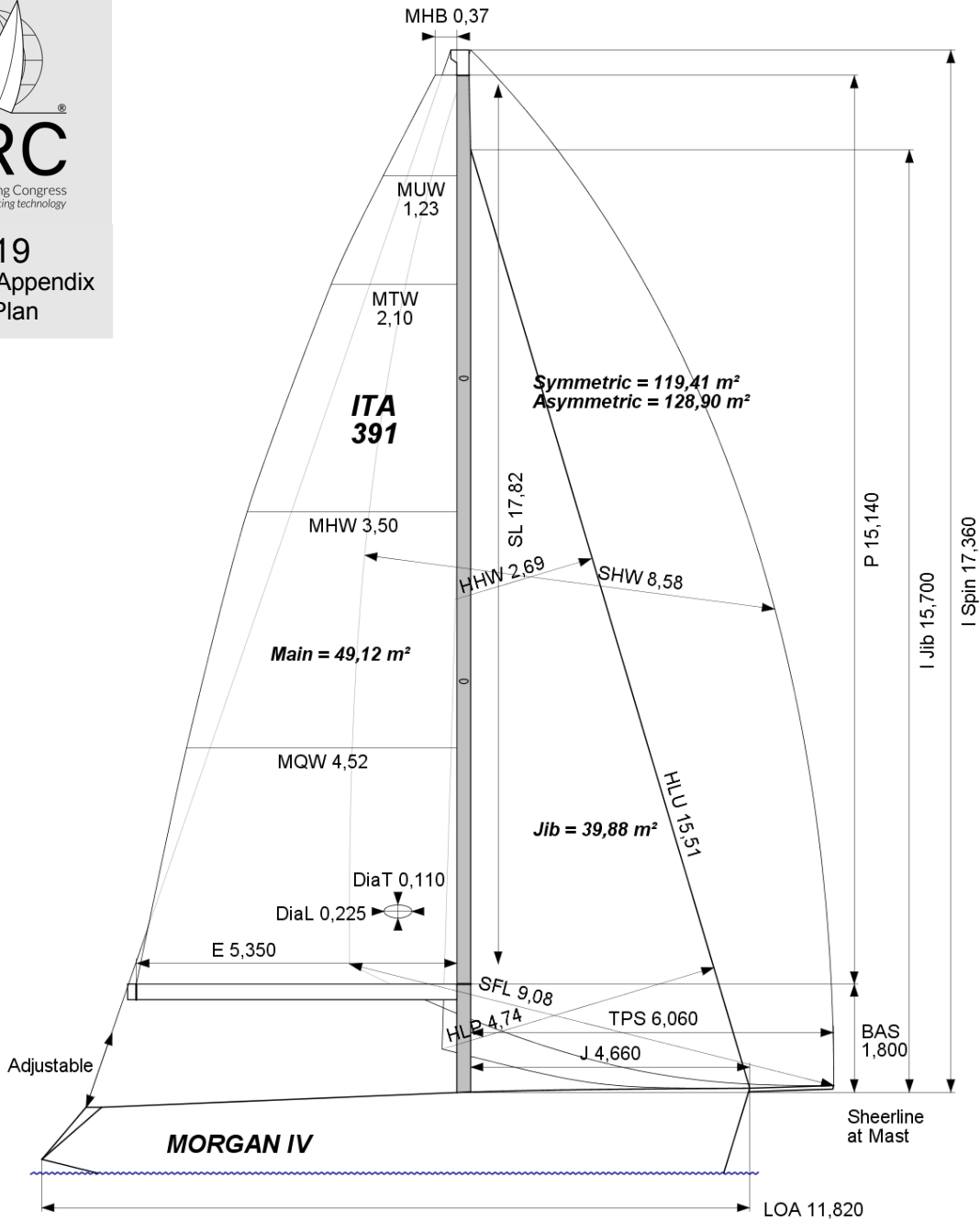
MEASUREMENT INVENTORY							
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn Description
B	Tank	ACQUA	PVC	320.0	9.40	0.00	0-0 LT
A	Tank	GASOLIO	INOX	185.0	9.50	0.00	30-0 LT
Id	Item	Weight	Distance	VCG Description			
A	Battery	20.0	9.00	0.00 1 da 90 Ah			
B	Battery	17.0	9.00	0.00 1 da 70 Ah			
A	Misc	0.0	9.20	0.00 BOILER 25 LT			
B	Misc	0.0	7.10	0.00 CUCINA 3 FUOCHI			



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SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
D	0.37	1.23	2.10	3.50	4.52	49.12		09/04/2019	ONE SAILS	Carbon						
HEADSAILS (2)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
E	0.13	0.85	1.53	2.69	3.71	4.74	15.51	102%	39.89	Y			05/05/2019	ONE SAILS	Carbon	J0
F	0.13	0.84	1.52	2.68	3.70	4.74	15.52	102%	39.80	Y			05/05/2019	ONE SAILS	Carbon	J1
SYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
D	16.83	16.83	16.83	8.55	8.37	119.41		09/04/2019	ONE SAILS	Nylon	S1.5					
E	16.56	16.56	16.56	8.71	8.40	119.35		09/04/2019	ONE SAILS	Nylon	S2					
ASYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
A	18.87	16.77	17.82	8.58	9.08	128.90	asym		09/04/2019	ONE SAILS	Nylon	A1				
B	17.42	16.20	16.81	6.11	8.06	91.06	asym		09/04/2019	ONE SAILS	Nylon	A0				