

BOAT Name HEBE V Sail Nr CZE-858	GPH 608.6	HULL Length Overall 11.220m Maximum Beam 3.478m Displacement 5,771kg Draft 2.033m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.050% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class M37 Designer COSSUTTI Builder 2 EMME MARINE Series 08/2006 Age 06/2017 Age Allowance 0.422% Offset File I15321A.OFF - 24/03/2017 16:29:42 Measurement by - 14/03/2019		IMSLS 10.118m VCGD 0.083m Sink 20.77kg/mm RL 8.776m VCGM 0.118m WS 26.51m² LSM0 9.849m Displacement/Length ratio 6.0405



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SCORING OPTIONS						
Time on Distance	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	592.5			664.4		
Time on Time	1.0127			1.0160		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	696.7	539.0	482.2	903.6	666.6	582.1
Time on Time	0.9688	1.2523	1.3998	0.7470	1.0126	1.1595

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1033.5	853.6	753.8	712.8	698.4	693.9	684.2
52°	671.4	564.6	511.3	491.4	485.0	482.3	476.2
60°	631.4	537.6	495.7	478.0	471.0	467.6	462.4
75°	600.8	518.6	484.7	465.8	452.5	445.1	439.4
90°	605.9	515.3	476.7	460.3	445.2	429.2	410.8
110°	611.0	509.6	470.7	445.1	422.4	408.4	388.7
120°	630.6	521.4	476.9	450.2	424.3	400.7	367.8
135°	702.5	569.7	499.8	467.9	442.7	417.7	370.7
150°	833.4	662.7	560.6	499.2	469.4	445.9	400.5
Run VMG	962.3	765.2	647.3	569.2	517.5	481.2	435.0

Certificate
Number **8581**
ORC Ref **ITA00052741**
Issued On **23/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **674kg**
Maximum **680kg**
Minimum* **510kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	617.4	0.9719
Double H.OSN	602.4	0.9961
Non Spin GPH	639.5	0.9382
Non Spin OSN	621.7	0.9650

Selected Courses							
Windward / Leeward	997.9	809.4	700.6	641.0	608.0	587.5	559.6
Circular Random	836.9	676.1	590.4	541.1	510.9	491.1	465.3
Coastal / Long Distance	994.4	759.4	630.9	559.3	522.0	491.8	441.7
Non Spinnaker	892.5	715.4	619.6	563.7	529.4	507.2	478.9

Sails Limitations

Headsails	Spinnakers
5	3

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	43.3°	42.1°	41.2°	40.3°	39.8°	40.4°	40.4°
Beat VMG	3.48	4.22	4.78	5.05	5.15	5.19	5.26
52°	5.36	6.38	7.04	7.33	7.42	7.46	7.56
60°	5.70	6.70	7.26	7.53	7.64	7.70	7.79
75°	5.99	6.94	7.43	7.73	7.96	8.09	8.19
90°	5.94	6.99	7.55	7.82	8.09	8.39	8.76
110°	5.89	7.06	7.65	8.09	8.52	8.81	9.26
120°	5.71	6.91	7.55	8.00	8.49	8.99	9.79
135°	5.12	6.32	7.20	7.69	8.13	8.62	9.71
150°	4.32	5.43	6.42	7.21	7.67	8.07	8.99
Run VMG	3.74	4.70	5.56	6.33	6.96	7.48	8.28
Gybe Angles	144.0°	147.8°	150.0°	156.5°	172.8°	180.0°	180.0°

Class Division Length
CDL = **9.448**

Storm Sails Areas
Heavy Weather Jib **27.64**
Storm Jib (JL=9.30) **10.24**
Storm Trysail **12.79**

Owner

BOAT	
Name HEBE V	Sail Nr CZE-858
File CZE858	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 2
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 14.000	E 5.220 MDT1 0.120 MW 0.200
IG 14.176	J 4.390 MDL1 0.200 GO 0.240
ISP 14.436	SFJ MDT2 0.080 BD 0.250
BAS 1.516	SPL 4.400 MDL2 0.125 MWT 205.60
FSP 0.076	TPS 5.100 TL 0.790 MCG 4.960

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 05/06/2018		SG 1.0260	
FFM 1.343	FF 1.343	SFFP 0.164	
FAM 1.066	FA 1.066	SAFP 11.054	
W1 87.6	PD1 550.6	WD 11.400	
W2 87.6	PD2 549.3	GSA 1.0	
W3 87.6	PD3 550.3	RSA 1.0	
W4 87.6	PD4 548.1	PLM 9000.0	
LCF from stem on CL / on sheer		6.160 / 6.373	
Maximum beam station from stem		7.237	
RM Measured		143.1kg-m	
RM Default		151.4kg-m	
Limit of positive stability / Stab.Index		116.0° / 118.2	
Freeboard at mast at 4.390		1.274	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.406		
Type Folding 2 blades	PBW 0.113		
Twin Screw No	PIPA 0.0035		
ST1 0.042	ST3 0.180	ST5 0.307	
ST2 0.180	ST4 0.112	EDL 0.945	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.750	1.37	2.10	3.33	4.33	44.51	45.56	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL	96.89		SL · (SFL + 4·SHW) / 6	
	14.68	14.68	14.68	7.98	7.68				
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	95.42		AS · (SFL + 4·SHW) / 6	
	15.97	14.41	15.19	7.48	7.77				

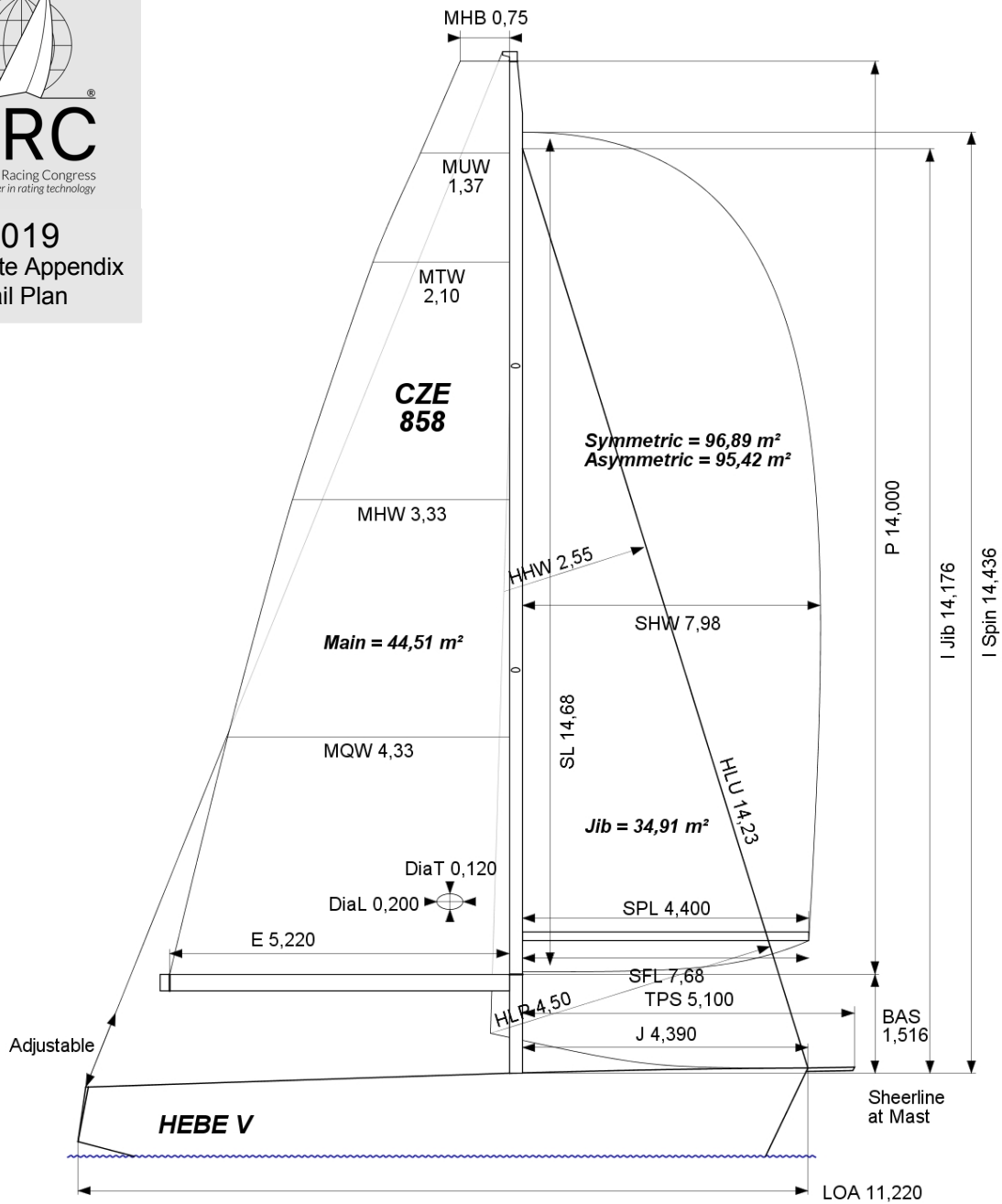
HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.12	0.82	1.47	2.55	3.56	4.50	14.23	34.91	Y		06/05/2019	Unknow	NEW J1
0.12	0.80	1.41	2.52	3.59	4.58	14.20	34.85	Y	N	16/06/2017	Unknow	JTOP
0.13	0.80	1.44	2.49	3.53	4.57	14.26	34.76	Y	N	16/06/2017	Unknow	J2
0.11	0.80	1.44	2.49	3.48	4.56	14.22	34.47	Y		30/04/2019	Unknow	NEW J2
0.11	0.64	1.19	2.23	3.27	4.27	14.02	30.99	Y	N	16/05/2017	Unknow	J3
0.07	0.48	0.94	1.93	2.98	4.05	13.13	25.99	N	Y	16/06/2017	Nylon	STAYSAIL
0.12	0.64	1.15	2.15	3.16	4.26	11.40	24.63	Y	N	16/06/2017	Unknow	J4

MEASUREMENT INVENTORY				
Measurer 122				
Date 29/05/2018				
Comment				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
A	Engine	YANMAR	30 HP	
Id	Item	Weight Description		

MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
B	Tank	FUEL	PVC	88.0	8.30	0.00	0-0	VUOTO	
A	Tank	H2O	PVC	220.0	8.60	0.00	0-0	VUOTO	
Id	Item	Weight	Distance	VCG Description					
E	Ballast	80.9	4.41	0.00 6 PANI PIOMBO					
D	Ballast	95.5	5.29	0.00 7 PANI PIOMBO					
C	Ballast	82.3	5.74	0.00 6 PANI PIOMBO					
B	Ballast	160.9	6.13	0.00 12 PANI PIOMBO					
A	Ballast	94.6	6.78	0.00 7 PANI PIOMBO					
C	Battery	30.0	6.60	0.00 100 AH MOTORE					
B	Battery	30.0	5.40	0.00 100 AH SERVIZI					
A	Battery	20.0	5.30	0.00 80 AH SERVIZI					
A	Misc	8.0	5.00	0.00 INVERTER					



2019 Certificate Appendix Sail Plan



SAILS INVENTORY																
MAINSAIL (3)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
C	0.75	1.37	2.10	3.33	4.33	44.52		08/03/2019		Unknown						
B	0.74	1.36	2.09	3.32	4.30	44.32		16/05/2017	ONE	Unknown	4 T					
HEADSAILS (7)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
I	0.12	0.82	1.47	2.55	3.56	4.50	14.23	103%	34.91	Y			06/05/2019	ONE	Unknown	NEW J1
B	0.12	0.80	1.41	2.52	3.59	4.58	14.20	104%	34.85	Y	N		16/06/2017	ONE	Unknown	JTOP
C	0.13	0.80	1.44	2.49	3.53	4.57	14.26	104%	34.76	Y	N		16/06/2017	ONE	Unknown	J2
H	0.11	0.80	1.44	2.49	3.48	4.56	14.22	104%	34.47	Y			30/04/2019	ONE	Unknown	NEW J2
D	0.11	0.64	1.19	2.23	3.27	4.27	14.02	97%	30.99	Y	N		16/05/2017	ONE	Unknown	J3
E	0.07	0.48	0.94	1.93	2.98	4.05	13.13	92%	25.99	N	Y		16/06/2017	ONE	Nylon	STAYSAIL
F	0.12	0.64	1.15	2.15	3.16	4.26	11.40	97%	24.63	Y	N		16/06/2017	ONE	Unknown	J4
SYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
F	14.68	14.68	14.68	7.98	7.68	96.89		08/03/2019		Unknown	S2 GRIGIO NEW					
C	14.34	14.34	14.34	7.32	7.58	88.10		16/05/2017	ONE	Nylon	S3 ARANCIO					
D	13.79	13.79	13.79	7.25	7.28	83.39		05/04/2018		Nylon	RED					
ASYMMETRIC SPINNAKERS (2)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
B	15.97	14.41	15.19	7.48	7.77	95.42	asym		08/03/2019		Unknown					
A	14.62	13.61	14.11	5.40	7.15	67.64	asym		05/04/2018		Carbon	A0				