

BOAT Name AV0HAI Sail Nr BRA-2161	GPH 581.9	HULL Length Overall 12.100m Maximum Beam 3.780m Displacement 7,039kg Draft 2.432m Plan Review IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.000% Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class IMX 40 Designer JEPPESEN Builder X-YACHTS Series 01/2000 Age 03/2002 Age Allowance 0.487% Offset File IMX40.OFF - 17/05/2001 17:04:00 Measurement by - 27/08/2020		IMSLS 10.809m VCGD 0.031m Sink 22.39kg/mm RL 10.113m VCGM 0.020m WS 29.99m² LSM0 10.751m Displacement/Length ratio 5.6645



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	566.5			630.8		
Time on Time	1.0591			1.0700		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	660.4	517.2	464.5	852.5	633.7	553.1
Time on Time	1.0221	1.3051	1.4533	0.7918	1.0651	1.2203

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	940.7	780.5	696.0	664.0	650.2	643.0	634.6
52°	620.2	523.7	485.5	472.7	467.2	464.3	460.9
60°	587.1	504.6	474.2	461.3	455.5	452.2	449.6
75°	561.2	492.3	465.6	449.7	438.7	432.4	426.3
90°	565.4	493.1	464.7	446.5	430.4	416.8	401.0
110°	602.4	500.7	461.7	438.4	419.8	408.2	388.4
120°	619.8	511.0	466.8	441.4	417.4	395.8	370.8
135°	686.0	557.2	488.6	458.0	434.3	410.3	364.8
150°	813.3	649.3	548.5	488.8	459.8	437.7	393.8
Run VMG	939.1	749.8	633.4	557.9	508.1	472.2	428.1

Certificate
Number **216102**
ORC Ref **02980000S67**
Issued On **19/10/2020**
VPP Ver. **2020 1.02**
Valid until **31/12/2020**

Crew Weight
Default **763kg**
Maximum **788kg**
Minimum* **591kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **605.7 0.9906**
Non Spin OSN **590.3 1.0165**

Selected Courses							
Windward / Leeward	939.9	765.1	664.7	611.0	579.2	557.6	531.3
Circular Random	795.1	644.6	564.9	519.2	491.2	472.8	448.8
Coastal / Long Distance	939.8	720.0	601.6	536.3	501.6	473.6	430.9
Non Spinnaker	837.4	674.8	587.5	536.6	505.2	484.5	457.3

Sails Limitations
Headsails **1** 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	42.2°	41.3°	39.8°	38.3°	37.5°	37.5°	37.1°
Beat VMG	3.83	4.61	5.17	5.42	5.54	5.60	5.67
52°	5.80	6.87	7.41	7.62	7.71	7.75	7.81
60°	6.13	7.13	7.59	7.80	7.90	7.96	8.01
75°	6.42	7.31	7.73	8.01	8.21	8.33	8.44
90°	6.37	7.30	7.75	8.06	8.36	8.64	8.98
110°	5.98	7.19	7.80	8.21	8.58	8.82	9.27
120°	5.81	7.04	7.71	8.16	8.62	9.10	9.71
135°	5.25	6.46	7.37	7.86	8.29	8.77	9.87
150°	4.43	5.54	6.56	7.36	7.83	8.23	9.14
Run VMG	3.83	4.80	5.68	6.45	7.09	7.62	8.41
Gybe Angles	141.8°	148.5°	150.0°	156.0°	171.0°	180.0°	180.0°

Class Division Length
CDL = **10.458**

Storm Sails Areas
Heavy Weather Jib **34.79**
Storm Jib (JL=10.44) **12.89**
Storm Trysail **14.66**

Owner

BOAT	
Name AV0HAI	Sail Nr BRA-2161
File BL2161	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 3
Inner Stay None Fitted	Runners/Checkstays 0
Carbon Mast Yes	Jib Furler Yes
Fiber Rigging No	Main Furler No
Non-Circular Rigging No	
Articulated Bowsprit No	
P 15.200	E 5.510 MDT1 0.117 MW 0.229
IG 15.995	J 4.480 MDL1 0.229 GO 0.245
ISP 16.035	SFJ 0.100 MDT2 0.100 BD 0.270
BAS 1.775	SPL 4.450 MDL2 0.170 MWT 207.00
FSD 0.036	TPS 0.855 TL 0.855 MCG 4.840

INCLINING TEST AND FREEBOARDS		
Inclining Test Boom Inclining	LCFD	
Flotation date 28/08/2020	SG 1.0230	
FFM 1.360	FF 1.367	SFFP 0.405
FAM 1.110	FA 1.108	SAFP 11.420
W1 100.0	PD1 242.7	WD 5.360
W2 100.0	PD2 241.7	GSA 1.0
W3 100.0	PD3 243.3	RSA 1.0
W4 100.0	PD4 241.2	PLM 9000.0
LCF from stem on CL / on sheer	6.714 / 6.955	
Maximum beam station from stem	7.990	
RM Measured	174.3kg-m	
RM Default	186.3kg-m	
Limit of positive stability / Stab.Index	118.3° / 120.8	
Freeboard at mast at 4.480	1.240	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER	
Installation Strut	PRD 0.432
Type Folding 2 blades	PBW
Twin Screw No	PIPA 0.0035
ST1 0.042	ST3 0.180 ST5 0.274
ST2 0.180	ST4 0.112 EDL 1.620

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COMMENTS	
EX ASA ALUMINIO / ATHOS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.21	1.22	2.15	3.58	4.53	49.93	51.06	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL				
	16.16	16.16	16.16	8.48	8.29	113.69	SL · (SFL + 4·SHW) / 6		
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	Flying	Meas.Date	Material	Comment
0.05	0.95	1.66	3.33	4.89	6.73	15.64	52.13	No	31/08/2020	Carbon	NEW	
0.10	0.73	1.47	3.08	4.80	6.53	15.33	48.60	No	17/10/2020	Kevlar	Remedição	
0.08	0.62	1.24	2.33	3.41	4.50	15.22	35.11	No	17/10/2020	Kevlar	Remedição	
0.08	0.55	1.06	2.14	3.25	4.32	15.57	33.64	No	17/10/2020	Dacron	Remedição	

MEASUREMENT INVENTORY				
Measurer GORDON				
Date 28/08/2020				
Comment				
Internal Ballast total = 375.0				
Id	Item	Weight	Distance	VCG Description
1	Engine			YANMAR 3JH5E
Id	Item	Weight Description		

MEASUREMENT INVENTORY						
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG Condtm Description
1	Tank	DISEL	AÇO	90.0	3.00	34.5
Id	Item	Weight	Distance	VCG Description		
20	Ballast	375.0	5.00	20 BARRAS DE CHUMBO		
3	Misc		7.50	BATERIAS		
1	Misc		3.00	BOILER		
1	Misc		12.00	GUINCHO LEWMAR		
1	Misc		7.00	FREEZER		

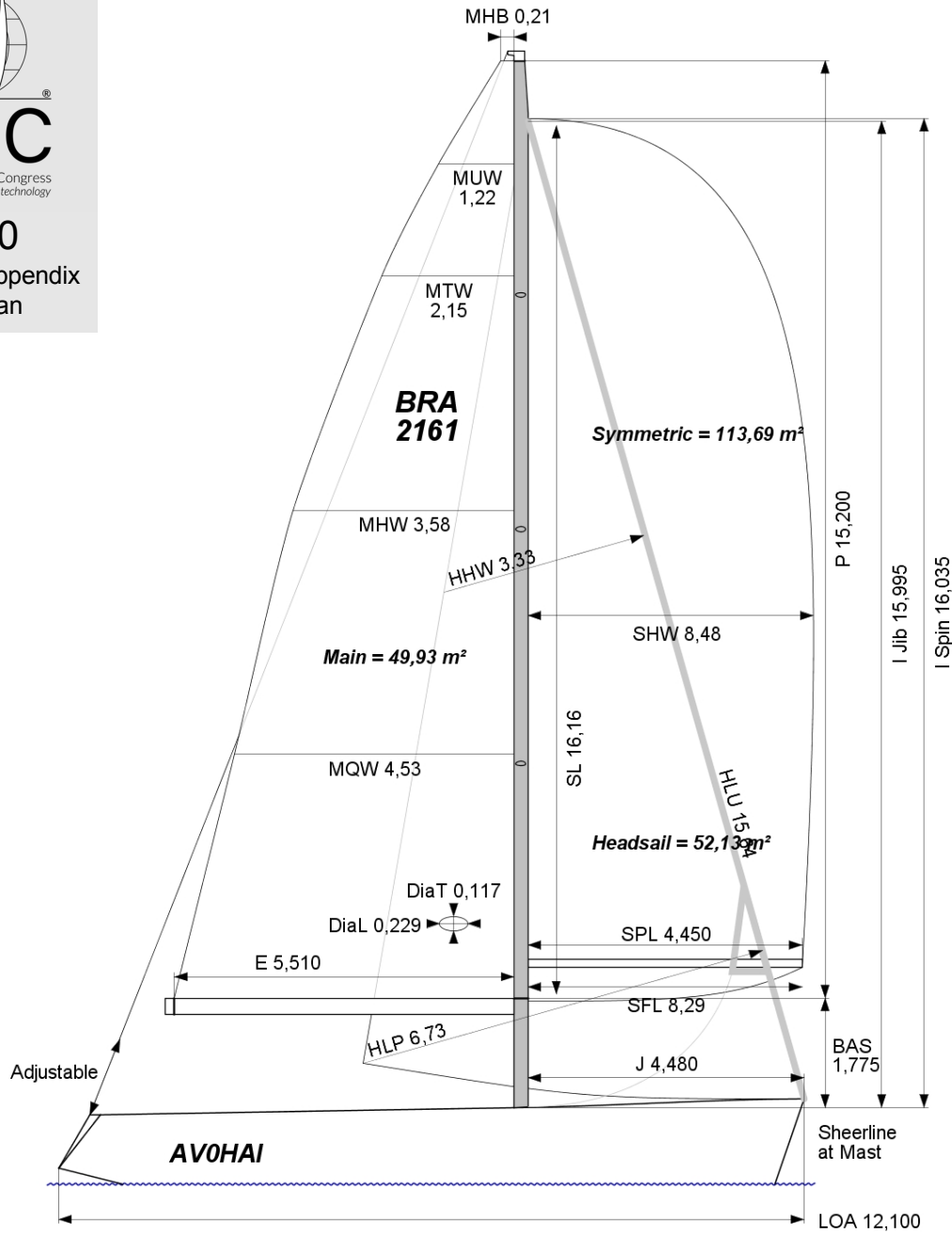


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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
M-1	0.21	1.22	2.15	3.58	4.53	49.94		31/08/2020	NORTH SAIL	Carbon	NEW					
HEADSAILS (4)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Flying	Measurer	Meas.Date	Manufacture	Material	Comment
LM	0.05	0.95	1.66	3.33	4.89	6.73	15.64	150%	52.13		No		31/08/2020	NORTH SAIL	Carbon	NEW
G-1-H	0.10	0.73	1.47	3.08	4.80	6.53	15.33	146%	48.60		No		17/10/2020	QUANTUM	Kevlar	Remedição
G-3	0.08	0.62	1.24	2.33	3.41	4.50	15.22	100%	35.11		No		17/10/2020	UK	Kevlar	Remedição
G-4	0.08	0.55	1.06	2.14	3.25	4.32	15.57	96%	33.64		No		17/10/2020	UK	Dacron	Remedição
SYMMETRIC SPINNAKERS (4)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
S-2	16.16	16.16	16.16	8.48	8.29	113.69		12/10/2020	EVOLUTION	Nylon	reformada					
S-1	16.20	16.20	16.20	8.37	8.28	112.76		09/10/2020	NORTH SAIL	Nylon	NOVO					
S-50	15.75	15.75	15.75	8.14	8.20	107.00		27/08/2020	SOBSTAD	Nylon	AZUL					
S-60	15.66	15.66	15.66	8.24	8.01	106.94		27/08/2020	N.SAIL	Nylon	BRANCO					
ASYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				