

APH ToD: **712.6**

CDL: **6.515**

APH ToT: **0.8420**

CertNo: none

BOAT

Class **Defender 32 *1.65**
 Designer **Mauric & Gaubert**
 Builder **Dekker**
 Age date **01/1973**
 Series date **01/1973**
 Offset file **e208.bof**
 Data file

HULL

Length Overall **9.530 m**
 Maximum Beam **2.998 m**
 Draft **1.748 m**
 Displacement **4,000 kg**
 DLR **11.3123**
 IMS Division **Cruiser/Racer**
 Dynamic Allowance **0.630%**
 Age Allowance **0.487%**

PROPELLER

Installation **Shaft exposed**
 Type **Solid 3 blades**
 Diameter **0.360m**

CREW

Maximum weight **420 kg (default)**
 Minimum weight **290 kg * when applied**
 Non Manual Power **No**
 Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	16.88	17.13
Headsail Luffed	27.29	27.29
Headsail Flying		

Symmetric
Asymmetric

STORM SAIL AREAS (m²)

Trysail **5.10**
 Storm Jib **5.73**
 Heavy Weather Jib **15.46**

SAIL LIMITS

Headsails **1**
 Spinnakers **0 * Spinnaker pole aboard**

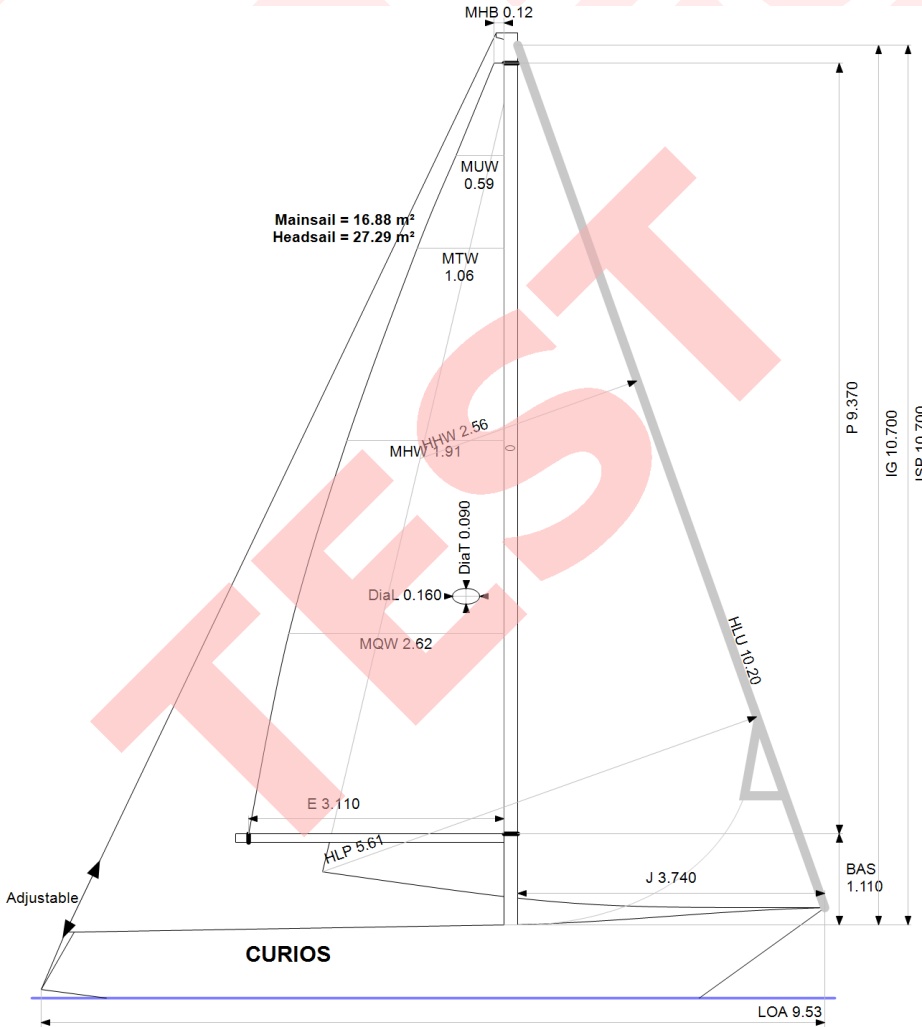
STABILITY

Righting Moment **N/A**
 Stability Index **N/A**

COMMENTS

Type nr.: 1251 98.16/ 101.06

The owner and any other person in charge is responsible that boat is complying with her certificate in accordance with RRS 78.1 and ORC Rule 304.



Rated boat velocities in knots

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	44.4°	42.6°	41.2°	40.1°	39.3°	39.0°	38.8°	39.4°
Beat VMG	2.63	3.26	3.71	4.04	4.26	4.38	4.45	4.40
52°	4.05	4.90	5.48	5.84	6.06	6.18	6.26	6.26
60°	4.27	5.12	5.68	6.01	6.21	6.33	6.43	6.45
75°	4.39	5.26	5.84	6.16	6.37	6.52	6.70	6.78
90°	4.28	5.17	5.80	6.16	6.40	6.58	6.86	7.08
110°	3.89	4.86	5.62	6.11	6.40	6.63	7.04	7.45
120°	3.70	4.68	5.46	5.99	6.33	6.57	7.00	7.48
135°	3.29	4.25	5.04	5.67	6.10	6.39	6.82	7.28
150°	2.84	3.74	4.52	5.19	5.74	6.13	6.60	7.01
Run VMG	2.46	3.24	3.96	4.61	5.19	5.70	6.34	6.74
Gybe Angles	149.2°	152.8°	159.1°	167.6°	172.6°	176.8°	179.0°	179.5°

Time Allowances in secs/NM								
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	1366.9	1104.2	970.1	891.1	844.7	822.8	808.6	818.7
52°	889.4	734.2	656.8	615.9	594.0	582.5	575.0	575.3
60°	843.4	702.5	633.6	598.8	579.5	568.4	559.7	558.1
75°	820.3	684.3	616.9	584.2	565.2	552.5	537.2	531.3
90°	841.3	696.5	620.7	584.1	562.7	547.4	524.6	508.6
110°	925.6	740.3	640.5	589.6	562.1	542.8	511.1	483.3
120°	971.7	769.2	659.9	600.5	569.1	548.3	514.0	481.2
135°	1092.8	846.5	714.7	634.5	589.9	563.8	528.1	494.4
150°	1268.2	963.4	796.2	693.6	626.8	587.7	545.2	513.5
Run VMG	1464.4	1109.8	909.2	781.3	693.3	632.1	568.2	534.3
Selected Courses								
Windward / Leeward	1415.7	1107.0	939.6	836.2	769.0	727.4	688.4	676.5
All purpose	1087.1	865.2	747.4	679.4	638.4	613.9	587.3	573.2

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	881.2	0.6809
All purpose	712.6	0.8420

Custom scoring options for Netherlands

Scoring Option	Time On Time
Triple Number Coastal/Long Distance Low	0.6147
Triple Number Coastal/Long Distance Medium	0.8483
Triple Number Coastal/Long Distance High	0.9835
Triple Number Windward/Leeward Low	0.4757
Triple Number Windward/Leeward Medium	0.6846
Triple Number Windward/Leeward High	0.8296
Coastal/Long Distance	0.7699
Predominantly Upwind	0.7897
Predominantly Downwind	0.8065

For information

General Purpose Handicap (GPH)	811.9
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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Defender 32 *1.65	LOA	9.530	VCGD	0.065
Measurement		Max. Beam	2.998	VCGM	0.001
HIN		Draft	1.748	RM Rated (kg·m)	55.1
Plan review		Displacement	4,000	Limit of positive stability(°)	N/A
Hull construction	Solid	Wetted area	19.64	Stability Index	N/A
Carbon Rudder	No	IMS L	7.414	Default crew weight	420
Light stanchions	No	LSM0	7.071	Declared crew weight	N/A
Trim tab	No	Acc. length	9.530		
		Sink (kg/mm)	12.35		

PROPELLER

Propeller Type	Solid 3 blades										
Installation	Shaft exposed	PRD	0.360	PSD	0.000	PSA	0.0°	ST1	0.000	ST4	0.000
Twin screw	No	PBW	0.000	PHD	0.000	ESL	0.000	ST2	0.000	ST5	0.000
Hydro generator	No	PIPA	0.0162	PHL	0.000			ST3	0.000		

RIG

Forestay tension	Aft	P	9.370	E	3.110
Inner stay	None Fitted	IG	10.700	J	3.740
Mast material	Aluminum	ISP	10.700	BAS	1.110
Single headsail furler	Yes	MDT1	0.090	FSD	No Foil
Mainsail furler	No	MDL1	0.160	SFJ	0.000
Articulated bowsprit	No	MDT2	0.000	SPL	3.740
Non-circular rigging	No	MDL2	0.000	WPL	
Fiber rigging	No	TL	No Taper	TPS	3.740
Adjustable mast foot	No	MW	0.000	BD	0.000
Runners/Checkstays	0	GO	0.000	MWT	
Spreaders	1			MCG	
Rotating mast	No				

FLOTATION AND STABILITY

Calculation method	RM estimated
Flotation Date	28/04/2023



MAINSAIL

<i>Id</i>	<i>MHB</i>	<i>MUW</i>	<i>MTW</i>	<i>MHW</i>	<i>MQW</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
ORC	0.12	0.59	1.06	1.91	2.62	16.88		

HEADSAIL

<i>Id</i>	<i>HHB</i>	<i>HUW</i>	<i>HTW</i>	<i>HHW</i>	<i>HQW</i>	<i>HLP</i>	<i>HLU</i>	<i>Btn</i>	<i>Flying FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
ORC	0.05	0.60	1.22	2.56	4.05	5.61	10.20	No	No	27.29		
new	0.04	0.48	0.98	2.02	3.15	4.37	9.57	No	No	20.05		

CRUISER/RACER REQUIREMENTS*

Accommodation length	9.5 m	Table area	0.44 m²	Headroom	1.67 m
Minimum number of berths	4	Personal gear stowage	0.16 m³	Fresh water capacity	70 l
Minimum number of seats in cockpit	4	Food stowage	0.24 m³	Fuel capacity	40 l

*This list refers to the calculated requirements. See IMS Appendix 1 for the complete list of requirements.