

APH ToD: **702.0** CDL: **5.862**

APH ToT: **0.8547** CertNo: **c5134a**

BOAT

Class **ETAP 28**
Designer **VAN DE STADT**
Builder **ETAP YACHTING**
Age date **05/1978**
Series date **01/1978**
Offset file **GRE232.OFF**
Data file

HULL

Length Overall **8.420 m**
Maximum Beam **2.916 m**
Draft **1.280 m**
Displacement **3,391 kg**
DLR **10.8360**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.680%**
Age Allowance **0.487%**

PROPELLER

Installation **Strut**
Type **Folding 2 blades**
Diameter **0.380m**

CREW

Maximum weight **396 kg (default)**
Minimum weight **266 kg * when applied**
Non Manual Power **No**
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	14.81	15.04
Headsail Luffed	21.80	21.80
Headsail Flying		
Symmetric	51.32	51.32
Asymmetric		

STORM SAIL AREAS (m²)

Trysail **4.38**
Storm Jib **5.11**
Heavy Weather Jib **13.78**

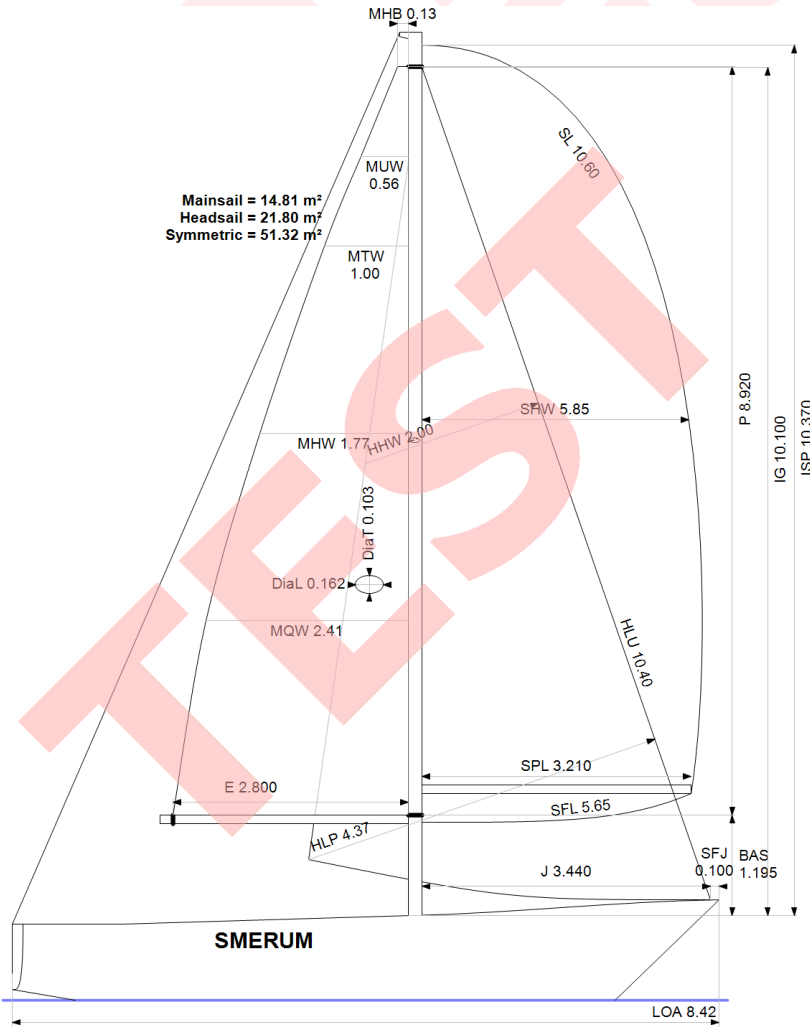
SAIL LIMITS

Headsails **5**
Spinnakers **4**

STABILITY

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

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	45.8°	44.3°	43.9°	43.0°	42.6°	42.8°	43.5°	45.7°
Beat VMG	2.58	3.10	3.47	3.73	3.90	3.96	3.93	3.74
52°	4.03	4.78	5.28	5.59	5.78	5.88	5.90	5.80
60°	4.30	5.05	5.52	5.80	5.97	6.08	6.14	6.12
75°	4.46	5.22	5.71	5.99	6.17	6.31	6.48	6.53
90°	4.49	5.38	5.89	6.16	6.31	6.40	6.67	6.83
110°	4.62	5.53	6.03	6.34	6.58	6.78	7.05	7.23
120°	4.50	5.42	5.98	6.30	6.57	6.82	7.25	7.58
135°	4.11	5.03	5.73	6.12	6.41	6.67	7.19	7.76
150°	3.54	4.47	5.25	5.81	6.16	6.42	6.90	7.42
Run VMG	3.07	3.88	4.57	5.18	5.68	6.04	6.54	6.99
Gybe Angles	147.6°	151.9°	154.6°	162.1°	175.0°	178.1°	179.0°	178.6°

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	1396.9	1161.0	1038.1	964.3	923.2	909.8	917.0	963.1
52°	892.6	753.0	681.8	643.8	622.8	612.6	609.9	620.8
60°	838.1	713.1	651.9	620.9	602.6	591.8	585.9	588.4
75°	807.5	690.0	630.4	601.2	583.2	570.3	555.9	551.1
90°	802.2	669.8	610.9	584.1	570.5	562.7	539.9	526.7
110°	778.6	651.4	596.6	567.9	547.0	530.8	510.5	498.2
120°	799.9	664.1	602.5	571.1	548.1	528.2	496.3	475.2
135°	875.7	716.2	628.5	587.8	561.8	540.1	500.6	463.7
150°	1016.7	804.9	686.2	619.5	584.8	561.1	522.1	485.3
Run VMG	1174.0	928.0	788.1	695.5	633.8	595.8	550.3	515.0
Selected Courses								
Windward / Leeward	1285.4	1044.5	913.1	829.9	778.5	752.8	733.7	739.0
All purpose	990.4	817.0	727.1	675.9	645.8	628.9	610.7	607.4

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	868.0	0.6913
All purpose	702.0	0.8547

Custom scoring options for Netherlands

2% correctie voor langere kiel op basis van SW

Scoring Option	Time On Distance	Time On Time
Triple Number Coastal/Long Distance Low	0.6640	0.6773
Triple Number Coastal/Long Distance Medium	0.8606	0.8778
Triple Number Coastal/Long Distance High	0.9580	0.9772
Triple Number Windward/Leeward Low	0.5150	0.5253
Triple Number Windward/Leeward Medium	0.6955	0.7094
Triple Number Windward/Leeward High	0.7978	0.8138
Coastal/Long Distance	0.7844	
Predominantly Upwind	0.7760	
Predominantly Downwind	0.8626	

For information

General Purpose Handicap (GPH)	788.1
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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	ETAP 28	LOA	8.420	VCGD	0.095
Measurement	13/04/2005	Max. Beam	2.916	VCGM	0.123
HIN		Draft	1.280	RM Rated (kg·m)	46.6
Plan review		Displacement	3,391	Limit of positive stability(°)	N/A
Hull construction	Cored	Wetted area	15.46	Stability Index	N/A
Carbon Rudder	No	IMS L	6.929	Default crew weight	396
Light stanchions	No	LSM0	6.788	Declared crew weight	N/A
Trim tab	No	Acc. length	8.420		
		Sink (kg/mm)	11.52		

PROPELLER

Propeller Type	Folding 2 blades				
Installation	Strut	PRD	0.380	EDL	ST3
Twin screw	No	PBW		ST1	ST4
Hydro generator	No	PIPA	0.0006	ST2	ST5

RIG

Forestay tension	Fixed	P	8.920	E	2.800
Inner stay	None Fitted	IG	10.100	J	3.440
Mast material	Aluminum	ISP	10.370	BAS	1.195
Single headsail furler	No	MDT1	0.103	FSD	No Foil
Mainsail furler	No	MDL1	0.162	SFJ	0.100
Articulated bowsprit	No	MDT2		SPL	3.210
Non-circular rigging	No	MDL2		WPL	
Fiber rigging	No	TL	No Taper	TPS	3.470
Adjustable mast foot	No	MW		BD	
Runners/Checkstays	0	GO		MWT	
Spreaders	1			MCG	
Rotating mast	No				

FLOTATION AND STABILITY

Calculation method	RM estimated
Flotation Date	10/04/2001

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	0.13	0.56	1.00	1.77	2.41	14.81		

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	0.06	0.51	0.96	2.00	3.17	4.37	10.40	No	No	21.80		
ORC	0.06	0.33	0.66	1.38	2.26	3.25	8.96	No	No	13.43		

SYMMETRIC SPINNAKER

<i>Id</i>	<i>SLU</i>	<i>SLE</i>	<i>SL</i>	<i>SHW</i>	<i>SFL</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Comment</i>
ORC	10.60	10.60	10.60	5.85	5.65	51.32		

CRUISER/RACER REQUIREMENTS*

Accommodation length	8.4 m	Table area	0.33 m²	Headroom	1.40 m
Minimum number of berths	3	Personal gear stowage	0.12 m³	Fresh water capacity	36 l
Minimum number of seats in cockpit	3	Food stowage	0.18 m³	Fuel capacity	20 l

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