

APH: **678.4** CDL: **6.326**

GPH: **765.2** CertNo:

**BOAT**

Class **Spirit 28**  
Designer **E G vd Stadt**  
Builder **van Heygen**  
Age date **01/1980**  
Series date **08/1971**  
Offset file **H036.bof**  
Data file **NED9169**

**HULL**

Length Overall **8.470 m**  
Maximum Beam **2.794 m**  
Draft **1.585 m**  
Displacement **3,185 kg**  
DLR **8.2173**  
IMS Division **Cruiser/Racer**  
Dynamic Allowance **0.516%**  
Age Allowance **0.487%**

**PROPELLER**

Installation **Shaft exposed**  
Type **Folding 2 blades**  
Diameter **0.360m**

**CREW**

Maximum weight **439 kg**  
Minimum weight **329 kg** \* when applied  
Non Manual Power **No**  
Crew Arm Extension

**SAIL AREAS (m<sup>2</sup>)**

	Measured	Rated
Mainsail	<b>13.91</b>	<b>14.08</b>
Headsail Luffed	<b>21.52</b>	<b>21.52</b>
Headsail Flying		
Symmetric	<b>48.30</b>	<b>48.30</b>
Asymmetric		

**STORM SAIL AREAS (m<sup>2</sup>)**

Trysail **4.09**  
Storm Jib **5.47**  
Heavy Weather Jib **14.75**

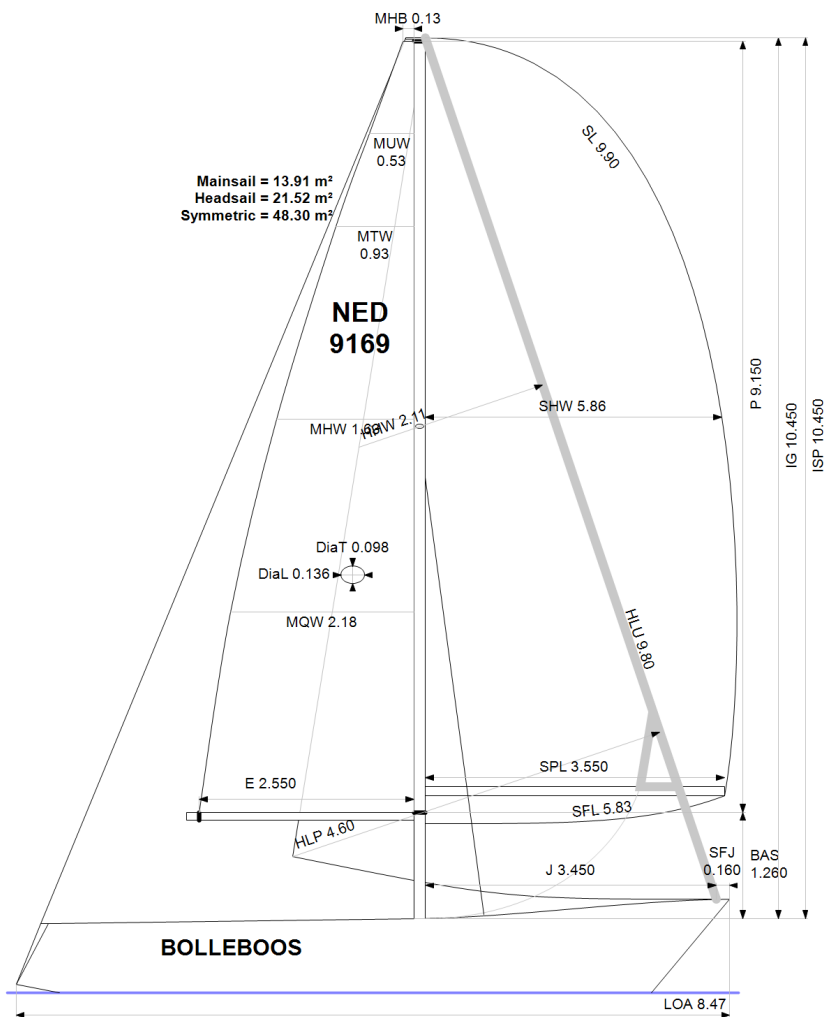
**SAIL LIMITS**

Headsails **1**  
Spinnakers **4**

**STABILITY**

Righting Moment **40.8 kg·m**  
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
Beat Angles	44.2°	42.7°	42.3°	41.8°	39.9°	39.0°	39.4°
Beat VMG	2.65	3.21	3.62	3.98	4.25	4.39	4.42
52°	4.09	4.86	5.47	5.84	6.05	6.18	6.25
60°	4.32	5.12	5.71	6.01	6.19	6.33	6.44
75°	4.48	5.30	5.88	6.15	6.33	6.49	6.75
90°	4.52	5.49	6.07	6.36	6.52	6.62	6.90
110°	4.63	5.62	6.17	6.47	6.75	7.03	7.36
120°	4.51	5.49	6.10	6.42	6.70	7.01	7.56
135°	4.12	5.03	5.82	6.23	6.52	6.81	7.45
150°	3.55	4.48	5.27	5.91	6.26	6.52	7.09
Run VMG	3.07	3.88	4.58	5.23	5.77	6.15	6.66
Gybe Angles	148.0°	152.0°	153.8°	159.2°	173.6°	179.0°	179.0°

Time Allowances in secs/NM							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1356.6	1121.8	993.9	905.5	847.1	820.1	814.5
52°	880.8	741.4	658.1	616.5	594.8	582.7	576.0
60°	832.9	703.4	630.3	599.2	581.2	569.0	558.8
75°	802.8	679.0	612.5	585.8	568.9	554.9	533.6
90°	796.5	655.7	592.9	566.5	552.2	544.1	521.4
110°	778.0	640.1	583.7	556.4	533.3	512.4	489.2
120°	799.0	655.8	590.0	560.4	537.0	513.4	475.9
135°	874.4	715.3	618.2	577.5	552.3	528.4	483.5
150°	1013.9	803.9	683.1	609.0	575.1	551.8	507.5
Run VMG	1170.8	926.8	786.3	688.6	624.1	585.5	540.6
Selected Courses							
Windward / Leeward	1263.7	1024.3	890.1	797.0	735.6	702.8	677.6
All purpose	978.3	802.6	707.8	652.3	617.9	596.9	573.2

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	834.0	0.7194
All purpose	678.4	0.8845

### Custom scoring options for Netherlands

Single Number	Time On Time
Triple Number Coastal/Long Distance Low	0.6738
Triple Number Coastal/Long Distance Medium	0.8893
Triple Number Coastal/Long Distance High	1.0114
Triple Number Windward/Leeward Low	0.5245
Triple Number Windward/Leeward Medium	0.7215
Triple Number Windward/Leeward High	0.8553
Coastal/Long Distance	0.8115
Predominantly Upwind	0.8081
Predominantly Downwind	0.8802

Data in meters/kilograms (Metric)

**HULL AND APPENDAGES (Lightship Trim)**

Class	<b>Spirit 28</b>	LOA	<b>8.470</b>	VCGD	<b>-0.030</b>
Measurement	<b>14/04/2021</b>	Max. Beam	<b>2.794</b>	VCGM	<b>0.009</b>
HIN		Draft	<b>1.585</b>	RM Measured (kg·m)	<b>40.8</b>
Plan review		Displacement	<b>3,185</b>	RM Default (kg·m)	<b>40.8</b>
Hull construction	<b>Solid</b>	Wetted area	<b>15.83</b>	Limit of positive stability(°)	<b>N/A</b>
Aramid Hull Core	<b>No</b>	IMS L	<b>7.213</b>	Stability Index	<b>N/A</b>
Carbon Rudder	<b>No</b>	LSM0	<b>7.290</b>		
Light stanchions	<b>No</b>	Acc. length	<b>8.470</b>		
Trim tab	<b>No</b>	Sink (kg/mm)	<b>11.04</b>		

**PROPELLER**

Propeller Type	<b>Folding 2 blades</b>										
Installation	<b>Shaft exposed</b>	PRD	<b>0.360</b>	PSD	<b>0.000</b>	PSA	<b>0.0°</b>	ST1	<b>0.000</b>	ST4	<b>0.000</b>
Twin screw	<b>No</b>	PBW	<b>0.000</b>	PHD	<b>0.000</b>	ESL	<b>0.000</b>	ST2	<b>0.000</b>	ST5	<b>0.000</b>
Hydro generator	<b>No</b>	PIPA	<b>0.0012</b>	PHL	<b>0.000</b>			ST3	<b>0.000</b>		

**RIG**

Forestay tension	<b>Fixed</b>	P	<b>9.150</b>	E	<b>2.550</b>
Inner stay	<b>Fixed</b>	IG	<b>10.450</b>	J	<b>3.450</b>
Carbon mast	<b>No</b>	ISP	<b>10.450</b>	BAS	<b>1.260</b>
Headsail furler	<b>Yes</b>	MDT1	<b>0.098</b>	FSD	<b>No Foil</b>
Mainsail furler	<b>No</b>	MDL1	<b>0.136</b>	SFJ	<b>0.160</b>
Articulated bowsprit	<b>No</b>	MDT2	<b>0.000</b>	SPL	<b>3.550</b>
Non-circular rigging	<b>No</b>	MDL2	<b>0.000</b>	WPL	
Fiber rigging	<b>No</b>	TL	<b>No Taper</b>	TPS	
Runners/Checkstays	<b>0</b>	MW	<b>0.000</b>	BD	<b>0.000</b>
Spreaders	<b>1</b>	GO	<b>0.000</b>	MWT	
				MCG	

**FLOTATION AND STABILITY**

Calculation method	<b>VCG estimated</b>	SFFP	<b>0.538</b>	SAFP	<b>8.088</b>
Flotation Date	<b>14/04/2021</b>	FFM	<b>1.085</b>	FAM	<b>0.814</b>
Measurer	<b>65</b>	FF	<b>1.095</b>	FA	<b>0.823</b>
Comment		LCFcl	<b>4.712</b>	LCFsh	<b>4.923</b>
		SG	<b>1.0000</b>	HBI	<b>0.879</b>

**INVENTORY**

TANKS	<i>Id</i>	<i>Description</i>	<i>Sp.Wght</i>	<i>Capacity</i>	<i>Condition</i>	<i>LCG</i>	<i>VCG</i>
	1	Fuel Solid 19l	Fuel	25	49	5.00	
			<i>Total deductible</i>		<b>16</b>	<b>5.00</b>	
OTHER ITEMS	<i>Id</i>	<i>Kind</i>	<i>Description</i>		<i>Weight</i>	<i>LCG</i>	<i>VCG</i>
	1	Engine	Volvo MD6B				
	1	Deck Gear	landvasten		6	3.45	
					<i>Total deductible</i>		<b>6</b> <b>3.45</b>

#### 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>Maker</i>	<i>Material</i>	<i>Comment</i>
2022	0.13	0.53	0.93	1.63	2.18	13.91				

#### 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</i>	<i>FT</i>	<i>Area</i>	<i>Meas.Date</i>	<i>Maker</i>	<i>Material</i>	<i>Comment</i>
2022	0.06	0.53	1.01	2.11	3.29	4.60	9.80	No	No		21.52				

#### 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>Maker</i>	<i>Material</i>	<i>Comment</i>
2	9.90	9.90	9.90	5.86	5.83	48.30		Hagoort	Unknown	