

APH ToD: **599.8** CDL: **8.850**

APH ToT: **1.0004** CertNo:

BOAT

Class **Waarschip 1010x1.9**
Designer **K Kremer**
Builder **'t Waar**
Age date **01/1989**
Series date **01/1984**
Offset file **HC_02603.off**
Data file **NED1011**

HULL

Length Overall **10.413 m**
Maximum Beam **2.486 m**
Draft **1.949 m**
Displacement **2,845 kg**
DLR **3.7190**
IMS Division **Cruiser/Racer**
Dynamic Allowance **0.310%**
Age Allowance **0.650%**
RS Assessment **-0.559%**

PROPELLER

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

CREW

Maximum weight **606 kg** (default)
Minimum weight **476 kg** * when applied
Crew Arm Extension

SAIL AREAS (m²)

	Measured	Rated
Mainsail	25.57	26.33
Headsail Luffed	18.72	18.72
Headsail Flying		
Symmetric		
Asymmetric		

STORM SAIL AREAS Maximum (m²)

Trysail **7.15**
Storm Jib **5.00**
Heavy Weather Jib **13.50**

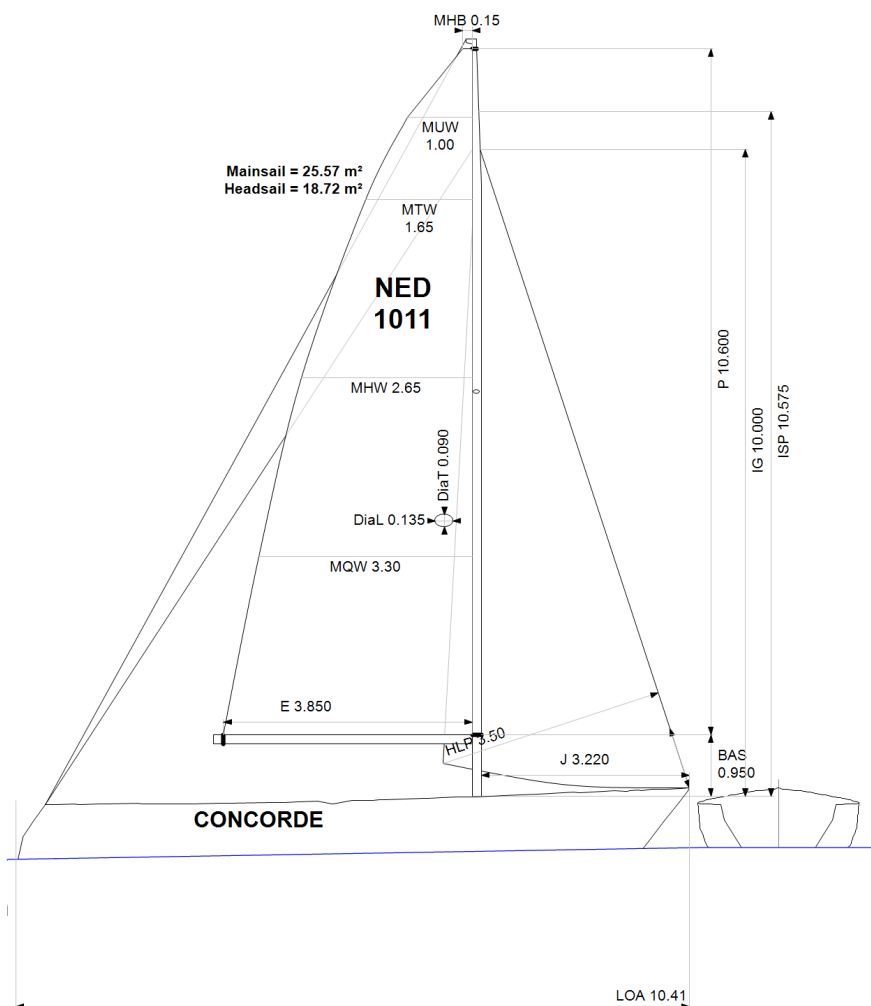
SAIL LIMITS

Headsails **5** * Zero set flying
* Woven polyester sails
Spinnakers **0** * Spinnaker pole aboard

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	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat Angles	45.9°	43.4°	41.5°	39.8°	38.4°	37.8°	37.5°	37.5°	38.2°
Beat VMG	2.23	3.26	4.04	4.58	4.90	5.03	5.11	5.19	5.16
52°	3.50	4.98	6.03	6.64	6.95	7.09	7.17	7.27	7.29
60°	3.76	5.26	6.30	6.84	7.14	7.30	7.39	7.52	7.57
75°	3.94	5.44	6.48	7.01	7.33	7.58	7.76	7.98	8.11
90°	3.80	5.31	6.38	7.02	7.39	7.71	8.01	8.44	8.75
110°	3.21	4.69	5.86	6.72	7.24	7.66	8.07	8.90	9.74
120°	2.97	4.40	5.56	6.47	7.07	7.48	7.91	8.83	10.03
135°	2.52	3.80	4.92	5.87	6.63	7.13	7.52	8.36	9.42
150°	2.11	3.22	4.26	5.19	6.01	6.68	7.15	7.91	8.76
Run VMG	1.83	2.79	3.69	4.53	5.30	6.02	6.63	7.46	8.22
Gybe Angles	144.8°	146.8°	151.4°	156.8°	164.0°	173.9°	176.3°	178.0°	177.7°

Time Allowances in secs/NM									
Wind Velocity	4 kt	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt	24 kt
Beat VMG	1611.2	1104.6	891.2	785.8	735.1	715.5	704.3	694.2	697.8
52°	1027.9	722.3	597.4	542.2	518.1	507.9	502.0	495.3	493.7
60°	957.4	684.2	571.9	526.1	504.4	493.2	486.9	478.6	475.8
75°	914.2	662.0	555.5	513.4	490.9	475.1	464.2	450.9	443.7
90°	947.0	678.6	564.0	512.5	486.9	466.7	449.6	426.3	411.6
110°	1120.4	767.4	614.4	535.8	497.4	470.2	446.0	404.3	369.8
120°	1212.6	819.0	648.0	556.1	509.4	481.0	455.2	407.8	359.1
135°	1429.5	946.1	731.0	613.1	543.0	504.6	478.4	430.5	382.2
150°	1703.9	1118.0	845.2	693.8	599.4	539.1	503.8	455.3	411.0
Run VMG	1967.5	1291.0	975.0	795.5	679.8	598.5	542.7	482.7	438.0
Selected Courses									
Windward / Leeward	1789.4	1197.8	933.1	790.7	707.4	657.0	623.5	588.5	567.9
All purpose	1334.6	908.6	721.9	626.0	573.1	541.9	520.6	492.2	471.2

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	746.7	0.8035
All purpose	599.8	1.0004

Custom scoring options for Netherlands

Scoring Option	Time On Time
Triple Number Coastal/Long Distance Low	0.7360
Triple Number Coastal/Long Distance Medium	1.0079
Triple Number Coastal/Long Distance High	1.1645
Triple Number Windward/Leeward Low	0.5631
Triple Number Windward/Leeward Medium	0.8093
Triple Number Windward/Leeward High	0.9697
Coastal/Long Distance	0.9123
Predominantly Upwind	0.9450
Predominantly Downwind	0.9466

For information

General Purpose Handicap (GPH)	682.3
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Data in meters/kilograms (Metric)

HULL AND APPENDAGES (Lightship Trim)

Class	Waarschip 1010x1.9	Length overall	10.413	VCGD	-0.116	Centerboard weight	N/A
Measurement	24/04/2022	Maximum beam	2.486	VCGM	-0.125	List angle	N/A
HIN		Draft	1.949	RM Rated (kg·m)	45.0	Canting keel angle	N/A
Plan review		Displacement	2,845	Limit of positive stability(°)	N/A		
Hull construction	Solid	Wetted area	17.33	Stability Index	N/A		
Carbon rudder	No	IMS L	9.447	BLR index	N/A		
Light stanchions	No	LSM0	9.144	Default crew weight	606		
Trim tab	No	Accommod. length	8.079	Declared crew weight	N/A		
		Sink (kg/mm)	12.59				

PROPELLER

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

RIG

Backstay	Fixed	P	10.600	E	3.850	PY	N/A	Flying Headsail
Forestay	Adjustable (NMP)	IG	10.000	J	3.220	MDT1Y	N/A	Foretriangles
Inner forestay	Not installed	ISP	10.575	BAS	0.950	MDL1Y	N/A	Id ISP TPS
Mast material	Aluminum	MDT1	0.090	FSD		MDT2Y	N/A	
Single headsail furler	No	MDL1	0.135	SFJ		MDL2Y	N/A	
Mainsail furler	No	MDT2		SPL	3.350	TLY	N/A	
Articulated bowsprit	No	MDL2		WPL		BASY	N/A	
Non-circular rigging	No	TL	Taper	TPS		EY	N/A	
Fiber rigging	No	MW		BD		BDY	N/A	
Base of mast	Fixed	GO		MWT		IY	N/A	
Running backstays	Yes (NMP)			MCG		EB	N/A	
Checkstays	No							
Spreaders	1							
Rotating mast	No							

FLOTATION AND STABILITY

Calculation method	RM estimated	SFFP	N/A	SAFP	N/A
Flotation Date	24/04/2022	FFM	N/A	FAM	N/A
		FF	N/A	FA	N/A
		LCFcl	N/A	LCFsh	N/A
		SG	N/A	HBI	N/A

INVENTORY



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>
1	0.15	1.00	1.65	2.65	3.30	25.57		

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>
1						3.50		No	No	18.72		

NON MANUAL POWER CONTROLS (NMP)

Sheets	Yes	Mainsail cunningham	No	Jib track	No	Spinnaker retriever	No
Boomvang	No	Headsail cunningham	No	Tack line	No		
Outhaul	No	Main traveller	No	Halyards	Yes		

CRUISER/RACER REQUIREMENTS*

Accommodation length	8.1 m	Table area	0.33 m²	Headroom	1.40 m
Minimum number of berths	3	Personal gear stowage	0.12 m³	Fresh water capacity	31 l
Minimum number of seats in cockpit	3	Food stowage	0.18 m³	Fuel capacity	20 l
Cabin sole		Stoves		Sinks	
Galley gear stowage		Toilet		Wash basin	
Navigation area		Hanging locker			

* This list is a summary of the requirements. See IMS Appendix 1 for details.

