

BOAT Name DENISA Sail Nr ROU-430	GPH 603.9	HULL Length Overall 13.150m Maximum Beam 4.226m Displacement 11,322kg Draft 2.170m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.256% Fwd Accommodation Yes Hull Construction Solid Carbon Rudder No Crew Arm Extension
GENERAL Class Hanse 430 E Designer JUDEL/VROELIJK Builder HANSE YACHT Series 07/2006 Age 06/2007 Age Allowance 0.422% Offset File HANSE430.OFF - 20/05/2019 19:34:48 Measurement by - 08/06/2019		IMSL 11.996m VCGD 0.179m Sink 30.06kg/mm RL 8.792m VCGM 0.258m WS 39.82m² LSM0 11.908m Displacement/Length ratio 6.7051



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	586.4			662.9		
Time on Time	1.0232			1.0182		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	705.5	531.2	469.1	922.4	668.4	571.2
Time on Time	0.9568	1.2708	1.4389	0.7318	1.0098	1.1818

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1100.5	898.7	785.3	712.1	671.3	658.7	655.5
52°	703.6	588.3	519.9	479.3	460.9	454.3	451.8
60°	657.3	555.2	494.7	463.5	448.1	440.7	437.1
75°	624.3	529.0	476.5	451.9	437.3	426.7	415.8
90°	602.2	500.3	454.4	438.0	430.2	421.2	398.9
110°	595.7	492.2	447.9	426.5	409.3	397.8	381.0
120°	613.5	505.4	454.3	430.5	411.4	392.5	364.7
135°	685.6	557.2	482.2	446.6	426.1	407.3	370.5
150°	815.4	648.4	551.0	489.6	457.8	438.9	410.2
Run VMG	941.5	748.7	636.3	565.4	528.1	492.6	439.7

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Number **049/19**
ORC Ref **ROU10025739**
Issued On **13/06/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight

Default **883kg**
Maximum **883kg**
Minimum* **662kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	609.7	0.9841
Double H.OSN	592.2	1.0131
Non Spin GPH	646.4	0.9282
Non Spin OSN	624.8	0.9603

Selected Courses							
Windward / Leeward	1021.0	823.7	710.8	638.7	599.7	575.7	547.6
Circular Random	842.8	675.8	585.1	532.0	499.5	478.9	454.5
Coastal / Long Distance	1013.0	769.4	633.9	549.8	506.7	476.7	430.8
Non Spinnaker	924.8	732.4	625.1	560.4	519.8	493.9	464.8

Sails Limitations

Headsails	Spinnakers
6	4

Dacron Sails

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	45.5°	43.1°	42.0°	41.7°	40.9°	40.5°	40.4°
Beat VMG	3.27	4.01	4.58	5.06	5.36	5.46	5.49
52°	5.12	6.12	6.92	7.51	7.81	7.92	7.97
60°	5.48	6.48	7.28	7.77	8.03	8.17	8.24
75°	5.77	6.80	7.56	7.97	8.23	8.44	8.66
90°	5.98	7.20	7.92	8.22	8.37	8.55	9.02
110°	6.04	7.31	8.04	8.44	8.79	9.05	9.45
120°	5.87	7.12	7.92	8.36	8.75	9.17	9.87
135°	5.25	6.46	7.47	8.06	8.45	8.84	9.72
150°	4.42	5.55	6.53	7.35	7.86	8.20	8.78
Run VMG	3.82	4.81	5.66	6.37	6.82	7.31	8.19
Gybe Angles	143.2°	147.6°	147.8°	148.6°	150.4°	174.8°	178.1°

Class Division Length

CDL = **10.395**

Storm Sails Areas

Heavy Weather Jib **48.11**
Storm Jib (JL=12.28) **17.82**
Storm Trysail **17.99**

Owner

BOAT	
Name DENISA	Sail Nr ROU-430
File rou430	Data in meters/kilograms

RIG	
Forestay Tension Fixed	Spreaders 2
Inner Stay None Fitted	Runners 0
Carbon Mast No	Jumper Struts None
Taper Hollows No	Jib Furler Yes
Fiber Rigging No	Main Furler No
Lenticular Rigging No	Without Backstay No
Articulated Bowsprit No	
P 17.420	E 5.900
IG 18.680	J 4.778
ISP 19.610	SFJ 0.355
BAS 1.810	SPL 0.225
FSP 0.110	TPS 5.010
MDT1 0.140	MW 0.265
MDL1 0.265	GO 0.315
MDT2 0.123	BD 0.225
MDL2 0.225	MWT
TL 1.950	MCG

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date 08/06/2019		SG 1.0070	
FFM 1.586	FF 1.594	SFFP 0.625	
FAM 1.205	FA 1.211	SAFP 12.782	
W1 145.0	PD1 507.8	WD 12.680	
W2 145.0	PD2 507.8	GSA 1.0	
W3 145.0	PD3 508.4	RSA 1.0	
W4 145.0	PD4 508.4	PLM 9000.0	
LCF from stem on CL / on sheer		7.246 / 7.524	
Maximum beam station from stem		9.370	
RM Measured		285.0kg-m	
RM Default		312.6kg-m	
Limit of positive stability / Stab.Index		108.6° / 114.6	
Freeboard at mast at 5.133		1.430	



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MIZZEN RIG AND SAILS	
N/A	

PROPELLER			
Installation Strut	PRD 0.450		
Type Folding 2 blades	PBW		
Twin Screw No	PIPA 0.0031		
ST1 0.048	ST3 0.170	ST5 0.270	
ST2 0.170	ST4 0.098	EDL 2.670	

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COMMENTS	

MOVABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.140	0.98	1.85	3.43	4.71	56.63	57.22	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	18.70	16.97	17.84	9.60	9.48	142.32	AS · (SFL + 4·SHW) / 6		

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	Fly	Meas.Date	Material	Comment
0.06	0.52	1.05	2.10	3.15	4.15	17.56	36.79			08/06/2019	Unknow	

MEASUREMENT INVENTORY				
Measurer				
Date 08/06/2019				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Description</i>	

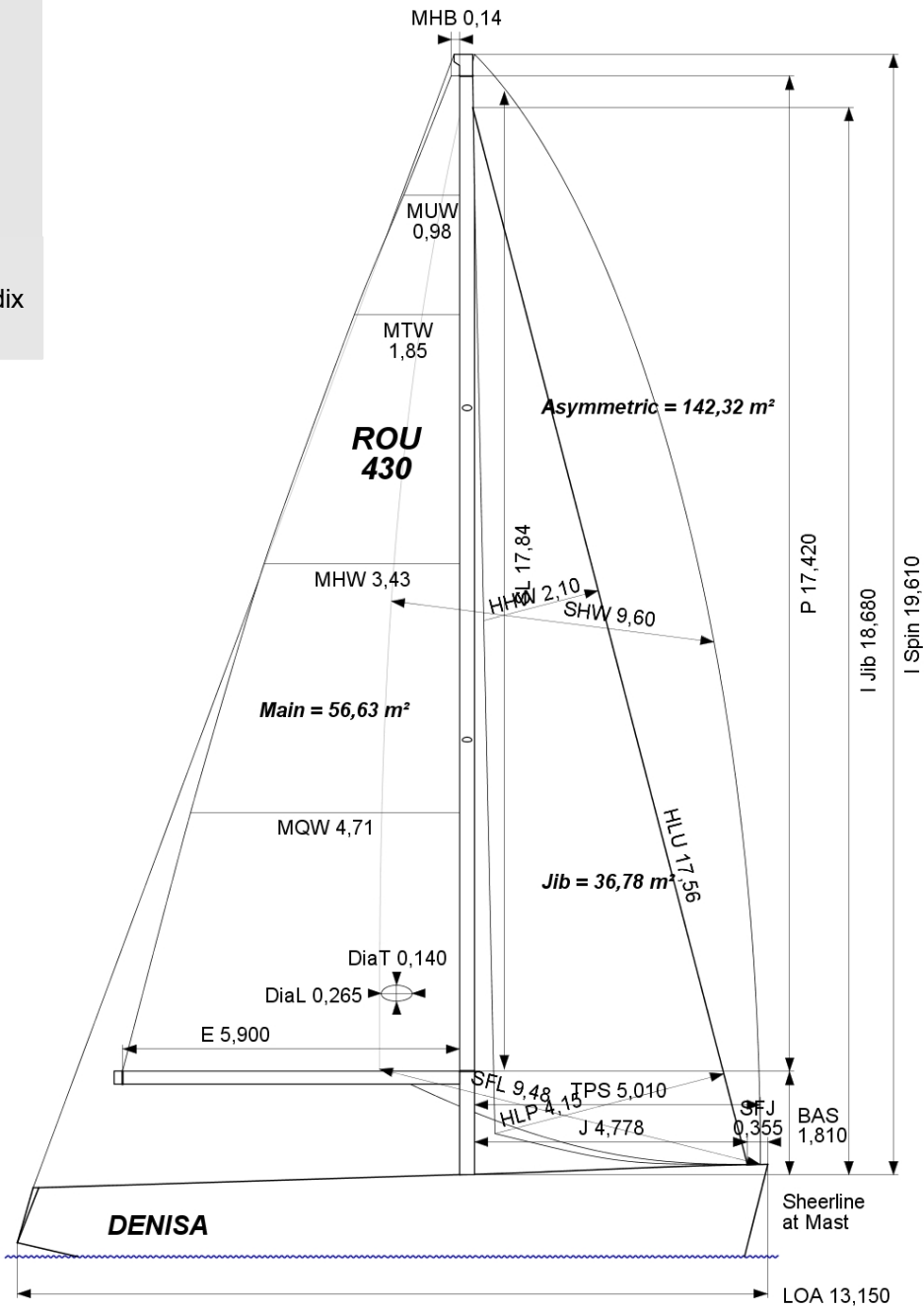
MEASUREMENT INVENTORY									
<i>Id</i>	<i>Item</i>	<i>Tank</i>	<i>Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>	<i>Description</i>
d	Tank	diesel		stainless	280.0	10.30			empty
w1	Tank	water		plastic	380.0	2.50			empty
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>					
b	Battery	115.0	6.50	3x115Ah					
v	Misc	10.0		webasto					
b	Misc	40.0		boiler					
s	Misc	20.0		stove					
f2	Misc	40.0		fridge					



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
m	0.14	0.98	1.85	3.43	4.71	56.63		08/06/2019	one	Dacron						
HEADSAILS (1)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
j	0.06	0.52	1.05	2.10	3.15	4.15	17.56	87%	36.79				08/06/2019	one	Unknow	
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (1)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
a	18.70	16.97	17.84	9.60	9.48	142.33	asym		08/06/2019	one	Nylon					