

BOAT
Name **LARN**
Sail Nr **ORC 1990**

GPH
757.2

HULL
Length Overall **7.945 m**
Maximum Beam **2.893 m**
Displacement **2,046 kg**
Draft **1.529 m**
IMS Reg. Division **Cruiser/Racer**
Dynamic Allowance **0.646%**
Fwd Accommodation **Yes**
Hull Construction **Solid**
Carbon Rudder **No**
Trim Tab **No**
IMS L **6.852** VCGD **0.317** VCGM **0.298**
Sink **10.08 kg/m** Wetted Area **13.92 m²**

GENERAL
Class **HIDDENSEE MODIF.**
Designer **LOOS**
Builder **EIGENBAU**
Series **01.1980**
Age **01.1990**
Age Allowance **1.300%**
Offset File **G1990.OFF - 30.05.2007 13:22:40**
Measurement by **KALL - 24.05.2007**



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SCORING OPTIONS

	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
	PLT	PLD		PLT	PLD	
Time On Distance	757.2			846.8		
Time On Time	0.7924			0.7971		
Performance Line	0.659	74.6		0.749	232.4	
Triple Number	Low 0.7626	Medium 1.0123	High 1.1629	Low 0.5797	Medium 0.8119	High 0.9630

Rating Office
DEUTSCHER SEGLER-
VERBAND
GRUENDGENSSTR 18
22309 HAMBURG
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TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1351.0	1091.0	964.5	893.5	849.1	823.9	801.1
52°	859.2	714.9	643.8	603.7	579.6	568.9	557.8
60°	798.3	678.8	615.8	582.7	558.8	545.5	534.3
75°	754.3	635.5	581.4	549.7	534.7	521.9	501.3
90°	714.5	614.7	569.2	538.5	512.7	500.2	487.3
110°	746.3	636.3	582.1	548.2	519.9	495.5	451.2
120°	793.6	663.6	596.7	559.5	530.1	504.6	456.8
135°	915.1	727.7	636.7	586.1	553.4	525.9	479.3
150°	1083.3	835.5	704.3	628.3	583.5	552.6	503.2
Run VMG	1250.9	964.7	802.2	701.9	633.8	590.3	534.3

Certificate
Number **140837**
ORC Ref **GER00001268**
Issued On **06.03.2009**
VPP Ver. **1.11**
Valid until **31.12.2009**
LPS < 103°

Crew Weight
Declared **430 kg**
Default* **363 kg**

Special Scoring
ToD ToT
Double Handed **762.0 0.7875**
Non Spinnaker **803.5 0.7467**

Selected Courses

	1322.6	1045.5	896.5	807.8	751.1	715.4	673.3
Windward / Leeward	1322.6	1045.5	896.5	807.8	751.1	715.4	673.3
Circular Random	1059.9	848.7	733.8	665.6	622.6	593.7	556.4
Ocean for PCS	1132.8	887.2	749.3	664.3	608.1	568.5	514.6
Non Spinnaker	1143.5	907.6	777.5	699.5	650.0	617.0	576.0

Sails Limitations

Genoas	Jibs	Spinnakers
2	2	3

Spinnaker configuration
Symmetric

Storm Sails Areas

Heavy Weather Jib	9.49
Storm Jib (JL=5.45)	3.61
Storm Trysail	5.14

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	44.9°	43.3°	41.5°	41.2°	40.8°	39.8°	38.9°
Beat VMG	2.66	3.30	3.73	4.03	4.24	4.37	4.49
52°	4.19	5.04	5.59	5.96	6.21	6.33	6.45
60°	4.51	5.30	5.85	6.18	6.44	6.60	6.74
75°	4.77	5.66	6.19	6.55	6.73	6.90	7.18
90°	5.04	5.86	6.33	6.69	7.02	7.20	7.39
110°	4.82	5.66	6.18	6.57	6.93	7.27	7.98
120°	4.54	5.42	6.03	6.43	6.79	7.13	7.88
135°	3.93	4.95	5.65	6.14	6.51	6.85	7.51
150°	3.32	4.31	5.11	5.73	6.17	6.51	7.15
Run VMG	2.88	3.73	4.49	5.13	5.68	6.10	6.74
Gybe Angles	147.2°	150.4°	160.7°	168.3°	171.9°	175.3°	176.1°

Owner
WISMARER SEGLER-
VEREIN 1911
SCHWERINER STR 44D
23970 WISMAR
WSV11

I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

BOAT	
Name LARN	Sail Nr ORC 1990
File ORC1990.dxt	Data in meters/kilograms

RIG	
Forestay Tension Aft	Spreaders 2
Inner Forestay None Fitted	Runners 0
Carbon Mast No	Jumpers None
Taper Hollows No	w/o Backstay No
P 9.240	E 3.180 MDT1 0.082 TL 0.000
IG 8.383	J 2.820 MDL1 0.122 MWT 50.00
ISP 8.603	SFJ 0.360 MDT2 0.082 MCG 3.780
SPS 1.553	SPL 2.820 MDL2 0.122 CPW 0.000
BAS 1.053	TPS 0.000 MW 0.122 BD 0.093
BAL 0.000	FSP 0.066 GO 0.122 BWT 0.00

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 24.06.2007		SG 1.0090
FFM 0.928	FF 0.933	SFFP 0.055
FAM 0.661	FA 0.663	SAFP 7.885
W1 30.000	PD1 575.6	WD 7.920
W2 30.000	PD2 579.8	GSA 1.0
W3 30.000	PD3 578.8	RSA 1.0
W4 30.000	PD4 576.2	PLM 9000.0
Maximum beam station from stem		4.968
RM Measured / Default		32.4 / 38.3
Limit of positive stability		92.9°
Stability Index		85.8
Freeboard at mast at 3.170		0.803



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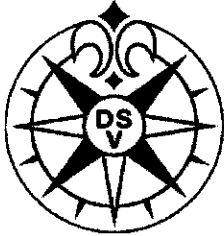
2009
IMS Measurement
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HEAVY ITEMS		
Bow Thruster No	Generator No	Air Condition No
Windlass No	Jib Furler No	Desalinator No
Heavy Deck No	Main Furler No	
Headliners No	Water Heater No	

Anchor Weight	Heavy Items Adjustment	0.000
Anchor LCG	Total Gyradius Adjustment	0.0495

PROPELLER	
Type	No Propeller

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MIZZEN RIG AND SAILS	
N/A	

WATER BALLAST	
N/A	

COMMENTS	

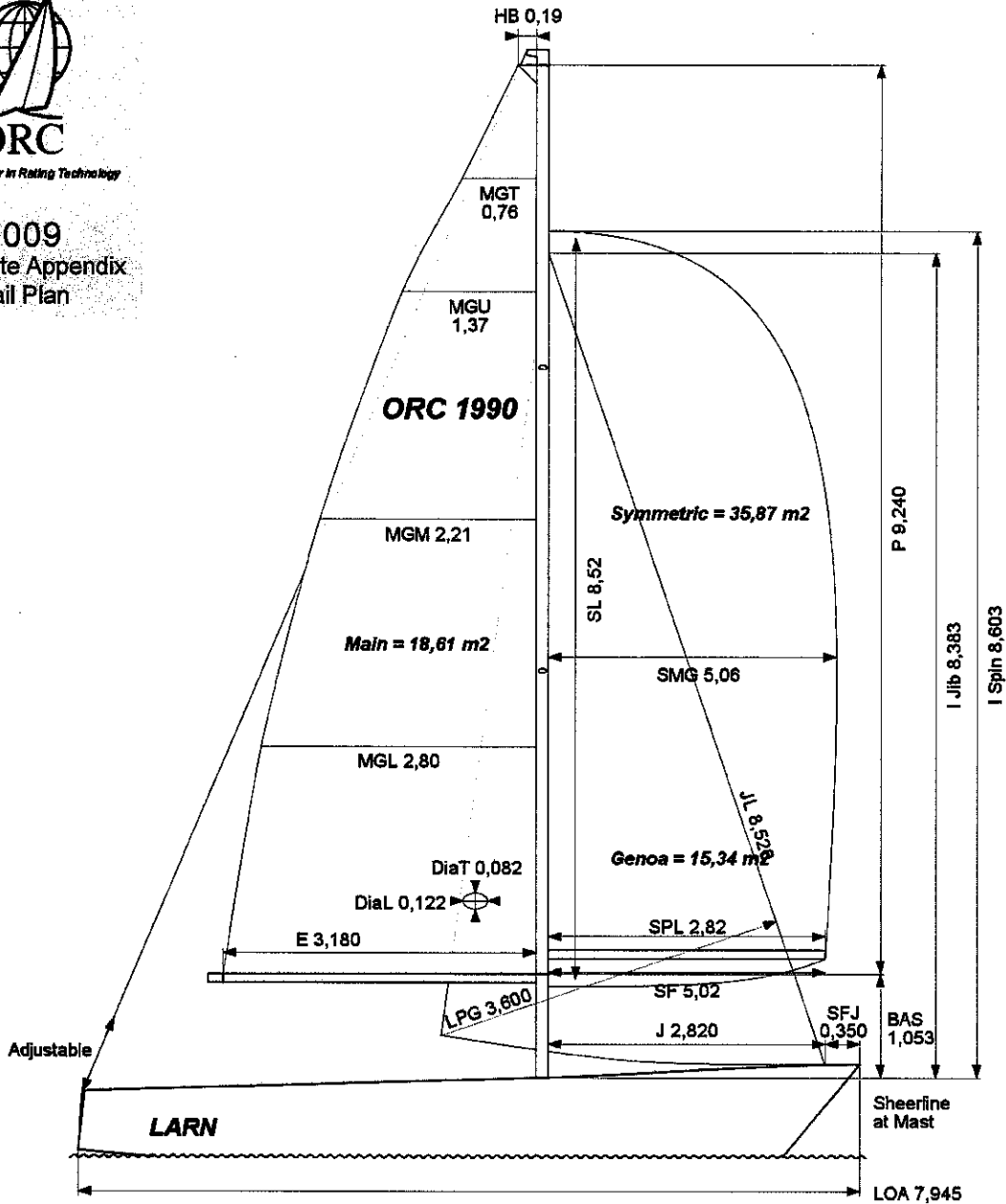
CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	HB	MGT	MGU	MGM	MGL	MSW	Area	Formula	
	0.190	0.76	1.37	2.21	2.80	5.00	18.61	$P/8 \cdot (E + 2 \cdot MGL + 2 \cdot MGM + 1.5 \cdot MGU + MGT + 0.5 \cdot HB)$	
Jib/Genoa	JH	JGT	JGU	JGM	JGL	JL	LPG	Formula	
	0.00	0.45	0.90	1.80	2.70	8.52	3.60	$0.1125 \cdot JL \cdot (1.445 \cdot LPG + 2 \cdot JGL + 2 \cdot JGM + 1.5 \cdot JGU + JGT + 0.5 \cdot JH)$	
Symmetric	SL	SMG	SF				Area	Formula	
	8.52	5.06	5.02				35.87	$SL \cdot (SF + 4 \cdot SMG) / 6$	



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Sail Plan



SAILS INVENTORY

MAINSAIL

Id	HB	MGT	MGU	MGM	MGL	MSW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
ORC	0.190	0.76	1.37	2.21	2.80	5.00	18.61					* Copied from legacy

JIBS / GENOAS

Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrip	Area	Measurer	Meas.Date	Manufacture	Material	Comment
0	0.00	0.00	0.00	0.00	0.00	3.60	8.52	128%	15.34					

SYMMETRIC SPINNAKERS

Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment
1	8.52	5.06	5.02	35.87	Jan_Segel	24.04.2008		Unknown	120442

ASYMMETRIC SPINNAKERS

Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
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