

BOAT Name Ra Glede Sail Nr NOR 16000	GPH 501,3	HULL Length Overall 12,590 m Maximum Beam 4,304 m Displacement 4.725 kg Draft 2,349 m IMS Reg. Division Performance Dynamic Allowance 0,000% Fwd Accommodation No Hull Construction Carbon Carbon Rudder Yes Crew Arm Extension IMS L 11,908 VCGD -0,530 Sink 23,26 kg/mm RL 12,507 VCGM -0,521 WS 29,20 m²
GENERAL Class HH42_25_05 Designer Jude Vrolijk Builder Hakes marine Series 08/2013, CIN CN-HYMH4204C414 Age 05/2014 Age Allowance 0,065% Offset File HH42_25.off - 15/9/2014 10:24:12 Measurement by BOYMO - 18/05/2014		



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SCORING OPTIONS						
	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD		
Time On Distance	488,3			558,8		
Time On Time	1,2288			1,2080		
Performance Line	PLT	PLD		PLT	PLD	
	0,965	54,5		1,105	248,3	
Triple Number	Low	Medium	High	Low	Medium	High
	1,1692	1,5153	1,7696	0,8919	1,1967	1,4062

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TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	867,0	704,2	631,2	597,1	577,1	569,0	565,5
52°	556,5	462,2	432,4	417,9	407,5	399,6	390,8
60°	517,3	442,9	414,8	397,5	385,6	377,3	366,5
75°	484,2	429,4	393,0	367,0	353,0	343,6	331,1
90°	485,0	428,6	395,8	358,5	329,4	314,1	297,3
110°	486,8	423,7	387,1	356,5	331,4	313,9	266,4
120°	512,1	432,1	381,5	342,1	320,1	304,2	267,6
135°	580,9	460,8	417,9	378,4	337,9	298,5	255,1
150°	704,8	556,2	475,9	429,2	396,6	359,2	278,6
Run VMG	813,8	642,2	549,5	494,5	456,6	414,7	321,7

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Number **16000**
ORC Ref **NOR00016461**
Issued On **8/5/2015**
VPP Ver. **2015 1.01**
Valid until **31/12/2015**

Selected Courses							
Windward / Leeward	840,4	673,2	590,3	545,8	516,9	491,9	443,6
Circular Random	694,3	559,9	486,9	442,6	412,8	390,4	355,6
Ocean for PCS	741,8	584,9	496,0	439,1	398,7	367,3	319,6
Non Spinnaker	765,0	610,4	524,9	472,6	438,2	413,7	379,4

Crew Weight

Declared **860 kg**
Default* **837 kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	541,5	1,1080
Non Spin OSN	529,0	1,1342
N/S Perf. Line	25,5	0,837

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	44,5°	43,4°	40,9°	38,8°	37,4°	37,2°	37,5°
Beat VMG	4,15	5,11	5,70	6,03	6,24	6,33	6,37
52°	6,47	7,79	8,33	8,61	8,83	9,01	9,21
60°	6,96	8,13	8,68	9,06	9,34	9,54	9,82
75°	7,44	8,38	9,16	9,81	10,20	10,48	10,87
90°	7,42	8,40	9,10	10,04	10,93	11,46	12,11
110°	7,40	8,50	9,30	10,10	10,86	11,47	13,52
120°	7,03	8,33	9,44	10,52	11,25	11,83	13,45
135°	6,20	7,81	8,62	9,51	10,65	12,06	14,11
150°	5,11	6,47	7,56	8,39	9,08	10,02	12,92
Run VMG	4,42	5,61	6,55	7,28	7,88	8,68	11,19
Gybe Angles	137,4°	137,1°	145,9°	153,2°	158,2°	142,0°	140,8°

Sails Limitations

Headsails	Spinnakers
7	4

Class Division Length
CDL = **12,209**

Storm Sails Areas

Heavy Weather Jib	36,23
Storm Jib (JL=10,65)	13,42
Storm Triesail	17,60

Owner

BOAT	
Name Ra Glede	Sail Nr NOR 16000
File (0)	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 08/05/2015	SG 1,0170	
FFM 1,414	FF 1,416	SFFP 0,399
FAM 1,069	FA 1,071	SAFP 12,591
W1 119,00	PD1 547,2	WD 11,650
W2 119,00	PD2 548,3	GSA 1,0
W3 119,00	PD3 537,3	RSA 1,0
W4 119,00	PD4 541,0	PLM 9000,0
LCF from stem on CL / on sheer		6,775 / 7,053
Maximum beam station from stem		11,300
RM Measured / Default		200,9 / 177,4
Limit of positive stability / Stab.Index		131,2° / 127,7
Freeboard at mast at 5,350		1,244



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Measurements Datasheet

RIG				
Forestay Tension Aft	Spreaders 2			
Inner Stay None Fitted	Runners 0			
Carbon Mast Yes	Jumper Struts None			
Taper Hollows No	Jib Furler No			
Fiber Rigging No	Main Furler No			
Lenticular Rigging No	Without Backstay No			
Articulated Bowsprit No				
P 16,960	E 5,930	MDT1 0,140	MW 0,161	
IG 16,295	J 5,070	MDL1 0,161	GO 0,188	
ISP 18,725	SFJ 0,280	MDT2 0,140	BD 0,225	
BAS 1,765	SPL	MDL2 0,091	MWT 182,00	
FSP 0,070	TPS 6,720	TL 2,430	MCG 5,197	

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0,420	
Type Folding 2 blades	PBW 0,106	
Twin Screw No	PIPA 0,0037	
ST1 0,042	ST3 0,180	ST5 0,280
ST2 0,180	ST4 0,112	EDL 0,740

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	



Invalid for Racing

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SAILS (Maximum Areas)						
Mainsail	HB	MGT	MGU	MGM	MGL	
	1,230	1,88	2,72	3,99	5,02	
	Area	Area (r)	Formula			
	64,71	66,36	P/8 · (E + 2·MGL + 2·MGM + 1.5·MGU + MGT + 0.5·HB)			
Symmetric						
Not Available						
Asymmetric						
	SLU	SLE	ASL	AMG	ASF	
	21,50	18,15	19,82	11,38	11,20	
						187,41
						ASL · (ASF + 4·AMG) / 6

HEADSAILS												
Area = 0.1125·JL·(1.445·LPG+2·JGL+2·JGM+1.5·JGU+JGT+0.5·JH)												
JH	JGT	JGU	JGM	JGL	LPG	JL	Area	Btn	Fly	Meas.Date	Material	Comment
0,12	0,78	1,45	2,74	3,97	5,14	16,55	44,43		N			
0,12	0,77	1,45	2,72	3,95	5,12	16,55	44,21		N			
0,12	0,75	1,41	2,66	3,90	5,11	16,40	43,23		N			
0,12	0,75	1,42	2,74	4,06	5,38	15,80	43,22		N			
0,12	0,73	1,36	2,54	3,77	5,04	14,40	36,83		N			

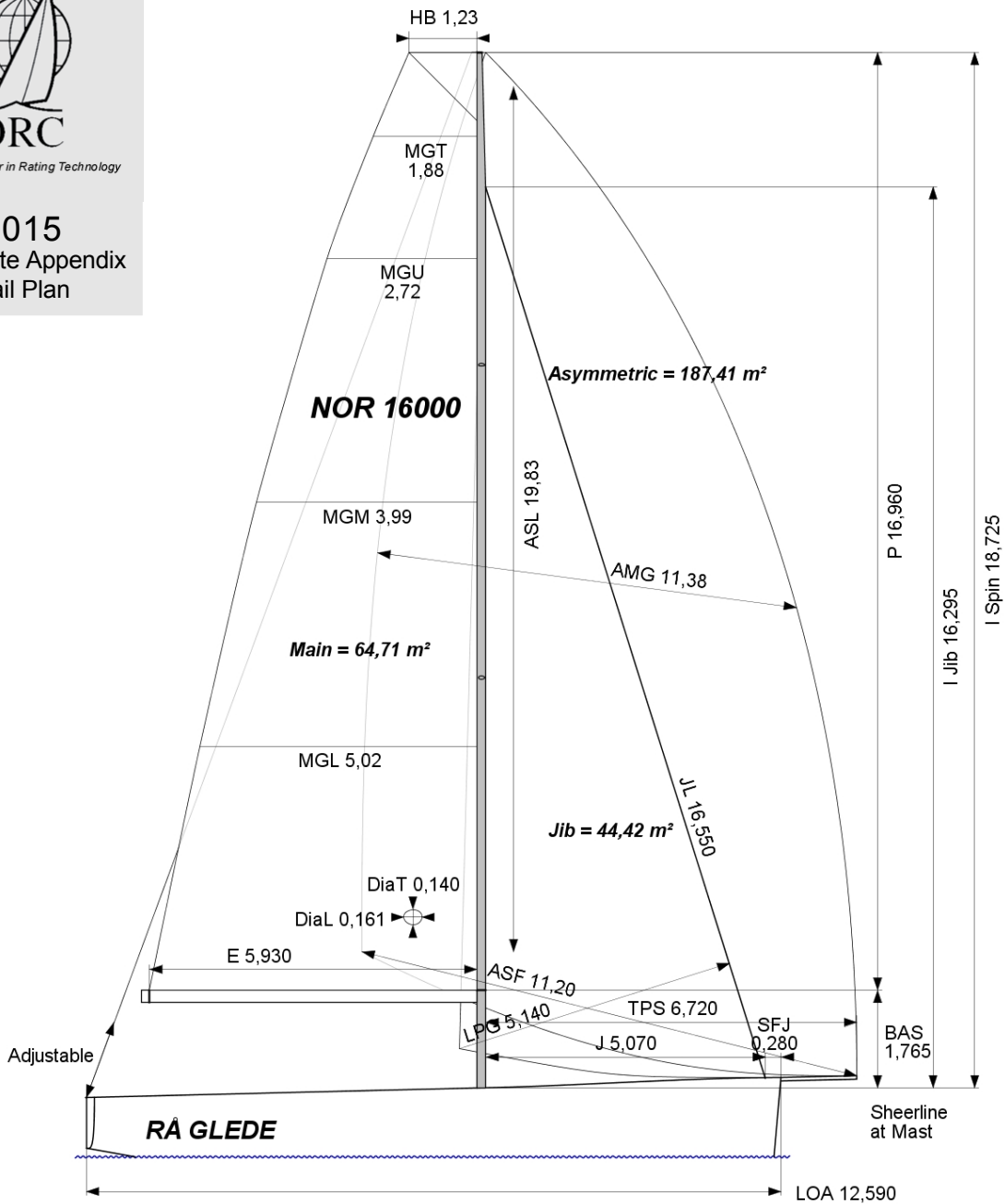
MEASUREMENT INVENTORY				
Measurer Per Boymo PB				
Date 08/05/2015				
Comment no cushions present				
Id	Item	Weight	Distance	VCG Description
Id	Item	Maker	Model	
1	Engine	Yanmar	3gm	
1	Engine	Yanmar	3gm	
Id	Item	Weight	Description	

MEASUREMENT INVENTORY								
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description
2	Tank	Diesel	PVC	40,0	7,90	0,10	4-0	
1	Tank	Water	Soft	110,0	6,50		0-0	2 55l stb and port
2	Tank	Diesel	PVC	40,0	7,90	0,10	4-0	
1	Tank	Water	Soft	110,0	6,50		0-0	2 55l stb and port
Id	Item	Weight	Distance	VCG	Description			
1	Battery	50,0	7,50	0,00	3x110Ah behind engine			
1	Battery	50,0	7,50	0,00	3x110Ah behind engine			



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Certificate Appendix
Sail Plan



SAILS INVENTORY																
MAINSAIL																
Id	HB	MGT	MGU	MGM	MGL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
306-	1,230	1,88	2,72	3,99	5,02	64,71										
HEADSAILS																
Id	JH	JGT	JGU	JGM	JGL	LPG	JL	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
306-	0,12	0,78	1,45	2,74	3,97	5,14	16,55	101%	44,43		N					
306-	0,12	0,77	1,45	2,72	3,95	5,12	16,55	101%	44,21		N					
306-	0,12	0,75	1,41	2,66	3,90	5,11	16,40	101%	43,23		N					
306-	0,12	0,75	1,42	2,74	4,06	5,38	15,80	106%	43,22		N					
306-	0,12	0,73	1,36	2,54	3,77	5,04	14,40	99%	36,83		N					
SYMMETRIC SPINNAKERS																
Id	SL	SMG	SF	Area	Measurer	Meas.Date	Manufacture	Material	Comment							
ASYMMETRIC SPINNAKERS																
Id	SLU	SLE	ASL	AMG	ASF	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
306-	21,50	18,15	19,82	11,38	11,20	187,41	asym									
306-	20,80	18,00	19,40	11,62	11,45	187,31	asym									
306-	20,66	18,02	19,34	10,67	11,00	173,03	asym									
306-	19,90	18,15	19,02	7,73	10,15	130,23	asym									