



World Leader in Rating Technology

2016 ORC Club Certificate

Rating Office

ORC
Central Rating Office
issuing certificates for
CANADA



Certificate

Number **040/16**
Issued On **1.4.2016**.
ORC Ref **CAN00062269**
VPP Ver. **2016 1.01**
Valid until **31.12.2016**.

Crew Weight

Declared **932kg**
Default* **932kg**
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Non Spin GPH	612.5	0.9796
Non Spin OSN	594.3	1.0095
N/S Perf. Line	-10.2	0.607

Sails Limitations

Headsails **7** Spinnakers **4**

Spinnaker configuration

Symmetric: **Yes** **142.50**
Asymmetric: **Yes** **112.37**
Flying H/S: **No**
Spin. Pole: **Yes**

Class Division Length

CDL = **11.129**

Stability

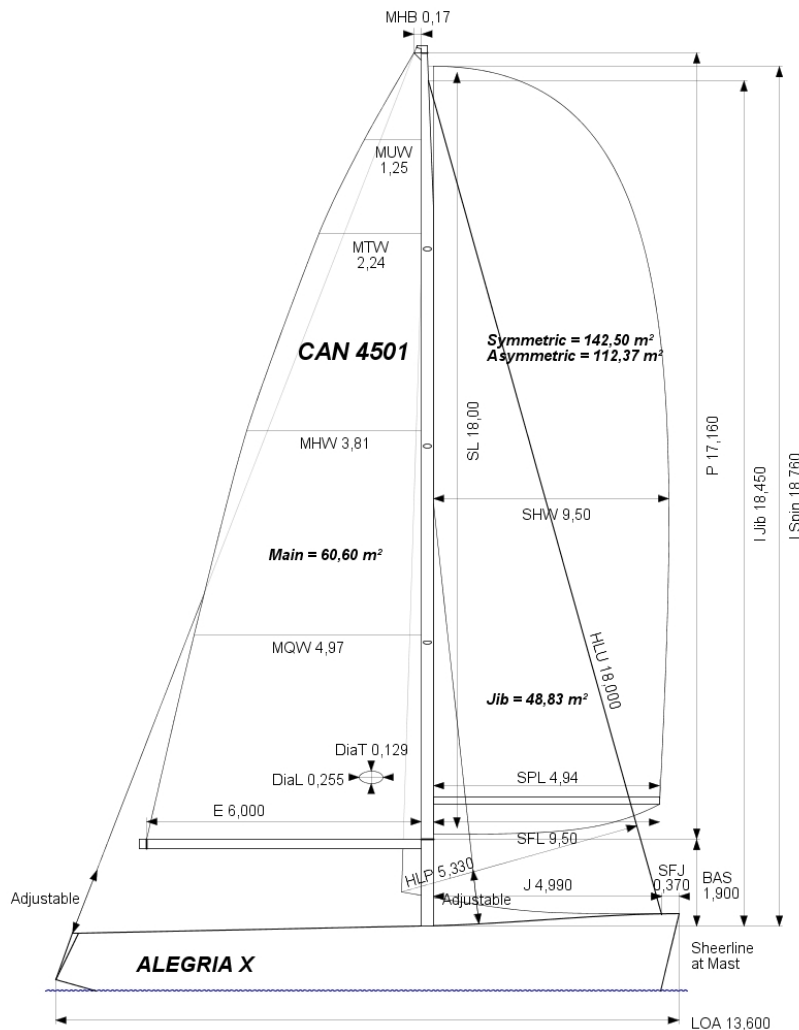
LPS (Estimated): **109.6°**
Stability Index: **115.2**
OSR Category: **N/A**

Owner

Eberhard Heinzemann
3323 West 21st Avenue
V6S 1G8 Vancouver BC
CANADA

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

Signature



BOAT		GPH		HULL			
Name	Alegria X			Data File	CAN4501.dxt	LOA	13.600m
Sail Nr	CAN 4501			Offset File	D45K23DT.OFF	MB	4.300m
			581.1	Displacement	11,335kg	Draft	2.318m
CLASS				IMS Division	Cruiser/Racer	Dynamic All.	0.237%
Class	Dufour 45E			Fwd Accom.	Yes	Construction	Cored
Designer	Umberto Felci			Fiber Rigging	No	Aramid Core	No
Builder	Dufour			Crew Arm Ex		Carbon Rudder	No
Series	01.2008					Light Stanchions	No
Age Date	01.2013			IMSL	12.454m	VCGD	0.225m
Age Allowance	0.260%			RL	9.802m	VCGM	0.202m
				WS	41.31m²		
				LSM0	12.371m	Displacement/Length ratio	5.9870
COMMENTS				Water Ballast	0	Trim Tab	No
PROPELLER				CENTERBOARD			
Installation	Strut	PRD	0.463	N/A			
Type	Folding 3 blades	PIPA	0.0009				
SCORING OPTIONS							
	OFFSHORE COASTAL / LONG DISTANCE			INSHORE WINDWARD / LEEWARD			
Time On Distance	564.0			633.7			
Time On Time	1.0638			1.0652			
Performance Line	PLT	PLD		PLT	PLD		
	0.684	15.5		0.821	151.7		
Triple Number	Low	Medium	High	Low	Medium	High	
	0.9912	1.3200	1.5112	0.7591	1.0531	1.2509	



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2016

ORC Club Certificate Appendix

BOAT

Name **Alegria X** Certificate Number **040/16**
 Sail Nr **CAN 4501** Issued On **1.4.2016.**

TIME ALLOWANCES

Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	1029.5	845.6	740.3	674.4	645.0	629.9	613.6
52°	660.9	551.0	485.8	453.8	442.2	436.6	431.3
60°	616.1	517.1	463.1	439.1	428.2	423.2	418.8
75°	579.4	489.6	448.0	427.9	414.0	403.9	395.2
90°	580.9	491.1	445.5	424.0	414.0	399.8	376.2
110°	599.7	490.9	441.8	418.6	399.8	383.7	365.4
120°	617.5	505.0	448.9	423.6	403.3	382.5	352.5
135°	685.9	554.3	477.8	440.2	419.0	399.7	360.7
150°	813.5	643.1	543.2	479.0	442.4	421.9	385.4
Run VMG	939.4	742.6	627.3	549.7	497.9	457.8	414.6

Selected Courses

Windward / Leeward	984.4	794.1	683.8	612.1	571.4	543.9	514.1
Circular Random	813.0	651.4	563.2	510.8	478.1	456.5	429.7
Ocean for PCS	1002.1	767.9	634.5	552.1	498.4	461.0	410.1
Non Spinnaker	868.7	691.1	592.9	533.9	496.6	472.1	441.9

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	44.7°	43.2°	43.0°	42.1°	40.6°	39.8°	39.7°
Beat VMG	3.50	4.26	4.86	5.34	5.58	5.71	5.87
52°	5.45	6.53	7.41	7.93	8.14	8.25	8.35
60°	5.84	6.96	7.77	8.20	8.41	8.51	8.60
75°	6.21	7.35	8.04	8.41	8.70	8.91	9.11
90°	6.20	7.33	8.08	8.49	8.70	9.00	9.57
110°	6.00	7.33	8.15	8.60	9.00	9.38	9.85
120°	5.83	7.13	8.02	8.50	8.93	9.41	10.21
135°	5.25	6.50	7.54	8.18	8.59	9.01	9.98
150°	4.43	5.60	6.63	7.52	8.14	8.53	9.34
Run VMG	3.83	4.85	5.74	6.55	7.23	7.86	8.68
Gybe Angles	143.9°	148.2°	150.6°	153.5°	161.1°	180.0°	180.0°