



World Leader in Rating Technology

2016 ORC Club Certificate

Rating Office
Hellenic Sailing Federation
Offshore Committee
Επιτροπή
Ανοικτής Θαλάσσης
Ελληνικής
Ιστιοπλοϊκής Ομοσπονδίας



Certificate
 Number **001104**
 Issued On **19/5/2016**
 ORC Ref **GRE01006009**
 VPP Ver. **2016 1.01**
 Valid until **28/2/2017**

Crew Weight
 Declared **658kg**
 Default* **658kg**
 Non Manual Pwr **No**

Special Scoring

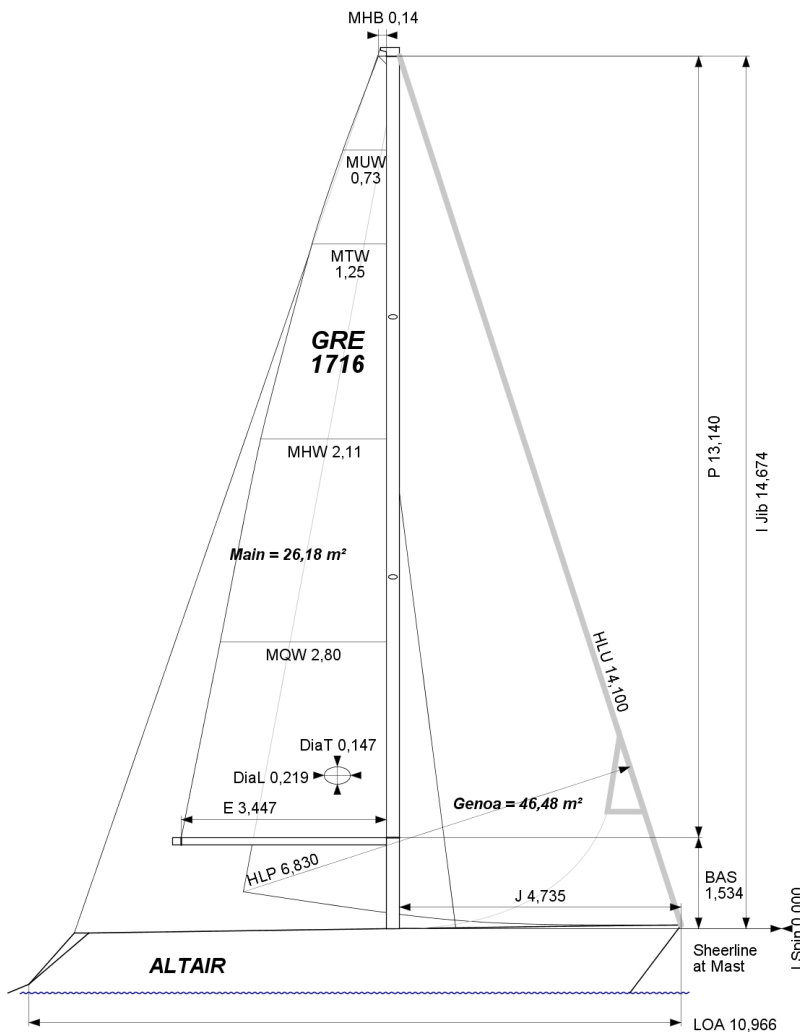
| | ToD | ToT |
|----------------|--------------|---------------|
| Non Spin GPH | 736,8 | 0,8143 |
| Non Spin OSN | 712,2 | 0,8425 |
| N/S Perf. Line | -12,8 | 0,504 |

Sails Limitations
 Headsails **1** Spinnakers **0**
Dacron Sails
 Spinnaker configuration
 Symmetric: **No**
 Asymmetric: **No**
 Flying H/S: **No**
 Spin. Pole: **No**

Class Division Length
 CDL = **7,864**

Stability
 LPS (Estimated): **117,7°**
 Stability Index: **120,9**
 OSR Category: **N/A**

Owner



| BOAT | | GPH | | HULL | | |
|----------------------------------|--------------------------------|--|----------------|---------------------------|-------------------|---------------|
| Name | ALTAIR | | 736,8 | Data File | GR1716.dxt | |
| Sail Nr | GRE-1716 | | | Offset File | G1072.BOF | |
| | | | | Displacement | 7.930kg | |
| | | | | LOA | 10,966m | |
| | | | | MB | 3,840m | |
| | | | | Draft | 1,989m | |
| CLASS | | IMS Division Cruiser/Racer | | | | |
| Class | JOUET 37 | Dynamic All. | 0,613% | | | |
| Designer | TORTAROLO | Fwd Accom. | Yes | | | |
| Builder | YACHTIING FRANCE | Fiber Rigging | No | | | |
| Series | 01/1976 | Crew Arm Ex | No | | | |
| Age Date | 01/1978 | Carbon Rudder | No | | | |
| Age Allowance | 0,488% | Light Stanchions | No | | | |
| COMMENTS | | IMSL | 9,277m | VCGD | -0,094m | |
| Builder's declared displacement. | | RL | 6,449m | VCGM | -0,025m | |
| | | WS | 27,72m² | | | |
| | | LSM0 | 9,693m | | | |
| | | Displacement/Length ratio | 8,7076 | | | |
| | | Water Ballast | 0 | | | |
| | | Trim Tab | No | | | |
| PROPELLER | | CENTERBOARD | | | | |
| Installation | Shaft exposed | PRD | 0,400 | | | |
| Type | Solid 2 blades | PIPA | 0,0167 | | | |
| | | N/A | | | | |
| SCORING OPTIONS | | | | | | |
| | OFFSHORE | | | INSHORE | | |
| | COASTAL / LONG DISTANCE | | | WINDWARD / LEEWARD | | |
| Time On Distance | 712,2 | | | 794,9 | | |
| Time On Time | 0,8425 | | | 0,8491 | | |
| Performance Line | PLT | PLD | | PLT | PLD | |
| | 0,504 | -12,8 | | 0,573 | 83,4 | |
| Triple Number | Low | Medium | High | Low | Medium | High |
| | 0,7649 | 1,0467 | 1,2304 | 0,5839 | 0,8352 | 1,0283 |

| | |
|------------------------|---------------------------------|
| BOAT | |
| Name ALTAR | Sail Nr GRE-1716 |
| File GR1716.dxt | Data in meters/kilograms |

| | |
|--------------------------------|-------------------------------------|
| RIG | |
| Forestay Tension Fixed | Spreaders 2 |
| Inner Stay Fixed | 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 13,140 | E 3,447 MDT1 0,147 MW |
| IG 14,674 | J 4,735 MDL1 0,219 GO |
| ISP | SFJ 0,000 MDT2 |
| BAS 1,534 | SPL MDL2 |
| FSP 0,080 | TPS TL -3,000 MWT MCG |

| | | | |
|--|-----------------|-----------------------|--------------|
| INCLINING TEST AND FREEBOARDS | | | |
| Inclining Test Club Estimated VCG | | | |
| Flotation date 15/03/2015 | | SG | |
| FFM | FF 1,135 | SFFP | 0,726 |
| FAM | FA 1,013 | SAFP | 9,955 |
| LCF from stem on CL / on sheer | | 5,780 / 6,024 | |
| Maximum beam station from stem | | 6,525 | |
| RM Measured | | 127,2kg·m | |
| RM Default | | 123,5kg·m | |
| Limit of positive stability / Stab.Index | | 117,7° / 120,9 | |
| Freeboard at mast at 4,735 | | 1,083 | |



ORC
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2016
Measurements
Datasheet

Certificate
Number **001104**
ORC Ref **GRE01006009**
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VPP Ver. **2016 1.01**
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| | |
|-----------------------------|--|
| MIZZEN RIG AND SAILS | |
| N/A | |

| | | | |
|------------------|-----------------------|------|---------------|
| PROPELLER | | | |
| Installation | Shaft exposed | PRD | 0,400 |
| Type | Solid 2 blades | PBW | |
| Twin Screw | No | PIPA | 0,0167 |
| PSA | PHL | ST3 | ESL |
| PSD | ST1 | ST4 | |
| PHD | ST2 | ST5 | |

| | |
|----------------------------------|--|
| COMMENTS | |
| Builder's declared displacement. | |

| | |
|-------------------------|--|
| MOVEABLE BALLAST | |
| N/A | |

| | |
|--------------------|--|
| CENTERBOARD | |
| N/A | |

| | | | | | | | | | |
|------------------------------|-------|------|------|------|------|-------|----------|--|--|
| SAILS (Maximum Areas) | | | | | | | | | |
| Mainsail | MHB | MUW | MTW | MHW | MQW | Area | Area (r) | Formula | |
| | 0,138 | 0,73 | 1,25 | 2,11 | 2,80 | 26,18 | 26,43 | P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB) | |
| Symmetric | | | | | | | | | |
| Not Available | | | | | | | | | |
| Asymmetric | | | | | | | | | |
| Not Available | | | | | | | | | |

| | | | | | | | | | | | | |
|---|------|------|------|------|------|-------|-------|-----|-----|------------|----------|-------------------|
| 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 | 0,76 | 1,55 | 3,18 | 4,98 | 6,83 | 14,10 | 46,48 | | | 15/03/2015 | Dacron | ROLLER |
| 0,04 | 0,51 | 1,01 | 2,09 | | 4,49 | 13,13 | 28,76 | | | 15/03/2015 | Dacron | HEAVY WEATHER JIB |



World Leader in Rating Technology

2016

ORC Club Certificate Appendix

BOAT

Name **ALTAIR** Certificate Number **001104**
 Sail Nr **GRE-1716** Issued On **19/5/2016**

TIME ALLOWANCES

| Wind Velocity | 6 kt | 8 kt | 10 kt | 12 kt | 14 kt | 16 kt | 20 kt |
|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Beat VMG | 1257,5 | 1032,1 | 912,8 | 831,5 | 775,7 | 747,3 | 725,8 |
| 52° | 805,9 | 674,8 | 595,1 | 548,1 | 525,7 | 513,6 | 504,5 |
| 60° | 751,9 | 634,1 | 560,5 | 527,5 | 510,0 | 498,4 | 487,0 |
| 75° | 709,2 | 598,4 | 537,5 | 512,4 | 496,4 | 483,5 | 462,9 |
| 90° | 713,3 | 603,4 | 540,5 | 514,2 | 498,1 | 483,8 | 459,7 |
| 110° | 801,8 | 661,0 | 573,2 | 529,0 | 506,2 | 489,4 | 457,9 |
| 120° | 855,9 | 698,4 | 603,4 | 542,9 | 514,4 | 496,2 | 465,0 |
| 135° | 981,0 | 774,8 | 664,5 | 586,4 | 538,6 | 513,7 | 481,7 |
| 150° | 1161,1 | 891,4 | 744,5 | 653,0 | 583,9 | 539,6 | 498,4 |
| Run VMG | 1328,5 | 1006,3 | 824,5 | 713,1 | 634,8 | 573,9 | 513,5 |

Selected Courses

| | | | | | | | |
|--------------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Windward / Leeward | 1293,0 | 1019,2 | 868,6 | 772,3 | 705,3 | 660,6 | 619,6 |
| Circular Random | 1048,8 | 833,2 | 713,3 | 640,4 | 593,9 | 563,1 | 526,7 |
| Ocean for PCS | 1303,5 | 986,0 | 804,6 | 692,3 | 619,3 | 569,5 | 505,6 |
| Non Spinnaker | 1048,8 | 833,2 | 713,3 | 640,4 | 593,9 | 563,1 | 526,7 |

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° | 43,0° | 42,5° | 43,6° | 42,4° | 41,4° | 40,4° |
| Beat VMG | 2,86 | 3,49 | 3,94 | 4,33 | 4,64 | 4,82 | 4,96 |
| 52° | 4,47 | 5,33 | 6,05 | 6,57 | 6,85 | 7,01 | 7,14 |
| 60° | 4,79 | 5,68 | 6,42 | 6,82 | 7,06 | 7,22 | 7,39 |
| 75° | 5,08 | 6,02 | 6,70 | 7,03 | 7,25 | 7,45 | 7,78 |
| 90° | 5,05 | 5,97 | 6,66 | 7,00 | 7,23 | 7,44 | 7,83 |
| 110° | 4,49 | 5,45 | 6,28 | 6,81 | 7,11 | 7,36 | 7,86 |
| 120° | 4,21 | 5,15 | 5,97 | 6,63 | 7,00 | 7,26 | 7,74 |
| 135° | 3,67 | 4,65 | 5,42 | 6,14 | 6,68 | 7,01 | 7,47 |
| 150° | 3,10 | 4,04 | 4,84 | 5,51 | 6,17 | 6,67 | 7,22 |
| Run VMG | 2,71 | 3,58 | 4,37 | 5,05 | 5,67 | 6,27 | 7,01 |
| Gybe Angles | 168,1° | 168,7° | 169,8° | 170,8° | 170,9° | 171,9° | 175,7° |