

# International 2.4 metre Class Certificate of Rating

Sail Number ...FIN 176

ISAF Plaque Number ...712.....  
Owner...Roope Heikkilä.....

|                                       |                         |                |           |              |
|---------------------------------------|-------------------------|----------------|-----------|--------------|
| Overall length                        |                         |                |           | 4.181        |
| Overhang Forward to L1                |                         |                | + 0.429   |              |
| Overhang Aft to L1                    | Total overhang          |                | + 0.660   | → - 1.089    |
| Measured length                       |                         |                |           | 3.092        |
| Girth at Bow                          |                         |                | 0.312     |              |
| Twice Vertical Height at Bow          | O at Bow                |                | - 0,240 → | 0.072        |
| 1½ O at Bow                           |                         |                |           | + 0.108      |
| Girth at Stern                        |                         |                | 0.898     |              |
| Twice Vertical Height at Stern        | O at Stern              |                | - 0.529 → | 0.369        |
| Add 1/3 O at Stern                    |                         |                |           | + 0.123      |
| Add any penalty at O2                 | Sum of Girth difference |                | + 0.231 → | + 0.231      |
| Correct length, L                     |                         |                |           | 3.323        |
| Skin girth d to d1 Port               |                         |                |           |              |
| Chain girth d to d1 Port              | d Port                  |                | - →       | +            |
| Skin girth d to d1 Starboard          |                         |                |           |              |
| Chain girth d to d1 Starb,            | d Starboard             |                | - →       | +            |
| d = d Port + d Starboard              | 2 x d                   |                |           | +            |
| Add to find sum of L + 2d             |                         |                |           | 3.326        |
| Mean freeboard Bow O                  |                         |                | 0.327     |              |
| Mean freeboard Midships D             |                         |                | 0.292     |              |
| Mean freeboard Stern                  | Sum of freeboards       |                | → 0.298   | 0.917        |
| F=1/3 sum of freeboards               | F, max 0.292            |                |           | 0.306        |
| = L + 2d - F                          |                         |                |           | - 0.292      |
| Penalty Displacement Rule D.7.2.      | LWL                     |                |           | 3.034        |
| Corr LWL                              | Difference              | 2 x difference | - →       | +            |
| Penalty Beam Rule D.7.3               | Beam                    |                | 0.753     |              |
| Min beam                              | Deficiency              | 4 x deficiency | - 0,720 → | +            |
| √S                                    |                         |                |           | + 2.654      |
| Total of Measurements L + 2d - F + √S |                         |                |           | 5.685        |
| Divide by 2.37 = RATING =             |                         |                |           | 2.400        |
| Penalty Draft Rule D.7.1              | Draft                   |                |           |              |
| Max draft                             | Excess                  | 3 x excess     | - 1,000 → | +            |
| Penalty Tumble home D.7.4             | Tumble home             |                |           |              |
| Max Tumble home                       | Excess                  | 3 x excess     | - 0,015 → | +            |
| <b>FINAL RATING</b>                   |                         |                |           | <b>2.400</b> |



Roope Heikkilä  
Haahdenniementie 18  
21160 MERIMASKU

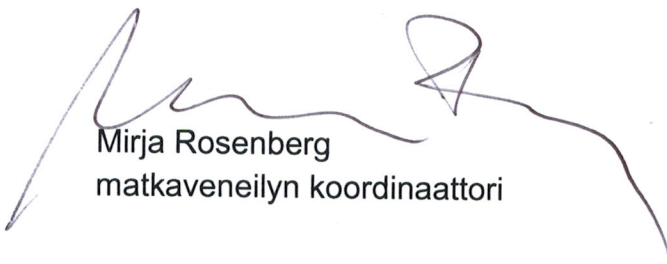
Ilmoitamme, että alla mainittu 2.4 mR veneenne on hyväksytty Suomen  
Purjehdus ja Veneily ry:n purjenumorerekisteriin numerolla **FIN 176**

|               |                             |
|---------------|-----------------------------|
| Tyyppi        | <b>2.4mR</b>                |
| Rakennusvuosi | <b>2011</b>                 |
| Seura         | <b>Naantalin pursiseura</b> |

Rekisterimaksu € 50,- on maksettu käteisellä.

Espoossa 1.8.2013

SUOMEN PURJEHDUS JA VENEILY RY  
SEGLING OCH BÅTSPORT I FINLAND RF

  
Mirja Rosenberg  
matkaveneilyn koordinaattori



Overall Length

Overhang Forward to L

Overhang Aft to L

Total Overhang (Sum overhang forward and aft)

Waterline Length (Overall Length - Total Overhang)

Minimum measured cockpit frame over water level when ballasted and swamped in accordance with rule C.5.2

Boat weight recorded by weighing according to rule C.5.1

Boat weight including 35 kg ballast

Minimum weight by Rule D.7.2  $(0.2 \times \text{LWL} + 0.06)^3 \times 1025$ 

|           |        |
|-----------|--------|
|           | 4.181  |
| + 0.547   |        |
| + 0.660   |        |
| → - 1.207 |        |
|           | 2.974  |
|           | 0.050  |
|           | 254 Kg |
|           | 289 Kg |
|           | 289 Kg |

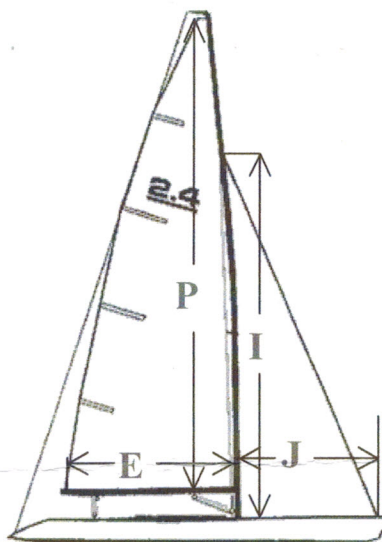
## Sail Dimensions

P = 4.65

Outer point distance E = 1.96

Forestay height I = 3.75

Foretriangle base J = 1.56



Builder...Charger Composites.... Designer ...Peter Norlin .....When Built...2010

Initial Fundamental Measurement made by Tom Björndahl (FYA0054) Date 18.05.2010

Complementary Measurement made by..... Date .....

Certificate issued by ..... Date of issue.....30.07.2013.....  
nameCA .....FYA.....  
authority

  
signature

Jaakko Olkkonen

Stamp

