


# INTERNATIONAL 2.4 METRE CLASS

## Rating Certificate

|  |                               |   |
|--|-------------------------------|---|
| <b>National Letters and Sail Number</b>  | SWE 444                       |   |
| <b>ISAF Plaque no.</b>                   | 624                           |   |
| <b>Designer</b>                          | Peter Norlin                  |   |
| <b>Builder</b>                           | Charger Composite             |   |
| <b>Building Year</b>                     | 2007                          |   |
| <b>Owner</b>                             | Ulf Bengtsson                 |   |
| <b>Owners adress</b>                     | Alevägen 4<br>302 39 Halmstad |   |
| Supersedes former certificate, dated     | 2008-09-04                    | <b>Swedish Sailing Federation</b>   |
| This certificate is dated                | 2009-04-26                    |  |
| Validity confirmed by                    | <i>Kjell Martinsson</i>       |   |
| Measurer: Per Lindell                    | 2008-08-02                    | Stamp of Authority  |
| Complementary measurement: Håkan Kellner | 2008-05-22                    |   |

|  |       |       |       |
|--|-------|-------|-------|
| <b>Overall Length</b>                            |       | 4.182 |       |
| Add (Overhang Forward to L <sub>1</sub> )        |       | 0.426 |       |
| Add (Overhang Aft to L <sub>1</sub> )            |       | 0.660 |       |
| Subtract Total Overhang                          |       | 1.086 | 1.086 |
| <b>Measured Length</b>                           |       |       | 3.096 |
| Girth at Bow                                     |       | 0.320 |       |
| Subtract (Twice Vertical Height at Bow           |       | 0.240 |       |
| 0 at Bow   |       | 0.080 |       |
| Add 1,5*0 at Bow, (min 0.108)                    |       |       | 0.120 |
| Girth at Stern                                   |       | 0.891 |       |
| Subtract (Twice Vertical Height at Stern         |       | 0.528 |       |
| 0 at Stern                                       |       | 0.363 |       |
| Add 1/3 0 at Stern, minimum 0.080                |       |       | 0.121 |
| Add any penalty at 0 <sub>2</sub>                |       |       |       |
| <b>Correct length, L</b>                         |       | 3.337 | 3.337 |
| Subtract (Skin d to d <sub>1</sub> Port          |       | 0.442 |       |
| Subtract (Chain d to d <sub>1</sub> Port         |       | 0.442 |       |
| d Port   |       | 0.000 |       |
| Subtract (Skin d to d <sub>1</sub> Starboard     |       | 0.441 |       |
| Subtract (Chain d to d <sub>1</sub> Starboard    |       | 0.441 |       |
| d Starboard                                      |       | 0.000 |       |
| Add d  |       |       | 0.000 |
| 2d   |       |       | 0.000 |
| <b>Add to find sum of measurements</b>           |       |       | 3.337 |
| Add (Mean Freeboard Bow 0                        |       | 0.323 |       |
| Add (Mean Freeboard Midship D                    |       | 0.299 |       |
| Add (Mean Freeboard Stern 0 and 0 <sub>2</sub> ) |       | 0.299 |       |
| Sum of Freeboards                                |       | 0.921 |       |
| <b>Subtract (1/3 sum) FREEBOARD, F, max</b>      | 0.292 |       | 0.292 |
|  |       |       | 3.045 |
| Beam penalty                                     |       |       | 0.000 |
| Tumblehome penalty                               |       |       | 0.000 |
| √S   |       |       | 2.643 |
| <b>Total of Measurements</b>                     |       |       | 5.688 |
| <b>Divide by 2.37 = RATING =</b>                 |       |       | 2.400 |
| Displacement penalty                             |       |       | 0.000 |
| Draft penalty                                    |       |       | 0.000 |
| <b>Final Rating</b>                              |       |       | 2.400 |

|   |            |
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|  |                |
|--|----------------|
| <b>Overall Length</b>                            | 4.182          |
| Add (Overhang Forward to L<br>(Overhang Aft to L | 0.543<br>0.660 |
| Subtract Total Overhang                          | <u>1.203</u>   |
| Water Line Length                                | 2.979          |
| <b>Beam at 1/3 Height of Midship Freebord</b>    | 0.756          |
| <b>Maximum draft</b>                             | 0.976          |
| <b>Tumble Home</b>                               | 0.000          |
| <b>Weight by weighing</b>                        | <u>255 kg</u>  |
| <b>with 35 kg ballast</b>                        | <u>290 kg</u>  |
| <b>Minimum weight required by Rule</b>           | <u>289 kg</u>  |

|                             |              |
|-----------------------------|--------------|
| <b>Areas of Sails</b>       | I = 3.750    |
|                             | J = 1.560    |
|                             | P = 4.645    |
|                             | E = 1.937    |
| Mainsail =                  | 4.499        |
| Foretriangle Total =        | 2.925        |
| Foretriangle Total x 0.85 = | <u>2.486</u> |
| Sail Area for Rating = S =  | <u>6.985</u> |
| $\sqrt{S}$                  | <u>2.643</u> |

If in doubt, the Certificate can be checked against the official website: [www.ssf.se/tk/24/cert24.asp](http://www.ssf.se/tk/24/cert24.asp)