

## World Sailing In-House Certification Programme

### Universal Measurement System (UMS) Sails Measurement Sticker Procedure

The following procedure shall be followed by the IHC-licensed sailmaker to certify sails for:

- International Rating Certificate (IRC)
- Offshore Racing Congress (ORC)

And applies to the following certification scenarios:

1. Sails fully built in-house by the IHC-licensed sailmaker
2. Sails finished by the IHC-licensed sailmaker (partially built by another sailmaker, IHC-licensed or not)
3. Sails modified by the IHC-licensed sailmaker (originally built by another sailmaker, IHC-licensed or not)
4. Sails originally certified by another IHC-licensed sailmaker requiring re-certification

### Procedure

1. Measure the sail.
2. Fill in the UMS sticker according to the instructions reported in the following pages  
([Link to download the UMS Sail Measurement Stickers](#))
3. Sign and date the IHC Sticker (IHC sticker to be placed next to the UMS Sticker)
4. Submit data to relevant Rating Office
  - a) International Rating Certificate (IRC)  
*Submit data to the IRC Rule Authority only when requested by the boat's owner.*
    1. Take a picture that includes both the IHC Sticker and UMS Sticker.
    2. Complete the IRC Sail Measurement Input ([here the link](#))
    3. Save the files (IRC Sail Input Form and 1 picture for every sail of the IHC and UMS stickers) and send them to the IRC Rule Authority ([Link to Rule Authorities list](#)), when requested.
  - b) Offshore Racing Congress (ORC)  
*Submit data to the ORC Rule Authority for every ORC sail certified.*
    1. Take a picture that includes both the IHC Sticker and UMS Sticker.
    2. Create a new DXT file in IMS Editor ([link to download IMS Editor](#)) and insert the following information (except for Trysail and Stormsail):
      - i. Inserts "Yacht Name"
      - ii. Inserts "Sail Number"
      - iii. Inserts other information (optional)
      - iv. Goes to Sheet Sails and insert "Sail Measurements".
      - v. Saves the file as ".dxt"
    3. Send the files (.DXT and 1 picture for every sail of the IHC and UMS stickers) to the National Authority where the boat is registered ([link to Rating Officers](#)). For Trysail and Stormsail the picture of the IHC and UMS stickers filled in are sufficient.
  - c) If a sail is modified or re-certified, the following steps must be followed:
    1. Take a picture of the old measurements and IHC sticker
    2. Apply new UMS sticker covering up previous measurements or removing previous UMS stickers so that previous measurements are no longer visible
    3. Cross through the previous IHC sticker and apply a new IHC sticker
    4. Submit data to relevant Rating Office according to the processes set out in a) & b) of this procedure



## Mainsail

| IRC        | ORC        | DEFINITION                      |
|------------|------------|---------------------------------|
|            | <b>MHB</b> | **Mainsail Top Width**          |
| <b>MUW</b> | <b>MUW</b> | *Mainsail Seven-Eighths Width * |
| <b>MTW</b> | <b>MTW</b> | Mainsail Three Quarter Width    |
| <b>MHW</b> | <b>MHW</b> | Mainsail Half Width             |
|            | <b>MQW</b> | Mainsail Quarter Width          |

|              |  |                |           |
|--------------|--|----------------|-----------|
| <b>UMS</b>   |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy |  | Signed:        |           |
| <b>MHB</b>   |  |                |           |
| <b>MUW</b>   |  |                |           |
| <b>MTW</b>   |  |                |           |
| <b>MHW</b>   |  |                |           |
| <b>MQW</b>   |  |                |           |
|              |  |                |           |

| IRC        | ORC        | ERS       | ORC Rules | IRC Rules | OSR |
|------------|------------|-----------|-----------|-----------|-----|
|            | <b>MHB</b> | G.7.9     | IMS G.1.8 | A.7       |     |
| <b>MUW</b> | <b>MUW</b> | G.7.7 (a) | IMS G.1.4 | A7        |     |
| <b>MTW</b> | <b>MTW</b> | G.7.6 (a) |           | A7        |     |
| <b>MHW</b> | <b>MHW</b> | G.7.5 (a) |           | A7        |     |
|            | <b>MQW</b> | G.7.4 (a) |           |           |     |

### Comments:

- \* IRC and ORC: MUW is the Seven-Eighths Width  
 If the Seven-Eighths Leech point cannot be found on the leech, the aft head point shall be taken as the Seven-Eighths leech point. Please see IMS G1.4 & IRC A.7
- \*\* ORC: MHB is the top width as described in the ERS. However, in case there is a batten or more battens above the seven-eighths leech point, to find MHB, a different procedure shall be followed. Please see G1.8.

## Headsail

| IRC            | ORC            | DEFINITION                       |
|----------------|----------------|----------------------------------|
|                | <b>HHB</b>     | Headsail Top Width               |
| <b>HUW</b>     | <b>HUW</b>     | * Headsail Seven-Eighths Width * |
| <b>HTW</b>     | <b>HTW</b>     | Headsail Three Quarter Width     |
| <b>HHW</b>     | <b>HHW</b>     | Headsail Half Width              |
|                | <b>HQW</b>     | Headsail Quarter Width           |
| <b>HLP</b>     | <b>HLP</b>     | Headsail Luff Perpendicular      |
| <b>HLU</b>     | <b>HLU</b>     | **Headsail Luff Length**         |
| <b>IRC HSA</b> |                | IRC Headsail Area                |
|                | <b>ORC HSA</b> | ORC Headsail Area                |

|              |                |                |           |
|--------------|----------------|----------------|-----------|
| <b>UMS</b>   |                | IHC Serial No: | IHC Loft: |
| dd / mm / yy |                | Signed:        |           |
| <b>HHB</b>   | <b>HLU</b>     |                |           |
| <b>HUW</b>   | <b>IRC HSA</b> |                |           |
| <b>HTW</b>   | <b>ORC HSA</b> |                |           |
| <b>HHW</b>   |                |                |           |
| <b>HQW</b>   |                |                |           |
| <b>HLP</b>   |                |                |           |

| IRC            | ORC            | ERS       | ORC Rules | IRC Rules | OSR |
|----------------|----------------|-----------|-----------|-----------|-----|
|                | <b>HHB</b>     | G.7.9 (a) | IMS G.1.8 |           |     |
| <b>HUW</b>     | <b>HUW</b>     | G.7.7 (a) |           | A6        |     |
| <b>HTW</b>     | <b>HTW</b>     | G.7.6 (a) |           | A6        |     |
| <b>HHW</b>     | <b>HHW</b>     | G.7.5 (a) |           | A6        |     |
|                | <b>HQW</b>     | G.7.4 (a) |           |           |     |
|                | <b>HLP</b>     | G.7.12    |           |           |     |
|                | <b>HLU</b>     | G.7.3     |           | 21.7.2    |     |
| <b>IRC HSA</b> |                |           |           | 21.7.2    |     |
|                | <b>ORC HSA</b> |           | ORC 111.1 |           |     |

Comments:

Please note, the sticker shall contain the measurements reported above when

**Half Width** (measured as Spinnaker) / **Foot Length** < 60%

\* IRC and ORC, HUW is the Headsail Seven-Eighths Width.

\*\* IRC: If foot offset of any headsail is greater than 7.5% of HLP, then foot offset shall be declared in the IRC SAILS INPUT form and foot offset shall be added to HLU in the calculation of HSA.

## Flying Headsail

| IRC            | ORC            | DEFINITION                                         |
|----------------|----------------|----------------------------------------------------|
|                | <b>HHB</b>     | Headsail Top Width                                 |
| <b>FUW</b>     | <b>HUW</b>     | * Headsail Seven-Eighths Width *                   |
| <b>FTW</b>     | <b>HTW</b>     | Headsail Three Quarter Width                       |
| <b>FHW</b>     | <b>HHW</b>     | <u>Headsail Half Width</u>                         |
|                | <b>HQW</b>     | Headsail Quarter Width                             |
| <b>FLP</b>     | <b>HLP</b>     | Headsail Luff Perpendicular                        |
| <b>FLU</b>     | <b>HLU</b>     | Headsail Luff Length                               |
| <b>FSFL</b>    |                | Headsail Foot Length                               |
| <b>FSHW</b>    |                | <u>Headsail Half Width (measured as spinnaker)</u> |
| <b>IRC FSA</b> |                | IRC Flying Headsail Area                           |
|                | <b>ORC HSA</b> | ORC Headsail Area                                  |

|              |         |                |           |
|--------------|---------|----------------|-----------|
| <b>UMS</b>   |         | IHC Serial No: | IHC Loft: |
| dd / mm / yy |         | Signed:        |           |
| HHB          | HLU     |                |           |
| HUW          | FSFL    |                |           |
| HTW          | FSHW    |                |           |
| HHW          | IRC FSA |                |           |
| HQW          | ORC HSA |                |           |
| HLP          |         |                |           |

| IRC            | ORC            | ERS       | ORC Rules | IRC Rules | OSR |
|----------------|----------------|-----------|-----------|-----------|-----|
|                | <b>HHB</b>     | G.7.9 (a) |           |           |     |
| <b>FUW</b>     | <b>HUW</b>     | G.7.7 (a) |           | A9        |     |
| <b>FTW</b>     | <b>HTW</b>     | G.7.6 (a) |           | A9        |     |
| <b>FHW</b>     | <b>HHW</b>     | G.7.5 (a) |           | A9        |     |
|                | <b>HQW</b>     | G.7.4 (a) |           |           |     |
| <b>FLP</b>     | <b>HLP</b>     | G.7.12    |           | A9        |     |
| <b>FLU</b>     | <b>HLU</b>     | G.7.3     |           | 21.7.2    |     |
| <b>FSFL</b>    |                | G.7.1     |           | A9        |     |
| <b>FSHW</b>    |                | G.7.5 (b) |           | A9        |     |
| <b>IRC FSA</b> |                |           |           | 21.7.2    |     |
|                | <b>ORC HSA</b> |           | ORC 111.1 |           |     |

Comments:

Please note, the sticker shall contain the measurements reported above when

**60% ≤ Half Width (measured as Spinnaker) / Foot Length < 75%**

\* IRC and ORC, HUW is the Headsail Seven- Eighths Width.

\*\* IRC: If foot offset of any flying headsail is greater than 7.5% of FLP, then foot offset shall be declared in the IRC SAILS INPUT form and foot offset shall be added to FLU in the calculation of FSA.

## Spinnaker

| IRC            | ORC            | DEFINITION             |
|----------------|----------------|------------------------|
| <b>SLU</b>     | <b>SLU</b>     | Spinnaker Luff Length  |
| <b>SLE</b>     | <b>SLE</b>     | Spinnaker Leech Length |
| <b>SHW</b>     | <b>SHW</b>     | Spinnaker Half Width   |
| <b>SFL</b>     | <b>SFL</b>     | Spinnaker Foot Length  |
| <b>IRC SPA</b> |                | IRC Spinnaker Area     |
|                | <b>ORC SPA</b> | ORC Spinnaker Area     |

|              |  |                |           |
|--------------|--|----------------|-----------|
| <b>UMS</b>   |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy |  | Signed:        |           |
| SLU          |  |                |           |
| SLE          |  |                |           |
| SHW          |  |                |           |
| SFL          |  |                |           |
| IRC SPA      |  |                |           |
| ORC SPA      |  |                |           |

| IRC            | ORC            | ERS       | ORC Rules          | IRC Rules | OSR |
|----------------|----------------|-----------|--------------------|-----------|-----|
| <b>SLU</b>     | <b>SLU</b>     | G.7.3     |                    | A8        |     |
| <b>SLE</b>     | <b>SLE</b>     | G.7.2     |                    | A8        |     |
| <b>SHW</b>     | <b>SHW</b>     | G.7.5 (b) |                    | A8        |     |
| <b>SFL</b>     | <b>SFL</b>     | G.7.1     |                    | A8        |     |
| <b>IRC SPA</b> |                |           |                    | 21.6.2    |     |
|                | <b>ORC SPA</b> |           | ORC 113.1 or 114.2 |           |     |

Comments:

Please note, the sticker shall contain the measurements reported above when

**Half Width / Foot Length  $\geq$  75%**

## Quadrilateral Sail

| IRC | ORC        | DEFINITION                                                 |
|-----|------------|------------------------------------------------------------|
|     | <b>QLE</b> | Leech length                                               |
|     | <b>QHL</b> | Head length                                                |
|     | <b>QFL</b> | Foot length                                                |
|     | <b>QCD</b> | Clew diagonal                                              |
|     | <b>QLM</b> | Distance between the half leech point and the throat point |

|              |  |                |           |
|--------------|--|----------------|-----------|
| <b>UMS</b>   |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy |  | Signed:        |           |
| QLE          |  |                |           |
| QHL          |  |                |           |
| QFL          |  |                |           |
| QCD          |  |                |           |
| QLM          |  |                |           |
|              |  |                |           |

| IRC | ORC        | ERS       | ORC Rules | IRC Rules | OSR |
|-----|------------|-----------|-----------|-----------|-----|
|     | <b>QLE</b> | G.7.2     |           |           |     |
|     | <b>QHL</b> | G.7.13    |           |           |     |
|     | <b>QFL</b> | G.7.1     |           |           |     |
|     | <b>QCD</b> | G.7.10(a) |           |           |     |
|     | <b>QLM</b> |           | IMS G7.2  |           |     |

## Mizzen

| IRC | ORC         | DEFINITION                 |
|-----|-------------|----------------------------|
|     | <b>MHBY</b> | Mizzen Top Width           |
|     | <b>MUWY</b> | Mizzen Seven-Eighths Width |
|     | <b>MTWY</b> | Mizzen Three Quarter Width |
|     | <b>MHWY</b> | Mizzen Half Width          |
|     | <b>MQWY</b> | Mizzen Quarter Width       |

|              |  |                |           |
|--------------|--|----------------|-----------|
| <b>UMS</b>   |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy |  | Signed:        |           |
| MHBY         |  |                |           |
| MUWY         |  |                |           |
| MTWY         |  |                |           |
| MHWY         |  |                |           |
| MQWY         |  |                |           |
|              |  |                |           |

| IRC | ORC         | ERS       | ORC Rules | IRC Rules | OSR |
|-----|-------------|-----------|-----------|-----------|-----|
|     | <b>MHBY</b> |           | IMS G1.8  |           |     |
|     | <b>MHWY</b> | G.7.5 (a) |           |           |     |
|     | <b>MTWY</b> | G.7.6 (a) |           |           |     |
|     | <b>MUWY</b> | G.7.8 (a) |           |           |     |
|     | <b>MQWY</b> | G.7.4 (a) |           |           |     |

## Mizzen Staysail

| IRC        | ORC         | DEFINITION                          |
|------------|-------------|-------------------------------------|
|            | <b>YSHF</b> | Shortest distance from head to foot |
|            | <b>YSHW</b> | Half Width                          |
|            | <b>YSFL</b> | Foot Length                         |
| <b>LLY</b> |             | Luff Length                         |
| <b>LPY</b> |             | Luff Perpendicular                  |

|              |  |                |           |
|--------------|--|----------------|-----------|
| <b>UMS</b>   |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy |  | Signed:        |           |
| YSHF         |  |                |           |
| YSHW         |  |                |           |
| YSFL         |  |                |           |
| LLY          |  |                |           |
| LPY          |  |                |           |
|              |  |                |           |

| IRC        | ORC         | ERS       | ORC Rules | IRC Rules | OSR |
|------------|-------------|-----------|-----------|-----------|-----|
|            | <b>YSHF</b> |           | IMS G5    |           |     |
|            | <b>YSHW</b> | G.7.5 (a) |           |           |     |
|            | <b>YSFL</b> | G.7.1     |           |           |     |
| <b>LLY</b> |             | G.7.3     |           | A6        |     |
| <b>LPY</b> |             | G.7.12    |           | A6        |     |



## Storm and Heavy Weather Jib

| IRC | ORC                      | DEFINITION                       |
|-----|--------------------------|----------------------------------|
|     | <b>HHW</b>               | Half Width                       |
|     | <b>HLU</b>               | Luff Length                      |
|     | <b>HLP</b>               | Luff Perpendicular               |
|     | <b>OSR m<sup>2</sup></b> | Storm and heavy weather jib area |

|                    |  |                |           |
|--------------------|--|----------------|-----------|
| <b>UMS</b>         |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy       |  | Signed:        |           |
| HHW                |  |                |           |
| HLU                |  |                |           |
| HLP                |  |                |           |
| OSR m <sup>2</sup> |  |                |           |
|                    |  |                |           |
|                    |  |                |           |

| IRC | ORC                      | ERS       | IMS/IRC Rules | OSR Rules                |
|-----|--------------------------|-----------|---------------|--------------------------|
|     | <b>HHW</b>               | G.7.5 (a) |               |                          |
|     | <b>HLU</b>               | G.7.3     |               |                          |
|     | <b>HLP</b>               | G.7.12    |               |                          |
|     | <b>OSR m<sup>2</sup></b> |           |               | 4.27.3(b) &<br>4.27.4(c) |

## Trysail

| IRC                      | ORC                      | DEFINITION                                     |
|--------------------------|--------------------------|------------------------------------------------|
| <b>Leech</b>             | <b>Leech</b>             | Leech Length                                   |
| <b>Tack-Leech</b>        | <b>Tack-Leech</b>        | Shortest distance between tack point and leech |
| <b>OSR m<sup>2</sup></b> | <b>OSR m<sup>2</sup></b> | Storm trysail area                             |

|                    |  |                |           |
|--------------------|--|----------------|-----------|
| <b>UMS</b>         |  | IHC Serial No: | IHC Loft: |
| dd / mm / yy       |  | Signed:        |           |
| Leech              |  |                |           |
| Tack-Leech         |  |                |           |
| OSR m <sup>2</sup> |  |                |           |
|                    |  |                |           |
|                    |  |                |           |
|                    |  |                |           |

| IRC                      | ORC                      | ERS   | OSR Rules |
|--------------------------|--------------------------|-------|-----------|
| <b>Leech</b>             | <b>Leech</b>             | G.7.2 |           |
| <b>Tack-Leech</b>        | <b>Tack-Leech</b>        |       | 4.27.2(b) |
| <b>OSR m<sup>2</sup></b> | <b>OSR m<sup>2</sup></b> |       | 4.27.2(b) |