

## ADJUSTMENTS TO A BASE HANDICAP

January 15, 2017

For boats that differ from the standard or designed specification, the following adjustments to the BHCP generally apply.

### UNDERSIZED SAIL PLAN

Credit is not given for reduction from designed sail plan.

### ROLLER FURLING HEADSAIL ADJUSTMENT

Adjustment to the BHCP for racing with an optional or aftermarket roller furled headsail assumes that boats race with the maximum sized headsail and carries an inventory of headsails consistent with the boat design and the expected wind conditions the furling drum will be removed and the upper swivel lowered so that a full hoist headsail can be carried. The only exceptions are for boats where the roller furling is inherent in the basic design or one design classes that require the roller furling be used while racing. For boat designs where their BHCP does not assume a roller furled headsail and race with a furled headsail with an above deck roller furling drum, receive a 3 sec/nm credit. The headsail must remain on the furler except during sail changes. In order to receive this credit, owners must declare their understanding of the roller furled headsail policy by dated signature on their application for a LMPHRF certificate of handicap.

The roller furled headsail adjustment is determined according to the following:

- Standard production feature +0 sec/nm
- Below deck furling drum +0 sec/nm
- Above deck furling drum +3 sec/nm

### ROLLER FURLING MAINSAIL ADJUSTMENTS

Credit is not awarded to boats that have roller furled mainsails as a standard feature of the production design.

- Luff (In-the-Mast) furled mainsail with no roach or battens +6 sec/nm
- Luff (In-the-Mast) furled mainsail with positive roach or battens +3 sec/nm
- In-the-Boom furled mainsail +3 sec/nm

### LP ADJUSTMENT

- 155.0% or less 0 sec/nm
- 165.1%-170% -6 sec/nm
- Over 170% -9 sec/nm

### MAINSAIL GIRTHS

Oversized mainsail measured or rated area:-3 per each 6% increase over maximum allowed.

Measured or rated mainsail area shall be calculated using the greater of the actual girths or the following standard girths:

- Headboard (HB) 4% of E
- Top 1/8<sup>th</sup> Girth (MGT) 22% of E
- Upper 1/4<sup>th</sup> Girth (MGU) 65% of E
- Mid Girth (MGM) 65% of E
- Lower 1/4<sup>th</sup> Girth (MGL) 90% of E

Note that under-sizing one or more girths will not compensate for over sizing of others girths.

### SPINNAKER ADJUSTMENTS

Spinnaker Adjustment shall be the greater of the Spinnaker Rig Adjustments or the Spinnaker Area Adjustment.

For a headsail to be rated as a spinnaker, the mid-girth must not be less than 75% of the foot. Any headsail with a mid-girth less than 75% of the foot shall be handicapped as a Genoa.

### SPINNAKER RIG ADJUSTMENTS

- Spinnaker hoist (ISP) and/or spinnaker tack point (SPL, JC or TPS)
  - -3 sec/nm for each 12% increment of the sum of percent increase in hoist plus the percent increase tack point length.
- A centerline tacked asymmetrical spinnaker may be tacked to up to 12 inches forward of J with no penalty provided the area of the spinnaker is no larger than that of the maximum area for which the boat is originally handicapped.
- Boats converting from a pole tacked spinnaker to a centerline tacked asymmetrical spinnaker shall receive the following credits:
  - Displacement to length ratio (D/L) less than 90 0 sec/nm
  - Displacement to length ratio (D/L) at least 90 but less than 150 +3 sec/nm
  - Displacement to length ratio (D/L) at least 150 but less than 250 +6 sec/nm
  - Displacement to length ratio (D/L) at least 250 +9 sec/nm

### SPINNAKER AREA ADJUSTMENT

- Boats shall be handicapped based on the largest spinnaker carried. If the boat carries a spinnaker pole, it will be assumed that the largest spinnaker is tacked to the pole.
- Spinnaker Area greater than designed standard: -3 sec/nm per each 12% over designed standard
  - Symmetrical Spinnaker Area =  $5/6 \times SL \times SMG$ .
  - Asymmetrical Spinnakers Area =  $(ALU + ALE) \times (4 \times AMG + ASF) / 12$ .
  - For boats where the maximum area of the spinnaker is not defined by the manufacturer or class rules, the maximum area allowed without rating adjustment is defined by the following formula:  
Max Area =  $1.425 \times TPS \times \text{Square Root of } (ISP \text{ squared} + TPS \text{ squared})$ .

### PROPELLER TYPE ADJUSTMENTS

- Two bladed solid propeller on an exposed shaft +6 sec/nm
- Three or more bladed solid propeller on an exposed shaft +9 sec/nm
- Three or more bladed solid propeller in an aperture +3 sec/nm

### CARBON RIG ADJUSTMENT

In cases where the base or standard boat has an aluminum mast, changing to a carbon mast will result in a handicap charge of between -3 and -6 seconds per nautical mile depending on the relative section of the aluminum mast. There is no adjustment for changing to a carbon boom.

### EXOTIC STANDING RIGGING ADJUSTMENT

A boat with shrouds and/or head stay made of something other than wire or stainless steel rod, such as PDO, will normally incur a handicap adjustment unless all boats of that class have such exotic rigging by design. Backstays are excluded from this adjustment. The adjustment is considered on a case-by-case basis.

### SPORT BOATS

The following four criteria are guidelines to define a sport boat. There can be exceptions, one way or the other, from these criteria. In summary "if it looks like a duck and quacks like a duck, it might be a duck."

- Displacement-Length Ratio less than 100
- Upwind Sail Area-Displacement Ratio greater than 30
- Downwind Sail Area-Displacement Ratio greater than 75
- A sprit length greater than 35 percent of J

Sport boats do not follow many of the guidelines used to performance handicap boats. Sport boats are handicapped with reference to an "as presented" configuration, whatever it is. This includes mainsail, jib/genoa, and spinnaker dimensions and areas. The base handicap for sport boats references the class spinnaker. If a change is made to the boat's specifications, it must be reported to the LMPHRF Chief Handicapper and the Chair of the LMPHRF Technical Committee.

### INCOMPLETE DATA ADJUSTMENT

In rare and unusual situations, the Lake Michigan Council of Handicappers may authorize issuing a Certificate of Handicap referencing an incomplete application submitted by an owner of a boat not previously handicapped or an owner of a boat submitting an application for a handicap renewal. In such cases, a -15 sec/nm adjustment to the handicap (BHCP) is assessed until missing information is supplied to amend the original application at which time the assessed penalty will be removed and the Certificate of Handicap reissued.