

# US PHRF-SEF 2012-2014 Rating Rules

## DEFINITIONS

Ratings issued are valid during the calendar year starting in January 1 and ending December 31<sup>st</sup>.

Only one PHRF certificate for any vessel will be valid during the racing year. Modifications and changes during the course of the year may or may not be accepted and will be handled on a case per case bases. No rating will be changed within 3 weeks of any upcoming scheduled regatta.

### BASE RATINGS:

Base Ratings are the ratings established by US Sailing PHRF or PHRF SEF. These PHRF ratings have been established for each Yacht defined by a base configuration of the vessel. Modifications from the base configuration in which the PHRF base rating were established, are subject to a rating adjustment. The base configuration shall be considered the Yachts designed specifications and/or listed equipment in its stock configuration or in which 80% or more of all similar vessels who make up the defined US Sailing PHRF High, Low, Average listings.

Credits/Penalties only apply to boats that have been modified from their stock configuration or defined specification of the Yacht designer.

Established US PHRF SEF base ratings can only be changed by a majority vote of the handicappers. A quorum for the Board of Handicappers is a simple majority of the handicappers with a minimum of three (3).

Since PHRF/SEF assumes that a boat is equipped to race, no credit in rating will be given to partially equipped boats, unusually heavy boats (as live aboards), excessive fuel in fuel tanks, excessive water in water tanks, and old sails.

### SAFETY REQUIRMENTS:

US PHRF SEF does not specify safety equipment or requirements. It is recommended that race organizers utilize the ORC Special Regulations and/or applicable U.S. Coast Guard regulations.

The safety of the boat and its crews is the sole, and inescapable and ultimate responsibility of the skipper

### CREW AND WEIGHT LIMITATIONS:

A crew limit is provided on the certificate. Currently US PHRF SEF does not require adherence to crew limits to maintain validity of handicap. Some race organizers may invoke crew limits in the *Notice of Race* or *Sailing Instructions*, in which the crew limit is provided for that purpose.

#### Listing of standard Credits:

This document attempts to define a listing of all credits applicable. Credits not listed within this document can be taken into consideration on a case by case basis with proper documentation supplied by applicant.

#### Maximum Credits applied:

A maximum adjustment of + 30 seconds per mile will be applied to any vessel. Exceeding 30 seconds per mile deviates too far from the standard vessel and is unlikely to define the true performance of the vessel across the range of sailing conditions. All consideration, should be made by the owner, to sail the boat as close to the defined base rating.

#### Rating Guidelines:

Reference the US PHRF SEF, Inc. rating Guidelines for establishing ratings for vessels. Visit the link note on Rating Guidelines on the [www.phrfsef.com](http://www.phrfsef.com) web site for information.

US PHRF of Southeast Florida, Inc. reserves the right to make adjustments outside of these rules attached, when deemed there is an unfair advantage. Every effort will be made to stay within these noted rules and guidelines unless situations dictate a ruling otherwise such as situations not clearly defined in the attached rules. Ultimate authority and decision will be that of the Board of Handicappers and Chief Handicapper.

## **1. HEADSAILS**

Any sail not meeting the required conditions as a Spinnaker is a headsail. See section 3 for requirements.

The rated J measurement shall be the furthest forward attachment point to which the sail is connected.

The sail and rated J will define the LP measurement. If the measure/calculated LP exceeds the declared value the measured/calculated it will be replaced and used as the rated value.

No headsail shall extend past the rated %LP perpendicular line.

Any Headsail exceeding 50% of the half width girth of the foot will be rated on an individual basis and subject to a rating adjustment. This includes headsails with battens or stiffening devices used to support additional leach area.

Headsails not exceeding 50% of the half width girth of the foot may include battens or stiffening devices provided.

1. The Headsail is 110% or less, or the rated %LP, whichever is smaller.
2. No limit on length of battens used.
3. The number of battens is limited to four, which must be arranged with approximately equal spacing between head and clew.

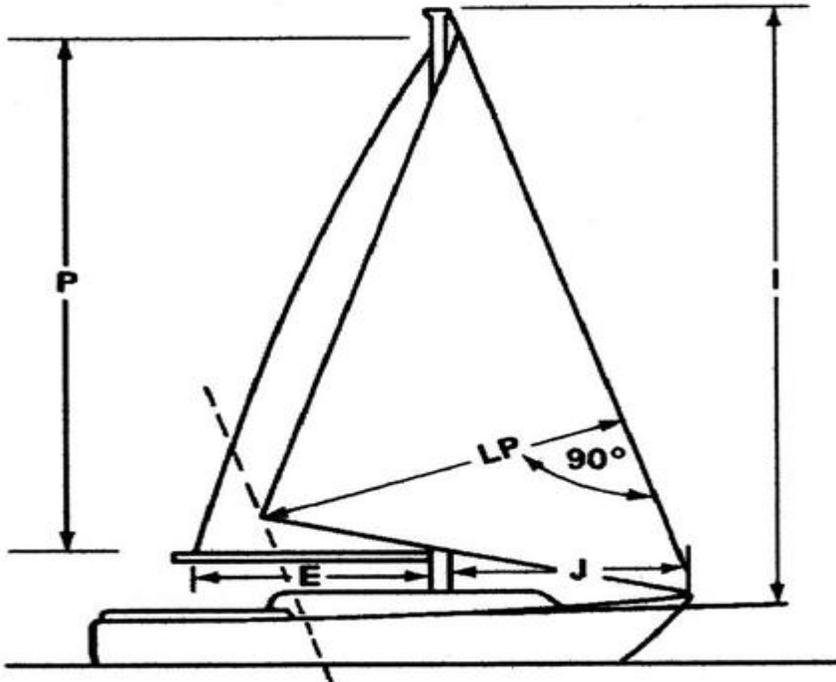
No headboards may be used on headsails.

The clew attachment shall only have one attachment point except in the process of reefing. Thus quadrilateral or similar sails in which the sailcloth does not extend to the cringle at each corner are excluded.

No Headsail may not be sheeted to the boom or any point extending past the vertical plane of the deck-hull joint on the same side to which the boom resides.

The boat's largest headsail will be rated by computing X times Luff Perpendicular "LP" divided by J, where X equals the declared %LP. The LP is the distance of a line perpendicular from the luff, to the clew. Boats carrying largest headsails with LP in excess of 110%, with battens or other stiffening devices shall declare that fact to US PHRF SEF, and provide the measurements of the HHW, Luff, Leech, Foot and LP of the largest headsail.

No jib may be set in conjunction with any other headsail so as by any means to simulate a double clewed or double luffed jib except where the total combined LP of the two sails **does not exceed** the rated LP. (For example, no two jibs may be carried simultaneously in a jib groove device, except briefly while changing sails).



**Figure 1**

**GENOA SIZE**

The LP line is defined as a line abaft of and parallel to the foremost headstay and separated from it by the LP dimension declared in the rating certificate. The foremost headstay is defined as the line joining the upper measurement point of "I" and the forward point of "J" (not 'JC'). Reference figure -- 1 --.

The base %LP reference is 155%, unless defined by Yacht designer's specifications, then the Yacht designer's specified %LP shall become the referenced %LP. Max %LP defined will be 155% or the Yacht designer's referenced % LP without subject to a rating adjustment.

Designed %LP - %LP defined by the Yacht designer's specifications.

Declared Rated % LP – Max %LP defined by owner during the rating process.

Referenced LP% Lower Limit	Referenced LP% Upper Limit	Genoa LP Credit
167.1	170	- 5
164.1	167	- 4
161.1	164	- 3
158.1	161	- 2
155.1	158	- 1

151.1	155	0
148.1	151	+ 1
145.1	148	+ 2
142.1	145	+ 3
139.1	142	+ 4
136.1	139	+ 5
133.1	136	+ 6
130.1	133	+ 6
127.1	130	+ 6
124.1	127	+ 6
121.1	124	+ 6
118.1	121	+ 9
Less than 118%	118	+ 9

Table – 1 --

**\*These above Credits/Penalties only apply to boats that have been modified from their stock configuration. Boats where the designed %LP is less than 155% the LP adjustment will start at the designed %LP.**

## Roller furling Credits

HEADSAIL CREDITS: If you race with one or more Roller Furling headsail(s) any of the three credit variations must meet ALL of the Criteria. Only one credit will apply with the exception to where the owner added or removed the Roller Furler hardware or any portion of the hardware which was standard/stock equipment defined by the manufacture or Class rules.

### ROLLER FURLER Hardware Credit (+/- 2 sec/mi)

Roller Furler hardware which has been added by owner and otherwise not define in the class rules or Yacht designer's specifications. Additionally the furler hardware must not be part of the base configuration of the boat to which the US PHRF base rating was derived. Meaning that the base rating assumes the hardware to be in place and defined by the Yacht specifications or vessels Class rules.

- ALL hardware including Drum and Swivel must be in place while racing.
- No restriction on use.

Check which applies.

**The roller furler drum and foil are NOT standard equipment supplied by the factory, specified by yacht designer or class rules and was added by myself or a previous owner per a modification to the vessel.**

**I removed the roller furler or any portion which is part of the standard equipment supplied from the factory, specified by yacht designer or specified by class rules.**

### ROLLER FURLER Credit (+ 4 sec/mi)

If you race with a roller furling headsail that meets **all** of the "ROLLER FURLING HEADSAIL CREDIT" criteria. **(MUST MEET ALL CRITERIA Defined below):**

- Use of Roller Furling required. Sail must be capable of being furled during racing.
  - Tack must be attached to drum.
  - Head must be attached to Head swivel.
  - Must be furled during racing except when changing headsails
- No restrictions on number or type of sails.
- No restriction on Sail Materials used
- Luff Length must be at least **2.5%** shorter than the max headstay length (Headstay length is measured from deck sheer line to mast))

Definition of Heavy weather and Storm Jib:

- **Sail must conform to the most current ISAF Offshore Regulations for Race Category 2 Monohull.** Reference section 4.26.4 of the ISAF Offshore Regulations. Current ISAF regulations supersede the definitions noted below for reference.
  - storm jib of area not greater than 5% height of the foretriangle squared, with luff maximum length 65% height of the foretriangle;
  - a heavy-weather jib (or heavy-weather sail in a yacht with no forestay) of area not greater than 13.5% height of the foretriangle squared and without reef points;
  - Storm and heavy weather jib areas shall be calculated as:  $(0.255 \times \text{luff length} \times (\text{luff perpendicular} + 2 \times \text{half width}))^*$  To apply to sails made in January 2012 and after.
- **Exceptions to the Drum and Swivel attachment points during use of:**
  - While using a Storm Jib or Heavy-Weather Jib

## **ROLLER FURLER Cruising Headsail Credit (+9 sec/mi)**

If you race with a roller furling headsail that meets **all** of the "ROLLER FURLING HEADSAIL CREDIT" criteria. **(MUST MEET ALL CRITERIA Defined below):**

- This is the **ONLY** headsail declared during the racing year which is greater than 110% LP. **No other headsail other than the declared Genoa used to acquire this Cruising Roller furler credit can be used during the course of the rated year.**
  - **EXCEPTIONS**
    1. Except while using a Heavy weather Jib and Storm Jib. See definition of Heavy Weather Jib and Storm Jib defined below.
    2. Except for using a Staysail.
      1. Staysail must not exceed the rated %LP
      2. Staysail's maximum sail area must not exceed 66% of the total foretriangle area

- Replacement sails purchased during the rated year **MUST** be of the same size, material and weight. All other exceptions must be reported to US PHRF SEF for review.
- Use of Roller Furling is required. Sail must be capable of being furled while racing.
  - Tack must be attached to Drum.
  - Head must be attached to Head swivel
- Luff Length must be at least **2.5%** shorter than the headstay length (Headstay length is measured from deck sheer line to mast))
- Has a Sunbrella material leech and foot cover attached to the sail sufficient to completely cover the sail when furled. Material must be stitched in place.
- All head sails must be of a woven polyester material (no exotic sail materials such as pentax, Mylar, Kevlar, spectra, technora, etc.)

Definition of Heavy weather and Storm Jib:

- **Sail must conform to the most current ISAF Offshore Regulations for Race Category 2 Monohull.** Reference section 4.26.4 of the ISAF Offshore Regulations. Current ISAF regulations supersede the definitions noted below for reference.
  - storm jib of area not greater than 5% height of the foretriangle squared, with luff maximum length 65% height of the foretriangle;
  - a heavy-weather jib (or heavy-weather sail in a yacht with no forestay) of area not greater than 13.5% height of the foretriangle squared and without reef points;
  - Storm and heavy weather jib areas shall be calculated as:  $(0.255 \times \text{luff length} \times (\text{luff perpendicular} + 2 \times \text{half width}))^*$  To apply to sails made in January 2012 and after.
- **Exceptions to the Drum and Swivel attachment points during use of:**
  - While using a Storm Jib or Heavy-Weather Jib

### **Modification of ( J ) measurement**

Increase or decrease J .....Per review of the Board of Handicappers

\*Adjustments will be assessed based on % increase in sail area of Jib and Spinnaker.

## **2. MAINSAILS**

### **Measurement of mainsails**

2A. No constraints shall be imposed on batten lengths or number.

2B. The foot of mainsail (E) shall be the length measured along the boom, from the aft edge of the mast to the aft most point to which the sail is permitted to extend. Where this aft most point is inside of the boom end, it shall be located by the inner edge of a one inch black band around the boom.

2C. Mainsail hoist (P) shall be the measured length of the hoist of the sail. It is the distance along the after side of the mainmast from the highest level to which the head of the sail may be set to the lowest position of the tack. The highest point shall be taken at the lower edge of the required one-inch wide measurement band around the mast. The lower point is defined as the intersection of the boom and the mast (respective aft and top parts).

If a sliding gooseneck is used, measurement is to be made with the boom at the extreme bottom of the slide unless the lowest sailing position of the foot is marked by the upper edge of the required one-inch wide measurement band around the mast at the gooseneck.

2D. The mainsail head width length (HW) shall be the maximum fore and aft dimension from the luff of the main, projected if necessary, to the extreme edge of the leech of the main measured across the widest part of the headboard. HB width is limited to the greater of (.04 x E) or 0.5 feet whichever is greater.

**Rated without adjustment are the maximum mainsail girths:**

**MGT (7/8 leech) =  $0.22 * E$**

**MGU (3/4 leech) =  $0.38 * E$**

**MGM (1/2 leech) =  $0.65 * E$**

**MGL (1/4 leech) =  $0.90 * E$**

Mainsails exceeding any of the above girth measurements are subject to a rating adjustment.

**Mainsail Dimensions & Folding for Girth Measurements:**

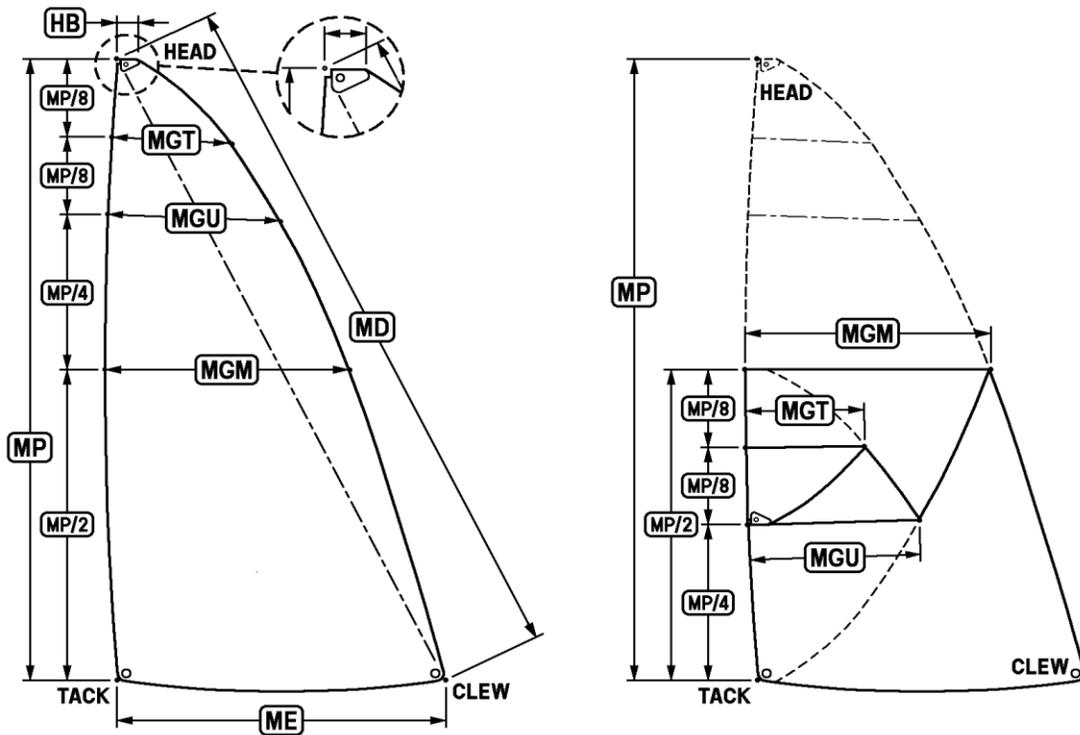


Figure 2

2D. Spare mainsails are not permitted to be carried on board or used during racing. Tri-sail storm sail are exempt and is permitted.

2E. Black Bands shall be present on both the Mast and Boom marking the max measurements defined. The max measurement shall be the inner edge of the Black Band.

	<u>Sec/Mile</u>
Typical mainsails meeting the measurement requirements	0
Modification of (E) up to 10%.....	+/- 3 sec/mile
Modification of (E) up to 20%.....	+/- 6 sec/mile
Modification of (E) over 20% .....	Per review of the Board of Handicappers
Modification of (P) up to 5%.....	+/- 3 sec/mile
Modification of (P) up to 10%.....	+/- 6 sec/mile
Modification of (P) over 10%.....	Per review of the Board of Handicappers

\*Adjustments will be assessed based on % increase in Mainsail area.

**Hollow Leach Cruising Mainsails without battens with ROLLER FURLER**  
Gear.....+12 sec/miles

- Sails must be of a woven polyester material (no exotic sail materials such as pentax, Mylar, Kevlar, spectra, technora, etc.)
- Replacement sails purchased during the rated year **MUST** be of the same size, material and weight. All other exceptions must be reported to US PHRF SEF for review.

**Vertical or Air Batten Mainsails with ROLLER FURLER**  
Gear.....+ 9 sec/mile

- **Note: Standard max mainsail girth restrictions apply.**

**In-boom furling systems should be noted in the Cruising Accommodations Section 7. Unless already taken into account per the base rating of the vessel.**

**Oversize Mainsail Girths:**

Oversized mainsails defined by the Vessels class racing rules or Yacht designer in which the yachts base rating already factors the oversize mainsail into the base rating are not subject to rating penalties. Proof of such documentation must be submitted by applicant to be exempt of any rating adjustments.

For mainsails whose girths are greater than the maximum girth standards as defined above, or greater than one design class rules specified, greater than the initial design

specified by the yacht designer or for a change in size for a custom boat, ratings will be adjusted as follows: (% increase is the sail area increase as a percentage of  $(P \times E)/2$ ; e.g., boat with a P of 50 ft and E of 15 ft increases his mainsail girths which adds 25 sq ft. , his % increase =  $25/50 \times 15/2 \times 100\% = 6.7\%$  for a -2 sec/mile adjustment.

<b>% Increase</b>	<b>Adjustment Sec/mile</b>
<b>0.1 to 4%</b>	<b>- 1</b>
<b>4.1 to 8%</b>	<b>- 2</b>
<b>8.1 to 12%</b>	<b>- 3</b>
<b>12.1 to 16%</b>	<b>- 4</b>
<b>16.1 to 20%</b>	<b>- 5</b>

Mainsail area is determined by trapezoidal integration of P, E, MGT, MGU, MGM, MGL and HB:

$$\text{Mainsail Area} = (P/4 \times (E + MGL)/2) + (P/4 \times (MGL + MGM)/2) + (P/4 \times (MGM + MGU)/2) + (P/8 \times (MGU + MGT)/2) + (P/8 \times (MGT + HB)/2)$$

**Fathead Mainsails** ..... Adjustments per review of the Board of Handicappers  
 Fathead Mainsails are defined as Mainsails where the head board “HB” or Head width “HW” which ever is greater exceeds  $(4\% \times E)$ . For the purpose of the formula noted “HW” shall be substituted when  $HW > HB$ . HB or HW is the perpendicular distance measured from the Luff as defined in Figure 2.

### **3. SPINNAKERS**

#### **Measurement**

**Declaration shall be of the largest spinnaker carried. PHRF-SEF does not limit the number of spinnakers permitted on board.**

#### **Definition**

A Spinnaker is defined as a sail set forward of the foremost mast with half width (measured as a spinnaker) equal to or greater than 75% of the foot length and without battens. If a sail satisfies the definition of a spinnaker (i.e. half width is equal to or greater than 75% of foot), then that is what it is: a spinnaker. Any other sail is a headsail.

Any material added to the sail, as either a removable element, permanent stiffening, or other contrivance, the purpose of which is to support and/or stiffening the Sail, then it is a headsail rather than a spinnaker, irrespective of what the dimensions are.

#### **General**

- A. Spinnaker Maximum Width (SMW) shall be at the foot or across the body of the sail, measured between points on the luffs equidistant from the head.
- B. Spinnaker Luff (SL) shall be the greatest length of spinnaker luff and leech measured around the edges of the sail.
- C. Spinnaker Foot (SF) shall be a distance from tack to clew measured in the shortest path on the sail.
- D. Spinnaker Midgirth (SMG) shall be the distance between the midpoints of luffs measured in the shortest path across the sail. Shall not exceed  $1.8 \times J$ .

- E. Mid Girths greater than 75% of the foot. Less than 75% the sail is treated as a headsail.
- F. Symmetric Spinnaker Luff (SL) or Leach length shall not exceed .95 times the square root of  $(I^2 + J^2)$  without penalty.

**“NS” No spinnaker credit .....+12 sec/mile**

- **Only applies to certain regattas offered with a “Non Spinnaker” classes or where the Racing Authority has granted permission to sail in this configuration.**

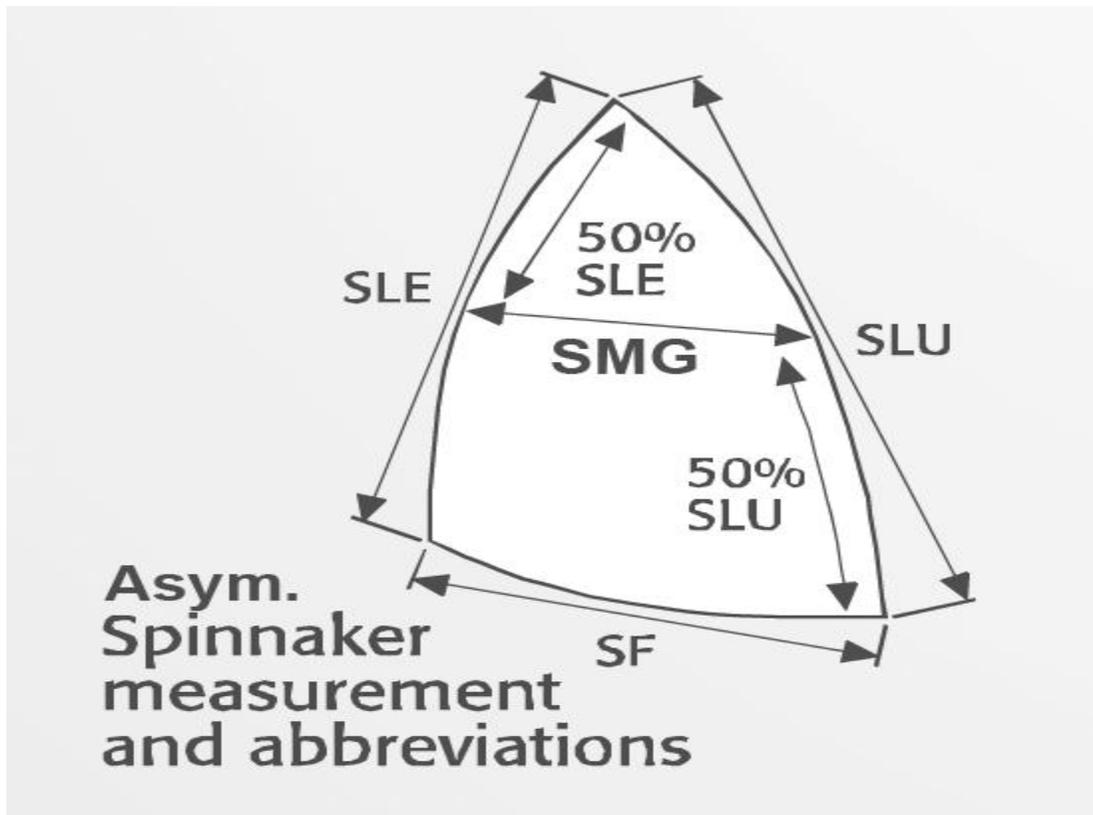


Figure 3

**Spinnaker:** Any other loose luffed sail tacked forward of the foremast, with mid girth exceeding 75% of the foot length is a spinnaker. A Spinnaker is symmetrical if the luff and leech differ in length by four percent or less, and asymmetrical if the luff and leech lengths differ by more than four percent. Spinnaker maximum width is 180% of SPL or Jc, where the SPL or Jc is the length reported for the spinnaker pole or bowsprit to which the spinnaker will be attached, with maximum girth measured from the midpoint of the spinnaker luff to the midpoint

of the spinnaker leech. Symmetrical spinnaker maximum luff length shall not exceed  $.95 \times \sqrt{I^2 + SPL^2}$  or (if applicable),  $.95 \times \sqrt{ISP^2 + SPL^2}$ . Asymmetrical spinnaker square footage will not exceed the area of the largest symmetrical spinnaker that could be carried by the same boat, determined by the following formula:  $Spinnaker\ Area = ((SLU + SLE)/2) * ((SF + (4 * SMG))/5) * 0.83$ .

Boats with spinnakers with battens or other stiffening devices shall declare that fact to PHRF SEF, and provide the measurements of the Luff, Leech, Foot and SMG. Spinnakers with battens or such stiffening devices will be rated on an individual basis as noted above in the definition section.

Spinnakers include: symmetric, asymmetric and Code 0.

### **OVERSIZED SPINNAKER POLE LENGTH (SPL)**

**Spinnaker poles longer**

**than the J measurement ..... Per review of the Board of Handicappers**

**Typical adjustment: "OSP" Oversize spinnaker pole ..... -3 sec/mile**

Oversized Spinnaker Poles defined by the Vessel class racing rules or Yacht designer in which the yachts base rating already factors the oversize spinnaker pole as its base rating are not subject to rating penalties. Proof of such documentation must be submitted by applicant to be exempt of any rating adjustments.

### **OVERSIZED SPINNAKERS**

**Oversized Spinnakers.....Per review of the Board of Handicappers**

\* Note increased effective sail area due to any combination of modification will be reviewed on a case by case basis.

**Typical adjustment is: "OSS" Oversize spinnaker.....- 3 sec/mile**  
Increased per each 10% increment of Sail area added.

**Typical adjustment is: "OSSP" Oversize spinnaker with oversized  
spinnaker Pole.....- 6 sec/mile**

\*Adjustments will be assessed based on % increase in Spinnaker sail area.

### **CRUISING FLASHERS AND UNDERSIZED SPINNAKERS**

**Undersized Spinnakers .....Per review of the Board of Handicappers**

- All measurements must be supplied for consideration.

#### **Cruising Flasher Spinnaker:**

Boats may declare this type of spinnaker and receive a Cruising Spinnaker-Flasher credit provided the following are met.

- Must be defined as the **ONLY** spinnaker used during the course of the racing season.
- Not flown from a spinnaker pole
- Must be Tacked to the centerline of the boat
- Not tacked further than 3 inches in front of the Rated “J” measurement
- Sails where the SMW or SMG is not greater than 1.65 x rated J

**Cruising Flasher Spinnaker “CFS” ..... + 3 Sec/mile**

**Dousing socks have no consideration into this rule. No adjustments are made for such devices. Use of such device is primarily up to the skipper.**

**ISP ADJUSTMENT**

**Spinnaker halyard height (ISP) greater than I .....Per review of the Board of Handicappers**

\* Note increased effective sail area due to any combination of modification will be reviewed on a case by case basis. An adjusted ISP measurement may fall under the category of Oversized Spinnakers and may also fall under multiple sections. Careful review by the Board of Handicappers will determine the correct adjustment.

**Modification of the JC measurement .....Per review of the Board of Handicappers**

**Articulating bow sprit.....Per review of the Board of Handicappers**

Bloopers are measured as HeadSails, and must be included in evaluating the LP of the largest jib for handicapping. For more restrictions see Appendix C.

**4. PROPULSION**

Modification for Stock configuration:

<u>Position</u>	<u>No. of Blades &amp; Type</u>	<u>Sec/Mile</u>
Aperture	3 Solid	+ /- 6
Aperture	2 or 3 Feathering/Folding	+/- 3
Exposed to flow	2 or 3 Feathering/Folding	+/- 3
Exposed to flow	2 Solid	+/- 6
Exposed to flow	3 Solid	+/- 9
Sail Drive	2 or 3 Feathering/Folding	+/- 3

***To qualify for the Propulsion credit the vessel’s base rating must not be part of the stock boat in which the base rating was derived. (i.e. Must have been added to stock boat for which was not part of the standard boat configuration to which the US PHRF Base rating was derived)***

***Modifications from stock propeller***

<u>Position</u>	<u>No. of Blades &amp; Type</u>	<u>Sec/Mile</u>
Aperture	2 blade Solid -> 3 Solid	+3

Aperture	3 blade Solid -> 2 Solid	- 3
Exposed to flow	2 or 3 Feathering/Folding -> 2 blade solid	+ 3
Exposed to flow	2 or 3 Feathering/Folding -> 3 blade solid	+ 6
Exposed to flow	3 blade Solid-> 2 blades	- 4
Exposed to flow	2 blade Solid-> 3 blade	+ 4

The base rating of all boats in the PHRF/SEF assumes an inboard or outboard motor on the boat. Such motor must be capable of propelling the boat at 0.85 times the square root of LWL in calm water. Motor must be in working order. **Boats not so equipped will incur a -6 second per mile adjustment from their base rating.** One design classes are exempt if class rules do not require motors.

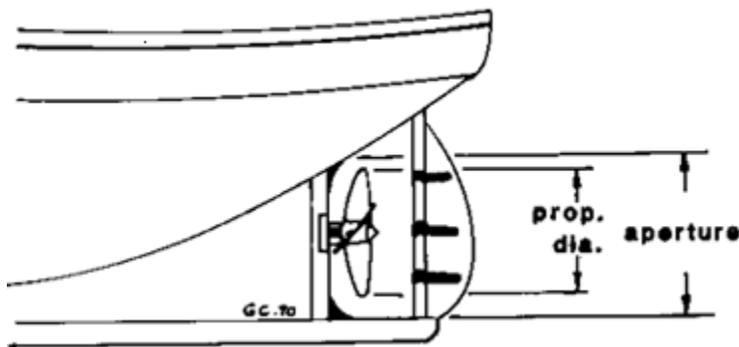


Figure 2

## 5. MODIFICATIONS/STOCK BOAT

### BOAT DESIGN -- SHAPE -- WEIGHT -- INTERIOR EQUIPMENT

#### REPORTABLE ITEMS OR MODIFICATIONS:

- 5.1) any changes in material, size, or shape (other than fairing to design specifications) of the hull, deck, rudder, or keel.
- 5.2) any canard rudder; other lifting or steering device forward of the keel; or any rudder, steering or stabilizing device added to the boat.
- 5.3) Removal or relocation of any interior or exterior structural components; changes in construction technique/schedule, or changes in materials of bulkheads and/or interior cabinetry, that results in the removal or relocation of weight.
- 5.4) Removal of standard tables, floorboards, headliners, lockers, locker doors, permanent berths, and head enclosures, i.e., you are not allowed to "strip the boat".  
\*\*\*\*Cushions, however, are allowed to be removed for racing.
- 5.5) Removal or addition of any internal ballast of lead or similar density material. Any moveable ballast, (i.e.. water ballast): indicate weight, location, volume, and rate of transfer or discharge.

5.6) Dagger boards in added.

5.7) Boats presented for handicapping with ratings from other rules (IOR, IMS, MORC, etc.) must maintain all requirements in equipment, ballasting, and equipment placement specified by those rules or used as a basis for the rating certificate presented. Any deviations from these requirements must be indicated on the rating application and displayed on the certificate.

Notification of any modifications must be reported on the application or renewal form. Modification after a rating certificate has been assigned must be reporting by resubmitting another application. Failure to report modifications will result in immediate suspension of the PHRF-SEF certificate. **IF IN DOUBT – REPORT IT.**

Reinstatement of rating will be done only after inspection and/or re-measurement by a PHRF-SEF authorized measurer or handicapper. Violations of this policy or unreported changes may result suspension of a certificate and action under Racing Rules of Sailing Rule 69.

**YOUR CURRENT RATING CERTIFICATE BECOMES INVALID AT THE TIME OF THE MODIFICATION. PHRF-SEF WILL ISSUE A NEW CERTIFICATE AFTER REVIEWING THE MODIFICATIONS.**

#### NON-REPORTABLE ITEMS OR MODIFICATIONS:

5.8) Fairing to bring the hull, keel or rudder into design specifications. Wet sanding and/or waxing are allowed.

5.9) Flexible flaps to fair the skeg into the rudder are allowed provided they do not extend deeper than the skeg.

5.10) Water, fuel, and holding tanks maybe emptied as provided by US SAILING. Cushions may be removed. Fuel levels are presumed to be adequate to provide safe passage while to and from port.

Sailboats shall race as rated with at least all the equipment and furnishings supplied as standard equipment by the manufacturer. A sailboat which has altered or removed bulkheads, permanently attached furniture, or structural interior components shall be considered a custom sailboat and rated subject to such. Drawers, headliners, cabinet and locker doors, steps, ladders and engine enclosures shall remain in place as supplied as standard equipment for a sailboat not to be considered a custom yacht.

### **RIG -- DECK HARDWARE -- EQUIPMENT**

#### REPORTABLE ITEMS OR MODIFICATIONS:

5.11) Rig modifications such as, but not limited to:

- a. increase/decrease of mast height, boom length or spinnaker pole length.
- b. spinnaker/whisker poles exceeding 101% of the J dimension.
- c. change in cross-section and/or material or weight of any spar.
- d. addition/elimination of spreaders, shrouds or stays including running backstays, babystays, checkstays, and jumperstruts.
- e. use of cobalt, titanium, boron, carbon fiber in rigs, lifelines or lifeline stanchions.
- f. use of fixed/adjustable bowsprit for flying spinnakers.
- g. carbon or PBO standing rigging.

5.12) Headstays, mast stays, and/or partners which are adjustable while sailing, whether accomplished mechanically or hydraulically.

5.13) Use of hiking straps, trapeze wires or similar devices that would allow the torsos of the crew or skipper to be extended beyond the beam of the boat.

### **MISCELLANEOUS**

**Modifications to hull or rig**

**Sec/Mile**

**Keel .....Per review of the Board of Handicappers**

**Water Ballast ..... Per review of the Board of Handicappers**

## **6. ODR REGULATIONS**

Boats racing will be governed by the PHRF SEF rules contained with in this document. Adjustments may be imposed if deviations from the class rules are deemed by the Chief Handicapper or Board of Handicappers to provide an advantage to the vessel. Class weight restrictions are exempt.

## **7. CRUISING ACCOMDATIONS**

**These are amenities added to the base boat which are NOT standard or included in the stock configuration of your Yacht for which the base rating was derived and defined for your vessel. Examples of such items as noted below but not limited to the following. All items will be taken into consideration only with proper documentation provided.**

**Detailed documentation must be provided for consideration...No exceptions! Detailed documentation should include make and model, placement of Item, and estimated weight.**

**Items which may inadvertently be removed during the course of the rated year are not subject to a rating credit. Such items are Anchor Chain or Anchors.**

### **Items for consideration -**

- A/C units added to stock boat if not part of the original equipment
- Full refrigeration units
- Generators added to stock boat if not part of the original equipment
- Windless added
- Extra or upgraded Battery banks (i.e. group of D8 battery cells)
- Mounted Dingy Davits

- Anchors stowed on deck with full chain ground tackle
- Washer and Dryer units
- Permanent Bimini Tops of substantial size and weight.
- In boom roller Furling units.
- Lazy Jacks systems with Non removable sail stowage units such as Stack Paks.
- Any item added to the stock configuration that has greatly increased the overall displacement, excessive windage or pitching moments of the yacht. Item must be a permanent in nature.

**Rating adjustment.....Per review of the Board of Handicappers**

General rules followed by the Handicapper are:

- Placement of the items
- Items added must exceed 3% of the total vessel's displacement.
- Impedes a larger than normal Moment.
- Impedes a larger than normal windage

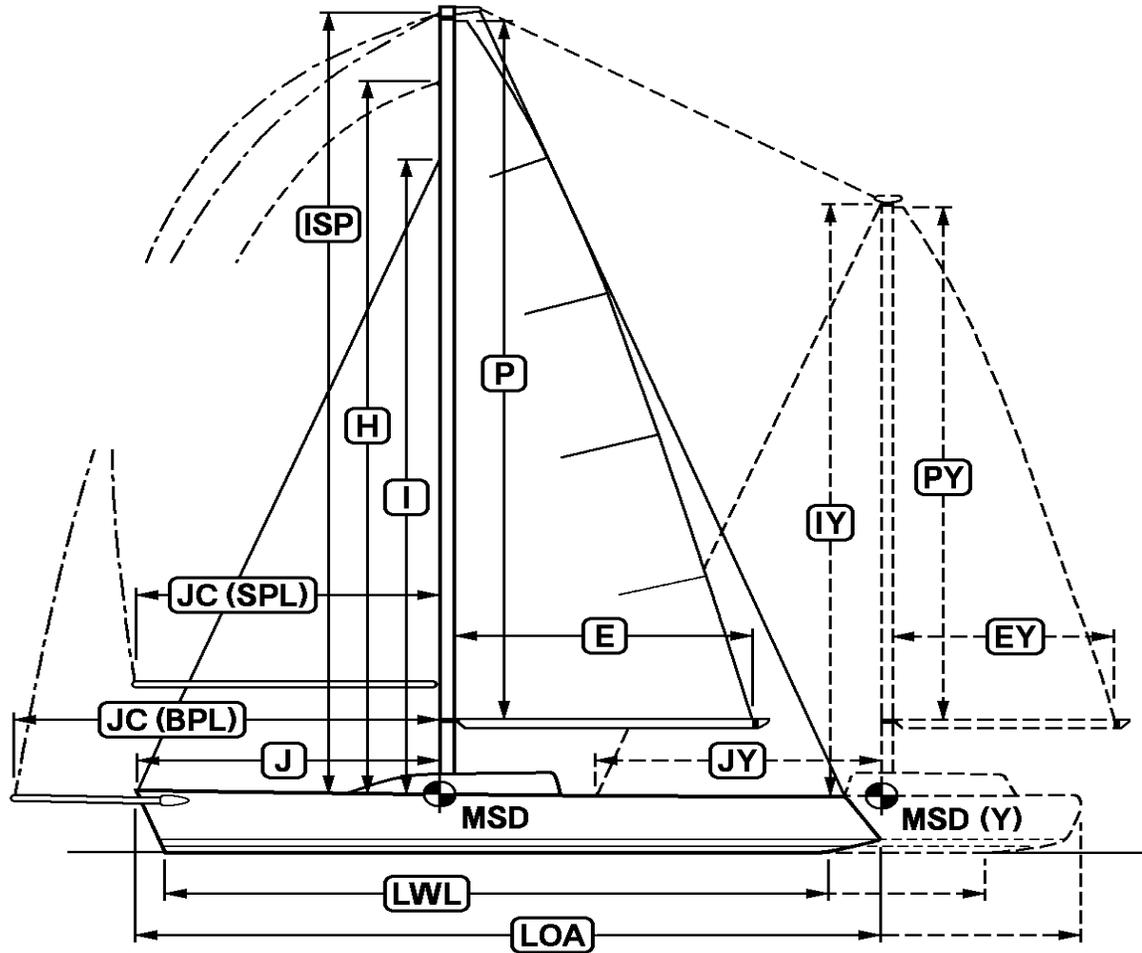
**Typical adjustment = + 3 Seconds/Mile**

**Max adjustment = + 6 Seconds/Mile**

**\*\*\* Note: All rating credits and allowances will be noted on the Rating Certificate. Removal of the noted equipment that was used in determining these allowances will invalidate the certificate will be deemed a Modification.** Removal of items after declaring on your certificate **MUST** be reported to US PHRF SEF immediately for review and adjustment.

**RIG TERMS AND DIMENSIONS:**

5.1 FIGURE 5A: Rig Dimensions:



**For Standard Class Boats:** Rig conditions for double-masted boats

**SPL = JC** (Pole-Tacked) (with additional applicable dimensions)

**BPL = JC** (Sprit-Tacked) shown with dashed lines

**ISP ≈ I** (Fractional Spinnakers)    **I = ISP** (Masthead Spinnakers)

**For Altered Rigs:** **H = Altered** Spinnaker Hoist

**SAIL TERM DEFINITIONS:**

**HB** Measured mainsail headboard length from the after top edge of the headboard to the head measuring point.

**HGF** Measured headsail foot length from the tack to clew measuring points.

**HGM** Measured headsail mid-girth (1/2 girth) length from the luff to leech mid-girth measuring points.

**HLE** Measured headsail leech length from the head to clew measuring points.

**HLP** Measured headsail perpendicular length from the clew measuring point to the forward edge of the luff.

**HLU** Measured headsail luff length from the head to tack measuring points.

**ME** The measured mainsail foot length from the tack to clew measuring points.

**MD** Measured mainsail diagonal length from the head to clew measuring points.

**MGM** Measured mainsail mid-girth (1/2 girth) length from the luff to leech mid-girth measuring points.

**MGU** Measured mainsail upper-girth (3/4 girth) length from the luff to leech upper-girth measuring points.

**MGT** Measured mainsail top-girth (7/8 girth) length from the luff to leech top-girth measuring points.

**MP** The **LARGER** of the measured mainsail luff length from the head to tack measuring points **OR** the **AS-DESIGNED** rig dimension, **P**.

**SGF** Measured spinnaker foot length from the tack to clew measuring points.

**SGL** Measured spinnaker lower-girth (1/4 girth) length from the luff to leech lower-girth measuring points.

**SGM** Measured spinnaker mid-girth (1/2 girth) length from the luff to leech mid-girth measuring points.

**SGU** Measured spinnaker upper-girth (3/4 girth) length from the luff to leech upper-girth measuring points.

**SLU** Measured spinnaker luff length from the head to tack measuring points.

**SLE** Measured spinnaker leech length from the head to clew measuring points.

### **6.3 SAIL TERM DEFINITIONS:**

**HB** Measured mainsail headboard length from the after top edge of the headboard to the head measuring point.

**HGF** Measured headsail foot length from the tack to clew measuring points.

**HGM** Measured headsail mid-girth (1/2 girth) length from the luff to leech mid-girth measuring points.

**HLE** Measured headsail leech length from the head to clew measuring points.

**HLP** Measured headsail perpendicular length from the clew measuring point to the forward edge of the luff.

**HLU** Measured headsail luff length from the head to tack measuring points.

**ME** The measured mainsail foot length from the tack to clew measuring points.

**MD** Measured mainsail diagonal length from the head to clew measuring points.

**MGM** Measured mainsail mid-girth ( $1/2$  girth) length from the luff to leech mid-girth measuring points.

**MGU** Measured mainsail upper-girth ( $3/4$  girth) length from the luff to leech upper-girth measuring points.

**MGT** Measured mainsail top-girth ( $7/8$  girth) length from the luff to leech top-girth measuring points.

**MP** The **LARGER** of the measured mainsail luff length from the head to tack measuring points **OR** the **AS-DESIGNED** rig dimension, **P**.

**SGF** Measured spinnaker foot length from the tack to clew measuring points.

**SGL** Measured spinnaker lower-girth ( $1/4$  girth) length from the luff to leech lower-girth measuring points.

**SGM** Measured spinnaker mid-girth ( $1/2$  girth) length from the luff to leech mid-girth measuring points.

**SGU** Measured spinnaker upper-girth ( $3/4$  girth) length from the luff to leech upper-girth measuring points.

**SLU** Measured spinnaker luff length from the head to tack measuring points.

**SLE** Measured spinnaker leech length from the head to clew measuring points.

## APPENDIX C

### A BLOOPER THAT IS FLOWN WITH A SPINNAKER MUST BE:

1. No longer on the luff than the headstay.
2. Tacked to the stem fitting on the bow not to exceed the J.
3. The mid-girth measured between the mid-points of luff and leech, shall not exceed 50% of the foot length nor shall the length of any intermediate girth exceed a value similarly proportionate to its distance from the head of the sail.

4. The distance, measured on the surface of the sail, between the midpoint of the foot and midpoint of the luff shall not exceed .55 of the length of the leech.

5. The LP can be no longer than the largest declared headsail.

NOTE: A tack pennant not to exceed 2.5 feet can be added to restriction #1, conforming to the current IOR Blooper rule.