

## INTRODUCTION

For renewal applications, all data will be prefilled in, in accordance with the previous year's application. As it is your responsibility to ensure the data is current, please review and mark-up with any corrections or changes.

For new applications, please fill in the form as completely as possible, in accordance with the procedure outlined below. Please enter all data legibly. All boat measurements and sail dimensions are to be entered in feet and tenths of feet (i.e. no inches), and pounds.

All applicants: pay particular attention to the instructions regarding modifications. If you do not report modifications or changes, you can be protested and disqualified.

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## ADMINISTRATIVE DATA

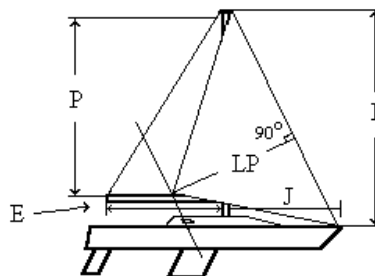
- NAME, ADDRESS, PHONE NUMBERS, affiliated Yacht Club or Sailing Association.
- EMAIL: If you would like email from PHRF-NB
- YACHT NAME: name of boat, e.g. "Clara".
- MODEL: e.g. *C&C 35 MK II*; for a custom boat (designer): *CTM Farr 45'*.
- SAIL #: number displayed on your sails.
- HULL SERIAL #: indicate hull serial number.
- DESIGNER: Yacht designer
- MFCTR: Yacht manufacturer
- DATE MFD: Date of manufacture or model year, if known.
- OTHER RATINGS: Indicate a PHRF rating received from another area, e.g. NE-PHRF: 72; IMS GP: 622. For new or custom designs, this information is especially helpful to the committee.

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## BOAT MEASUREMENTS

**MUST BE FILLED IN!** Dimensions can be measured or can be obtained from the manufacturer's brochure/specifications, or IMS certificate. If in doubt, measure! If standard information (such as I, J, P, SPL, or displacement) is not provided to the committee, the committee may assume the standard dimensions for the boat being rated, if possible. It is the boat owner's responsibility to verify this information. The **committee assumes no responsibility** if the rating is successfully protested on the basis that the standard dimensions used by the committee do not match your boat.

- I: Height of foretriangle. Measured from deck sheer line abeam the mast to the point of masthead/forestay intersection.
- J: Distance from foreside of mast to the point of intersection of the forestay with the deck.
- JC: The additional length in front of the head stay away from the front of the mast that spinnakers, etc. are attached to
- P: Distance from the upper edge of boom (lower black mast band) to the lower edge of upper black band.
- E: Distance from aft side of mast to inboard edge of black band on boom.
- SPL: Record the spinnaker pole length (if one is to be used) in this box. Record the bowsprit length (if one is to be used), JC, under comments. The spinnaker pole length is measured from centerline of mast to the extreme outboard end of the fitting with the



- ISP: Height of the spinnaker halyard measured from deck sheer line abeam the mast to the point of the spinnaker halyard exit from the mast.
- WSS: Wetted Surface – see Note below.
- MASTHEAD/FRACTIONAL: Check appropriate box. \* RIG TYPE: Indicate whether your yacht is a sloop, cutter, ketch, yawl, or whatever.
- LOA: Overall length of hull.
- LWL: Length of waterline.
- DRAFT: Draft of hull. For centerboard yachts, report "board up" & "board down" draft, i.e. 3/6'.
- BEAM: Maximum beam of yacht.
- DISPLACEMENT: Displacement of yacht, in pounds, without crew, water, fuel, or stores aboard.
- KEEL WT: Weight of keel in pounds.
- KEEL MAT'L: Type of material, e.g. Lead, Steel, or Iron.

- OTHER BALLAST: NO or if YES: list non-keel ballast & location in comments, e.g. water, 1500 lbs.
- RIG TYPE: For example sloop, cutter, etc.
- COMPOSITE RIGGING: Check if composite rigging is used.
- SYMMETRIC & ASYMMETRIC SPINNAKERS: Check all that apply. If Asymmetric is checked then check the appropriate boxes in the Asymmetric Spinnaker Tacked To section below.

**NOTE:** WSS - In an ongoing effort to better appreciate the performance differences between boats, the PHRF NB Rating Committee will start recording and compiling wetted surface numbers IF KNOWN. Much of this information can readily be extracted from IMS certificates (WSS) and other technical sources (designer).

Wetted surface is defined as the combined area of the underwater hull and appendage surfaces. Since frictional drag, which predominates at low speeds, is a function of wetted surface the ratio of sail area to wetted surface is an indicator of performance in light airs. These ratios plotted against LWL will give the committee another tool to objectively assess and compare the performance characteristics of any particular boat.

### ASYMMETRIC SPINNAKER TACKED TO:

This section must be filled out if asymmetric spinnakers are use.

- ARTICULATING POLE AT MAST: Check this if the asymmetric is tacked to an articulating pole that is attached to the mast (e.g. spinnaker pole).
- FIXED POLE TO MAST AND BOW: Check this if the asymmetric is taked to a non articulating pole that is attached to both the mast and the bow.
- BOW: Check this if the asymmetric is taked on the centerline at the intersection of the headstay, i.e., no spinnaker pole, bowsprit, or anchor roller.
- DISTANCE FWD OF HEADSTAY: When asymmetric is tacked forward of the headstay, either on the bow, anchor roller, sprit or pole, fill in the distance in feet forward of the headstay.
- RETRACTABLE BOW SPRIT/ARTICULATING BOW SPRIT/FIXED BOW SPRIT: Check all appropriate boxes.

### VARIABLES

- ENGINE: Check appropriate box.
- PROPELLER INSTALLATION: Check appropriate box. "Aperture" is where propeller is located in a faired opening, e.g. between full keel and attached rudder. "Thru Keel" is where propeller shaft exits from trailing edge of keel.
- PROPELLER TYPE: Indicate number of blades, e.g. 2 or 3; and whether propeller blades are Folding, Feathering, or Solid.
- KEEL: Check appropriate box for type.
- RUDDER: Check appropriate box for type.

### SAILS

**HEADSAILS TO BE USED:** Fill in boxes with LP % size (e.g. 150%) for each headsail carried.

**SPINNAKERS TO BE USED:** Enter the JC, SMG, Foot, Luff and Leach dimensions in the table for Spin1, Spin2, and Spin3 of the three largest spinnakers amongst the inventory of symmetrical and asymmetrical spinnakers. All dimensions to be given in feet.

**CODE0:** A Code 0 is any free flying headsail that is a cross between a spinnaker and a genoa. If a Code0 sail is being used, enter the JC, SMG, Foot, Luff and Leach dimensions of the Code0 in the table (SMG = mid girth length from midpoint of luff to midpoint of leech). All asymmetrical spinnakers must meet the criteria of "R11" below.

#### HEADSAILS TO BE USED

LP%

Headsail1	150
Headsail2	145
Headsail3	115
Headsail4	

#### SPINNAKERS TO BE USED

Feet

Spin#	JC	SMG	Foot	Luff	Leach
Spin1					
Spin2					
Spin3					
Code 0					

Do NOT list any genoas that are smaller than a 95% LP. If you will use more than 4 genoas (95% or greater) or 3 spinnakers, you must supply information under Comments/Modifications In addition, use of any

asymmetrical spinnakers, and oversize spinnakers, and the type of pole/sprit which will be used, and oversize mainsails must be reported under Modifications. Please read the Modifications Instructions carefully!

HEADSAIL CREDITS: If you race with one or more Roller Furling headsail(s) that are (**MUST MEET ALL CRITERIA**):

- short hoist (i.e., its luff length is **at least 2.5% of the I measurement** shorter than the headstay length (Headstay length is measured from deck sheer line to mast))
- attached to a bottom drum and top swivel and regularly used at the primary racing headsails, and is roller furled during racing (Note: any number of headsails 110% or smaller, roller furling or non-roller furling can be used as appropriate)

Check the "ROLLER FURLING HEADSAIL" box for a 3 sec/mile credit.

If you race with a roller furling headsail that meets **all** of the above "ROLLER FURLING HEADSAIL CREDIT" criteria, **and, in addition (MUST MEET ALL CRITERIA)** :

- is the only headsail greater than 110% LP used for racing (Note: any number of headsails 110% or smaller, roller furling or non-roller furling can be used as appropriate)
- is regularly stored on the headstay when the boat is not racing or sailing
- is regularly used as the primary genoa when the boat is daysailing and/or cruising
- has a UV material leach cover attached to the sail (e.g. stitched or glued)
- **all head sails must be of a woven polyester material (no exotic sail materials such as pentax, mylar, kevlar, spectra, technora, etc.)**

Check the "CRUISING HEADSAIL" for a credit of 6 sec/mile.

### **NON-SPINNAKER RATING (ONLY)**

- Except when changing headsails, participating yachts rated as a sloop, may not fly more than one headsail at a time.
- Yachts that are permanently cutter rigged (with rig type declared as "Cutter" on the application Certificate), may fly a staysail. The inner forestay must be set-up at all times. As only one headsail at a time may be flown by a sloop, a staysail shall not be flown by a sloop.
- Headsails may be held out by a single spinnaker pole or whisker pole, attached to the mast, whose length does not exceed the base of the fore triangle (J) unless so declared on the application/Certificate.

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## **ANY SPECIAL ITEMS OR MODIFICATIONS ?**

BEFORE CHECKING YES or NO BOX ON THE APPLICATION, PLEASE READ THE FOLLOWING:

FORWARD - PHRF separates boats into "production boats/one design boats" and "custom boats". A base rating is assigned to a production boat and one design boats and adjustments to this base rating are uniquely estimated for each boat based on genoa size, mainsail modifications, spinnaker pole length, mast modifications, propulsion, and any modifications noted herein. If you have a One Design boat, any deviations or changes from its one design configuration must be reported.

If you have a CUSTOM BOAT and you have made any changes to your custom boat from your previous year's application, you must describe them on your current application.

The following describes what items or modifications are considered to be REPORTABLE and must be noted herein on your application. All reportable items or modifications must be described in the comment section of this application, or on a separate attached page. Issues which are considered to be NON-REPORTABLE ITEMS OR MODIFICATIONS need not be reported. If in doubt about the need to report a change, your guidelines are "If in doubt, fill it out!"

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

### **REPORTABLE ITEMS OR MODIFICATIONS:**

- R1) Any changes in material, size, or shape (other than fairing to design specifications) of the hull, deck, rudder, or keel.
- R2) Any canard rudder; other lifting or steering device forward of the keel; or any rudder, steering or stabilizing device added to the boat.
- R3) 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.
- R4) 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.

- R5) Any internal ballast or removal/addition of lead or similar density material. Any moveable ballast, (i.e.. water ballast): indicate weight, location, volume, and rate of transfer or discharge.
- R6) Dagger boards in addition to keel.

NON-REPORTABLE ITEMS OR MODIFICATIONS:

- N1) Fairing to bring the hull, keel or rudder into design specifications. Wet sanding and/or waxing are allowed.
- N2) Flexible flaps to fair the skeg into the rudder are allowed provided they do not extend deeper than the skeg.
- N3) Water, fuel, and holding tanks maybe emptied as provided by US SAILING. Cushions may be removed.

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

REPORTABLE ITEMS OR MODIFICATIONS:

- R6) 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.
- R7) Headstays, mast stays, and/or partners that are adjustable while sailing, whether accomplished mechanically or hydraulically.
- R8) 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.

NON-REPORTABLE ITEMS OR MODIFICATIONS:

- N4) Removal, addition and/or relocation of deck hardware.
- N5) Additions or deletions of hydraulics.
- N6) Running rigging of any size or material.
- N7) There are no restrictions on instruments electronic or mechanical, autopilots, and on-board computers except that outside information may be received only as permitted by US SAILING.

**SAILS**

REPORTABLE ITEMS OR MODIFICATIONS:

- R9) Any sails or sail construction that would incur a penalty or not be allowed under IMS, or if a one design boat, eg Melges 30, is not allowed by the class rules:
  - a. Full battens in mainsail are allowed, but any oversize mainsail girths larger than the standard IMS girths or one design specifications must be reported.
  - b. Oversize headsails, oversize spinnaker luffs (.95 times the square root of I squared + JC squared) or mid girth (1.8 x SPL (JC)) must be reported.
- R10) Use of more than 4 headsails (95% and larger LP), and/or use of more than 3 spinnakers must be reported.
- R11) You must report the use of any Code 0 and asymmetrical spinnaker and their dimensions (JC, SMG, Foot, Luff, Leach). A spinnaker is asymmetrical if the leach and luff differ in length by more than 4 percent. Indicate if the asymmetrical spinnaker will be flown from spinnaker pole or fixed or adjustable bowsprit. The following standards apply: the average of the luff and leach must not exceed 0.95 times the square root of I squared plus JC squared (where JC is the length reported for the spinnaker pole or bowsprit to which the asymmetrical spinnaker will be attached ); the maximum mid girth does not exceed 1.8 times JC; and the mid girth must be greater than 75% of the foot (if the mid girth is less than 75% of the foot, the sail is treated as a headsail and may incur a penalty). You must report if these standards are not met.

NON-REPORTABLE ITEMS OR MODIFICATIONS:

- N8) Use of full battens in mainsail.
  - N9) There are no restrictions on type of material or construction technique except as outlined in R9 and for the Cruising Headsail credit above.
  - N10) Any number of storm jibs (LP less than 95%) can be used.
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**OWNER / MASTER -- SIGNATURE / DATE**

Every application must be signed and dated in order to be processed by the committee.

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**NEW CERTIFICATE \$35.00 -- RENEWAL \$30.00**  
**CERTIFICATE MOD \$10.00**

NEW CERTIFICATE: If an applicant has never had a PHRF-NB certificate, is applying for a second certificate for the first time for any previously rated yacht, or a yacht that has never rated by PHRF-NB before. If the applicant supplies a valid NE or LI Sound certificate with his new application, the fee is only \$20.00.

RENEWAL CERTIFICATE: If the same owner of a yacht had a PHRF-NB certificate last year for the same yacht, including any changes that have been made for this year's application.

CERTIFICATE MOD: If after receiving your signed PHRF-NB certificate back from PHRF-NB, you want to make modifications to the certificate, a \$10 fee will be assessed.