

# CR 914 Class Rules

revision effective July 15, 2000

## 1. GENERAL - CLASS

The CR 914 is a One-Design class. The Class objective is that the sailing skills of the skipper shall determine who wins races. These rules control yacht performance, cost and simplicity. A yacht violating these rules shall not compete until all violations are corrected.

Unless the class rules specifically permit a modification to the boat as the boat is defined by the kit, an owner shall assume it is not permitted. Interpretations by the Class Secretary of the legality of a modification shall be binding until overruled by a class vote changing the rules.

In these rules the word "shall" means mandatory and "may" means permissive.

- 1.1 A skipper while racing shall not be permitted to have a co-skipper or assistant to help with such things as coaching, tactical advice, wind spotting, etc. "Racing" is defined as the period from one minute before the start of a heat to the finish of that heat. He may accept any assistance, including the maintenance or repair of his boat, while not racing. A handicapped skipper may request assistance while racing to be approved by the Regatta Director.

## 2. GENERAL - YACHT

- 2.1 The hull, keel fin, lead bulb, rudder, mast, steel mast joiner and booms shall be those provided by the kit manufacturer.
- 2.2 Profile tolerances for keel fin, bulb and rudder shall not exceed +/- 1/16 inch overall from the stock kit parts.
- 2.3 Thickness tolerances for keel fin or rudder must not exceed +/- 1/32 inch overall from the stock kit parts.

## 3. HULL

- 3.1 Alterations to the hull shape shall not be permitted. Hull surface imperfections, including the mold seam at the bow, may be removed by sanding and filling or by sanding alone. Final hull finish may be: 1) conventional painting or, 2) sanding and polishing of the ABS hull using no paint.

## 4. DECK

- 4.1 The deck shall not be lightened by sanding or substituting another deck. However, the main hatch opening may be squared off for easier access, not to exceed 3 1/8 by 5 1/4 inches.
- 4.2 The two fore deck hatches may be opened for hull access forward of the keel tube. The opening for such hatches shall not exceed the outline molded on the deck (approximately 1 5/8 by 2 1/2 inches).
- 4.3 Hatch cover material and design are optional.
- 4.4 The jib rack eye, jib sheet fairlead, shroud chain plates, back stay eye and mast step, shall be located at the positions defined by the hull molding.
- 4.5 The shroud chain plates, back stay eye, jib rack eye, jib sheet fairlead and the mast step shall be those provided in the kit or a substitute fitting of equivalent function and similar dimensions.
- 4.6 Steering wheels, primary winches and the three forward winches from the kit shall be installed. Winches may be modified to avoid fouling sheets. Bow foot rails are required but design is optional. Deck cleats and the stern hatch cover are optional.

## 5. KEEL

- 5.1 Keel fin position shall not be altered.
- 5.2 Keel fin thickness and profile shall not be altered. Tolerances are given in Rule 2.
- 5.3 Keel fin shall not be modified to change its flexibility or for any other reason.

## **6. LEAD BULB**

- 6.1 Lead bulb may be filed smooth, sanded, shined or painted. Imperfections may be filled.
- 6.2 Shape shall not be altered. Tolerances are given in Rule 2.
- 6.3 Attachment geometry of the bulb to the fin shall not be altered from that defined by the kit.

## **7. RUDDER**

- 7.1 Rudder position shall not be altered.
- 7.2 Rudder thickness and profile shall not be altered. Tolerances are given in Rule 2.

## **8. BOW BUMPERS**

- 8.1 Bow bumpers shall be mandatory for regional and national championship regattas.
- 8.2 Only bumpers from a source approved by the Class Secretary (assisted by a Class Advisory Committee) shall be legal.
- 8.3 The approved bumper shall not be modified.
- 8.4 The bumper shall be installed with the top aft edge clearly above deck level, but no higher above deck than 1/16 inch.
- 8.5 The lowest edge of the bow bumper shall be a minimum of 2 1/16 inches below deck level measured perpendicular to the plane of the deck.
- 8.6 Previously approved designs shall remain legal.

## **9. SPARS**

- 9.1 Mast and boom lengths shall not be altered.
- 9.2 All mast fittings supplied in the kit shall be used (spreaders, jumper strut, gooseneck, vang base and mast head crane). They shall be located within +/- 1/4 inch of the locations specified in the kit instructions.

## **10. STANDING RIGGING**

- 10.1 Standing rigging shall be braided non-metallic fiber (such as nylon, polyester, Spectra, Kevlar, etc.) and shall have a minimum thickness of 0.018 inches. Line thickness shall be measured at one location with the line under 2.0 lbs. tension. (If the one thickness measurement is less than the specification, the thickness shall be determined as the average of ten measurements spaced at 2 inches along the line.)
- 10.2 Wire stays and shrouds are prohibited.
- 10.3 Turnbuckles are prohibited.
- 10.4 The shroud and stay clips provided in the kit may be eliminated or substituted.

## **11. RUNNING RIGGING**

- 11.1 The common sheet exit pulley and the sail servo arm pulley may be modified or substituted. Any modification or substitutions shall have equivalent function and similar dimensions.
- 11.2 The main sheet fairlead ring shall have a maximum inside diameter of 0.25 inches. The ring position shall be controlled by an adjustable string bridle as defined by the kit assembly instructions.
- 11.3 The method used to attach a sheet to a boom and the method used on a boom to adjust the length of a sheet are optional.
- 11.4 Boom vang shall be of braided non-metallic line. Adjustment may be bowser, cleat or equivalent.
- 11.5 Manual sail adjustment details are optional. Main and jib boom topping lifts, jumper tension adjusters, etc., are permitted. The use of bowsers, cleats or equivalent devices, is optional.

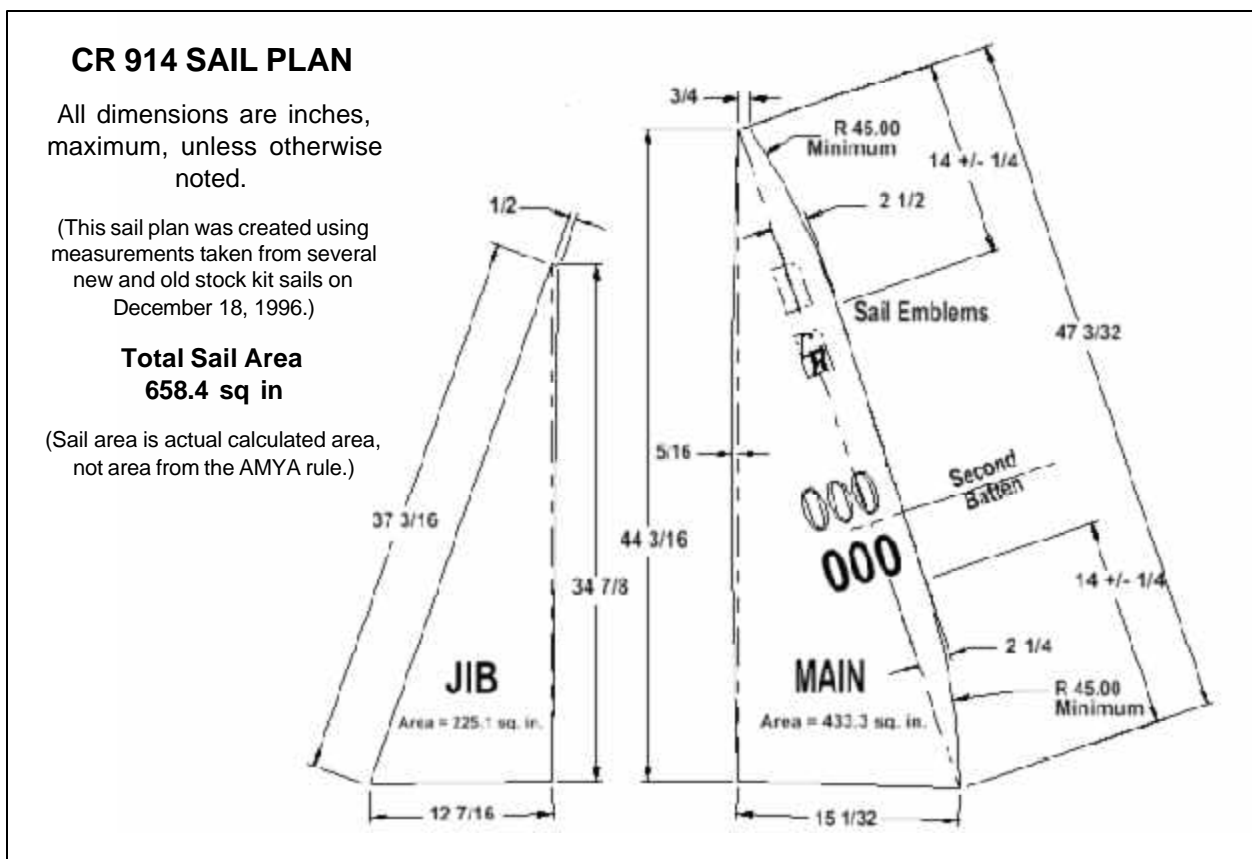
- 11.6 Jib tack, jib clew and mainsail clew spring clips shall be eliminated or modified to avoid accidentally hooking the rigging of another boat.
- 11.7 The use of such things as automatic jib flippers, jib boom counter weights and automatic main outhauls is prohibited.
- 11.8 The choice of line for running rigging is optional.

**12. RADIO EQUIPMENT**

- 12.1 The maximum number of channels shall be two.
- 12.2 The remote control functions shall be for rudder and sail trim only.
- 12.3 The choice of a radio system, the sail servo and the rudder servo are optional.
- 12.4 Receiver batteries shall be four or five cell AA size disposable or rechargeable cells. The weight of batteries or number of cells shall not be changed during any regatta or series of races.

**13. SAILS**

- 13.1 The "CR 914 SAIL PLAN" and its dimensions shall define the maximum size of the jib and mainsail. Storm sails same suite of sails shall be used for all races of a regatta or series. If sails are damaged, replacement sails of the same size are optional, but they shall be limited by the sail plan dimensions.
- 13.2 The same set of sails shall be used for all races of a regatta or series. If sails are damaged, replacement sails of the same size shall be used.
- 13.3 Corners of the sails may be reinforced. The reinforcement patch shall not exceed a radius of 2 1/2 inches measured from the corner of the sail.
- 13.4 Sails shall be those provided in the kit. Replacement sails shall be those supplied by the kit manufacturer.



**Jib**

- 13.5 Neither roach nor foot round shall be permitted.
- 13.6 Two jib battens may be used, size shall not exceed 0.200 inches wide by 2 inches long.

**Mainsail**

- 13.7 No foot round is permitted.
- 13.8 Four battens are permitted. They shall be installed perpendicular to the leach and evenly spaced within 1/4 inch. Batten size shall not exceed 0.200 inch wide by 3.200 inches long.
- 13.9 Battens used shall be from the kit or equivalent replacement.
- 13.10 The luff of the main sail shall be attached to the mast by rings of either metal or plastic, or by using pieces of rigging line. In either case the spacing and quantity of these attachments shall be the same as the stock kit sails. The sail shall be free to rotate about the mast.

**Sail Numbers and Class Insignia**

- 13.12 Sail numbers shall be 3 inches high and use a design that is easily read at distance. The smaller numbers existing on older sails are permitted. Recommended number proportions are as follows:

<u>Height</u>	<u>Width</u>	<u>Stroke Thickness</u>	<u>Number Spacing</u>
3"	1.8" - 2.0"	0.4" - 0.5"	0.6" - 0.75"

- 13.13 The sail numbers shall be applied on both sides of the mainsail. The starboard side sail numbers shall be higher. Symmetrical numbers (such as 181 or 808) may be placed back-to-back on both sides of the sail. Location of the numbers is suggested by the Sail Plan.
- 13.14 The class insignia shall be located on both sides of the main sail with the starboard emblem being higher. Location is defined by the Sail Plan.

**Country Designation**

- 13.15 The designation of the owners country may be displayed above the numbers.

**14. WEIGHT**

- 14.1 Minimum allowable weight shall be 6 pounds 4 ounces for a complete boat ready to sail, including radio receiver batteries. Weight shall not be changed during a regatta or series of races.
- 14.2 No ballast weight inside the hull shall be permitted.
- 14.3 Correction weights to an underweight boat shall be located on the underside of the deck, half on each side, within 16 and 21 inches from the bow.

**15. YACHT REGISTRATION**

- 15.1 The yacht registration and sail number shall be assigned by the Class Secretary. No yacht shall be properly registered until the class insignia and the assigned number have been affixed to the main sail. The registration number shall also be affixed to the inside of the hull in a readily visible location.

**16. GRANDFATHER CLAUSES**

- 16.1 There shall be no expressed or implied "grandfather" clauses relative to performance enhancing aspects of a boat. Interpretations of cosmetic or aesthetic aspects shall be liberal.

**17. EFFECTIVE DATE - July 15, 2000.**

# CR 914 Class Rules Interpretations (through April, 2007)

## Criteria for Rule Interpretations (Wording modified by Advisory Committee for clarification, March, 2006)

The answer to these questions shall be “no”:

1. Is the interpretation inconsistent with the letter and intent of the class rules?
2. Does the interpretation offer the potential of improved boat speed?
3. Does the interpretation that improves reliability also improve boat speed?

### 1. **Boat Battery Legal Size and Type** - Ref. *CR 914 NEWS* Jan.-Feb.-March 2002, Interpretation of Rule 12.4

- a. Boat battery cells shall have a minimum diameter of 9/16 inch (AA size) and a maximum diameter of 11/16 inch (A size).
- b. Cell length shall be 2 inches maximum (AA length) and 1 11/16 inch minimum (4/5 AA length).
- c. Battery packs are limited to four or five cells in a flat or square arrangement.
- d. Cell chemistry is limited to nonrechargeable (such as alkaline), NiCd or NiMH.

### 2. **Boom Fittings** - Ref. *CR 914 NEWS* March-April 1998

The design and location of boom fittings are not controlled by the rules. Rule 9.2 reads, “All mast fittings ....”, and therefore does not apply to boom fittings.

### 3. **Correction Weights** - Rule 14.3

Correction weights shall be attached to the underside of the deck as specified in Rule 14.3.

### 4. **Cosmetic Deck Fittings** (Rule 4.6) - Ref. *CR 914 NEWS* May-June 2000

Cosmetic Deck Fittings (Rule 4.6) will no longer be waived at sanctioned regattas as in the past. Read the rule to ensure your boat conforms.

### 5. **Drum Type Sail Servos** - Ref. *CR 914 NEWS* Sept.-Oct. 2000

Only arm type sail servos are permitted in Regional and National regattas.

### 6. **Halyards** - Advisory Committee, Feb. 2002.

Halyards or other rigging controls cannot be routed internal to mast or booms.

### 7. **Jib Sheet Routing** - Ref. *CR 914 NEWS* May-June 1997

The jib sheet shall pass through the deck mounted jib sheet fairlead as shown on the kit drawings.

### 8. **Keel Fillet and Nonremovable Keels** - Ref. *CR 914 NEWS* July-August 2001

**Interpretation:** The CR 914 is designed to have an easily removable keel. If the keel cannot be removed there can be no additional changes that result in differences from a boat with a removable keel.

1. **Intersection of the keel fin with the outside bottom of the hull** There shall clearly be a gap between the fin and the sides of the keel fin recess molded into the hull bottom. This gap would be present for a removable keel. Obviously, there can be no streamline fillet at this point between the hull and keel fin.
2. **Internal Structure** All the original keel/hull structure required for a removable keel shall remain in place. The steel keel-rod must extend to the deck and have a nut on it as if the keel were removable. The brass tube, or pipe, that normally houses the keel rod shall be properly installed.
3. **Internal Reinforcing of keel molding** The keel molding on the inside of the hull may be reinforced to prevent cracks and leaks. One way to do this is described in the “CR 914 Upgrade Instructions” found in the kit.

**9. Keel Installation** - Ref. *CR 914 NEWS* May-June 1997 and June-November 2003

The keel fin must be fully inserted into the hull until it bottoms against the hull and the keel rod nut is tight. The keel must be fully inserted into the hull molding recess to be legal. There have been occasions when an owner has intentionally not done this to gain improved performance. It is a simple measurement for an inspector to make.

**10. Mast Material** - Advisory Committee April 2002

Only the mast and boom material supplied in the kit are legal. There was a request to permit stronger material.

**11. Mast Joiner** - Ref. *CR 914 NEWS* May-June 2000

Steel Mast Joiner is required by class rule 2.1. It cannot be replaced by another design. A magnet is an easy check.

**12. Mast Fittings** - Ref. *CR 914 NEWS* March-April 1998

In Rule 9.2, "All mast fittings..." means mast fittings, not fittings on the booms.

**13. Rudder Linkage** - Ref. *CR 914 NEWS* May-June 2000

Pull-pull rudder linkage systems, using two wires to connect the servo to the rudder, is not legal. Only the Push-Pull single rod system is legal.

**14. Reefing and Storm Sails** - Ref. *CR 914 NEWS* Sept.-Oct. 2000

An owner may choose to reduce sail area as permitted by Class Rule 13. The class rules permit reducing the area of the stock sails for heavy winds. However, that smaller area shall be used for the entire regatta or series of races. Additionally, if a sail is reefed, the same limitation is in effect. The reef shall be used for the entire regatta.

**15. Sail Modifications** - Ref. *CR 914 NEWS* March-April 1998

Any alteration to the sails risks making them illegal, such as removing the luff tapes that are installed on the stock sails.

**16. Sail Number Location** - Ref. *CR 914 NEWS* May-June 1997

"Location of Sail Numbers and Emblems will be liberally interpreted. The location doesn't effect boat speed."

**17. Standing Rigging** - Ref. *CR 914 NEWS* March-April 1998

"The forestay and jib halyard cannot be routed directly to the masthead. They both shall be routed upward through the hole in the forward side of the mast ring portion of the jumper strut assembly and then to the masthead."

**18. Standing Rigging** - Ref. *CR 914 NEWS* Sept.-Oct. 1998

Standing rigging must be installed as shown in the kit instructions. For example, the intermediate shrouds must run through the hole in the end of the intermediate spreader.

**19. Standing Rigging** - Ref. *CR 914 NEWS* Sept.-Oct. 2000

Shrouds (meaning the lower, middle and upper shrouds) may be connected to any of the three holes in the chain plates. (Chain plates are identified as "Eyelet plate, part 8" in the AG Assembly Instructions.)

**20. Topping Lifts** - Advisory Committee Decision, July 2002

Boom topping lifts made of string connected to the aft end of a boom are permitted.

- 21. Keel Bulb** - Ref. *CR 914 NEWS* June-November 2003

The keel bulb must be installed on the fin as defined in the Assembly Instructions and the geometry of the fin and bulb geometry. No sloping of the axis of the bulb is permitted. Some owners have done this in an effort to improve performance.
- 22. Jib Boom Tack** - Ref. *CR 914 NEWS* June-November 2003

It is legal to use a *snap-swivel* to connect the jib boom to the foredeck.
- 23. Hull Sheet Exit** - Measurer's Decision, March, 2004

The sheet exit block must be located as defined by the hull molding and building instructions. The sheet must exit the hull at that point. The common sheet from the sail servo arm may terminate beneath the deck so that the jib and main sheets both exit at the stern exit turning block.
- 24. Rudder Push-rod** - Advisory Committee Decision, October, 2004

The use of carbon fiber for the rudder push rod is not permitted.
- 25. Boom Vang** - Measurer's Decision, January, 2005

The use of an offset elliptical vang as described on pp. 20-22 of Issue 135 of *Model Yachting* (Spring, 2004) is not permitted.
- 26. Petroleum Jelly Keel Fillet** - Measurer's Decision, May, 2005

Some boats have used Vaseline at the keel fin/hull gap to control leaking. Petroleum jelly can close that draggy gap and may improve boat speed. Thus this practice is prohibited.
- 27. "Tubeless" Jib Luff** - Advisory Committee Decision, June, 2005

Threading the headstay through holes in the luff tape of the jib, replacing the luff tubes, may improve jib performance. This is not permissible.
- 28. Steering Wheel Spokes** (Rule 4.6) - Advisory Committee Decision, August, 2005

Removal of one or two spokes from the port steering wheel, to reduce sheet friction, is legal.
- 29. Elastic Sheet Puller** - Advisory Committee Decision, revised March, 2006

The use of an elastic cord or similar device to pull out the common sheet can improve boat speed in very light air and is not permissible.
- 30. Gooseneck Reinforcement** (Rule 9.2) - Advisory Committee Decision, September, 2005

A rod or tube may not be substituted for the stock plastic pin in the gooseneck.
- 31. Jib Halyard-Headstay Arrangement** (Rule 11.5) - Measurer's Decision, January, 2006

It is legal to attach the jib halyard to the headstay. The details of jib halyard adjustment are optional. It is legal to rig the halyard in such a way as to be able to adjust headstay tension and mast rake without altering jib luff tension.
- 32. Mast Holes and Headstay Hook System** - Advisory Committee Decision, March, 2007

A mast rake adjustment scheme was proposed that would use small holes in the face of the upper panel of the mast and a small hook terminating the headstay. Mast rake would be adjusted by moving the hook to different holes. This system is not legal.