



CLUB 420 CLASS RULES

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C420

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Part One

Section A GENERAL

- A.1.0 The Club 420 is a One-Design class. The rules, official plans and specifications ("Rules") are intended to ensure that the boats of this class are as nearly as possible the same as regards shape and weight of hull, including the centerboard, rudder, spars and sails and that the equipment is simple, functional, dependable and affordable.
- A.1.1 No addition or alteration may be made to the hull form, construction, equipment, type of equipment, placing of equipment, fittings, type of fittings, placing of fittings, spars, standing rigging, sails, battens and running rigging as supplied by the Builder except when such addition or alteration is specifically authorized by these Rules.
- A.1.2 The Rules of the Class Association are "closed class rules." If it does not specifically say that you "may", then you "shall not".

Authorities and Responsibilities

- A.1.3 The Club 420 Class Association, Inc. Board of Directors shall appoint, for such term as it shall decide, a Class Measurer. The Board shall adopt and govern the Class Rules.

Class Builders and Sail Maker

- A.1.4 The Board shall have sole power to approve and disapprove Club 420 builders and specified equipment manufacturers including sail makers.
- A.1.5 Approved Builder- Only the Board can approve an individual or entity as a Builder of the Club 420 Sailing Dinghy and the right to be an Approved Builder cannot be transferred without written agreement of the Board.

Amendments to Class Rules

- A.1.6 Any proposed change to the specifications pertaining to the hull form, construction, equipment, type of equipment, placing of equipment, fittings, type of fittings, placing fittings, spars, standing rigging, sails battens and running rigging shall be sent in writing to the Secretary of the Class and shall copy the class Executive Director. The Secretary of the Class shall forward the written proposal to the Board and all Approved Builders so designated by the Board. No

proposed change shall be allowed without approval of the Board pursuant to the terms of the Class Association Bylaws.

Interpretations of Class Rules

A.1.7 Interpretation of these class rules shall be made by the Class Measurer as provided by the Class Bylaws. Request for an interpretation shall be made in writing directly to the class measurer.

Interpretations of Class Rules at an Event

A.1.8 Any interpretation of class rules required at an event shall be made by the regatta's jury, consisted by appendix N of the Racing Rules of Sailing.

Section B Measurement and Repairs

B.2.0 In the case of a measurement dispute with the hull, spars, sails, centerboard, rudder, rigging and equipment and the placing of same not explicitly covered by these Rules, the Measurement Diagram, the Class Measurer will adjudicate.

B.2.1 All boats, spars, sails and equipment shall be subject to inspection or measurement at any time at the discretion of the Association or race committee.

B.2.2 In the case of a dispute at an event alleging non-compliance with class rules and building specification where specific measurements are not stated, the class measurer shall adopt the following procedure:

a) A sample measurement of the disputed item shall be obtained by taking the identical measurement from a randomly selected group of boats or items of equipment (control group).

b) The measurement of the disputed boat or items of its equipment, taken using the same technique as above, shall be compared to the sample.

c) If any of the measurements obtained from the disputed boat or item of equipment lie outside the corresponding range of measurements found in the control group, the matter together with the details of the measurement methods and any other relevant information shall be referred to the Race Committee.

B.2.3 All spars, Rudder, Tiller, and Centerboard must have a C420 measurement sticker (Exhibit C) to be considered class legal. Failure to have these stickers in place will result in further investigation and possible penalties decided by the class measurer.

B.2.4 Repairs and Maintenance

1. Repairs and preventative maintenance to the sails, hull, deck, centerboard, rudder, mast, boom or any other fittings and riggings may be carried out provided such repairs are made in such a way that the designed shape, characteristics or function of the original are not affected.

2. In the event of the failure of any fittings, or the replacement of fittings as authorized by these Rules the fitting or the replacement shall be made in such a way that the essential shape, characteristics or function of the original are not affected and shall be placed in the same location as the original as supplied by a Builder.

3. Preventative maintenance shall include the replacement of fastenings with alternatives provided that the fittings are replaced with similar sized fastenings of the same material.

B.2.5 All existing blocks and cleats supplied by a Builder may be replaced by blocks and cleats of any make provided that the replacements:

- Are of essentially similar size and function.
- Are placed in the position as originally supplied. Except as specifically permitted in these Rules, no additional blocks, fairleads, or hardware may be added to the boat.

B.2.6 Any hardware that may be added may correspondingly be removed provided that:

- The hull still meets the minimum weight requirement.
- The buoyancy tanks remain reasonably watertight.
- The hardware is not moved to another position on the boat.

B.2.7 Tape may be used anywhere on the boat. Extra non-skid material, including non-skid paint, may be applied anywhere on the deck or hull.

B.2.8 Rubber or plastic tubing or other material may be used in places such as the jib halyard shackle and the lower end of the shrouds and their adjusters to ease the passage of lines, to prevent snagging and/or to reduce the chance of injury. Rubber or plastic sleeves, or springs, may be used with mainsheet blocks to prevent the blocks from falling over.

B.2.9 Any existing clevis pin may be replaced by a "fast-pin" that must be attached to the boat with a line or wire lanyard.

Section C Conditions for Racing

Crew

C.3.0 No boat is permitted to sail in any Class Association event unless all crew are current members of the Club 420 Class Association.

C.3.1 No sailor shall be above the age of 22 in the calendar year of the Club 420 Class Association regatta they wish to compete.

C.3.2 The Club 420 shall be raced with two persons on board.

C.3.3 In a series, the Club 420 shall be raced with the same number of crew members in every race. Crew changes may not be made during a series except with written permission of the race committee.

C.3.4 Responsibility of the boat- It is the boats (skipper and crew) responsibility to ensure that the boat and personal equipment comply with the class rules when racing. All Skippers are required to verify and sign an Inspection form provided by the class (*Exhibit A*) in order to be registered to race at any C420 Class Association regatta.

Personal Equipment - MANDATORY

C.3.5 For any race or series of races, competitors who are US citizens or US residents shall wear a US Coast Guard approved Personal Flotation Device (PFD) at all times while afloat. Competitors who are residents of another country shall wear either a US Coast Guard approved PFD or a PFD approved by the country of their citizenship or residence. The PFD shall not be an inflatable type life jacket. The PFD may be removed temporarily so that clothing may be changed, added or removed.

C.3.6 A whistle shall be attached by a lanyard to the PFD. The lanyard shall be long enough to permit the sailor to use the whistle while wearing the PFD.

Personal Equipment- OPTIONAL

C.3.7 As an alteration to RRS 49.1 the trapeze wire shall be used to support the weight of only one crew member who shall not be the helms-person. The trapeze harness shall not be filled with ballast. The weight of the trapeze harness shall not exceed 9 lbs (4.08 kg). A crew member using a trapeze harness shall be in contact with the boat at all times except in the situation of accidental movement and or maneuver.

C.3.8 One compass and bracket may be mounted to the mast no holes are cut or drilled in the buoyancy tanks or spars. A compass may not be installed in an inspection hatch cover. If electronic, only a compass with heading, heading memory, and timing functions is permitted.

C.3.9 The only electronic devices allowed on board while racing are as follows: a digital timing device, electronic compass and a camera. Any electronic device that uses position tracking or has position tracking capability is specifically not permitted unless specified in the Notice of Race or Sailing Instructions.

C.4.0 Clips, ties, bags or similar methods for stowing gear (such as water bottles) may be used provided they do not require holes in the buoyancy tanks or spars.

C.4.1 Sailors may carry personal gear, food, drinks and a normal ditty bag.

C.4.2 Wind indicators made of yarn or other material may be attached as desired to spars, sails, topping lift, pole downhaul or standing rigging. One wind pennant or indicator may be attached at the top of the mast.

C.4.3 Two hand bailers or sponges may be on board while racing.

Safety Equipment and Hardware

- C.4.4 Each boat shall carry one line designated as a towing line. This line shall be at least 40 ft (12 m) long, 3/8 inch (9 mm) diameter, shall float. The towing line shall be secured to the boat either at around the mast or bow shackle. The towing line shall be accessible on the deck within 6 inches of the bow stem at all times, including when capsized. Tape or velcro may be used to help secure the towing line to the bow deck or stem.
- C.4.5 Each boat shall use a line attached from the rudder to the boat that will keep the rudder connected to the boat in the event of capsize or turtle.
- C.4.6 The forestay under tension shall be entirely in metal (including extensions) and shall prevent the mast from disengaging from the mast partners. To meet this requirement the widest section of the mast shall be within the mast partners when the mast rakes under its own weight and the forestay comes under tension, as in Diagram 1. The forestay shall be connected to the stemmed fitting using a pin. A piece of shock cord maybe attached to the forestay and the stemmed fitting.
- C.4.7 A competitor may use a line to secure the mast to the mast heel casting.
- C.4.8 An optional system may be added, to prevent the mast from coming out of the mast partners, of a single piece of line working on the aft face of the mast, one attachment, one grip and one cleat without moving parts, on top of the mast partner.

Hull

Modifications and Maintenance

- C.4.8 Waxing, polishing and fine wet or dry sanding of the hull is permitted provided the effect is to polish only and not to fair or reshape the hull.
- C.4.9 Sanding or refinishing of the hull with the effect to lighten the hull or improve the performance, finish or shape beyond the original condition is not permitted. Repairs may be made provided the original hull shape is maintained.
- C.5.0 The use of slowly soluble applications, that alter the boundary layer characteristics of the hull, is prohibited.
- C.5.1 A protective strip or bumper may be added to or removed from the bow of the boat.
- C.5.2 Drainage capacity may be fitted into the lower transom in the form of one or two openings in order to drain the boat. The total area of the openings shall not exceed 12.4 Sq inches (.007 Sq meters), the openings shall have flaps or other closing devices that can be operated from inside the boat and shall not obstruct the rudder. One additional cleat or hook may be installed on the keelson to provide a termination point for the control of the closing device.
- C.5.3 One suction bailer and bailer accessories may be installed. A second suction bailer and bailer accessories may be installed as long as the second bailer is

placed in the same position as the original bailer on the opposite side of the boat. The second suction bailer is optional.

- C.5.4 Hulls of boats built after March 1, 1973 shall carry the HIN (hull identification number) molded into the starboard transom.
- C.5.5 Only polyester resins may be used in the manufacturing and large repairs of hulls after February 14, 2010.

Weight

- C.5.6 The weight of the bare hull rigged with the centerboard in place and only those parts permanently affixed to the hull or deck shall be not less than 230 lbs (104.3 kg). The hull shall be weighed in a dry state.
- C.5.7 If the hull is found to weigh less than 230 lbs (104.3 kg), correctors with a total weight not exceeding 5 lbs (2.3 kg), shall be clearly visible and fixed permanently, 50% to the transom and 50% to the keelson forward of the mast step (forward thwart).

Flotation

- C.5.8 The buoyancy tanks shall be watertight. There shall be two side buoyancy tanks each with a drain plug that is water tight. All plugs must be in place while racing.
- C.5.9 Inspection ports may be installed in the flotation tanks provided they are threaded. Bayonet closure mechanisms are prohibited. Any inspection port covers must be in place while racing.

Hull Appendages- Centerboard, Rudder and Tiller

- C.6.0 Centerboard, rudder, rudder head and tiller shall be used as supplied by a Builder. The Builder shall label them with a c420 sticker to indicate they are legal.
- C.6.1 Tiller extensions maybe made of any material and maybe any length as well as adjustable.
- C.6.2 The Club 420 shall be raced with the rudder at all times in the full-down position.
- C.6.3 A rope handle that passes through the hole in the top of the centerboard may be added in addition to what may have been supplied by the Builder.
- C.6.4 The rudder and centerboard may be polished or sanded provided this does not alter the shape of the blades or change their leading or trailing edges other than to fair the exposed fiberglass joint.
- C.6.5 Shims of any material may be added between the rudder head cheeks and the rudder blade to improve the fit of the rudder blade in the rudder head.
- C.6.6 Shims may be added inside the centerboard trunk to protect the board to improve the fit.
- C.6.7 The head of the centerboard must have some part of it above the centerboard trunk when racing with the centerboard in the fully down position.

Spars and Standing Rigging

C.6.8 The mast and boom shall be supplied by the Builder and not altered. All masts and Booms shall be labeled by the builder with a c420 sticker to indicate they are legal. No mast or boom which has a permanent bend shall be used. Rotating and permanently bent masts are prohibited. A drain hole no larger than 0.5 inches (12 mm) may be made within the bottom five inches of the mast, including the mast heel casting.

C.6.9 The shrouds and spreaders shall be supplied by a Builder. No changes are permitted to the length or angle of the spreaders.

C.7.0 The pin position of the shrouds shall not be adjusted while racing.

C.7.1 The use of mast blocks or any other system not specifically permitted in these Rules that may induce or limit mast bend is prohibited.

C.7.2 Halyard locks or hooks are not permitted.

C.7.3 A single piece of shock cord or line may be tied between the forestay and the bow chainplate for the purpose of removing slack from the forestay.

C.7.4 The jib stay shall be attached to the aft most hole in the tack fitting, the forestay to the middle hole and a painter shackle, or clevis pin for the bowline, to the foremost hole in the fitting.

C.7.5 Spinnaker poles shall be 68 7/8 inches (1750 mm) from end to end and made of aluminum. Boats may carry a spare spinnaker pole.

Running Rigging and Control Lines

C.7.6 Sheets and halyards of any length diameter and material may be substituted for those supplied by a Builder, with the following limitations:

1. Sheets and halyards in whole or in part of wire are prohibited except for the jib halyard.
2. No halyards may be tapered. Only spinnaker and jib sheets maybe tapered.
3. Each sheet shall be one single piece of line. The Jib sheet may be attached to the jib using a soft shackle or a separate loop of line.
4. Shock cord may be attached to the end of a halyard, spinnaker pole uphaul/ downhaul, or centerboard lines and the boat.
5. A "spinnaker clip" at deck level intended to allow for the quick release of the spinnaker halyard when being hoisted is permitted.
6. Spinnaker sheet blocks may be ratchet blocks.

C.7.7 Plastic "stopper balls" may be used on any line or shock cord.

C.7.8 Cunningham lines for both the jib and the main may be used. Line loops (including thimbles or rings of any material) or knots may be added to any part of the line to provide additional purchase. The main Cunningham may be led and adjusted on the Centerboard Cap as well as the mast provided that Cunningham lines shall use only the fittings supplied by the manufacturer. A small Cleat maybe added to the deck of the boat to allow cleating of the Jib Cunningham

only. This cleat shall not have any moving parts and shall be mounted no more than 1 inch off the centerline of the deck, and no more than 8 inches from the forward most piece of the splash guard.

- C.7.9 The vang shall be rigged using a maximum of five sheaves and terminating at one cleat on the centerboard cap, there may be a turning block on the top centerboard cap, and shall not exceed a 16:1 purchase.
- C.8.0 The outhaul shall be one piece of line rigged using a cheek block and deck strap (or becket on the cheek block) on the boom at the clew of the mainsail and a cleat located on the side of the boom. An additional turning block may be fitted forward of the outhaul cleat.
- C.8.1 The jib halyard shall be rigged using only the hardware supplied with the original jib halyard system (or blocks of equivalent size and function). No additional blocks may be used. The jib halyard system may be rigged for no more than a 5:1 mechanical advantage maximum. The halyard tail shall be rope and shall terminate on a mast-mounted horn cleat.
- C.8.2 The main halyard must be constructed of line and may have a metal ring or thimble in it. The purchase system for the main halyard should be no more than a 2:1 purchase.
- C.8.3 The spinnaker halyard may consist of one fairlead and one cleat mounted on the aft of the centerboard case for the spinnaker halyard.
- C.8.4 Spinnaker pole uphaul/downhaul. A combination spinnaker pole uphaul/downhaul system using only rope and shock-chord may be fitted using the existing mast hardware, existing main Cunningham cleat or Centerboard Cap hardware, together with a hook for attaching to the pole. The turning point on the keelson for the pole downhaul may be a fairlead or a block
- C.8.5 Mainsheet bridle. The mainsheet may be trimmed to a bridle. If used, the bridle shall be made of no more than two pieces of line which shall be attached to the ends of the traveler bar or end bracket. The original traveler block supplied by a Builder (or a substitute of equivalent size and function) shall always be positioned as close to the boat's centerline as possible. The bridle may use no additional hardware other than a pin, shackle, eye strap or bolt through the holes on each end of the traveler or the deck strap attached to the end of the traveler and a metal thimble to reduce chafe at the block. The bridle may be adjusted while racing. The mainsheet system shall have a maximum purchase of 4:1.
- C.8.6 The trapeze system shall consist of one steel trapeze wire, diameter not less than .08 inches (2mm) and a minimum length of 118 inches (3000mm), no more than two lengths of line, one cleat, one sheave, one handle and one ring on each side. The ring may be fitted with an additional sheave. An elastic cord return system with three fairleads and one piece of bungee may be used. Self tacking trapeze systems are not permitted.

- C.8.7 Hiking straps. Short pieces of line or webbing may be used to secure the hiking straps at both ends and to the traveler bar. Shock cord may be used to hold up the straps. The position of the hiking straps shall not be adjusted while racing. Adjustment cleats are not permitted. The hiking straps may be folded over at the traveler bar as to eliminate the hiking strap for the crew and only have a hiking strap for the skipper.
- C.8.8 An all metal extension to the pin used to attach the lower end of the fitting connecting the shroud to the boat may be added to serve as a spinnaker after-guy hook.
- C.8.9 Spinnaker bags that close through a combination of cloth and or shock cord are permitted. Shock cord may also be attached to the bottom of the spinnaker bag to assist in the stowage of the spinnaker pole.

Sails

- C.9.0 No sail is permitted unless it originated from an official class Builder and manufactured by the official class Sailmaker. A sail with a patch identical to the graphic depicted in (*Exhibit B*) shall be proof that the sail originated from the official class Sailmaker. A competitor using a sail without such a patch bears the burden of proving that the sail originated from the official class Sailmaker.
- C.9.1 Except as provided in these Rules, no modifications to sails are allowed. Torn sails may be repaired, but not re-cut or re-shaped.
- C.9.2 No sails other than one mainsail, one jib and one spinnaker shall be onboard while racing.
- C.9.3 In a series of races, a sail shall not be changed for another sail unless written permission for the change is obtained from the protest committee prior to the change, or if the protest committee is not available, promptly after the change and the protest committee is available. Written permission shall be given only in the event of a sail damaged beyond repair or damaged to the extent that it cannot be repaired before the start of the next race in a series.
- C.9.4 The webbing and or seizing as supplied on the jib at the tack may be substituted with a line or jib Cunningham that may be used to adjust the luff tension.
- C.9.5 The jib luff wire must be supplied by the builders of the class.
- C.9.6 The entire foot of the mainsail shall be lead through the boom sail track at all times while racing.
- C.9.7 Battens shall only be replaced with the same size and dimension battens. No tapered battens will be allowed.
- C.9.8 North Sails, the sail manufacturer of the Club 420 Class Association, is allowed to have a manufacturer patch up to 5 inches in Diameter on the mainsail.

Sail Numbers

C.10 Sail numbers shall be attached on each side of the mainsail just below the second batten from the top. They shall be positioned on a line parallel to the seams and shall be solid, all the same color, clearly visible, easy to read and non-overlapping. The numbers on the starboard side shall be higher.

C.10.1 Sail Numbers are not required on spinnakers.

C.10.2 Sail Numbers and letters shall be of the following dimensions:

Height: Minimum 11.8 inches (300mm)

Width: Minimum 8.2 inches (200mm) (except number "1" and letter "I")

Thickness: Minimum 1.8 inches (45mm)

Space between numbers: Minimum 2.0 inches (50 mm)

Distance from leech to aft-most digit: Min 3.1 inches (80 mm); max 6.3

inches (160 mm) Distance between bottom of starboard-side

numbers and top of port-side numbers: Minimum 2.0 inches (50 mm); maximum 3.1 inches (80 mm).

EXHIBIT A - Inspection Form**Club 420 Association Inspection List**

This Inspection List is not intended to replace or supplant the Class Rules of the Club 420 Association. In the event of conflict between this Inspection List and the Class Rules of Club 420 Association the latter shall govern.

Skipper Name: _____

Sail Number: _____

Inspection Item Check mark means "YES"

1. The Skipper represents that he or she has not made any addition or alteration to the hull form, construction, equipment, type of equipment, placing of equipment, fittings, type of fittings, placing of fittings, spars, standing rigging, sails, battens and running rigging as supplied by a Builder except as allowed by the Class Rules. (Rule A.1.1) _____

2. 40 ft **Towline**, 3/8 inch in diameter, that floats, and is tied to the mast or bow shackle. The towing line shall be accessible on the deck within 6 inches of the bow stem at all times, including when capsized. Tape or velcro may be used to help secure the towing line to the bow deck or stem. (Rule C.4.3) _____

3A. If US Citizen or US resident: a **US Coast Guard approved PFD** will be used at all times while afloat. (Rule C.3.5) ____

3B. If **Non US Citizen** or non US resident: a PFD approved by USCG or the country of competitor's citizenship or residence will be used at all times while afloat. (Rule C.3.5) ____

4. **Whistle** attached to PFD by lanyard long enough for competitor to use. (Rule C.3.6) ____

5. Boat has a line to keep **rudder** connected to boat in event of capsize or turtle. (Rule C.4.4) ____

6. Forestay (including any extensions which must be metal) is short enough to hold the widest part of the mast forward of the aft face of the mast partner when the jib halyard is released. (C.4.5) ____

7. Trapeze system, in addition to trapeze wire, has only one cleat, one or two sheaves, one handle and one ring on each side. (C.8.6) ____

8. Mainsail, jib and spinnaker were manufactured by the official Class Sailmaker and have the official Class patch. (C.9.0) ____

9. If electronic, only a compass with heading, heading memory, and timing functions is permitted. Other electronic devices except a digital timing device, electronic compass, and a camera are not permitted to be carried on board while racing unless allowed in the NOR. (Rule C.3.8) ____

10. Skipper and Crew are current members of the Club 420 Class Association. (Rule C.3.0) ____

I affirm that I am the skipper of C420 with Sail # _____, entered in the _____ Club 420 Assn. Championship and that I have carefully reviewed this list, and by placing a check next to each item understand that I am representing to the Race Committee that I and my crew are in compliance with the requirements of the Class Rules.

Skipper Signature: _____

Date: _____



EXHIBIT B- Class Legal Sail Patch

EXHIBIT C- Class Legal Parts Sticker

