The ClubSwan 50 was designed in 2016 by Juan Yacht Design and was adopted as a World Sailing class in 2017.
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INTRODUCTION

This section forms part of the Class Rules.

ClubSwan50 is a strict ONE DESIGN class for OWNER DRIVER RACING only.

The intention is to have the “basic CS50 boat configuration” certified as OD boat for racing. This basic configuration is the highest performance option. If a CS50 has been equipped with additional standard, optional equipment packages by Nautor, those boats may obtain a specific individual rating certificate for racing under a rating rule. However, when such boats are racing in a CS50 OD Regatta event there shall be no time correction.

ClubSwan50 hulls, hull appendages and rigs are manufacturer controlled and certified.

ClubSwan50 hulls, hull appendages and rigs shall only be manufactured by Oy Nautor Ab and its suppliers. Equipment is required to comply with the ClubSwan50 Building Specification and maybe subject to a ClubSwan50 approved manufacturing control system.

ClubSwan50 hulls, hull appendages and rigs may, after having left the manufacturer, only be altered to the extent permitted in Section C of the class rules.

Rules regulating the use of equipment during a race are contained in Section C of these class rules, in ERS Part I, the Racing Rules of Sailing and the Notice of Race and/or Sailing Instructions.

All ClubSwan50 class racing is intended to be carried out under OSR category 4 unless specifically stated as a higher category in the NOR for an event. It is only anticipated this will only apply when an event requires a higher category of OSR to apply.

PLEASE REMEMBER:

THESE RULES ARE CLOSED CLASS RULES WHERE IF IT DOES NOT SPECIFICALLY SAY THAT YOU MAY – THEN YOU SHALL NOT.

COMPONENTS, AND THEIR USE, ARE DEFINED BY THEIR DESCRIPTION.
PART I – ADMINISTRATION

Section A – General

A.1 LANGUAGE
A.1.1. The official language of the class is English. Except for words defined herein, the meaning of any word shall be determined by reference to the Oxford English Dictionary, Second Revised Edition (2009) – CD Rom Version 4.0 (Oxford University Press 21 May 2009) or any later published version. When there is more than one definition in the Dictionary, the 50CA shall determine the appropriate definition.

A.1.2 When a term is used in class rule or building specification defined sense, it is printed in underline italic type.

A.1.3 When a term is used in the Equipment Rules of Sailing (ERS) defined sense, it is printed in bold type.

A.1.4 When a term is used in the Racing Rules of Sailing (RRS) defined sense, it is printed in italic type.

A.1.5 The words “shall” and “must” are mandatory. The words “may” and “can” are permissive. The word “should” is advisory.

A.1.6 This class rule is a closed rule. Anything not specifically permitted by the class rules is prohibited.

A.2 ABBREVIATIONS & DEFINITIONS
A.2.1 ABBREVIATIONS
CS50 The ClubSwan50 Class of boat
50OA The ClubSwan50 Owners Association
50CA ClubSwan50 Class Authority
50HEC ClubSwan50 Helm Eligibility Committee
ERS World Sailing Equipment Rules of Sailing
NH Nautor Holding SRL
ONA Oy Nautor Ab: the builder of the ClubSwan 50
OSR World Sailing Offshore Special Regulations
WS World Sailing
RRS Racing Rules of Sailing

A.2.2 DEFINITIONS
Building specification means the boat as described and detailed in associated documentation that defines the design, construction, assembly and quality control as approved by the 50CA.
Designer Juan Yacht Design as a subsidiary of JK & Co.
Quality Assurance Documents means the quality assurance documents that have been completed as required by the 50CA during the construction and assembly of that specific CS50 boat.

CS50 sail card means the certification confirmation sticker or similar attached to every CS50 approved sail.

Certification condition means the condition of the boat when first weighed and certified prior to commissioning.

Racing Season means the CS50 races scheduled for a given calendar year that are agreed at the previous AGM.

A.3 AUTHORITIES
A.3.1 The class rules authority is the 50CA, which shall co-operate with NH in all matters concerning these class rules. The 50CA members shall be the class chief measurer, a representative of the designer and a representative of NH.

A.3.2 Only the 50CA may issue or invalidate a certificate.

A.3.3 The Helm Eligibility Committee is the 50HEC. The 50HEC members shall be two owner's or owner's representatives and the Class manager.

A.3.4 The 50OA, 50CA, 50HEC or NH and its officials or employees, MNA, the certification authority, or an official measurer, or equipment inspector are under no legal obligation or responsibility in respect of these Class Rules or the accuracy of measurement.

A.4 ADMINISTRATION OF THE CLASS
A.4.1 NH has delegated its administrative functions of the class to the 50CA. With the agreement of NH the 50CA may delegate part or all of its functions, as stated in these class rules.

A.5 QUESTIONS
A.5.1 An owner or an owner's representative may ask a question in writing relating to these class rules, the question and the answer will be posted on the ClubSwan50 official notice board. The answers will not form any part of the class rule and are for information purposes only, questions should be addressed to: andrew@rorcrating.com

A.6 CLASS RULES AMENDMENTS
A.6.1 Amendments to these class rules may only be made by the 50CA, with the approval of NH and World Sailing in accordance with the World Sailing Regulations for World Sailing Classes. Amendments may be made at any time.

A.6.2 The 50OA may seek an amendment by submitting a request in writing with agreement of at least 67% of the 50OA. The 50CA may seek third party opinion at its discretion to determine whether an amendment is to be made. All owners shall be given up to 14 days to make comment to the 50CA. After this time a final decision will be made by the 50CA and NH and posted on the CS50 notice board.
A.7  CLASS RULES INTERPRETATION
A.7.1 An owner may seek an interpretation by submitting a request in writing to the 50CA, or the 50CA may initiate an interpretation.
A.7.2 A fee may be applied by the 50CA for each individual question as agreed between the 50CA and NH.
A.7.3 An owner shall not rely on any advice or opinion from a member of the 50CA or NH, or any other party, in matters relating to the interpretation of these class rules other than through a written interpretation published by the 50CA.
A.7.4 The 50CA is the only body with authority to interpret the class rules subject to the approval of World Sailing. If an owner considers an interpretation may incorporate an amendment to the class rules the matter shall be referred to NH. If NH agrees that aspects of the interpretation could be considered as an amendment and gives approval, a separate amendment shall be issued. If NH does not approve any aspect that could be considered as an amendment, the matter shall be passed to a protest committee to determine whether the 50CA has changed a class rule through an interpretation. If the matter relates to ambiguous or inconsistent wording, the protest committee (see RRS 91) shall not interpret the class rules, but shall be bound by the 50CA decision.

A.8  SPARE

A.9  SAIL NUMBERS
A.9.1 RRS Appendix G1 shall be applied. In accordance with RRS G1.1(c), sail numbers shall be issued by the 50CA.
A.9.2 Sail numbers shall be issued in consecutive order starting at “001”.
All boats will show a“5” preceding the boat #.
For example, boat # 001 would show FIN 5001.
A.9.3 Sail numbers may be issued to charterers using their own sails, by the 50CA in consecutive order starting at 5101.
If a charterer becomes the owner of a CS50 the sail number shall be in accordance with A.9.2.
At the discretion of the 50CA a charterer sail number may be transferred between charterers.
A.9.4 All sail numbers must be displayed as defined in Appendix E.

A.10  CERTIFICATION
A.10.1 When the 50CA concludes that the boat complies with the class rules, having carried out all necessary checks and measurement to ensure that the building specification has been met in its entirety and that all quality assurance tests and documentation has been completed, and that the final assembly has been approved, it shall issue a certificate.
A.10.2 A copy of the certificate will be supplied to the boat and NH.
A.11 SPARE

A.12 INVALID CERTIFICATES
A.12.1 A certificate becomes invalid when:

(a) following an inspection the 50CA determines that a boat does not comply with the class rule, that boat’s certificate shall be made invalid,

(b) following an inspection the 50CA determines that a boat has been modified, tampered with or repaired in any way that has not been approved in writing by the 50CA for that particular boat, that boat’s certificate shall be made invalid until such time as the work can be rectified in a manner approved by the 50CA and the boat has been inspected and is class rule compliant.

(c) there is a change to any items recorded on the certificate as required under A.10,

(d) the expiry date is passed,

(e) the certificate is withdrawn by the 50CA,

(f) a new certificate is issued,

(g) there is a change of ownership.

A.13 RE-CERTIFICATION

A.13.1 The 50CA may re-issue a certificate to a previously certified boat when:

(a) it is invalidated under A.12.1(d) or (g), after receipt of the old certificate, and any certification fee if required.

(b) it is invalidated under A.12.1 (a), (b), (c) or (e), at its discretion.

(c) one or more of the rules in A.12 has applied.

A.14 RETENTION OF CERTIFICATION DOCUMENTS

A.14.1 The 50CA shall retain the original documentation upon which the current certificate is based, including all quality assurance documents.
Section B – Boat Eligibility

For a boat to be eligible for OD racing, it shall comply with the rules in this section.

B.1 CLASS RULES AND CERTIFICATION

B.1.1 The boat shall;
(a) be in compliance with the class rules at all times unless written approval is provided by the 50CA.
(b) have a valid certificate.
(c) have valid certification marks as required
(d) not be altered in any way without approval of the 50CA.

B.2 WEIGHT CHECK

B.2.1 All boats racing in CS50 OD events shall carry out a yearly single point weight check prior to the mid-year CS50 event in which they have entered that calendar year. In all cases the weight check shall be completed in the calendar year prior to a CS50 World Championship. In addition to this annual weight check Equipment Inspection for an event may include a boat weight check.

B.3 CLASS MARKINGS

B.3.1 Every sail shall carry a CS50 sail card attached as specified in rule C.10.

B.4 GRANDFATHERING AND ALLOWANCES FOR CRUISING OPTIONS

B.4.1 To be agreed by the 50CA.
PART II – REQUIREMENTS AND LIMITATIONS

The crew and the boat shall comply with the rules in this Part II when racing in CS50 OD regattas. In case of conflict Section C shall prevail.

The rules in Part II are closed class rules. Certification control and equipment inspection shall be carried out in accordance with the ERS except where varied in this Part.

Section C – Conditions for Racing

C.1   GENERAL

C.1.1 RULES
(a) The ERS Part I, II, and III shall apply.
(b) The boat shall be equipped to the Offshore Special Regulations Category 4. However, the NOR may prescribe additional requirements.
(c) Lifelines shall be of stranded stainless-steel wire as specified in the building specification.

C.1.2.  CS50 CLASS RACING RULES
(a) TWS limit Rule
Races of any CS50 Class events shall not start with less than 5 and more than 28 knots of true wind speed measured by the Race Committee during a 3-5 minutes period on deck level. The decision to conduct a race lies solely with the Race Committee, and it is a skipper’s sole responsibility to decide to participate in the race.

C.2   CREW

C.2.1 HELMSMAN
(a) Only a person who is a member of the 50OA and is the registered owner of at least 50% of the boat and contributing an equivalent proportion to the running costs may helm their boat whilst racing, except;
(b) A relief helmsman, (see rules C.2.3), or;
(c) An alternative helmsman, (see rule C.2.4), or;
(d) 50OA charter member who has chartered the boat for the event.
(e) A 50OA charter member shall be approved by the 50CA using the criteria in C.2.4 for an alternative helmsman.

C.2.2 CREW LIMITATION
(a) The crew shall consist of no more than 5 persons either uncategorized or categorized as Group 3 under World Sailing
Regulation 22, Sailor Categorization. All other crew shall hold a valid Group 1 categorization.

(b) The total weight of the crew dressed in shorts and shirt shall not exceed 980kg. The helmsman referred to in rules C.2.1(a) may declare a weight of 85kgs and be exempt from any crew weighing requirements. Crew weight will only be checked once before each event on a date specified in the NOR, but at least one day prior to the first race. These requirements may be amended by a Notice of Race.

C.2.3 RELIEF HELMSMEN.

(a) An owner or charterer may request permission for relief helmsmen in writing to the 50HEC a minimum of 14 days before a race.

(b) A relief helmsman is defined as: A member of the crew, currently categorized as World Sailing Group 1, nominated by the owner or charterer to helm the boat as permitted by Rules C.2.3 (c) or (d). Or any family member or relative of the owner or charterer who is not categorized as World Sailing Group 3 may helm the boat.

(c) Except in an emergency, during a race with a time limit up to 4 hours a relief helmsman shall not helm the boat:
   (i) at the start or finish of a race.
   (ii) at any mark rounding.
   (iii) for more than a total of 20 minutes.

(d) Except in an emergency in a race with a time limit of more than 4 hours, the boat shall be helmed by her bona fide owner or 50OA charter member for the first hour of the race. Thereafter the boat may alternatively be helmed by any previously approved relief helmsmen.

(e) Notices of race may modify Rules C.2.3.

C.2.4 ALTERNATIVE HELMSMEN

(a) An owner or charterer may request permission for alternative helmsmen in writing to the 50HEC a minimum of 14 days before a race. As a minimum the following criteria will be used as part of the approval process. Additional criteria may be set at the discretion of the 50HEC. Previous acceptance of an Alternative Helmsman for an event does not guarantee approval for future events.

   (i) be Categorized Group 1 under the World Sailing Categorization Code.

   (ii) in the last 6 years have only been categorized as Group 1, or would have been so categorized had a categorization been held.

   (iii) not have competed in the Olympic Games (Sailing), Volvo Ocean Race or in an America’s Cup or Challenger Series within the last fifteen years.

   (iv) not have been in the top 50 of the World Match Racing Rankings for the past fifteen years.
C.2.5 OWNER OR CHARTER HELMSMAN ABSENT
In the unavoidable absence of an Owner or previously approved Alternative Helmsman, the 50HEC or 50CA may approve a Temporary Alternative Helmsman for a limited time period.

C.2.6 GUESTS
Unless prohibited by the Notice of Race. Boats are welcome to carry one guest in addition to the crew to promote the CS50 Class and One-Design Sailing
(a) It is the sole decision of the boat owner to invite a guest onto their boat or a boat that they have chartered.
(b) Permission to carry a guest shall be requested from the 50CA prior to the race day that the owner wishes to carry a guest. Unless approval is given a guest is not permitted.
(c) A guest crew shall hold a valid Group 1 categorization.
(d) A guest may only join a team for the entire race day.
(e) With permission from the 50CA for dispensation from Appendix H a guest may embark or disembark a boat before or after a race by a support boat.
(f) A guest shall not become part of the permanent crew and it is limited that the same guest may not join the crew for more than 2 race days during the same event. If an owner has requested permission to invite a guest for a day it is mandatory that a guest joins the boat for the selected race day(s).
(g) A guest must stay behind the helmsman while racing and they shall not fulfil a designated crew role during manoeuvres. A guest is permitted to move from the allocated position for a toilet break.
(h) Guests shall wear clothing that clearly distinguishes them from the rest of the crew.
(i) There is no weight limit for guests and an approved guest is excluded from the crew weight detailed in C.2.2 (b).

C.3 PERSONAL EQUIPMENT
There are no restrictions or requirements on personal equipment except where stated in an events Notice of Race.

C.4 ADVERTISING
C.4.1 LIMITATIONS
Advertising shall only be displayed in accordance the WS Advertising Code. See WS Regulation 20, unless a change is permitted by written agreement with WS.

C.4.2 All CS50 logos and NH specified logos and branding will be applied as defined in these class rules and the NOR if applicable.

C.5 PORTABLE EQUIPMENT
There are no restrictions or requirements on portable equipment except where stated in these class rules or an events Notice of Race.
C.6  CS50 OD BOAT

C.6.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) No modifications are permitted unless specified by an amendment to the class rule or with the prior approval of the 50CA.

(b) All maintenance shall be carried out in a way that the boat is retained in the original condition as when first launched, unless changes are made as a result of an amendment to the class rules.

(c) Repairs may only be carried out by parties approved by NH. If an owner considers that any repair may be necessary, they shall inform the 50CA immediately, who shall determine what action shall be taken. Temporary repairs may be carried out during a CS50 Event prior to requesting permission from the CS50 if no CS50 representative is available.

(d) All components shall be retained in compliance with the building specification.

(e) In the event of the 50CA requiring confirmation of continued compliance with the building specification following a repair or work carried out, comparisons may be made to at least 3 other class compliant boats to evaluate whether continued compliance has been met at the 50CA’s discretion.

(f) The following items may be moved or removed as detailed below:

   (1) Cabin doors – Cabin and shower compartment doors may be removed (The toilet door is not removable).
   (2) Saloon hinged seat backs may be removed.
   (3) Owner’s cabin side panels may be moved for protection to under the Owner’s cabin berth.
   (4) Interior fabrics may be replaced with alternatives supplied by ONA.

(g) The use of velcro, shockcord, teflon tape, flexible adhesive tape, lashing, rings, pulleys, shackles are unrestricted as long as this does not modify the sheeting angle of any sail when loaded. This does not permit additional fittings to be permanently attached or holes to be made.

(h) Rollers, tubes or similar may be added to the lifelines to protect or clear the spinnaker or headsail on drops or manoeuvres. Padding, or similar may be fitted to the lifelines for crew comfort whilst hiking.

C.6.2 MEASUREMENT CONDITION FOR BOAT AND ADDITIONAL OPTIONS

The CS50 is available in two basic configurations (2 cabin or 3 cabin). Both are treated the same with regards to class controls and all measurements and considered as the Base Boat.

(a) Additional standard options are available as listed in Appendix F & G.

(b) Any additional options listed in Appendix F (cruising features) may be removed for the purpose of all class measurements, equipment
inspection and whilst *racing*. If included for the purpose of Class Measurement and recorded on the Class Certificate they are not permitted to be removed or modified whilst racing. Systems and items not listed in Appendix F may not be removed or modified for Class Measurement or Racing.

(c) Any additional standard racing option listed in Appendix G (performance features) shall remain on board for the purposes of all class measurements, equipment inspection and whilst *racing*.

C.6.3 WEIGHT OF BASE BOAT INCLUDING PERMANENTLY INSTALLED OPTIONS
(a) The weight of the **boat** in *certification condition* shall not be less than 7,750kg.
(b) The weight of the **boat** in *measurement condition* shall not be less than 8,150kg.

C.6.4 MEASUREMENT CONDITION
C.6.4.1 *Certification Condition* shall be the condition as specified in the *building specification* as presented in final assembly. It shall not include all the components specified in the *measurement condition*.

C.6.4.2 *Measurement condition* shall include:
(a) the **hull** including all components specified in the *building specification*;
(b) all **hull appendages** including all components specified in the *building specification* and any **hull appendage corrector weights**;
(c) **mast**, **boom** and **bowsprit** including all components specified in the *building specification* and **corrector weights**;
(d) all running rigging as specified in Appendix D;
(f) Liquids, which shall be maintained at minimum service levels as specified in the *building specification*.

C.6.4.3 *Measurement condition* shall NOT include:
(g) crew, guests and media personnel;
(h) personal equipment;
(i) sails, including bags, battens, luff cables, furling drums and associated fittings, **running rigging** not specified in Appendix D;
(j) spares and tools;
(k) portable safety equipment;
(l) drinks and food;

C.6.5 CORRECTOR WEIGHTS
(a) **Corrector weights** shall be permanently fastened forward of Bulkhead B and aft of Bulkhead F. When the weight in *measurement condition* is less than the minimum requirement, **corrector weights** shall be distributed equally between the **corrector weight** locations.
Corrector weights shall be permanently marked by the measurer after fixing.

(b) The total weight of such **corrector weights** shall not exceed 40 kg. See also rule B.1.1.

(c) **Corrector weights** shall only be applied and adjusted as specified by the 50CA and once installed shall not be removed or moved unless by the 50CA, those values shall reflect those shown on the **certificate**. Adjustment of **corrector weights** shall only be made after measurement in **measurement condition** has been repeated following a significant repair or alteration.

C.7 HULL

C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) Foot chocks may be permanently fastened on the cockpit sole. The position is optional.

(b) All maintenance shall be carried out in a way that the **hull** is retained in the original condition as when first launched, in accordance with any instructions contained in the owner’s manual.

(c) Waxing, polishing and application of small quantities of friction-reducing compounds (for example, McLube) on the **hull** is permitted provided the intention and effect is to polish only.

(d) Only paint systems generically specified as two-component linear polyester saturated aliphatic polyurethane, two-component epoxy urethane, or two-component acrylic urethane may be used as the outermost surface finish of the **hull**. No materials other than manufacturer-supplied retardants, accelerants, thinners and pigments shall be added. Similarly, the specific gravity of the paint shall not be altered with any material other than those specified above.

(e) The application of vinyl, mylar or other plastic film over the surface of the **hull** for advertising or branding is permitted, provided that the film shall not be specially textured or otherwise manufactured in a way that could improve the character of the flow of water inside the boundary layer.

(f) The outermost surfaces of the **hull** may be sanded and cleaned provided only the surface finish is affected, and the effect of the sanding is consistent over the surface of the **hull** below the **water plane**.

(g) Repairs may only be carried out by parties authorised by NH. If an **owner** considers that any repair may be necessary, they shall inform the 50CA immediately, who shall determine what action shall be taken. Temporary repairs may be carried out during a CS50 Event
prior to requesting permission from the CS50 if no CS50 representative is available.

(h) All components shall be retained in compliance with the building specification.

(i) Alternative attachment of the sail drive cover plates (such as laminating is permitted in addition to local filling of the joints between the cover plates and the hull to provide a smooth finish. The gap between the sail drive leg shall remain as supplied by ONA.

(j) All through-hull fittings (seacocks) shall remain operable and shall not sealed. A measurer may request these to be opened to demonstrate that they are operable.

C.7.2 FITTINGS

(a) Inspection hatch covers and drainage plugs shall be kept in place at all times.

(b) The following items have more than one option supplied by ONA. No alternatives to the options supplied by ONA are permitted:

(1) Spinnaker Tack Line Constrictor (Annex B – Items 401 & 402) may be replaced with a Spinlock SPXX0812 – Position to be as specified by ONA.

(2) Spinnaker Sheet Constrictor (Annex B – Items 403 P & S) may be replaced with a Spinlock SPXX0812 – Position to be as specified by ONA.

(3) Spinnaker Sheet Block (Annex B – Item 414 P & S) may be replaced with alternatives as approved by the 50CA

(c) Strop attachments for blocks may be replaced by alternative materials however the function and size must correspond to the original ONA specification.

C.8 HULL APPENDAGES

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) No modifications are permitted unless specified by an amendment to the class rules or building specification.

(b) All maintenance shall be carried out in a way that the hull appendage is retained in the original condition as when first launched.

(c) Waxing, polishing and application of small quantities of friction-reducing compounds (for example, McLube) on the hull appendages are permitted provided the intention and effect is to polish only.

(d) Only paint systems generically specified as two-component linear polyester saturated aliphatic polyurethane, two-component epoxy urethane, or two-component acrylic urethane may be used as the outermost surface finish of the fin and bulb. No materials other than manufacturer-supplied retardants, accelerants, thinners and
pigments shall be added. Similarly, the specific gravity of the paint shall not be altered with any material other than those specified above.

(e) The outermost surface finish paint system used on the rudders shall be as specified in the building specification.

(f) The outermost surfaces of the fin, bulb and rudders may be sanded and cleaned provided only the surface finish is affected, and the effect of the sanding is consistent over the surface of the appendage.

(g) Repairs may only be carried out by authorised parties. If an owner considers that any repair may be necessary, they shall inform the 50CA immediately, who shall determine what action shall be taken. Temporary repairs may be carried out during a CS50 Event prior to requesting permission from the CS50 if no CS50 representative is available.

(h) All components shall be retained in compliance with the building specification.

(i) The 50CA may check measure the sectional shape and plan-form of any appendage at an event using templates. Such templates shall not be available to owners for modifications within the class tolerances.

(j) It is permitted to add a chamfer to the trailing edge of the keel fin and rudders to remove “flutter”. The chord and plan-form shall not be reduced in size.

(k) Keel Drain Bung – The keel drain bung shall always remain in place when the boat is in the water. It is not permitted to intentionally fill the keel fin void with water. If removed the drain bung shall be sealed with Locktite 577 or PTFE tape.

C.8.2 LIMITATIONS

(a) Only one fin, one bulb, and two rudders shall be used during an event except when a hull appendage has been lost or damaged beyond repair as determined by the 50CA.

C.8.3 RUDDERS

(a) USE

(1) Both port and starboard rudders shall be installed at all times whilst racing.

(2) All components of the steering system shall remain installed and fully functional at all times whilst racing.
C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) No modifications are permitted unless specified by an amendment or change to the class rules or building specification.

(b) All maintenance shall be carried out in a way that the rig is retained in the original condition as when first launched.

(c) Repairs may only be carried out by authorised parties. If an owner considers that any repair may be necessary, they shall inform the 50CA immediately, who shall determine what action shall be taken. Temporary repairs may be carried out during a CS50 Event prior to requesting permission from the CS50 if no CS50 representative is available.

(d) All components shall be retained in compliance with the building specification.

(e) The following items have more than one option supplied by ONA. No alternatives or modifications to the options supplied by ONA are permitted.

(1) V1 Turnbuckles

(2) Vang Knuckle – The alternative design supplied by ONA is permitted. No modification to the original fitting design is permitted.

(3) Running Backstay Strops

(4) Running Backstay Cable Length – An alternative cable length to the standard is permitted however the properties (modulus, breaking strength & weigh/meter) may not be modified from the standard specification. Running backstays shall only be supplied by a supplier licenced by ONA.

(5) Bobstay with Adjustment – ONA Supplied or SoluzioniTessili Rigging SK99 “Pin to Pin” Bobstay CS50 Standard Specification Only (Bobstays first fitted prior to 1/1/2019 using equivalent materials may be accepted at the discretion of the 50CA )

(6) Hydraulic Flow Adjustment Valves – Up to 4 hydraulic flow adjustment valves (1 per Hydraulic Function) may be fitted. These valves shall be supplied by ONA.

(7) Blocks for either 3:1 or 4:1 runner backstay purchase as specified by ONA.

C.9.2 FITTINGS

(a) USE

(1) All fittings shall remain in place as required by the class rules at all times whilst racing.

(2) Running rigging shall remain lead unless being replaced or repaired. All halyards shall be of a specification suitable for the intended application. When not in use halyards may be hoisted.
up the rig with a retrieval line providing the halyard that remains in the rig is the same section of halyard that would be in the rig if a sail had been hoisted on the halyard. The means of attaching the sail to the halyard must remain attached to the halyard.

(3) Standing rigging shall not be adjusted whilst racing. In the period between races standing rigging may be adjusted but shall be locked prior to recommencing racing.

C.9.3 LIMITATIONS
(a) Only one set of spars and standing rigging shall be used during an event, except when an item has been lost or damaged, and the race committee and 50CA have approved the substitution.

C.9.4 MAST
(a) DIMENSIONS
(1) All dimensions shall be in compliance with the building specification.
(2) A lower limit mark and an upper limit mark of minimum width 25mm shall be indelibly marked around the mast.
(3) The maximum distance between the lower point and the top surface of the mast base plate shall not be greater than 1.566m when measured at the aft face. The height of the mast shims shall not exceed 52mm.
(4) The maximum distance between the lower limit mark and the upper limit mark shall not be greater than 20.050m.

(b) USE
(1) The spar shall be stepped in the mast step in such a way that the heel shall not capable of moving more than 4mm in a fore and aft or transverse direction.
(2) The height of the mast shims shall not exceed 52mm made up by:- 20mm, 6mm, 5mm, 3mm, 2mm & the 16mm shim fitted with the bumper bars. The 20mm bottom shim and the 16mm top shim fitted with the Fwd & Aft Bumpers shall be in place at all times whilst racing.
(3) Standing rigging tension and mast step load shall be within the manufacturer’s guidelines as defined in the owner’s manual.
(4) A luff support device other than the CS50 cruising furler option (see Appendix F) shall not be installed on the forestay.
(5) Halyards shall remain lead, and shall not be “moused out” at any time whilst racing except when being replaced or repaired.
(6) Running backstays shall remain locked in place at the spar connection at all times whilst racing, and the tails shall remain fully lead and shall not be “moused out” at any time whilst racing.
except when being replaced or repaired. No modification is permitted to increase the purchase from 4:1

C.9.5 BOOM
(a) DIMENSIONS
   (1) All dimensions shall be in compliance with the building specification.
   (2) An outer limit mark of minimum width 25mm shall be indelibly marked around the boom.
   (3) The fore edge of the outer limit mark shall not be more than 7.230m from the aft face of the mast spar.

(b) USE
   The boom shall remain attached to the mast spar at all times.

C.9.6 BOWSPRIT
(a) DIMENSIONS
   The distance from the hull at the lower point of the forestay chainplate to the forward most point on the bowsprit, excluding any sheet retainer, shall not be greater than 1.738mm (TBC)

(b) USE
   The bowsprit shall remain attached to the hull at all times and all tack lines, pull backlines and associated fittings shall remain lead at all times whilst racing.

C.9.7 STANDING RIGGING
(a) DIMENSIONS
   All dimensions shall be in compliance with the building specification.

(b) USE
   Rigging links and rigging screws shall not be adjusted whilst racing.

C.9.8 RUNNING RIGGING
(a) USE
   The following shall be led as shown in Appendix B:
   (1) The mainsail sheet.
   (2) The bowsprit setting and retractions lines.
   (3) Jib sheet Up/Down – Additional lines may not be added to adjust the position of the jib sheet up/down double block (Appendix B - Item 301)

   Purchase systems with a cleat and a maximum purchase of 4:1 may be used. No additional attachments may be fitted than shown in Appendix B.
C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) Sails shall not be altered in any way except as permitted by these class rules.

(b) Routine maintenance such as re-stitching damaged or worn stitching is permitted without re-measurement and re-certification.

(c) In case of repairs or modifications other than routine maintenance, provided not more than a combined maximum of 20% in case of mainsails and headsails and 30% in case of spinnakers of the original body of the sails is replaced, the original class royalty label remains valid. However new certification control is required.

(d) If a sail is destroyed through circumstances beyond an Owner’s or their Crew’s control an Owners may apply to the 50CA for a replacement sail card. Use of a sail in conditions for which it was not intended or handling errors are not considered to be circumstances beyond the Owner or Crew’s control.

(e) Battens may be placed in the batten pockets.

C.10.2 LIMITATIONS

C.10.2.1 SAIL CARD – BOAT OWNERS

(a) CS50 sail cards shall only be issued for a sail that have been certified. Apart from the INITIAL INVENTORY (C.10.2.1 (c)) CS50 sail cards shall not be issued following the start or the first race of the last event of a Racing Season.

(b) The CS50 sail card number shall be recorded in the official inventory for a boat and its owner(s). It is not transferrable unless the boat or the sail is sold. The date of record shall be retained by the 50CA. Transfer of 50CA sail cards when a sail is sold is at the discretion of the 50CA.

(c) In the first CS50 Racing Season that a boat and its owners competes up to eight (8) CS50 sail cards may be issued as the INITIAL INVENTORY for a boat and owner(s). The INITIAL INVENTORY of eight (8) sail cards includes a label that shall only be used on a Staysail.

(d) One (1) additional CS50 sail card may be issued when two (2) or more CS50 events are completed in the first Racing Season prior to the last event.

(e) In addition to the INITIAL INVENTORY a boat may be allocated up to two (2) new CS50 sail cards per Racing Season following the first Racing Season.

(f) For each CS50 event completed in a Race Season after the first season one (1) additional CS50 sail cards may be allocated up to a maximum of three (3) in total. (Additional Sail cards shall not be issued at the event that earns the allocation)
(g) The labels issued under C.10.2.1(d), (e) or (f) are not permitted to be used on Staysails. A label for a Staysail may be issued no more frequently than every 2 full calendar years. Exemption may be given for an early issue (max 2 weeks) of a staysail label if the same event falls earlier in the calendar than 2 years previous.

(h) Unused CS50 sail cards except the eight (8) sail cards of the INITIAL INVENTORY shall not be transferred to the following year.

C.10.2.2 SAIL CARD - CHARTERERS

(a) CS50 sail cards shall only be issued for a sail that have been certified. Apart from the INITIAL INVENTORY (C.10.2.2 (c)) CS50 sail cards shall not be issued following the start of the first race of the last event of a Racing Season.

(b) The CS50 sail card number shall be recorded in the official inventory for a charterer(s) and is not transferrable unless the sail is sold. The date of record shall be retained by the 50CA. Transfer of CS50 sail cards when a sail is sold is at the discretion of the 50CA.

(c) In the first CS50 Racing Season that a charterer(s) competes up to eight (8) CS50 sail cards may be issued as the INITIAL INVENTORY of this charterer(s). The INITIAL INVENTORY of eight (8) sail cards includes a label that shall only be used on a Staysail.

(d) One (1) additional CS50 sail card may be issued when two (2) or more CS50 events are completed in the first Racing Season prior to the last event.

(e) In addition to the INITIAL INVENTORY a boat may be allocated up to two (2) new CS50 sail cards per Racing Season following the first Racing Season.

(f) For each CS50 event completed in a Race Season after the first season one (1) additional CS50 sail cards may be allocated up to a maximum of three (3) in total. (Additional Sail cards shall not be issued at the event that earns the allocation)

(g) For The labels issued under C.10.2.2(d), (e) or (f) are not permitted to be used on Staysails. A label for a Staysail may be issued no more frequently than every 2 full calendar years. Exemption may be given for an early issue (max 2 weeks) of a Staysail label if the same event falls earlier in the calendar than 2 years previous.

(h) Unused CS50 sail cards except the eight (8) sail cards of the INITIAL INVENTORY shall not be transferred to the following year.

(i) At a CS50 event a charterer may use a combination of sails from his own inventory, sails from the inventory of the charter boat or borrow sails from another boat. All sails shall have a valid CS50 sail card.
C.10.2.3  **SAIL CARD – EVENT LIMITATIONS**

(a) The following may be carried onboard or presented for equipment inspection at an event. All these sails shall have valid **CS50 sail cards**:

(1) One *mainsail*
(2) Two full-size headsails (max. 67 m²)
(3) One mid-size headsail (max. 63 m²)
(4) Three masthead *spinnakers* (max. 235 m²)
(5) One spinnaker staysail (must be furling max. 56 m²)

In addition to the above a boat may carry 1 OSR Storm Jib and/or 1 OSR Storm Trysail to comply with the OSR category for an event.

The sails on board shall remain the same from the time the boat leaves the dock each day until the boat has completed racing for the day and returned to the dock.

This rule may be amended by a Notice of Race or permission requested from the 50CA for dispensation.

C.10.3  **MAINSAIL**

(a) **IDENTIFICATION**

The national letters and sail numbers shall comply with the RRS except where prescribed otherwise in these *class rules* and in the NOR.

(b) **USE**

(1) The *sail* shall be hoisted on a *halyard*, which shall remain attached to the *head* of the *sail* at all times whilst hoisted. The arrangement shall permit hoisting and lowering of the *sail* whilst afloat. Once hoisted the *sail* may be held by the halyard locking system.

(2) The highest visible point of the *sail*, projected at 90° to the mast *spar*, shall not be set above the lower edge of the mast *upper limit mark*. The intersection of the *leech* and the top of the boom *spar*, each extended as necessary, shall not be behind the fore side of the boom *outer limit mark*.

C.10.4  **HEADSAILS (EXCLUDING HEAVY WEATHER JIB AND STAYSAIL)**

(a) **USE**

(1) The headsails may be hoisted on the headsail halyard (see Appendix D), which shall remain attached to the *head* of the *sail* at all times whilst hoisted. The *luff* shall be attached to the *foresay* using a hank system, unless the optional cruising furler is installed (see Appendix F). The arrangement shall permit hoisting and lowering of the *sail* whilst afloat. Once hoisted the *sail* may be held by the halyard locking system.
C.10.5 SPINNAKER STAYSAIL
(a) USE
(1) The spinnaker staysail shall be hoisted on the staysail or jib halyard, which shall remain attached to the head of the sail at all times whilst hoisted. The arrangement shall permit hoisting and lowering of the sail whilst afloat. The spinnaker staysail shall be capable of being completely furled.
(2) The spinnaker staysail shall be hoisted on its integral bolt rope.
(3) The spinnaker staysail shall be attached at the deck to the staysail padeye (see Appendix B, item 312).

C.10.6 MASTHEAD SPINNAKERS
(a) IDENTIFICATION
The sail numbers shall comply with the RRS except where prescribed otherwise in these class rules and the NOR.
(b) USE
(1) The sail shall be hoisted on a masthead halyard (see Appendix D), which shall remain attached to the head of the sail at all times whilst hoisted.
(2) The sail may not be furled or reefed.
Section D – Hull

D.1 PARTS

D.1.1 MANDATORY
All items listed in measurement condition.

D.2 GENERAL

D.2.1 RULES
The **hull** shall comply with the **class rules** in force at the time of initial **certification**.

D.2.2 CERTIFICATION

D.2.3 MODIFICATIONS, MAINTENANCE AND REPAIR
See Rule C.7.

D.2.4 DEFINITIONS
The hull builder’s marks identified below shall not be removed or concealed.

(a) HULL DATUM POINT
The **hull datum point** is 150mm above the intersection of the **waterplane** with the **hull** on centre line at the transom in measurement condition.

(b) FORWARD HULL BUILDERS MARKS
Reference marks established on the hull surface on each side 150mm above the designed **waterplane** in measurement condition and 14.335m forward of **hull datum point**.

(c) MIDSHIP HULL BUILDERS MARKS
Reference marks established on the **hull** surface on each side 150mm above the designed **waterplane** in measurement condition and 8.335m forwards of the **hull datum point**.

(d) MIDSHIP DECK BUILDERS MARKS
Reference marks established on the **hull** surface on each side 1.415m above the designed **waterplane** in measurement condition and 8.335m forwards of the **hull datum point**.

D.2.5 IDENTIFICATION
(a) The hull shall carry a World Sailing CS50 Class Plaque permanently placed on the main bulkhead.

D.2.6 BUILDERS
(a) The hull shall be built by ONA.
(b) All moulds shall be approved by 50CA.
D.3 HULL SHELL
The hull shell shall be built in accordance with the building specification.

D.4 DECK
The deck shall be built in accordance with the building specification.

D.5 BULKHEADS AND INTERNAL STRUCTURE
The bulkheads and internal structure be built in accordance with the building specification.

D.6 ASSEMBLED HULL
The assembled hull shall include all components shown and listed in measurement condition. No additional components shall be included.

D.6.1 DIMENSIONS AND WEIGHT
All dimensions shall be in compliance with the building specification and shall be confirmed during construction by the 50CA to meet the requirements of the quality assurance documents.
Section E – Hull Appendages

E.1 PARTS
All items shown in Appendix A.

E.2 GENERAL

E.2.1 RULES
Hull appendages shall comply with the class rules in force at the time of initial certification.

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR
See Rule C.8.

E.2.3 CERTIFICATION

E.2.4 MANUFACTURERS
(a) The hull appendages shall be made by ONA or NH approved builders.
(b) All moulds shall be approved by 50CA.

E.2.5 MATERIALS AND CONSTRUCTION
The hull appendages shall be manufactured in accordance with the building specification.

E.2.6 FITTINGS
All fittings shall be installed as specified in the builder’s specification and owner’s manual.

E.2.7 DIMENSIONS AND WEIGHT
Builder templates shall be used by the 50CA to confirm continued compliance with the build tolerances at any time. Builder templates shall not be available to owners for the purpose of optimising the sectional shape or plan-form of any appendage and shall only be used with the written permission of the 50CA.

E.2.7.1 FIN
(a) CERTIFICATION WEIGHT
The weight of the fin shall not be less than 156kgs nor greater than 160kg and shall be certified by the supplier.
(b) DIMENSIONS
(1) The fin reference mark location relative to the builder’s marks (see Rule D.2.4) shall be in compliance with the limits specified in Appendix A.
E.2.7.2 BULB
(a) CERTIFICATION WEIGHT
The weight of the bulb bare metal component including bolts shall not be less than 3440kg or greater than 3450kg and shall be certified by the supplier.
(b) CORRECTOR WEIGHT
(1) When the bulb weight is less than the maximum permitted, corrector weights shall be located equally in the weight pockets.
(2) Corrector weights shall only be applied and adjusted as specified by the 50CA and shall reflect those values shown on the certificate.

E.2.7.3 RUDDERS
(a) CERTIFICATION WEIGHT
The weight of the each rudder shall not be less than 12.7kg and shall be certified by the supplier.
(b) DIMENSIONS
(1) The rudder reference mark locations relative to the builder’s marks shall be in compliance with the limits specified in Appendix A.
Section F – Rig

F.1 PARTS
All items shown in Appendix D.

F.2 GENERAL

F.2.1 RULES
(a) The spars and their fittings shall comply with the class rules in force at the time of initial certification.
(b) The standing and running rigging shall comply with the class rules.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR
See Rule C.9.

F.2.3 CERTIFICATION
(a) The 50CA shall certify spars and shall sign and date the certification mark.
(b) The 50CA shall certify standing rigging.
(c) The 50CA may appoint one or more In-House Official Measurers to measure and certify standing rigging produced by that manufacturer.

F.2.4 DEFINITIONS
(a) MAST DATUM POINT
The mast datum point is the builder’s reference mark at the mast heel.

F.2.5 MANUFACTURER
(a) The spars shall be manufactured by Southern Spars as licenced by ONA.

F.2.6 MATERIALS AND CONSTRUCTION
The spars shall be manufactured in accordance with the building specification.

F.2.7 FITTINGS
All fittings as shown in Appendix D shall be installed as specified in the building specification and owner’s manual.
(a) The mast step position shall be as specified in the building specification and the position shall not be modified.

F.2.8 DIMENSIONS AND WEIGHT
As specified in Rule C.9 and the building specification.

F.2.8.1 MAST CERTIFICATION WEIGHT & CORRECTORS
(a) The weight of the mast in certification condition shall not be less than 195 kg and shall be certified by the supplier.
(b) The vertical centre of gravity of the mast in measurement condition shall not be less than 10.315m above the mast datum point and shall be certified by the supplier.

(c) When the mast weight in certification condition is less than the minimum requirement and/or the centre of gravity is below the minimum point, corrector weights shall be added to bring the weight and centre of gravity within the limitations.

(d) The total weight of such corrector weights shall not exceed 5.0kg.

(e) Corrector weights shall only be applied and adjusted as specified by the 50CA and shall reflect those values shown on the certificate.

F.2.8.2 BOOM CERTIFICATION WEIGHT

(a) The weight of the boom in measurement condition shall not be less than 47 kg and shall be certified by the supplier.

F.2.8.3 BOWSPRIT CERTIFICATION WEIGHT

(a) The weight of the bowsprit in certification condition shall not be less than 12.6kg and shall be certified by the supplier.

F.3 STANDING RIGGING

F.3.1 MANUFACTURER

(a) The standing rigging shall be manufactured by Southern Spars as licenced by ONA.

F.3.2 MATERIALS AND CONSTRUCTION

All standing rigging shall be manufactured in accordance with the building specification.

F.3.3 FITTINGS

All fittings shall be installed as specified in the building specification.

F.3.4 DIMENSIONS AND WEIGHT

As specified in the building specification.

F.4 RUNNING RIGGING

F.4.1 MANUFACTURER

(a) The running rigging may be manufactured by any supplier.

F.4.2 FITTINGS

All fittings as specified in Appendix B & D shall be installed.
Section G – Sails

G.1 GENERAL

G.1.1 RULES
(a) Sails shall comply with the class rules in force at the time of certification.

G.1.2 CERTIFICATION
(a) The 50CA shall certify mainsails in the tack and all other non-furling sails in the head, furling sails shall be certified in the clew. The certification mark shall be positioned on the starboard side and be signed and dated.
(b) An In-House Official Measurers may certify sails produced by that manufacturer.

G.1.3 SAILMAKER
(a) Sails may be manufactured by any supplier.

G.1.4 IDENTIFICATION
(a) The class insignia shall conform with the requirements as detailed in the diagram in Appendix E.
(b) Sail numbers shall comply with rule A.9.

G.2 MAINSAIL

G.2.1 DIMENSIONS
(a) MHW (Mainsail half width) shall not be greater than 4.67m.
(b) MTW (Mainsail three-quarter width) shall not be greater than 3.12m.
(c) MUW (Mainsail upper width) shall not be greater than 2.18m.
(d) No more than 4 battens which extend from the leech to the mast via a batten car may be installed.
(e) No more than an additional 4 battens which fit within batten pockets that extend from the leech and terminal within the body of the sail and are more than 200mm in length may be installed.
(f) Additional “flutter” battens which extend from the leech and terminal within the body of the sail and are no more than 200mm in length may be installed, provided that when the sail is flattened out in the area of the sail edge, the sail edge hollow, when bridged between the battens noted in G.2.1(d)&(e) only, the sail edge does not extend beyond the straight line.

G.3 HEADSAILS (EXCLUDING HEAVY WEATHER JIB AND STAYSAIL)

G.3.1 CONSTRUCTION
(a) The luff shall be attached to the forestay using a hank system, unless the optional cruising furler is installed (see Appendix F).
(b) No more than 4 battens may be installed.
G.3.2 DIMENSIONS
(a) HSA (Headsail area) shall be calculated as:
   \[ \text{HSA} = 0.0625 \times \text{HLU} \times (4 \times \text{HLP} + 6 \times \text{HHW} + 3 \times \text{HTW} + 2 \times \text{HUW} + 0.09) \]
(b) The maximum HSA for the full-size headsails shall be 67.0m²
(c) The maximum HSA for the mid-size headsails shall be 63.0m²

G.4 SPINNAKER STAYSAIL
G.4.1 CONSTRUCTION
(a) The spinnaker staysail shall be capable of being completely furled.
(b) The spinnaker staysail shall be hoisted on its integral bolt rope.
(c) No more than 3 battens may be installed.

G.4.2 DIMENSIONS
(a) HSA (Headsail area) shall be calculated as:
   \[ \text{HSA} = 0.0625 \times \text{HLU} \times (4 \times \text{HLP} + 6 \times \text{HHW} + 3 \times \text{HTW} + 2 \times \text{HUW} + 0.09) \]
   (2) The maximum HSA for the spinnaker staysail shall be 56.0m²

G.5 MASTHEAD SPINNAKERS
G.5.1 CONSTRUCTION
(a) The sail may not be furled or reefed.
(b) A minimum cloth weight of 36gsm shall apply for any part of the body of the sail.
(c) The body of the sail (see ERS G.1.4(a)) shall be constructed using woven cloth only.

G.5.2 DIMENSIONS
(a) SPA (spinnaker area) shall be calculated as:
   \[ \text{SPA} = \frac{((\text{SLU} + \text{SLE})/2) \times ((\text{SFL} + (4 \times \text{SHW}))/5)}{0.83} \]
   (b) The maximum SPA shall be 235.0m²
   (c) No battens may be installed.
   (d) SHW shall not be less than 75% of SFL.
PART III – APPENDICES

The rules in Part III are **closed class rules**. Measurement shall be carried out in accordance with the ERS except where varied in this Part.

APPENDIX A – HULL APPENDAGE MEASUREMENT
APPENDIX B – DECK LAYOUT
APPENDIX C – SYSTEMS LAYOUT
APPENDIX D – RIG GEOMETRY & RUNNING RIGGING
APPENDIX E – SAIL INSIGNIA & NUMBERS
APPENDIX F – STANDARD OPTIONAL CRUISING FEATURES
APPENDIX G – STANDARD OPTIONAL RACING FEATURES
APPENDIX H – SUPPORT BOATS / RIBS
APPENDIX I – ELECTRONICS
APPENDIX A – HULL APPENDAGE MEASUREMENT
APPENDIX A – HULL APPENDAGE MEASUREMENT

Build Tolerances

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Measured Kport shall not be more than 2mm greater or less than Kstbd.
APPENDIX B – DECK LAYOUT
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### JIB

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<td>301</td>
<td>Jib sheet up/down - Block double sheaves dia.42mm twisted</td>
<td>CUS0001</td>
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<td>Purchase for inhauler /up-down - Block HL web dia.40mm</td>
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<td>RL6.1</td>
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<td>306</td>
<td>Padeyes for easy sailing jib sheet lead and tweekers</td>
<td>Wichard 6605</td>
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<td>28079</td>
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<td>307</td>
<td>T-track 32x6-50 mm hole spacing, black anodized</td>
<td>602.212 B 750mm</td>
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<td>62031</td>
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<td>308</td>
<td>End fitting- simple -T 32x6 track</td>
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<td>End fitting with becket - T 32x6 track</td>
<td>690.250</td>
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<td>310</td>
<td>Genoa car 32x6 L= 160 with central pi-stop, two mini sheaves</td>
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<td>Screw pad eye for inhauler/up-down</td>
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<td>Stay sail screw- padeye</td>
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<td>313</td>
<td>Padeye for purchase dead end (inhauler or up-down )</td>
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<td>315</td>
<td>Single fairlead, Aisi 316</td>
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<td>Fairlead single hole diam 20 mm</td>
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### GENNAKER / CODE 0

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<td>Jammer for 10 mm tack line on stbd side</td>
<td>SPXX0812</td>
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<td>Item</td>
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<td>Bowsprit funnel</td>
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<td>Low friction tandem fairlead</td>
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<td>Hook line for dyneema padeye</td>
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<td>409</td>
<td>Padeye for gennaker, peeling, and external jib sheet</td>
<td>Wichard 6605</td>
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<td>Padeye for Code 0 Barberhauler</td>
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<td>Backstay block attached to item 503 for 4:1 purchase</td>
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<td>Jammer - for halyards</td>
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<td><strong>800</strong></td>
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<td>SZ 60 - 180 opening 399601999</td>
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<td>Hatch for spinnaker drop in corridor</td>
<td>SZ 60 - 180 opening 399601999</td>
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<td>Cleats</td>
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<td>Shroud chainplate + backing plates port/stb</td>
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<td>63252 stbd/63253 port</td>
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<td>Centre pushpit</td>
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<td>Stanchions 610 mm</td>
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<td>Stanchion leg support</td>
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<td>Folding pad eye for life line</td>
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<td>Padeye for tension of constrictors</td>
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<td>Padeye for tension of constrictors</td>
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Item included in basic boat: X  
Optional item: Opt
APPENDIX D – RUNNING RIGGING

The following Running Rigging shall be included in the measurement condition

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<td>Masthead Spinnaker Halyard</td>
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<td>Fractional Hoist Halyard (Spinnaker)</td>
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<td>Jib Hoist Halyard</td>
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<td>Staysail / Halyard</td>
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<td>Staysail Halyard Tail</td>
<td>(Optional)</td>
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<tr>
<td>Deflector Control Line</td>
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<tr>
<td>Halyard Trip Lines</td>
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<td>Gennaker Tack (Second Optional)</td>
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<td>Main Sheet</td>
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<td>Reef Line</td>
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<td>Runner Tail</td>
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<td>Jib Tack Strop</td>
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<td>Jib Car Control Lines</td>
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<td>Cunningham Lines</td>
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<td>Mainsheet Travellers Control Lines</td>
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APPENDIX E – SAIL INSIGNIA & NUMBERS

E.1 IDENTIFICATION IN MAINSAIL

E. 1.1 CLASS INSIGNIA

(a) CS50 class logo on insignia cloth:

The graphic design file is available on the class noticeboard.

(b) DIMENSIONS in mainsail shall be 0.71m x 2.30m

(c) POSITION in mainsail shall be on Starboard side above MTW and on Port side below MTW. Insignia logo shall not interfere with ¾ draft stripes and should be positioned equidistant from any ¾ draft stripe. MTW leech point is the reference point for closest point of Insignia logo to leech:
   - 0.40m to leech
   - 0.20m above/below reference point (starboard and port side)
   - class insignia of both sides are 0.40m separated

E.1.2. SAIL NUMBERS

(a) DIMENSIONS according to RRS G.1.2 (b)

(b) COLOUR of sail numbers on mainsail shall be one of CS50 class insignia C.I. colours, i.e. red, blue or white.

(c) POSITION of sail numbers on mainsail shall be on starboard side above MHW / mid draft stripe and on port side below MHW / mid draft stripe. Sail numbers shall not interfere with draft stripes.

MHW leech point is reference point for closest point of sail number to leech:
   - 0.40m to leech
   - 0.20m above / below reference point
E.1.3. DRAWING
APPENDIX F – STANDARD OPTIONAL CRUISING FEATURES

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<td>Cruising Box Wing Boom</td>
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<tr>
<td>1100084</td>
<td>Large steering pedestal tops for instruments instead of standard</td>
<td>8</td>
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<tr>
<td>2030135</td>
<td>Teak on cockpit sole</td>
<td>30</td>
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<td>2050015</td>
<td>Anchor Windlass</td>
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<td>2050016</td>
<td>Bow Roller &amp; Anchor Handling System</td>
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<td>2070627</td>
<td>Folding mooring cleats at stern, 2 pcs</td>
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<td>5010216</td>
<td>Deck Shower at Stern</td>
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<td>5010230</td>
<td>Watermaker Schenker Smart 80 Analogic</td>
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<td>5010233</td>
<td>Hot water system, Quick 40 I water heater</td>
<td>12</td>
</tr>
<tr>
<td>5020035</td>
<td>Sea water flush in addition to fresh water flush</td>
<td>10.0</td>
</tr>
<tr>
<td>5070143</td>
<td>Air Conditioning System</td>
<td>155</td>
</tr>
<tr>
<td>5080043</td>
<td>Webasto Air Top EVO 40 Genset for heater</td>
<td>35</td>
</tr>
<tr>
<td>6010296</td>
<td>Generator Fischer Panda 8 kW 1000iPMS</td>
<td>170</td>
</tr>
<tr>
<td>6040115</td>
<td>Upgrade of service battery capacity by one 12V 100Ah/3h battery</td>
<td>24</td>
</tr>
<tr>
<td>6100306</td>
<td>Microwave Oven</td>
<td></td>
</tr>
<tr>
<td>7050726</td>
<td>Entertainment Package</td>
<td></td>
</tr>
<tr>
<td>7060446</td>
<td>Autopilot System</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Bunks (Additional Bunks for use at Sea)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spreader Lights</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stove (2 Burner)</td>
<td></td>
</tr>
</tbody>
</table>

The following optional items shall be removed for the purposes of all class measurements however may remain whilst racing.

<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Weight (KG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2100117</td>
<td>Cockpit Table with Folding Leaves</td>
<td></td>
</tr>
<tr>
<td>2110581</td>
<td>Removable sprayhood/dodger for main entrance</td>
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</tr>
<tr>
<td>300948</td>
<td>Blinds and Curtains for Hatches &amp; Windows</td>
<td>10</td>
</tr>
<tr>
<td>3020398</td>
<td>Blackout and Mosquito Screen for Owner's Cabin Hatch</td>
<td>3</td>
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<tr>
<td>7030643</td>
<td>Radar on Transom Post</td>
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<tr>
<td>2050016</td>
<td>Bow Roller &amp; Anchor Handling System</td>
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<tr>
<td>8030202</td>
<td>Jib Furling System with PBO headstay including swivel &amp; Drum</td>
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<tr>
<td></td>
<td>Saloon &amp; Bunk Cushions</td>
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<tr>
<td></td>
<td>Gas Bottle</td>
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</tr>
<tr>
<td></td>
<td>Forward &amp; Aft Cabin Doors (Toilet &amp; Bathroom Doors are Not Removable)</td>
<td></td>
</tr>
<tr>
<td>Item Code</td>
<td>Description</td>
<td>Weight (KG)</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>2040736</td>
<td>Electric Winches</td>
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<tr>
<td>2060542</td>
<td>Second tack line</td>
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<tr>
<td></td>
<td>Navigation Instruments</td>
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</tr>
<tr>
<td></td>
<td>Racing Instruments package</td>
<td></td>
</tr>
<tr>
<td>7020851</td>
<td>Forestay load pin including 2 pcs B&amp;G 10/10 HV displays in cockpit</td>
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</tr>
<tr>
<td>7020851</td>
<td>Upgrade of B&amp;G H5000 CPU software from Hydra to Hercules.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Including B&amp;G H5000 3D motions sensor, 1 pcs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cockpit Rope Bags</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Halyard Lock Trip Line Cleats</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cockpit Floor Covering (Excluding Teak)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Endoscope – Through Hull Fitting – Position As Defined by Nautor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Optional Deck Fittings 204, 207, 222, 308, 402, 405, 406, 415, 501, 507,</td>
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</tr>
<tr>
<td></td>
<td>804, &amp; 912 – Set Position by Nautor</td>
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</tr>
<tr>
<td>2070620</td>
<td>Liferaft securing points</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Helmsman steering platform</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX H – SUPPORT BOATS / RIBS

Support/coach boats are not permitted during regatta events to provide assistance during a race day other than for family/spectator purposes. This includes transferring crew, food/drinks or sails before or between races and after the completion of racing for the day before the boat has returned to their berth. This rule may be amended by a Notice of Race or permission requested from the 50CA for dispensation. (e.g. To allow an Owner’s to transfer to and from the boat using a support boat.)

Except in emergency, while racing under these Class Rules:

(a) Individual support or coach boats shall not have contact of any nature either by radio, telephone, vocal signal, visual signalling of any kind i.e. tactical placement, flags and/or different colours of clothing, or the transfer of equipment, persons or victuals, with a boat from the time the boat leaves the dock each day until the boat has finished racing for the day.

(b) Individual support or coach boats shall not approach closer than 100 metres to any boat that is racing, except at a mark rounding or the finish where they shall not approach closer than 30 metres to the mark or finish line.

(c) At the Warning Signal individual support or coach boats shall leave the area being used by the boats and may station themselves outside of either the committee boat or the start line outer distance mark, but no closer to either end than 30 metres.

(d) Infringements of this rule will result in a penalty to the boat associated with the support boat and may be either place penalties or disqualification at the discretion of the protest committee.
APPENDIX I – ELECTRONICS

The following has been proposed as an extension of the Class Rules to provide more clarification & control on the use of electronics.

APPENDIX I – NAVIGATION INSTRUMENTS/RACING INSTRUMENTS PACKAGE

I.1 SENSORS:
The following electronic sensors are permitted:
(a) Depth sensors (up to a maximum of 2)
(b) Speed sensors, paddlewheel type (up to a maximum of 2)
(c) Wind speed and angle sensors (maximum of 1 of each connected to the instruments)
(d) Compass: up to two compass sensors using magnetic sensing or GPS Heading. No inertial navigational systems are permitted.
(e) Attitude (Heel, Trim, Yaw): up to two sensors providing attitude sensing to calculate Heel, Trim and Yaw and accelerations in the three axis, provided they do not calculate or supply data for the calculation of inertial navigation.
(f) Forestay loadcell: one loadcell to measure forestay tension is permitted. No other loadcells or any other sort of load sensors are permitted.
(g) GPS: up to two separate GPS sensors connected to the instruments are permitted. Handheld devices receiving GPS signal are also permitted.
(h) Displacement and position sensors: such sensors as potentiometers and frequency position sensors are permitted for the measurement of the following applications:
  - Rudder(s) angle position sensor(s)
  - Backstay deflectors position sensor

I.2 COMPUTING:
The following type of devices are permitted:
(a) Instruments processors: any sort of processor used exclusively for the calculation, displaying and/or logging of Navigational and Racing variables.
(b) Computers, Tablets, Phones and other type of devices running Navigational and Racing software are permitted to be connected to the Navigational and Racing Instruments, provided their use does not break RRS 41 (Outside help).
(c) Autopilot: any sort of autopilot processor (and peripherals) are permitted on board, providing they are not used while racing.

I.3 DISPLAYS:
The following type of displays are permitted:
(a) Plotter: up to two navigational plotter displays with digital charts are permitted.
(b) Instruments displays: any type of display are permitted to display the information provided by the navigational and racing instruments.
(c) Tablets, Phones and other types of Wireless displays are permitted display the information provided by the navigational and racing instruments.

I.4 COMMUNICATIONS AND IMAGES:
The following type of devices are permitted:
(a) VHF radio and antenna
(b) AIS receiver and transmitter.
(c) WIFI/LAN: onboard use of WIFI/LAN to connect sensors, processors and displays is permitted provided their use does not break RRS 41 (Outside help).
(d) Tablets, Phones and other types of Wireless displays provided their use does not break RRS 41 (Outside help).
(e) Cameras: of any type, provided they are not installed in a location which’s main use is taking pictures and/or videos of sails.
(f) Drones are only permitted with the permission of the 50CA. In deciding on allowing the use of drones the 50CA will consider the number of teams sharing the use of the drone. The 50CA may additionally require that if requested footage is share with the Race Committee and/or Jury.

I.5 PORTABLE NAVIGATIONAL EQUIPMENT:
The following items of portable navigational equipment are permitted:
(a) Handheld VHF radios, provided their use does not break RRS 41 (Outside help).
(b) Binoculars or other similar devices provided they:
   (b-1) are not capable of measuring distance.
   (b-2) do not use infrared or any other type of technology to enhance visibility.
(c) Hand Bearing Compasses.

I.6 SPECIFICALLY NOT PERMITTED EQUIPMENT:
Although as clearly stated in these Class Rules Introduction and rules A.1.6 and C.2.2 “Where anything not specifically permitted by the class rules is prohibited”, the following is a short, non-exhaustive list of types of instruments that are specifically NOT PERMITTED for the shake of clarification; as teams continue raising questions about possible new equipment that may be available in the future, this list may be updated:
- Inertial navigation systems.
- Laser guns or any other range measuring system.
- Fixed cameras on the rig or deck to take pictures/videos of sails and scan.
- Fibre optics sensing.
- Telemetry.
- Radar, Lidar or any other remote measuring system.
- Drones run by individual teams or without the permission of the 50CA.