



# CLASS RULES

## 2017

The ClubSwan 50 was designed in 2016 by Juan Yacht Design



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# INTRODUCTION

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*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.*

*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

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## 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 CSCA 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
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. The initial racing season for 2017 shall be determined by the 50CA.

### **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.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: chiefmeasurer@clubswan50.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. Amendments may be made at any time.

A.6.2 After 01 September 2017 the 50CA may seek an amendment by submitting a request in writing with agreement of at least 67% of the 50CA. 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**. 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 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** as in Appendix F.

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 C50CA 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.

Provisional

## 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 FLOTATION CHECKS / WEIGHT CHECK

B.2.1 The **certificate** shall carry a satisfactorily flotation check confirmation. This shall include confirmation of the heights of the measurement marks relative to the flotation waterplane in measurement condition with a water density of 1.025kg/m<sup>3</sup>.

B.2.2 All boats racing in CS50 OD events shall carry out a yearly single point weight check at least 10 days prior to the first CS50 event in which they have entered that calendar year.

### 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.2.1 To be agreed by the 50OA and 50CA.



## PART II – REQUIREMENTS AND LIMITATIONS

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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.
- (b) Safety / NO Collision Rule  
Owners and crews, regardless the Racing Rules of Sailing in place and any other Rule mentioned in the Regatta documents, shall do anything possible to avoid yachts collisions.  
In case of collisions while in open waters, free from marks, race committee and service vessels, obstacles or others racing yachts and when there is evident damage, both yachts shall retire from that race.

##### C.1.3. LOGISTICS

- (a) Support/coach boats are not permitted during regatta events to provide assistance during a race day other than for family/spectator purposes, details shall be provided in the NOR.

## C.2 CREW

### C.2.1 HELMSMAN

- (a) Only a person who a member of the 50OA and is the registered owner of at least 50% of the boat may helm their boat whilst *racing*, except;
- (b) A relief helmsman, (see rules C.2.4), or;
- (c) 50OA guest member who has chartered the boat for the event.

### C.2.2 CREW LIMITATION

- (a) The **crew** shall consist of no more than 4 persons either unclassified or classified as Group 3 under World Sailing Regulation 22, Sailor Classification. An additional Group 3 **crew** member who is an approved boat captain as per class rule C.2.3 may be part of the **crew**. All other **crew** shall hold a valid Group 1 classification. This shall be reviewed at the first AGM of the 50OA.

- (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) & (c) 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.

Only the Race Committee or Protest Committee may protest crew weight after the start of the first race of an event.

### C.2.3 BOAT CAPTAIN

A **crew** member with a Group 3 classification may apply to be deemed as the "boat captain" by the 50CA. The **crew** member's primary livelihood shall be the maintenance and care of boats with specific duties assigned as part of this activity. The "Boat Captain" shall be employed on a fulltime or part-time basis by the owner of the yacht upon which crew member races. Application for boat captain status shall be received by the class manager a minimum of 28 days before a race. (Approved boat captains are listed on the class association website).

### C.2.4 RELIEF HELMSMEN.

- (a) An owner or charterer may request permission for relief helmsmen in writing to the 50CA a minimum of 14 days before a race.
- (b) A relief helmsman is defined as: A member of the crew, currently classified as World Sailing Group 1, nominated by the owner or charterer to helm the boat as permitted by Rules C.2.4. Or any family member or relative of the owner or charterer who is not classified as World Sailing Group 3 may helm the boat.

- (c) Except as provided by Rules C.2.3(c) and C.2.4(e) in 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 as provided by Rules C.2.3 (c) and C.2.4 (e) in a race with a time limit of more than 4 hours, the boat shall be helmed by her bona fide owner or 50OA guest 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.2.4.

### **C.3 PERSONAL EQUIPMENT**

Any personal equipment requirements will be defined in the NOR.

### **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**

Any portable equipment requirements will be defined in the NOR.

## 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.
- (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.

### C.6.2 BOAT CONFIGURATION 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.

- (a) Additional standard options are available as listed in Appendix G & H.
- (b) Any additional options listed in Appendix G (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.
- (c) Any additional standard racing option listed in Appendix H (performance features) shall remain on board for the purposes of all class measurements, equipment inspection and whilst *racing*.

### C.6.2 WEIGHT

- (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 8,100kg.

### C.6.3 MEASUREMENT CONDITION

C.6.3.1 Certification Condition shall be the condition as specified in the building specification as presented in final assembly. It shall not include all of the components specified in the **measurement condition**.

C.6.3.2 **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.

**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.6.4 CORRECTOR WEIGHTS

- (a) **Corrector weight** containers as specified in the building specification shall be permanently fastened to the forward face of Bulkhead B and the aft face of Bulkhead F. When the weight in certification condition is less than the minimum requirement, **corrector weights** shall be distributed between the **corrector weight** containers as determined following flotation measurement. See also B.2.
- (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 certification condition has been repeated following a significant repair or alteration.

## C.7 HULL

### C.7.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Four foot chocks as specified in the building specification shall be permanently fastened on the cockpit sole. Their position is optional. No modifications are permitted unless specified by an amendment to the **class rules**.
- (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.
- (h) All components shall be retained in compliance with the building specification.

### C.7.2 FITTINGS

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

## 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**.
- (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**.
- (h) 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.
- (i) All components shall be retained in compliance with the building specification.
- (j) The 50CA may check measure the sectional shape and plan-form of any appendage at an event using the builders templates. Such templates shall not be available to owners for the purpose of modifications within the class tolerances.
- (k) It is permitted to add a chamfer to the trailing edge of the keel **fin** and **rudders** to remove “flutter”. However the chord and plan-form shall not be reduced in size.

### 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 FIN

## (a) WEIGHT

The weight of the **fin** shall not be less than 156kgs nor greater than 160kg

## (c) DIMENSIONS

- (1) The **fin** reference mark location relative to the builder's marks (see RuleD.2.4) shall be in compliance with the limits specified in Appendix A.

## C.8.4 BULB

## (a) WEIGHT

The weight of the **bulb** bare metal component shall not be less than 3440kg or greater than 3450kg.

## (b) CORRECTOR WEIGHT

- (1) When the **bulb** weight is less than the maximum permitted, **corrector weights** shall be located equally in the weight pockets.
- (3) **Corrector weights** shall only be applied and adjusted as specified by the 50CA and shall reflect those values shown on the **certificate**.

## C.8.5 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*.

## (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.



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

### 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.
- (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) The maximum distance between the lowest section of the **mast** spar excluding any base plate, and the top surface of the mast step shall not be greater than 91mm when measured at the aft face.

#### (b) WEIGHT

- (1) The weight of the **mast** in measurement condition shall not be less than 235kg.
- (2) The vertical centre of gravity of the **mast** in measurement condition shall not be less than 11.200m above the **mast datum point**.

#### (c) CORRECTOR WEIGHT

- (1) When the **mast** weight 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.

- (2) The total weight of such **corrector weights** shall not exceed 8.0kg.
- (3) **Corrector weights** shall only be applied and adjusted as specified by the 50CA and shall reflect those values shown on the **certificate**.

(d) USE

- (1) The **spar** shall be stepped in the mast step in such a way that the heel shall not be capable of moving more than 4mm in a fore and aft or transverse direction.
- (2) **Standing rigging** tension and mast step load shall be within the manufacturer's guidelines as defined in the owner's manual.
- (3) A **luff** support device other than the CS50 cruising furler option (see Appendix G) shall not be installed on the **forestay**.
- (4) **Halyards** shall remain lead, and shall not be "moused out" at any time whilst *racing* except when being replaced or repaired.
- (5) **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.

C.9.5 BOOM

(a) DIMENSIONS

All dimensions shall be in compliance with the *building specification*.

(b) WEIGHT

The weight of the **boom** in measurement condition shall not be less than 48 kg.

(c) USE

The **boom** shall remain attached to the **mast spar** at all times and all reef lines shall remain led at all times whilst *racing*.

C.9.6 BOWSPRIT

(a) DIMENSIONS

The distance from the bow reference point to the forward most point on the **bowsprit**, excluding any sheet retainer, shall not be greater than x.xxxm

(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.

## 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) Battens may be placed in the **batten pockets**.

### C.10.2 LIMITATIONS

- (a) The CS50 sail card number shall be recorded in the official inventory for a **boat** and shall not be transferrable. The date of record shall be retained by the CSCA.
- (b) Nine CS50 sail cards shall be issued at the start of the racing season. Additionally;
  - (1) when two or more CS50 events are competed in during a racing season, one additional CS50 sail card may be issued. A boat shall be issued an additional five CS50 sail cards (one **mainsail**, two headsails and two **spinnakers**) for each racing season following the boats initial launch year.
  - (2) Rule C.10.2(b)(1) shall be an agenda item at the 2017 AGM.
- (c) The following may be onboard whilst *racing*:
  - (1) One **mainsail**
  - (2) Two full size headsails (light and medium)
  - (3) One mid size headsail (heavy)
  - (4) One heavy weather jib
  - (5) Two masthead **spinnakers**
  - (6) One fractional **spinnaker**
  - (7) One spinnaker staysail

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.

### 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 **sail** shall be capable of being set reefed using the first reef halyard lock. The organising authority may require the **mainsail** to be set reefed as specified in the NOR using this arrangement for the duration of a race.
- (3) 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) DIMENSIONS

- (1) MHW (Mainsail half width) shall not be greater than 4.67m.
- (2) MTW (Mainsail three-quarter width) shall not be greater than 3.12m.
- (3) MUW (Mainsail upper width) shall not be greater than 2.18m.
- (4) No more than 4 battens which extend from the **leech** to the mast via a batten car may be installed.
- (5) 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.
- (6) 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 flattered out in the area of the **sail edge**, the **sail edge hollow**, when bridged between the battens noted in C.10.4(c)(4)&(5) only, the **sail edge** does not extend beyond the straight line.

### 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

**forestay** using a hank system, unless the optional cruising furler is installed (see Appendix G). The arrangement shall permit hoisting and lowering of the **sail** whilst afloat. Once hoisted the **sail** may be held by the halyard locking system.

(b) DIMENSIONS

- (1) HSA (Headsail area) shall be calculated as:  
$$\text{HSA} = 0.0625 \cdot \text{HLU} \cdot (4 \cdot \text{HLP} + 6 \cdot \text{HHW} + 3 \cdot \text{HTW} + 2 \cdot \text{HUW} + 0.09)$$
- (2) The maximum HSA for the full size headsails shall be 67.0m<sup>2</sup>
- (3) The maximum HSA for the mid size headsails shall be 63.0m<sup>2</sup>
- (4) No more than 4 battens may be installed.

C.10.5 HEAVY WEATHER JIB

(a) USE

- (1) The heavy weather jib 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. The heavy weather jib shall be capable of being furled.
- (2) The heavy weather jib may be hoisted on its integral bolt rope.
- (3) The heavy weather jib shall be capable of being hoisted and set using the inner halyard and the staysail padeye (see Appendix B, item 4).

(b) DIMENSIONS

- (1) HSA (Headsail area) shall be calculated as:  
$$\text{HSA} = 0.0625 \cdot \text{HLU} \cdot (4 \cdot \text{HLP} + 6 \cdot \text{HHW} + 3 \cdot \text{HTW} + 2 \cdot \text{HUW} + 0.09)$$
- (2) The maximum HSA for the heavy weather jib shall be 53.0m<sup>2</sup>
- (3) No more than 3 battens may be installed.

C.10.6 SPINNAKER STAYSAIL

(a) USE

- (1) The spinnaker staysail shall be hoisted on the inner **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 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 4).

## (b) DIMENSIONS

- (1) HSA (Headsail area) shall be calculated as:

$$\text{HSA} = 0.0625 \cdot \text{HLU} \cdot (4 \cdot \text{HLP} + 6 \cdot \text{HHW} + 3 \cdot \text{HTW} + 2 \cdot \text{HUW} + 0.09)$$

- (2) The maximum HSA for the spinnaker staysail shall be 56.0m
- <sup>2</sup>
- 
- (3) No more than 3 battens may be installed.

## C.10.7 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. Once hoisted the
- sail**
- may be held by the halyard locking system.
- 
- (2) The
- sail**
- may not be furled or reefed.

## (c) DIMENSIONS

- (1) SPA (spinnaker area) shall be calculated as:

$$\text{SPA} = ((\text{SLU} + \text{SLE})/2) \cdot (\text{SFL} + (4 \cdot \text{SHW})/5) \cdot 0.83$$

- (2) The maximum SPA shall be 235.0m
- <sup>2</sup>
- 
- (3) No battens may be installed.
- 
- (4) SHW shall not be less than 75% of SFL.

## (d) MATERIALS

- (1) A minimum cloth weight of 36gsm shall apply for any part of the body of the sail.
- 
- (2) The
- body of the sail**
- (see ERS G.1.4(a)) shall be constructed using woven cloth only.

## C.10.8 FRACTIONAL SPINNAKER

## (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 fractional hoist halyard (see Appendix D), which shall remain attached to the
- head**
- of the
- sail**
- at all times whilst hoisted. Once hoisted the
- sail**
- may be held by the halyard locking system.
- 
- (2) The
- sail**
- may be furled.

(c) DIMENSIONS

- (1) SPA (spinnaker area) shall be calculated as:  
$$\text{SPA} = ((\text{SLU} + \text{SLE})/2) * (\text{SFL} + (4 * \text{SHW})/5) * 0.83$$
- (2) The maximum SPA shall be 150.0m<sup>2</sup>
- (3) No battens may be installed.
- (4) SHW shall not be less than 75% of SFL.

Provisional

## 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 as specified in the NOR.

#### D.2.2 CERTIFICATION

See Rules A.10, A.12 & A.13.

#### D.2.3 MODIFICATIONS, MAINTENANCE AND REPAIR

See Rule C.7.

#### D.2.4 DEFINITIONS

##### (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 CS50 Class Plaque permanently placed on the starboard side of the transom.

#### 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.

Provisional

## 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 as specified in the NOR.

#### E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

See Rule C.8.

#### E.2.3 CERTIFICATION

See Rules A.10, A.12 & A.13.

#### 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 **builders specification** and owner's manual.

#### E.2.7 DIMENSIONS AND WEIGHT

As specified in Rules C.8.3, C.8.4 and Appendix A and the building specification.

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.

## 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 as specified in the NOR.
- (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 builders reference mark at the **mast heel**.

#### F.2.5 MANUFACTURER

- (a) The **spars** shall be manufactured by Southern Spars.

#### 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.3 STANDING RIGGING

#### F.3.1 MANUFACTURER

- (a) The **standing rigging** shall be manufactured by Southern Spars.

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 as specified in the NOR.

#### G.1.2 CERTIFICATION

- (a) The CSCA shall **certify** mainsails in the **tack** and all other **sails** in the **clew** and shall sign and date the **certification mark**.
- (b) The CSCA may appoint one or more **In-House Official Measurers** to measure and **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.1.5 MATERIALS AND CONSTRUCTION

There are no limitations on the materials or construction methods of the sails except as stated in Rule C.10.7.

#### G.1.6 DIMENSIONS

As specified in the C.10.

## PART III – APPENDICES

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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

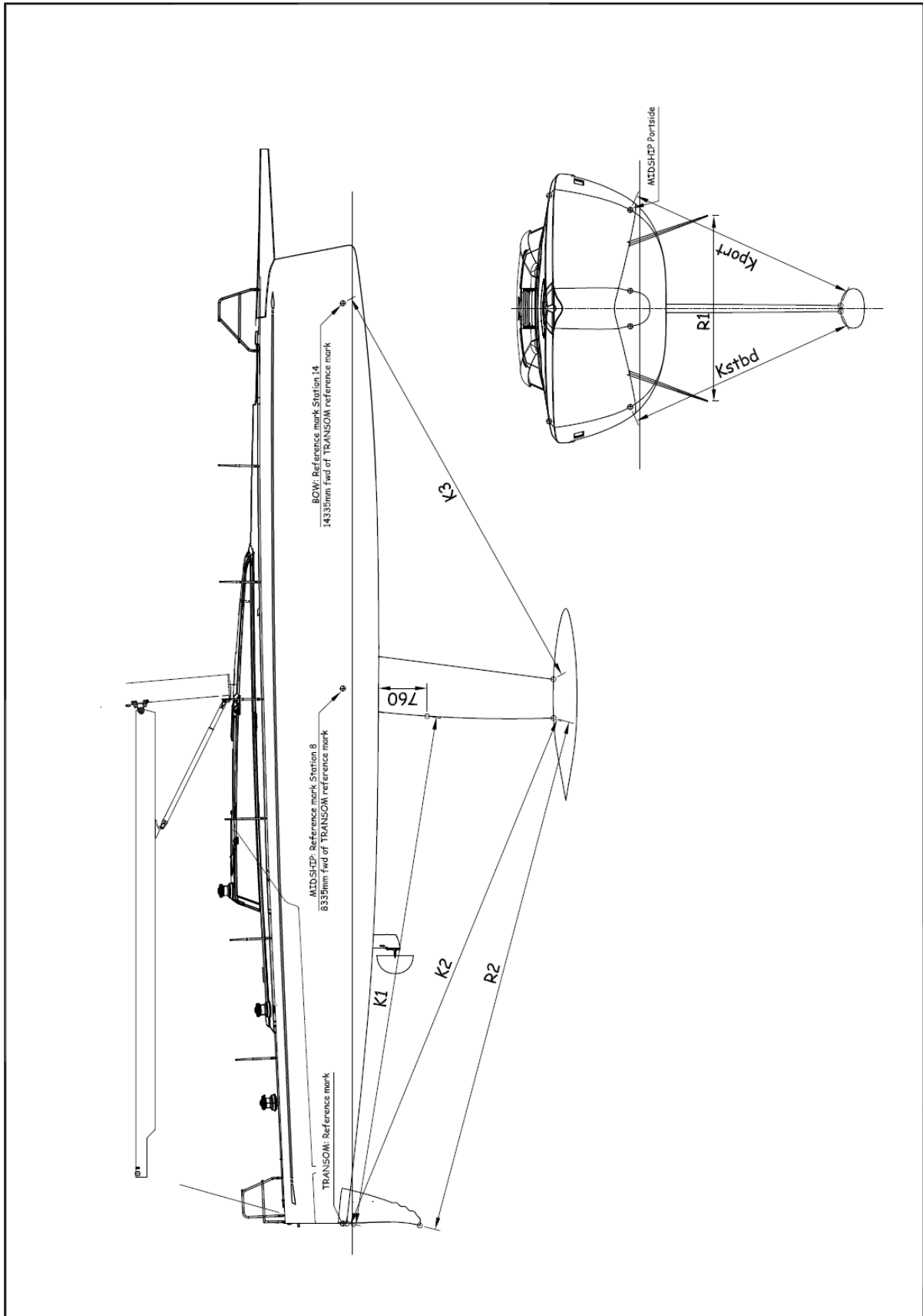
APPENDIX F – CLASS CERTIFICATE

APPENDIX G – STANDARD OPTIONAL INSTALLED ITEMS

APPENDIX H – STANDARD OPTIONAL REMOVABLE ITEMS

*Please note that the appendices are currently being finalised and will be updated as soon as possible.*

APPENDIX A – HULL APPENDAGE MEASUREMENT



## APPENDIX A – HULL APPENDAGE MEASUREMENT

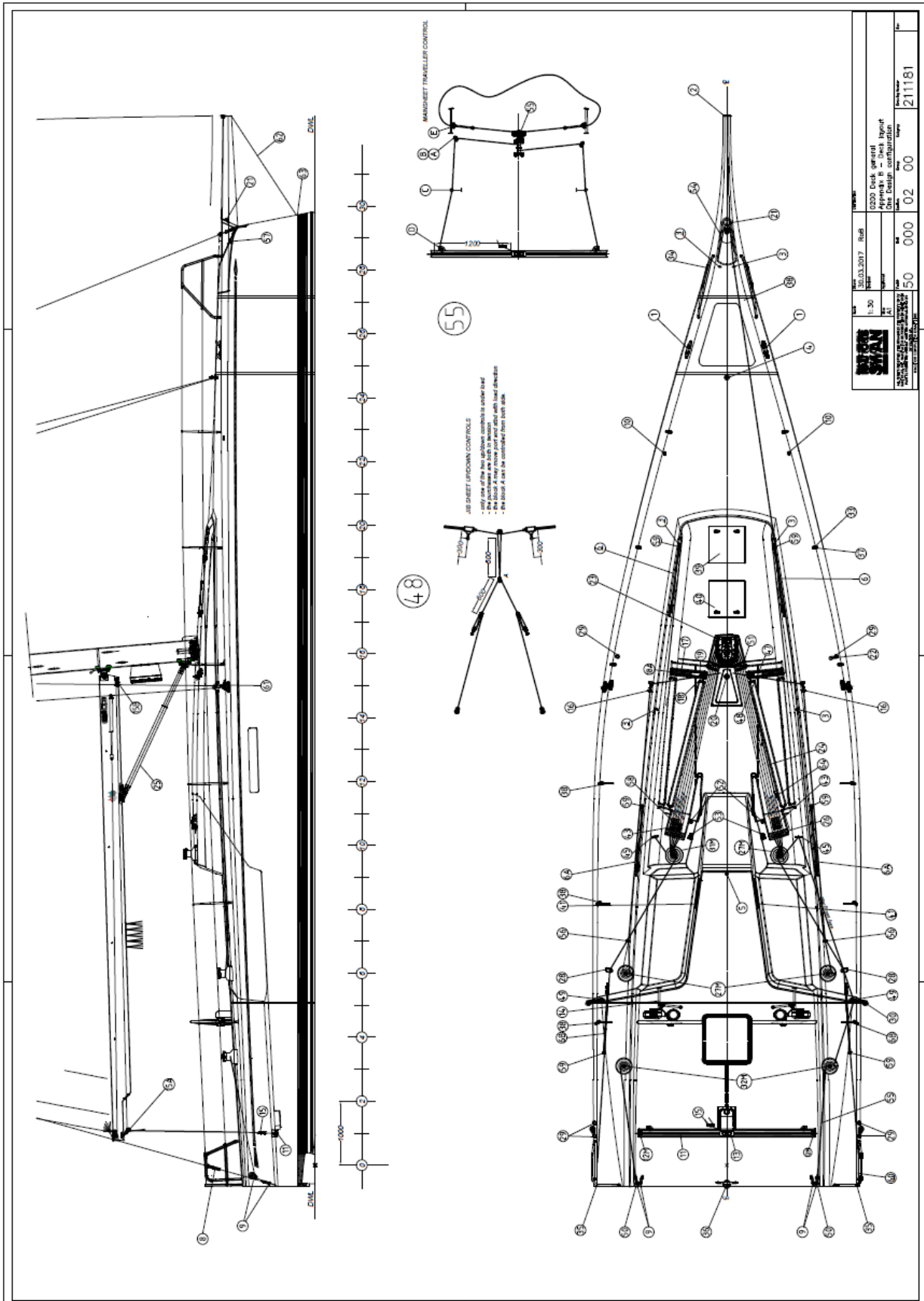
## Build Tolerances

Measurement	Minimum(mm)	Maximum(mm)
<b>K1</b>	8002	8010
<b>K2</b>	8510	8518
<b>K3</b>	6725	6730
<b>Kport</b>	3605	3612
<b>Kstbd</b>	3605	3612
<b>R1</b>	2865	2880
<b>R2</b>	8300	8320

Measured Kport shall not be more than 2mm greater or less than Kstbd.



APPENDIX B – DECK LAYOUT

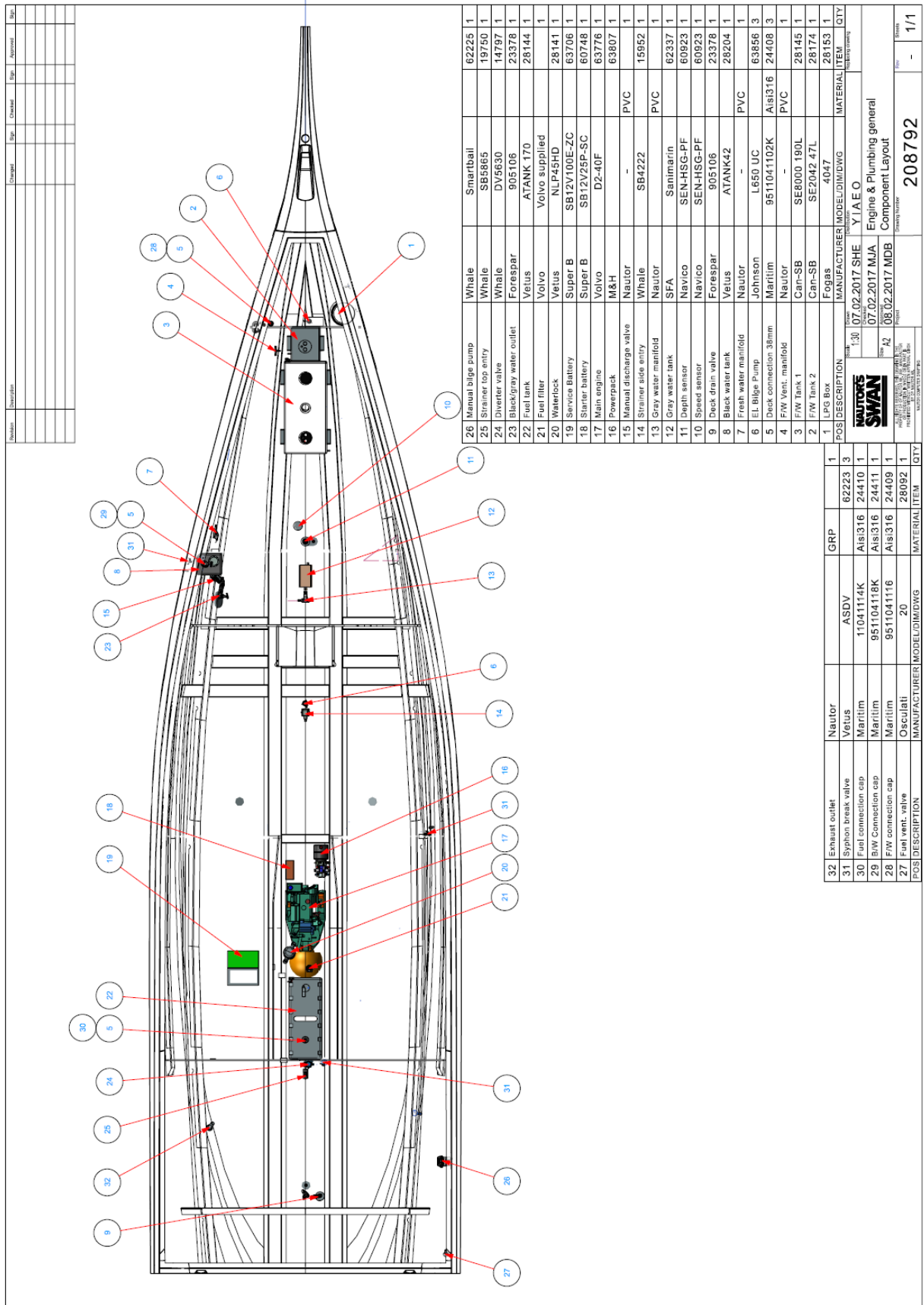


Item	Supplier	Description	Part Number	QTY	ITEM- OR DRAWING NUMBER	STD
1	Antal	Cleats	RC 280 B - Black anodized	2	62045	
2	Antal	Custom bowsprit funnel	CUS0002	1	62020	
3	Antal	Deck ring for tack line -3 on stbd- with optional furling jib we need 6 , extra 3 on port	R.14.14	3 (+3)	62021	STD/OPT
4	Antal	stay sail screw-padeye	7312	1	62022	
5	Wichard	Folding pad eye for life line	6504	1	22092	
6	Ronstan	Constrictor for 10 mm tack line- with optional furling jib we need 1 extra on port	CT 310 P001	1	62304	
6A	Ronstan	Constrictor for 12 mm mainsheet	CT 312 P001	2	63009	
6B	Ronstan	Constrictor for 10 mm gennaker	CT 310 P001	2	62304	
8	Antal	backstay block- diam 120mm- with dead end for 3:1 purchase	LS 1121	2	62044	
9	Antal	backstay blocks on deck diam 100	LS 1100	4	62029	
10	Antal	service padeye	7606	2	62046	
11	Antal	mainsail traveller track 31x21 3000mm	4510	3 mt	62023	
12M	Antal	Simple end fitting for traveller track	4271/B	2	62494	
13	Antal	Traveller car - 4Race L= 230 with pivoting bracket	custom	1	62025	
14	Antal	Mainsheet trimmer foot support port/stb		1+1	209685	
15	Antal	mainsheet block for traveller car with loop	LS 1100	1	62029	
15A	Antal	main sheet double block at outboard end of the boom with custom loop	LS 1082	1	62175	
15B	Southern Spars	mainsheet single blocks ( port and Stbd) at inboard end of the boom	included in Southern Spars boom	2	62177	
16	Antal	OPF - Hollow pin deck block 80 mm	821	2	62030	
17	Antal	T-track 32x6-50 mm hole spacing, black anodized	602.212 B 750mm	2	62031	
18	Antal	End fitting- simple -T 32x6 track	691.241/B	2	62032	
18A	Antal	End fitting with becket - T 32x6 track	690.25	2	62495	
19	Antal	Genoa car 32x6 L= 160 with central pi-stop, two mini sheaves	custom, to be used with up/down adjustment	2	62033	

20	Antal	screw pad eye for inhauler/up-down	7312	1	62022	
21	Wibo	Low friction tandem fairlead		1	209364	
22	Antal	hook line for dyneema padeye	HK 16	2	62037	
23	Antal	mast blocks 80mm diameter	806	7	62181	
23 A	Antal	reef 1 and reef 2 - Block HL web dia.40mm	H140	2	62178	
23 B	Southern Spars	cunningham	purchase included in mast package	1		
24	M&H	Deflector cylinder	Sailtec -08FR	1	63894	
25	M&H	Boom vang	Sailtec -17	1	63893	
26	Antal	Organizer 6 x Ø39 mm sheaves	526.052	2		
27M	Harken	Manual racing winch	B65.3STR UD EL/HY predisposed RH	3	63895	
28	Antal	Tulip foot block diam 60 mm	819.06	2	62042	
29		padeye for gennaker, peeling, and external jib sheet	Wichard 6605	6	28079	
31M	Harken	Manual racing winch	B65.3STR UD EL/HY predisposed LH	1	63896	
32M	Harken	Manual racing winch	B65.2STR manual RH	2	63897	
33		stanchions 610 mm		12	3511 (item 27175)	
34	Wibo	Pulpit	208560A	2	63250 stbd/63251 port	
35	Wibo	Pushpit		2	63252 stbd/63253 port	
36	Wibo	Centre pushpit		1	63254	
37	Wibo	Stanchion bases		22	209941	
38	Niro	Stranchion leg support	Art. 867	6	28150	
39	Lewmar	hatch for owner cabin	SZ 60 - 180 opening 399601999	1	62379	
40	Lewmar	hatch for spinnaker drop in corridor	SZ 60 - 180 opening 399601999	1	62379	
41	Lewmar	Portlight Size 3	393320200	1 (+1)	63008	STD/OPT
43	Spinlock	Jammer - for halyards	SPXX0812	6	23060	
45	Antal	Fairlead single hole diam 20 mm	R20.20	2	62034	
46	Harken	Winch handles	B10ASG	6	92561	
47	Antal	Jib sheet up/down - Block double sheaves dia.42mm twisted	CUS0001	2	62176	

48	Antal	purchase for inhauler /up-down - Block HL web dia.40mm	H140	1	62178	
48A	Antal	purchase for inhauler/up-down - OPF double bloc 504		2	62180	
48B	Antal	purchase for inhauler /up-down - OPF double block dia. 50mm	503	2	62180	
48C	Antal	purchase for inhauler /up-down - Ring&Loop (R20.14+dyneema 6mm)	RL6.1	2	62179	
49		padeyes for easy sailing jib sheet lead and tweekers	Wichard 6605	2	28079	
50	Antal	backstay attachment on deck	7614	2	62496	
51	Antal	deck multiring organizer for halyards; 5 passages	R5.14	2	62497	
52	Wichard	padeye for purchase dead end ( in houler or up-down )	6604	2	28078	
53	Antal	Swivelling cleat for inhauler/up-down purchase		2	62498	
55	Harken	Pro-trim traveller system	C12328, C12329	1	63875	
55A	Antal	Traveller deflector block	501	2	63420	
55B	Wichard	Shackle for deflector block		2	11826	
55C	Antal	Ring for traveller line tensioning		2	63877	
55D	Antal	Traveller through deck block	818	2	63878	
55E	Antal	Camcleat	502.022	2	63004	
56	Antal	Double line deck ring	R.18.36	2	62493	
57	Wibo	Single fairlead, Aisi 316		1	209200	
58	Antal	cunningham clutch - Cam 611 Silver	543.11	1	63419	
59	Wichard	for tension of constrictors	6604	5	28078	
61	Wibo	Shroud chainplate + backing plates port/stb		1+1	209752 + 209753	
62		Bobstay, Dyneem DSK 99 + thimble eye		1	63880 + 63876	
63	Wibo	Bobstay fitting		1	209081	
64	Wibo	Deflector bracket		1	209742	

APPENDIX C – SYSTEMS LAYOUT



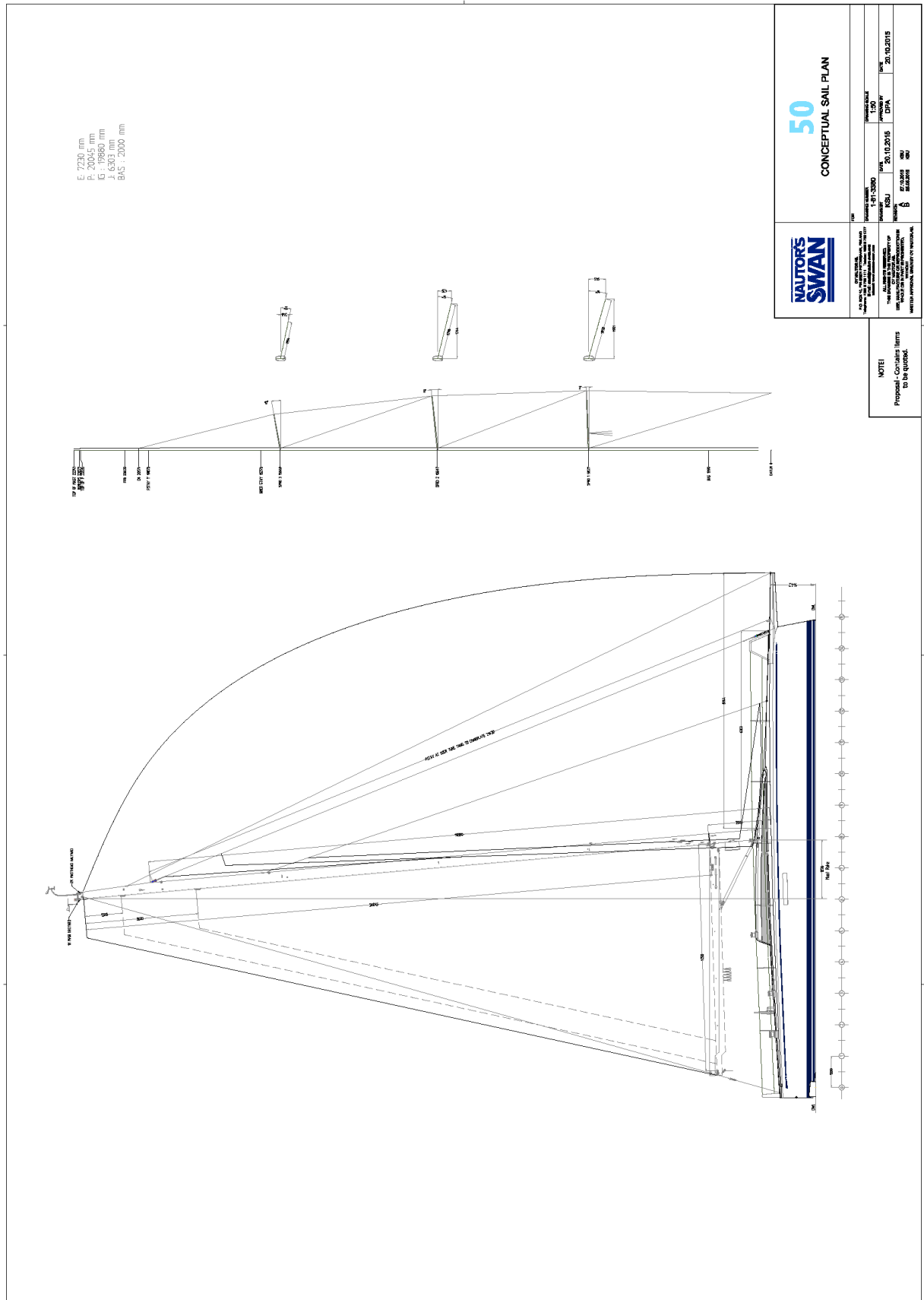
Number	Description	Checked	Sign	Approved	Date

POS	DESCRIPTION	MODEL/ID/MDWG	MANUFACTURER	MATERIAL ITEM	QTY
1	GRP Box		F098S	4047	1
2	F/W Tank 2		Can-SB	SE2042 47L	1
3	F/W Tank 1		Can-SB	SE8000 190L	1
4	F/W Vent, manifold		Nautlor	PVC	1
5	Deck connection 38mm		Maritim	Aisi316	24408 3
6	EL Bilge Pump		Johnson	L650 UC	63856 3
7	Fresh water manifold		Nautlor	PVC	1
8	Black water tank		Vetus	ATANK42	28204 1
9	Deck drain valve		Forespar	905106	23378 1
10	Speed sensor		Navico	SEN-HSG-PF	60923 1
11	Depth sensor		Navico	SEN-HSG-PF	60923 1
12	Grey water tank		SFA	Sanmarin	62337 1
13	Grey water manifold		Nautlor	PVC	1
14	Strainer side entry		Whale	SB4222	15952 1
15	Manual discharge valve		Nautlor	PVC	1
16	Powerpack		M&H	D2-40F	63776 1
17	Main engine		Volvo	SB12V25P-SC	60748 1
18	Starter battery		Super B	SB12V100E-ZC	63706 1
19	Service battery		Vetus	NLP45HD	28141 1
20	Waterlock		Waterlock	NLP45HD	28141 1
21	Fuel filter		Volvo	Volvo supplied	1
22	Fuel tank		Vetus	ATANK 170	28144 1
23	Black/grey water outlet		Forespar	905106	23378 1
24	Diverter valve		Whale	DV5630	14797 1
25	Strainer top entry		Whale	SB5865	19750 1
26	Manual bilge pump		Smartball	62225	1

POS	DESCRIPTION	MODEL/ID/MDWG	MANUFACTURER	MATERIAL ITEM	QTY
27	Fuel vent, valve		Osculati	28092	1
28	F/W connection cap		Maritim	Aisi316	24409 1
29	B/W Connection cap		Maritim	Aisi316	24411 1
30	Fuel connection cap		Maritim	Aisi316	24410 1
31	Syphon break valve		Vetus	ASDV	62223 3
32	Exhaust outlet		Nautlor		1

APPENDIX D – RIG GEOMETRY



## APPENDIX D – RUNNING RIGGING

The following Running Rigging shall be included in the **measurement condition**

<b>Item</b>	<b>No</b>
Main Halyard	1
Masthead Spinnaker Halyard	2
Fractional Hoist Halyard	1
Jib Hoist Halyard	1
Staysail Halyard	1
Staysail Halyard Tail	1
Deflector Control Line	1
Gennaker Tack	1
Main Sheet	1
Runner Tail	2
To Be Completed....	

Provisional

## APPENDIX E – SAIL INSIGNIA &amp; 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  $\frac{3}{4}$  draft stripes and should be positioned equidistant from any  $\frac{3}{4}$  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**

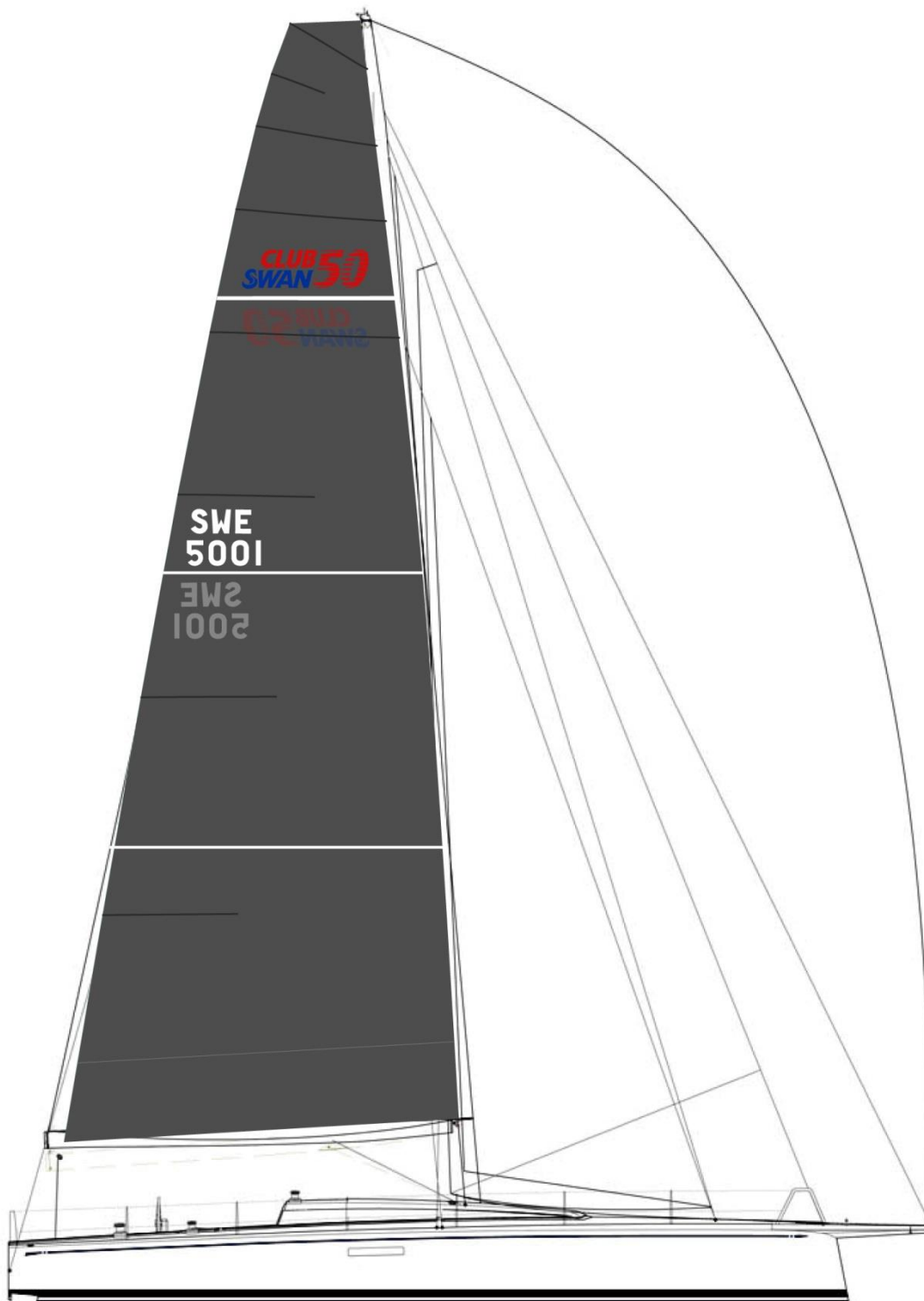
- (a) DIMENSIONS according to RRS G.1.2 (b)
- (b) COLOUR of sail numbers on  **mainsail**  shall be one of CS50 class insignia C.I. colours, i.e. red, blue or white.
- (c) POSITION of sail numbers on  **mainsail**  shall be on starboard side above MHW / mid draft stripe and on port side below MHW / mid 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 – CLASS CERTIFICATE



**One Design Measurement Certificate**  
CS50-5-00

<b>Yacht's Name</b>		<b>0</b>
<b>National Letters and Sail Number</b>		<b>0</b>
<b>Hull Number</b>	CS50-05	
<b>Owner(s)</b>		<b>0</b>

<b>Part numbers</b>			
Keel Fin	<input style="width: 50px;" type="text" value="0"/>	Mast	<input style="width: 50px;" type="text" value="0"/>
Keel Bulb	<input style="width: 50px;" type="text" value="0"/>	Boom	<input style="width: 50px;" type="text" value="0"/>
Rudder #1	<input style="width: 50px;" type="text" value="0"/>	Bowsprit	<input style="width: 50px;" type="text" value="0"/>
Rudder #2	<input style="width: 50px;" type="text" value="0"/>		

<b>Hull corrector weights</b>		<b>Mainsail dimensions</b>	
Forward	<input style="width: 50px;" type="text" value="0.00 kg"/>	MUW	<input style="width: 50px;" type="text" value="0.00 m"/>
Aft	<input style="width: 50px;" type="text" value="0.00 kg"/>	MTW	<input style="width: 50px;" type="text" value="0.00 m"/>
		MHW	<input style="width: 50px;" type="text" value="0.00 m"/>
<b>Appendage weights</b>		<b>Spinnaker areas</b>	
Keel Fin	<input style="width: 50px;" type="text" value="0.0 kg"/>	SPA #1	<input style="width: 50px;" type="text" value="0.0 m2"/>
Keel corrector weight	<input style="width: 50px;" type="text" value="0.0 kg"/>	SPA #2	<input style="width: 50px;" type="text" value="0.0 m2"/>
Keel corrector seal	<input style="width: 50px;" type="text" value="0"/>	<b>FR0 dimensions</b>	
Rudder #1	<input style="width: 50px;" type="text" value="0.0kgs"/>	SHW	<input style="width: 50px;" type="text" value="0.00 m"/>
Rudder #2	<input style="width: 50px;" type="text" value="0.0kgs"/>	SFL	<input style="width: 50px;" type="text" value="0.00 m"/>
		Ratio	<input style="width: 50px;" type="text" value="#DIV/0!"/>

<b>Mast corrector weights</b>		<b>Options</b>
Butt	<input style="width: 50px;" type="text" value="0.0 kg"/>	<input style="width: 100%; height: 20px;" type="text"/>
Lower spreaders (combined)	<input style="width: 50px;" type="text" value="0.0 kg"/>	<input style="width: 100%; height: 20px;" type="text"/>
Upper spreaders (combined)	<input style="width: 50px;" type="text" value="0.0 kg"/>	<input style="width: 100%; height: 20px;" type="text"/>
Mast VCG (inc correctors)	<input style="width: 50px;" type="text" value="0.000 m"/>	<input style="width: 100%; height: 20px;" type="text"/>
Mast weight (inc correctors)	<input style="width: 50px;" type="text" value="0.0 kg"/>	<input style="width: 100%; height: 20px;" type="text"/>
<b>Spar weights</b>		<input style="width: 100%; height: 20px;" type="text"/>
Boom (inc corrector)	<input style="width: 50px;" type="text" value="0.0kgs"/>	<input style="width: 100%; height: 20px;" type="text"/>
Bowsprit weight	<input style="width: 50px;" type="text" value="0.0kgs"/>	<input style="width: 100%; height: 20px;" type="text"/>

<b>VALIDATION</b>	
This yacht has been manufactured by Oy Nautor Ab in accordance with the ClubSwan50 Class Rule and has been found by the CSCA to be in compliance with the Rule.	
Date of certification	15/12/2016
Supersedes Certificate No and Date	Original Certificate

\_\_\_\_\_  
Class Chief Measurer

## APPENDIX G – STANDARD OPTIONAL CRUISING FEATURES

STANDARD OPTIONAL CRUISING FEATURES		
Item Code	Description	Weight (KG)
8020211	Cruising Box Wing Boom	
1100084	Large steering pedestal tops for instruments instead of standard	8
2030135	Teak on cockpit sole	30
2050015	Anchor Windlass	
2050016	Bow Roller & Anchor Handling System	
2070620	Helmsman steering platform	5
2070627	Folding mooring cleats at stern, 2 pcs	3
3020398	Blackout and Mosquito Screen for Owner's Cabin Hatch	3
5010216	Deck Shower at Stern	3
5010230	Watermaker Schenker Smart 80 Analogic	45
5010233	Hot water system, Quick 40 l waterheater	12
5020035	Sea water flush in addition to fresh water flush	10.0
5070143	Air Conditioning System	155
5080043	Webasto Air Top EVO 40 Genset for heater	35
6010296	Generator Fischer Panda 8 kW 1000iPMS	170
6040115	Upgrade of service battery capacity by one 12V 100Ah/3h battery	24
6100306	Microwave Oven	
7050726	Entertainment Package	
7060446	Autopilot System	19
	Spreader Lights	

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

STANDARD OPTIONAL REMOVABLE CRUISING FEATURES		
Item Code	Description	Weight (KG)
2100117	Cockpit Table with Folding Leaves	
2110581	Removable sprayhood/dodger for main entrance	
3000948	Blinds and Curtains for Hatches & Windows OK	10
3000948	Blinds and Curtains for Hatches & Windows	10
3020398	Blackout and Mosquito Screen for Owner's Cabin Hatch	3
7030643	Radar on Transom Post	
8030202	Jib Furling System with PBO headstay including swivel and drum	
2050016	Bow Roller & Anchor Handling System	
8030202	Jib Furling System with PBO headstay including swivel & Drum	
	Saloon & Bunk Cushions	
	Gas Bottle	
	Forward Cabin Door	

## APPENDIX H – STANDARD OPTIONAL RACING FEATURES

STANDARD OPTIONAL RACING FEATURES		
Item Code	Description	Weight (KG)
2040736	Electric Winches	
2060542	Second tack line	1
	Navigation Instruments	
	Racing Instruments package	
7020851	Forestay load pin including 2 pcs B&G 10/10 HV displays in cockpit	
7020851	Upgrade of B&G H5000 CPU software from Hydra to Hercules. Including B&G H5000 3D motions sensor, 1 pcs	
	Cockpit Rope Bags	
	Halyard Lock Trip Line Cleats	
	Cockpit Floor Covering (Excluding Teak)	
	Endoscope – Through Hull Fitting – Position As Defined by Nautor	
	Code Zero Sheerline Padeyes – Set Position by Nautor	