

**INTERNATIONAL
GAZPROM SWAN 60
CLASS RULES 2014**

VERSION 14-01, JULY 2014



The Swan 60 was designed in by German Frers.

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INTRODUCTION

This introduction only provides an informal background and the International Gazprom Swan 60 Class Rules proper begin on the next page.

Swan 60 hulls, hull appendages and rigs are manufacturing controlled. Sails are measurement controlled.

Swan 60 hulls and hull appendages shall only be manufactured by Oy Nautor AB Equipment is required to comply with the International Swan 60 Building Specification and is subject to an ISAF approved manufacturing control system.

Swan 60 hulls, hull appendages, rigs and sails may, after having left the manufacturer, only be altered to the extent permitted in Section C of the class rules.

Owners and crews should be aware that compliance with rules in Section C is NOT checked as part of the certification process.

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

Note: Where the class permits IHC it should be mentioned here which items may be produced under IHC.

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 and in case of dispute over translation the English text shall prevail.
- A.1.2 The word “shall” is mandatory and the word “may” is permissive.
- A.1.3 Except where used in headings, when a term is printed in “**bold**” the definition in the ERS applies and when a term is printed in “*italics*” the definition in the RRS applies.

A.2 ABBREVIATIONS

- A.2.1 ISAF International Sailing Federation
- MNA ISAF Member National Authority
- ICA International Gazprom Swan 60 Class Association
- NCA National Class Association
- ERS Equipment Rules of Sailing
- RRS Racing Rules of Sailing
- RORC Royal Ocean Racing Club
- RO Royal Ocean Racing Club Rating Office
- EC Executive Committee of the International Gazprom Swan 60 Class Association
- OSR ISAF Offshore Special Regulations (www.sailing.org/specialregs)

A.3 AUTHORITIES

- A.3.1 The international authority of the class is the ISAF which shall co-operate with the ICA in all matters concerning these **class rules**.
- A.3.2 Notwithstanding anything contained herein, the **certification authority** has the authority to withdraw a **certificate** and shall do so on the request of the ISAF.
- A.3.3 No legal responsibility with respect to these Class Rules, or accuracy of measurement, rests with any certification authority, any official measurer. Any MNA, or any NCA. No claim arising from these Class Rules can be entertained.

A.4 ADMINISTRATION OF THE CLASS

- A.4.1 ISAF and EC have delegated its administrative functions of the class to the class manager.

A.5 CLASS RULES CHANGES

- A.5.1 At Class Events – see RRS 89.1.d) – ISAF Regulation 10.5(f) applies. At all other events RRS 87 applies.
- A.5.2 These Class Rules shall not be varied by notice of race and/or sailing instructions except as provided by A.5.3.

A.5.3 Notices of race and/or sailing instructions may vary these Class Rules in respect of rules C.2.1, C.2.2, C.2.3, C.2.4, C.2.5, C.2.6, C.2.7, C.4.1, C.11.2, C.11.3(a) & C.11.3(b) only.

A.6 CLASS RULES AMENDMENTS

A.6.1 Amendments to these **class rules** are subject to the approval by the EC and ISAF in accordance with the ISAF Regulations.

A.6.2 An NCA shall not amend these Rules other than Rules C.2.1, C.2.2, C.2.3, C.2.4, C.2.5, C.2.6, C.2.7, C.4.1, C.11.2, C.11.3(a) & C.11.3(b), for racing within its jurisdiction other than Area Championships. Any such changes shall be approved by 70% of NCA members and the RO who may impose limitations on their application.

A.6.3 An NCA may prescribe that standard items of equipment need not be carried aboard for racing within its jurisdiction other than Area Championships

A.7 CLASS RULES INTERPRETATION

A.7.1 Interpretation of **class rules** shall be made in accordance with the ISAF Regulations.

A.8 INTERNATIONAL CLASS FEE AND ISAF BUILDING PLAQUE

A.8.1 The licensed hull builder shall pay the International Class Fee.

A.8.2 ISAF shall, after having received the International Class Fee for the hull, send the ISAF Building Plaque and a measurement form to the licensed hull builder.

A.9 SAIL NUMBERS

A.9.1 Sail numbers shall be issued by the MNA.

A.10 HULL CERTIFICATION

A.10.1 A **certificate** issued by the RO shall record the following information:

- (a) Sail number
- (b) Owner
- (c) Craft identification number
- (d) Date of issue of initial **certificate**
- (e) Date of issue of **certificate**
- (f) **Corrector weight** mass
- (g) Factory fitted options

A.11 INITIAL HULL CERTIFICATION

A.11.1 For a **certificate** to be issued to hull not previously **certified**:

- (a) The builder shall enter all required details onto the **certification** control form.
- (b) The certification control form and **certification** fee shall be sent to RO.
- (c) Upon receipt of a satisfactorily completed documentation and **certification** fee the RO may issue a **certificate**. The RO shall retain the original certification control form.

A.12 VALIDITY OF CERTIFICATE

A.12.1 A hull **certificate** becomes invalid upon:

- (a) Other than permitted routine maintenance any alteration or repair to items recorded on the **certification** control form as required under A.11,
- (b) Any alteration to official **corrector weights**,
- (c) Any alterations to the **boat** resulting in a change of over 50 kg of the empty weight as shown on the certificate.
- (d) The date of expiry,
- (e) Change of ownership,
- (f) the issue of a new **certificate**,
- (g) withdrawal by the **certification authority**,

A.13 HULL RE-CERTIFICATION

A.13.1 Upon expiry the owner shall apply to the **certification authority** for a new **certificate** together with any re-certification fee that may be required. A new **certificate** shall then be issued to the owner.

A.13.2 Upon change of ownership the new owner shall apply to the **certification authority** for a new **certificate** together with any re certification fee that may be required.

A.14 RETENTION OF CERTIFICATION DOCUMENTATION

A.14.1 The **certification authority** shall:

- (a) retain the original documentation upon which the current **certificate** is based.

Section B – Boat Eligibility –Not In Use

PART II – REQUIREMENTS AND LIMITATIONS

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. 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) RRS 50.4 shall not apply.
A spinnaker is defined as a sail set forward of the foremost mast with **half width** greater than 75% of **foot length**. Any other sail tacked down forward of the foremost mast is a headsail.
- (b) ERS Part I – Use of Equipment shall apply except where deleted or amended by these class rules
- (c) ERS Part II, Definitions, Section G, Sail Definitions, shall apply except as stated by Swan 60 Rules.
- (d) The boat shall be equipped to a minimum of ISAF Offshore Committee Special Regulations Category 3. However the Notice of Race may prescribe additional requirements.

C.2 CREW / HELMSMAN

C.2.1 CREW NUMBERS

The total number of crew shall be no greater than 18.

C.2.2 LIMITATIONS

ISAF Regulation 22, ISAF Sailor Classification Code, shall apply.

The **crew** shall consist of no more than 8 persons either unclassified or classified as Group 3 under ISAF Regulation 22, Sailor Classification. An additional Group 3 **crew** member who is an approved boat captain as per class rule C.2.9 may be part of the **crew**. All other **crew** shall hold a valid Group 1 classification.

C.2.3 HELMSMAN

- (a) The Gazprom Swan 60 Class is an ‘Owner Driver’ Class. The provisions below for helmsmen other than bone fide owners are included solely:
 - (i) to provide for relief helmsmen during a race.
 - (ii) to accommodate for the charter of boats.
 - (iii) to provide for an owner or charter helmsman unavoidably absent for part of an event.
- (b) Boats shall be helmed by their bone fide owners, except as provided below.
- (c) Exceptionally, in emergency boats may be helmed by any **crew** member.

C.2.4 RELIEF HELMSMEN

- (a) An owner or charterer may request permission for relief helmsmen in writing to the Class Manager a minimum of 14 days before a race. In approving relief helmsmen, the Class Manager will consult with the owners' panel defined by C.2.8 below.
- (b) A relief helmsman is defined as: A member of the crew, nominated by the owner or charterer to helm the boat as permitted by Rules C.2.4 (c) and (d).
- (c) Except as provided by Rules C.2.3(c) and C.2.4(e), in a race with a time limit up to 3 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 3 hours, the boat shall be helmed by her bona fide owner or charter helmsman 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) and C.2.4(d).

C.2.5 SUBSTITUTE HELMSMEN

- (a) An owner or charterer may request permission for substitute helmsmen in writing to the Class Manager a minimum of 14 days before a race. In approving substitute helmsmen, the Class Manager will consult with the owners' panel defined by C.2.8 below.
- (b) A substitute helmsman is defined as: A member of the crew, currently classified as Group 1, and has only been classified as Group 1, or would have been classified as he held a classification, nominated by the owner or charterer to helm the boat as permitted by Rules C.2.7.

C.2.6 CHARTERS

- (a) Helms of charter boats shall request permission to helm in writing to the Class Manager a minimum of 14 days before a race. In approving charter helmsmen, the Class Manager will consult with the owners' panel defined by Rule C.2.8.
- (b) A charter helmsman shall:
 - (i) be Classified Group 1 under the ISAF Sailor Classification Code.
 - (ii) in the last 5 years have only been classified as Group 1, or would have been so classified had he held a classification.
- (c) At the Swan 60 World Championships, Gold Cup or at a Swan 60 Area Championship event a boat which has been chartered shall not take the boat owner on board while racing.

C.2.7 OWNER OR CHARTER HELMSMAN ABSENT

In the unavoidable absence of an owner or previously approved charter helmsman:

- a) at the Swan 60 World Championships, Gold Cup or at a Swan 60 Area Championship event, a previously approved substitute helmsman may helm the boat for races on not more than one day.
- b) at other events, an owner or charterer may request permission from the protest committee for a previously approved substitute helmsman to helm the boat as necessary.
- c) at all events, if no substitute helmsman has been previously approved, then approval for a substitute helmsman shall first be sought from the Class Representative (who shall be a member of the Executive Committee) using the criteria defined by rule C.2.5(b).

C.2.8 OWNERS PANEL

- (a) At events other than the Swan 60 World Championships, Gold Cup or a Swan 60 Area Championship event, any dispute concerning a helmsman shall be referred to a panel of a minimum of three owners appointed by the NCA. At the Swan 60 World Championships, Gold Cup or at a Swan 60 Area Championship event, the panel shall be appointed by the EC and may additionally include members of the EC in an advisory but non-voting capacity.
- (b) In considering applications for permission as a relief, substitute or charter helmsman, the panel:
 - (i) Shall confirm eligibility under Rules C.2.4(b), C.2.5(b) or C.2.6(b).
 - (ii) May consider and use any other facts that it considers relevant.
- (c) Any owner or charterer may request a review of the eligibility of any helmsman. In considering such reviews, the panel:
 - (i) Shall if relevant confirm eligibility under Rules C.2.4(b), C.2.5(b), C.2.6(b) and C.2.7.
 - (ii) Shall if relevant consider and confirm bone fide ownership or charter.
 - (iii) May consider and use any other facts that it considers relevant.
 - (iv) Shall in accordance with ISAF Regulation 22 consult with the ISAF Sailor Classification Commission before rejecting any helmsman on the grounds that his current classification is incorrect.
- (d) Panel findings shall be final and shall not be subject to review by any other body.
- (e) Race results prior to any panel finding shall be unaffected, except that when the panel finds that there may have been a gross breach of good manners or sportsmanship, it shall report its findings to the protest committee. All panel findings shall be reported to the RO.
- (f) The Race Committee shall post the names and ISAF Registration Numbers of all helmsmen on the Official Noticeboard at an event.

C.2.9 BOAT CAPTAIN

A **crew** member with a Group 3 classification may apply to be deemed as the “boat captain” by the helmsman eligibility panel. 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 race. Application for boat captain status shall be received by the class manager a minimum of 28 days before a race. (A list of the approved boat captains is held by the Class Manager).

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

- (a) Personal equipment shall be carried to the minimum standard ISAF Offshore Committee Special Regulations Category 3. However the Notice of Race may prescribe additional requirements.

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising shall only be displayed in accordance the ISAF Advertising Code. (See ISAF Regulation 20).

C.5 CLASS ASSOCIATION MEMBERSHIP

- C.5.1 The owner (or charterer) shall be a current member of the Gazprom Swan 60 Class Association. The EC may at its discretion issue a One-Event Membership to a non-member charterer, restricted to a maximum of one event per calendar year. The fee for this shall be set by the EC.

C.6 PORTABLE EQUIPMENT

C.6.1 MANDATORY

(a) FOR USE

- (i) A second anchor. The minimum combined weight of anchor, chain & warp for the main anchor shall be 56 kg and for the second anchor 43 kg.

C.6.2 OPTIONAL

(a) FOR USE

- (i) There are no restrictions on portable equipment except where stated in these **class rules**.

C.7 BOAT

C.7.1 WEIGHT

(a) The measurement condition is defined as fully rigged with **mast, boom, bowsprit, standing rigging, backstay, running rigging in spars, main sheet** and vang. All other loose equipment including but not limited to **sails**, sheets and loose deck gear, safety equipment, anchors, fuel, water, food, catering utensils, personal effects, and tools shall be removed. Fixed extras such as generators, watermakers, electronic equipment etc. may be left aboard and shall be recorded on the certification control form.

C.7.2 Minimum weight in empty condition shall be 21000 kg.

C.7.3 Following weighing in the measurement condition by an official measurer, removal of any corrector weights or changing the **boat weight** by removing or adding fixed items shall invalidate the certificate. A new certificate shall be issued in accordance with Rule A.13.

C.7.4 CORRECTOR WEIGHTS

- (a) **Corrector weights** shall be permanently installed in the locations shown in Appendix 3 when the **boat** weight is less than the minimum requirement.

C.8 HULL

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) With the exception of normal maintenance, which includes painting and minor repairs, no modifications are permitted to the hull external surface. The gelcoat surface shall not be removed except by light sanding prior to painting.
- (b) Routine maintenance such as painting and polishing to the hull and deck is permitted without new **certification control** and re-**certification**.
- (c) The minimum specification of internal equipment and fitout, engine, strut drive and propeller is defined by D.3.1. No item shown shall be moved or removed. Modifications to required internal equipment are permitted provided that the weight of the item is not reduced, except that with the exception of fairing, no modifications shall be made to the strut drive or propeller.
- (d) The settee cushions and mattress may be moved to positions where there is less chance of getting wet during racing provided that the location chosen remains the same for the duration of the event.
- (e) The following items of equipment from the manufacturers standard specification may be removed without prior permission of the Class Manager.

Gangway

Lifelines 8mm stainless steel may be replace by 5mm stranded stainless steel

Sprayhood

Cockpit Cushions

Mirrors

Portable Chairs

Radar

Audio & Video Systems

C.8.2 FITTINGS

- (a) The specification of deck equipment and fitout is defined by Nautor Swan 60 Drawing, 'DECK ASSEMBLY'. No item may be added or its location altered without prior permission of Class Manager.

C.9 HULL APPENDAGES

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Keel** and **Rudder** fairing and painting is permitted without new **certification control** and re-**certification** provided that the minimum dimensions detailed by Appendices 2 and 3 are met.
- (b) The class manager shall be informed before starting any work on the appendages that is likely to result in:
 - (i) adding or removing more than 15kg of keel material
 - (ii) adding or removing any rudder blade laminate

C.10 RIG

C.10.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) No component may be moved or modified
- (b) Materials for running rigging are optional.
- (c) The following items of equipment are optional and may be removed without prior permission of the Class Manager.

- Radar
- Fog Horn
- Wind Instruments
- Windex
- Delta Aerial

C.10.2 MAST

(a) DIMENSIONS

- (i) two **limit marks** of minimum width 25 mm shall be indelibly marked around the mast.
- (i) With the mast jacked up, the upper edge of the **lower limit mark** shall not be more than 2200 mm (To Be Confirmed) mm above the **mast datum point** (see F.2.4).
- (ii) The lower edge of the **upper limit mark** shall not be more than 24300 mm above the upper edge of the **lower limit mark**.

C.10.3 BOOM

(a) DIMENSIONS

	Minimum	Maximum
Limit mark width	25 mm	-
Outer point distance		8560 mm

C.10.4 BOWSPRIT

(a) DIMENSIONS

	Minimum	Maximum
Distance from the centre of the headstay attachment point projected as necessary to the extremity of the bowsprit, measured on or near the centre line of the boat.		2350 mm (TBC)

C.10.5 STANDING RIGGING AND RIG POSITION

(a) DIMENSIONS

	Minimum	Maximum
Forestay length measured between the pin centres of the forestay tangs on the bow and the mast.		26000 mm (TBC)
Foretriangle base	7050 mm	7090 mm

(b) USE

- (i) **shrouds** and **forestay** shall not be adjusted.
- (ii) the mast **spar** position at deck level shall not be adjusted.
- (iii) The mast heel and mast at deck level shall be securely fixed and shall not be adjusted in any plane.

C.11 SAILS

C.11.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) Routine maintenance such as small repairs, addition of **secondary reinforcement**, additions of tell tales and camber stripes is permitted without new **certification control** and re-**certifying**.
- (b) To repair sails during an event requires permission by the race committee (the Notice of Race or Sailing Instructions may allocate this function with a nominated class representative approved by the EC)
- (c) Battens may be placed in the batten pockets

C.11.2 LIMITATIONS

- (a) Not more than 1 mainsails, 4 headsails, 4 spinnakers, 1 OSR Heavy Weather Jib, 1 OSR Storm Jib and 1 OSR Storm Trysail (mandatory with non OSR compliant reefable mainsails) shall be carried aboard.
- (b) Unless otherwise prescribed by a Notice of Race, not more than 2 mainsails, 5 headsails, 5 spinnakers, 1 OSR Heavy Weather Jib, 1 OSR Storm Jib and 1 OSR Storm Trysail may be presented for equipment inspection for an event.

C.11.3 MAINSAIL

(a) IDENTIFICATION

The national letters and sail numbers shall comply with the RRS.

(b) USE

- (1) The **sail** shall be hoisted on a **halyard**. The arrangement shall permit hoisting and lowering of the **sail** whilst afloat.

C.11.4 HEADSAIL

(a) IDENTIFICATION

- (1) The national letters and sail numbers are not required.

C.11.5 SPINNAKER

(a) IDENTIFICATION

The national letters and sail numbers shall comply with the RRS.

C.11.6 SAIL ROYALTY LABELS

- (a) All sails, except storm jib and storm trysail shall carry a numbered sail royalty label adjacent to the tack of the sail.
- (b) A boat shall be entitled to 1 mainsail royalty label, 2 headsail royalty labels, and 2 spinnaker royalty labels for calendar year. Plus for each Gazprom Swan 60 Class Event completed in a calendar year 0.5 royalty label may be used during that calendar year. A maximum of 0.5 label may be transferred to the following calendar year.
- (c) The EC shall decide and announce by 1st September of each year the number of royalty labels permitted for the following year. If no announcement is made, then a boat shall be entitled to 1 mainsail royalty label, 2 headsail royalty labels, and 2 spinnaker royalty labels for the following calendar year.
- (d) Sail royalty labels shall only be used on sails certified during the current year.
- (e) Boats shall apply and pay for sail royalty labels to the Gazprom Swan 60 Class Association which will keep a record of the royalty label numbers supplied to boats.
- (f) Sail royalty labels are not transferable between boats. A sail transferred between boats shall have a new royalty label attached from the annual allocation of the boat to which the sail is transferred. Exceptionally, boats under charter may use sails with royalty labels allocated to either the charterer's boat or the chartered boat, but may not use sails from both boats.
- (g) A new boat, or a boat which has not competed in a Gazprom Swan 60 Class event for a minimum of 2 years, shall be entitled to 2 mainsail royalty labels, 6 headsail royalty labels including 1 for the OSR heavy weather jib, and 5 spinnaker royalty labels in the calendar year in which she first applies to the Gazprom Swan 60 Class Association for a class certificate.

Section D – Hull

D.1 GENERAL

D.1.1 RULES

- (a) The **hull** shall comply with the **class rules** in force at the time of initial **certification**.

D.1.2 CERTIFICATION

See Rule A.11

D.1.3 IDENTIFICATION

- (a) The hull shall carry the ISAF Plaque permanently displayed.

D.1.4 BUILDERS

- (a) The sole builder of Swan 60's is Oy Nautor AB.

D.2 HULL, DECK, BULKHEADS, INTERIOR FITOUT

D.2.1 MATERIALS & CONSTRUCTION

- (a) Swan 60's shall only be built from approved Class moulds in accordance with these class rules including the official plans and specifications.
- (b) The hull shape shall comply with the drawings held by Oy Nautor AB.

D.2.2 CONSTRUCTION

- (a) The hull deck and bulkheads shall be built in accordance with the construction drawings.

D.3 ASSEMBLED HULL

D.3.1 FITTINGS

(a) MANDATORY

- (i) The specification for internal equipment is as shown by Nautor interior arrangement drawings, 0500 Plumbing and Ventilation General Installation and Nautor Swan 60 Standard Specification
- (ii) Retractable bow thruster

(b) OPTIONAL

Any addition, removal or change from the original specification of the hull as supplied Oy Nautor AB shall be approved by Class Manager.

D.3.2 FACTORY WEIGHT

- (a) The completed hull and deck, including all internal equipment, engine, strut drive and propeller, deck equipment, keel, and rudder shall be weighed as Factory Weight. Minimum factory weight shall be xxxxx kg. (To Be Confirmed)

D.3.3 HULL CORRECTOR WEIGHTS

- (a) The weight of the boat shall be brought up to minimum Factory Weight by the installation of forward and aft lead **corrector weights** in the positions shown by

Appendix 3. Forward and aft **corrector weights** shall be approximately equal in weight.

- (b) The builder shall record Factory Weight and the weight of **corrector weights** fitted.

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

- (a) **Keel**
- (b) **Rudder**

E.2 GENERAL

E.2.1 RULES

- (a) The **keel** and **rudder** shall comply with the **class rules** in force at the time of **certification**.

E.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Hull appendages** shall not be altered in any way except as permitted by these class rules.
- (b) Routine maintenance such as painting and surface fairing are permitted without re-measurement and re-**certification**.

E.2.3 CERTIFICATION

- (a) The builders shall certify that the **hull appendages** comply with the Swan 60 construction and material specifications and drawings held by Oy Nautor AB.

E.2.4 MANUFACTURERS

- (a) The **hull appendages** shall be made by manufacturers licensed by Oy Nautor AB.

E.2.5 DIMENSIONS

- (a) Keel and rudder shapes may be checked at any time by an official measurer. No dimension shall be less than shown by Appendices 1 and 2.
- (b) The keel and rudder shall be located as shown by Appendices 1 and 2. The builder shall record the keel position on the certification control form.
- (c) Maximum keel draft, as shown by Appendix 1 shall be recorded on the certification control form by the builder.

E.2.6 WEIGHTS

- (a) The keel bulb, keel fin, keel nuts and washers, shall weigh minimum 7660 kg and maximum 7880 kg. The builder shall weigh the keel and record the weight on the certification control form.
- (b) The rudder shall weigh not less than 73 kg. The builder shall weigh the rudder, and record the weight on the certification control form.

Section F – Rig

F.1 PARTS

F.1.1 MANDATORY

- (a) **Mast**
- (b) **Boom**
- (c) Standing **rigging**
- (d) **Bowsprit**

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 **certification** of the **spar**.
- (b) The standing and running **rigging** shall comply with the **class rules**.

F.2.2 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Spars** shall not be altered in any way except as permitted by these **class rules**. No component may be moved or modified
- (b) Routine maintenance such as servicing is permitted without re-measurement and **re-certification**.

F.2.3 CERTIFICATION

- (a) Builders shall certify that the mast & boom and ancillary components comply with the approved Swan 60 mast & boom construction and material specifications and drawings held by Oy Nautor AB.

F.2.4 DEFINITIONS

(a) MAST DATUM POINT

The **mast datum point** is the forward face of the mast at sheerline height. The sheerline height is measured at 45° to the horizontal abreast the mast spar.

F.2.5 MANUFACTURER

- (a) Builders of Swan 60 masts, booms, standing rigging and bowsprit shall be licensed by Oy Nautor AB.
- (b) The mast, standing rigging and boom shall comply with Nautor drawing 0001282 Revision D – 26/06/2014 ‘SAIL PLAN’

F.3 MAST

F.3.1 MATERIALS & CONSTRUCTION

- (a) The **spar** shall be constructed in accordance with the construction drawings.
- (b) A steaming light complying with local regulations shall be fitted to the spar in the position of the original supplied light. A protective cage is optional.

F.3.2 FITTINGS

(a) MANDATORY

As detailed in the manufacturing specification.

F.3.3 DIMENSIONS

As detailed in the manufacturing specification.

F.3.4 WEIGHTS

(a) The builder shall weigh the mast in the following condition:

(i) Fully rigged with all shrouds, headstay, backstay, spreaders, lights, antennae, instrument sensors, displays and brackets, wiring and all permanently attached fittings.

(ii) All halyards, running rigging and associated loose blocks and tackle shall be removed. Messengers of not more than 4mm diameter and long enough to replace the internal portions of running rigging may be used.

(iii) All fittings and standing rigging shall be in their normal positions with standing rigging pulled taut down the rig. Moveable items, such as spinnaker pole heel cars shall be at their lower limit of travel.

(b) The centre of gravity of the **mast** in the condition as in (a) shall not be less than 8990 mm (To Be Confirmed) above the upper edge of the **lower limit mark**.

(c) The weight of the **mast** in the condition as in (a) shall not be less than 582 kg.

F.4 BOOM

F.4.1 CONSTRUCTION

(a) The **spar** shall be constructed in accordance with the construction drawings.

F.4.2 FITTINGS

(a) MANDATORY

As detailed in the manufacturing specification.

F.4.5 DIMENSIONS

As detailed in the manufacturing specification.

F.4.6 WEIGHT

(a) The builder shall weigh the **boom** in the following condition:

(i) Fully rigged including outhaul.

(ii) All reef lines shall be removed. Messengers of not more than 4mm diameter and long enough to replace the internal portions of reef lines may be used.

(b) The weight of the **boom** in the condition as in (a) shall not be less than 205 kg. (To Be Confirmed)

F.5 STANDING RIGGING

F.5.1 MATERIALS & CONSTRUCTION

(a) The standing **rigging** shall comply with Nautor drawing 0001282 Revision D – 26/06/2014 ‘SAIL PLAN’

F.6 BOWSPRIT

F.6.1 CONSTRUCTION

(a) The **spar** shall be constructed in accordance with the construction drawings.

F.6.2 FITTINGS

(a) **MANDATORY**

As detailed in the manufacturing specification.

F.6.3 DIMENSIONS

As detailed in the manufacturing specification.

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 **official measurer** shall **certify** mainsails and headsails in the **tack** and spinnakers in the **head** and shall sign and date the **certification mark**. In addition the official measurer shall write near or on the certification mark the SF, SLU, SLE, SHW dimensions.
- (b) The ISAF or an MNA 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 sailmaker.

G.1.4 CONSTRUCTION

- (a) **Sail** construction is free provided it does not involve
- (i) Artificially thickened areas (eg foamed sails)
 - (ii) Multiple surfaces whether inflated by the action of the wind or otherwise.

G.2 MAINSAIL

G.2.1 IDENTIFICATION

- (a) The class insignia shall conform with the dimensions, colours and requirements as detailed in the diagram available from the class manager and be placed in accordance with the diagram shown in Appendix 4

G.2.2 CONSTRUCTION

- (a) The construction shall be: **soft sail**.
- (b) The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, **batten pocket patches**, batten pocket elastic, batten pocket end caps, mast and boom slides, leech line with cleat, **windows**, tell tales, sail shape indicator stripes and items as permitted or prescribed by other applicable *rules*.

G.2.3 DIMENSIONS

Mainsail **upper leech point** is defined as the point on the leech equidistant from the **head point** and the **three-quarter leech point**. Mainsail seven eighth width (MUW) is defined as the shortest distance between the upper leech point and the luff.

Mainsail dimensions shall not exceed:

- | | |
|--|--------|
| (a) Top Width (HB) | 0.35 m |
| (b) Upper Width (Seven Eighths) (MUW) | 1.93 m |
| (c) Three-Quarter Width (MTW) | 3.44 m |
| (d) Half Width (MHW) | 5.73 m |

G.3 HEADSAIL

G.3.1 CONSTRUCTION

- (a) The construction shall be: **soft sail**.
- (b) The following are permitted: Stitching, glues, tapes, corner eyes, headboard with fixings, Cunningham eye or pulley batten pocket elastic, **batten pocket patches**, batten pocket end caps, leech line with cleat, **windows**, tell tales, sail shape indicator stripes and items as permitted or prescribed by other applicable *rules*.

G.3.2 DIMENSIONS

Headsail **upper leech point** is defined as the point on the leech equidistant from the **head point** and the **three quarter leech point**. Headsail seven eighth width (HUW) is defined as the shortest distance between the upper leech point and the luff.

Headsail dimensions shall not exceed:

- (a) **Luff Length** (LL) 25.40 m
- (b) **Luff Perpendicular** (LP) 7.30 m
- (c) **Half Width** (HHW) 3.99 m
- (d) **Three-Quarter Width** (HTW) 2.28 m
- (e) **Upper Width** (Seven Eighths) (HUW) 1.25 m

G.4 SPINNAKER

G.4.1 CONSTRUCTION

- (a) The construction shall be: **soft sail**.
- (b) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales, sail shape indicator lines, leech line with cleat, foot line with cleat, luff line with cleat and items as permitted or prescribed by other applicable *rules*.

G.4.2 DIMENSIONS

- (a) The maximum spinnaker area shall not exceed 426 m². (to be confirmed)
- (b) Spinnaker area shall be calculated as follows:

$$\text{Spinnaker Area} = ((\text{SLU} + \text{SLE}/2) * (((\text{SF} + (4 * \text{SHW}))/5) * 0.83$$

- SLU = Spinnaker **Luff Length**
- SLE = Spinnaker **Leech Length**
- SHW = Spinnaker **Half Width**
- SF = Spinnaker **Foot Length**

- (c) RRS 50.4 shall not apply.

A spinnaker is defined as a sail set forward of the foremost mast with **half width** greater than 75% of **foot length**. Any other sail tacked down forward of the foremost mast is a headsail.

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 1 Keel

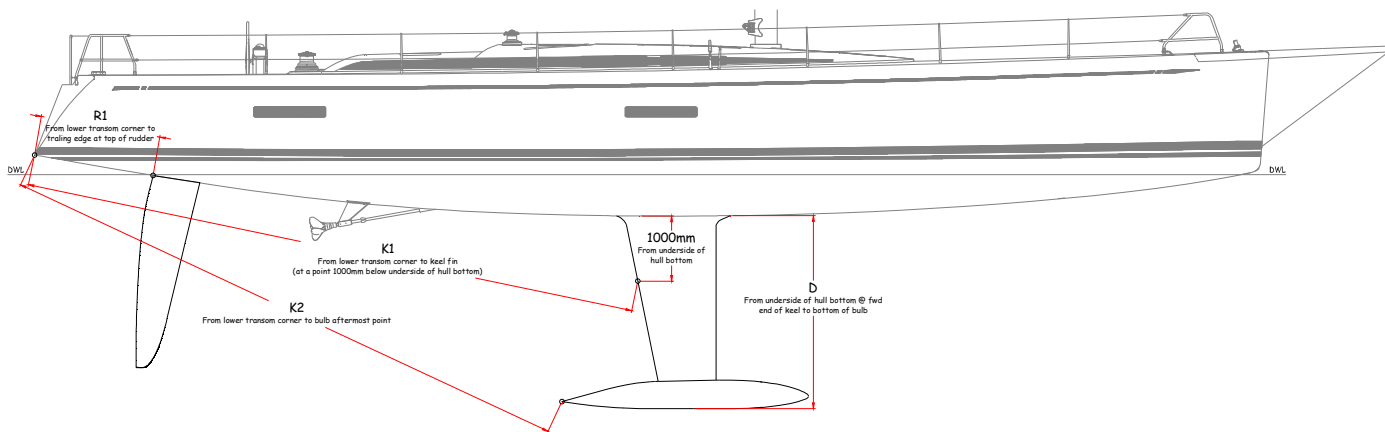


Table A.1.1

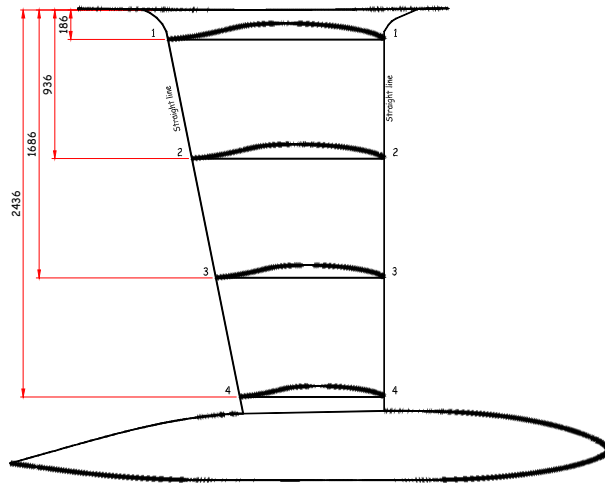
	Measurement (mm)	
	Min. (mm)	Max (mm)
K1	TBC	TBC
K2	TBC	TBC
D	TBC	TBC

Table of Keel Offsets

Chords and half breadths in millimetres

Chord lengths and chord sections are minima

Section	Chord length	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
1-1	725	1	5	13	22	33	44	53	56	53	42
2-2	670	1	4	11	20	29	39	46	49	47	37
3-3	548	1	3	8	15	22	30	36	38	36	28
4-4	380	1	3	6	8	14	19	23	24	23	18



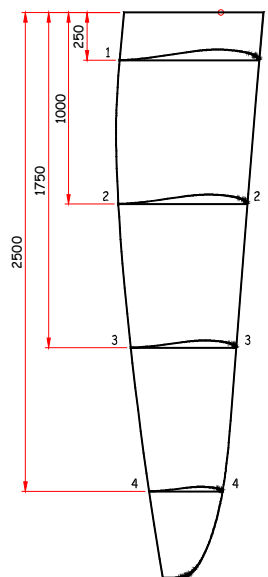
Appendix 2 Rudder

Table of Rudder Offsets

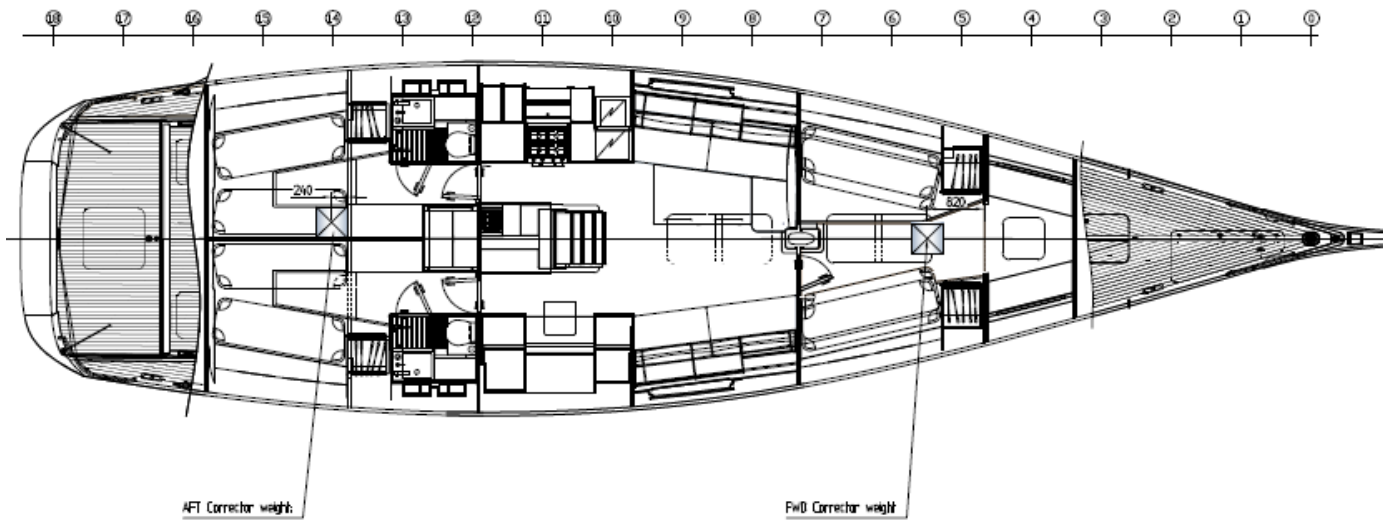
Chords and half breadths in millimetres

Chord lengths and chord sections are minima

Section	Chord length	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%
1-1	1366	1	17	41	72	95	101	101	94	80	56
2-2	1215	1	17	37	65	84	91	90	84	71	50
3-3	1063	1	14	33	57	74	79	79	73	62	44
4-4	912	1	12	29	50	64	68	68	63	53	38



Appendix 3 Corrector Weight Positions



Appendix 4 Class Insignia



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