CLASS RULES

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The VX ONE was designed in 2011 by Brian Bennett and Roger Martin Yacht Design and was adopted as a class association in April 2012.

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INTRODUCTION

The VX ONE Class has been created as a strict one-design class where the true test when raced is between crews, not boats and equipment.

VX ONE hulls, hull appendages, rigs and sails are measurement/manufacturing controlled.

VX ONE hulls, hull appendages, and rigs shall only be supplied by entities licensed by the TMH in the class rules referred to as a licensed supplier. Equipment is required to comply with the VX ONE Building Specification and is subject to an approved manufacturing control system.

VX ONE 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.

VX ONE sails may be manufactured by any sail maker. Sails shall be measured by an approved measurer and appropriate markings placed on the sails to show sail measurement has been performed, and that sails comply with these 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.

VX ONE class has developed these rules using ISAF Guide to Standard Class Rules

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.

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
VXCA	VX ONE Class Association
NCA	National Class Association
ERS	Equipment Rules of Sailing
RRS	Racing Rules of Sailing
TMH	Trade Mark Holder (Brian Bennett)
VXCC	VX One Class Constitution

A.3 AUTHORITIES

A.3.1 The international authority of the class is the VXCA which shall co-operate with the TMH in matters concerning these **class rules**.

A.3.2 Notwithstanding anything contained herein, the **VXCA** has the authority to withdraw a **certificate** and shall do so on the request of the class measurer.

A.3.3 The VXCA is under no legal obligation with respect to these class rules.

A.4 ADMINISTRATION OF THE CLASS

A.4.1 The TMH has delegated its administrative functions of the class to the VXCA. The VXCA may delegate part or all of its functions, as stated in these **class rules**, to an administrator.

A.5 CLASS RULES CHANGES

A.5.1 At Class Events –RRS 87 applies.

A.6 CLASS RULES AMENDMENTS

A.6.1 Amendments to these **class rules** are subject to the approval of the board as described in the VXCC.

A.7 CLASS RULES INTERPRETATION

A.7.1 Interpretation of **class rules** shall be made in accordance with the VXCA measurer as described in the VXCC.

A.8 BUILDER CLASS FEES (UNDER REVIEW)

A.9 HULL /SAIL NUMBERS

A.9.1 Hull numbers shall be issued by the TMH.

A.9.2 Hull numbers shall be issued in consecutive order starting at "100".

A.9.3 The sail numbers shall reference the hull number.

A.10 MEASUREMENT CERTIFICATE

A.10.1 For a **certificate** to be issued:

(a) **Certification control** shall be carried out by an **official measurer** who shall complete the measurement certificate (Appendix H.4).

(b) The documentation and **certification** fee shall be sent to the **VXCA**.

(c) Upon receipt of satisfactorily completed documentation and **certification** fee, if required, the **VXCA** may issue a measurement **certificate**.

A.11 VALIDITY OF CERTIFICATE

A.11.1 A measurement **certificate** becomes invalid upon:

(a) the change to any items recorded on the measurement **certificate** as required under A.10.

(b) withdrawal by the **certification authority**.

(c) the issue of a new **certificate**.

A.12 HULL RE-CERTIFICATION

A.12.1 The **certification authority** may issue a new measurement **certificate**:

(a) when it is invalidated under A.11.1(a) or (b), after receipt of the old **certificate**, and **certification** fee, if required.

(b) when it is invalidated under A.11.1 (b), at its discretion.

(c) in other cases, by application of the procedure in A.10.1.

A.13 RETENTION OF CERTIFICATION DOCUMENTATION

A.13.1 The **certification authority** shall:

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

(b) upon request, transfer this documentation to the new **certification authority** if the hull is exported.

Section B – Boat Eligibility

For a **boat** to be eligible for *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**.

(b) Have a valid measurement certificate kept on file at the VXCA.

(c) Have VXCA royalties affixed to sails.

(d) Have a valid measurement certificate in your possession.

B.2 CLASS ASSOCIATION MARKINGS

B.2.1 A valid Class Association sticker shall be affixed to the hull on the starboard transom. A class royalty sticker must be affixed to the starboard side of the sail in proximity of the tack.

B.3 EQUIPMENT INSPECTION

B.3.1 In the case of a dispute at an event alleging non-compliance with class rules where specific measurements are not stated, the Class Measurer or Equipment Inspector appointed by the VXCA shall adopt the following procedure:

(a) A sample measurement of the disputed item shall be obtained by taking the identical measurement from a randomly selected group of 5 boats or items of equipment.

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

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

(d) The ICA, the MNA or the TMH may use destructive testing to determine compliance with construction rules.

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

(This section contains rules and requirements during an event, including racing, and permitted alterations to VX ONE hulls, hull appendages, rigs and sails.)

C.1 GENERAL

C.1.1 RULES

(a) RRS 50.4 shall not apply.

(b) RRS 44.1 and 44.2 are changed as follows: Her penalty shall be a one turn penalty including one tack and one gybe.

(c) RRS 42.2 (a) is changed as follows: Unlimited trimming and easing of the Assymetrical Spinnaker to promote a plane shall be permitted.

(d) The ERS Part I – Use of Equipment shall apply.

(h) Appendix H.9 Regatta Guidelines shall be considered rules under C.1.1.

C.2 CREW

C.2.1 LIMITATIONS

(a) The crew shall consist of a minimum of 2 persons. Any member of the crew may act as helmsperson at any time if they meet the provisions of C.2.1 (d).

(b) No crew member shall be substituted during an event unless express written consent is granted by the Jury or Race Committee. If a crew substitution is requested, the total crew weight shall not change by more than 10 kg.

(c) ISAF group 3 sailors may skipper or crew only if they are not being compensated for racing by the boat owner or charterer.

(d) In a class sanctioned event the owners and the helmspersons must be members in good standing with the VXCA.

(e) There shall be no crew weight limit. **Note: The builder warranty limits the crew weight to less than 560 lbs. To load the boat to above this weight may void the builder warranty.**

C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

(a) The boat shall be equipped with a **personal floatation device** for each crew member to the minimum standard ISO 12402-5, EN 393:1995 (CE 50 Newtons), or USCG Type III, or AUS PFD 1. Each personal floatation device shall meet the minimum safety specifications of the local authority.

C.3.2 RRS 43.1 (A) (B) (C) SHALL APPLY

C.4 ADVERTISING

C.4.1 LIMITATIONS

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

C.5 PORTABLE EQUIPMENT

C.5.1 MANDATORY

(a) FOR USE

(1) Safety equipment shall meet the minimum specifications of the local authority.

(2) Whistle or other sounding device.

(3) A tow line consisting of not more than two lines with a combined length of no less than 20 meters, and with a diameter of no less than 6 mm shall be carried aboard while racing. Use of running rigging to satisfy this requirement is prohibited.

(4) One paddle.

C.5.2 OPTIONAL

(a) FOR USE

(1) Electronic or mechanical timing devices

(2) Non-wired electronic devices

(3) VHF radio

(4) Mooring line

(5) Wind indicators

(6) One magnetic compass

(7) Rope, tape or clips for the purpose of securing turnbuckles

(8) Gennaker sheet pennant limited to 20 cm

(b) NOT FOR USE

(1) Electronic wind reading devices

C.6 BOAT

C.6.1 WEIGHT

(a) The minimum weight of the boat in dry condition shall be 260 kg.

(b) **Corrector weights** of lead shall be permanently fastened when the boat weight is less than 260 kg. 50% of the total corrector weight shall be glued to the hull surface beneath the rudder pod. The remaining 50% shall be cut into two equal weight pieces and glued forward of the joint between the deck and deck hood closest to the cockpit.

(c) The total weight of such **corrector weights** shall not exceed 15kg.

C.6.2 WEIGHING

When weighing, the following shall be excluded:

(1) All equipment listed in C.5

(2) Sails

(3) Gennaker sheets

(4) Personal equipment

C.7 HULL

C.7.1 SUPPLY, MODIFICATIONS, MAINTENANCE AND REPAIR

(a) Parts or equipment may be replaced provided that the replacement is of similar weight, size or type, performs the same function, and is replaced in the original position. Replacement parts or equipment may be obtained from any supplier.

(b) Routine maintenance such as polishing is permitted.

(c) Minor sanding is permitted on all hull surfaces provided the original design geometry is maintained. **Note: Sanding may void the manufacturer warranty**.

(d) During an event, structural damage may be temporarily repaired provided no competitive advantage is gained. The repair shall be executed with the intent to restore the original design geometry and mechanical properties. The repair shall be approved by an official measurer or a **TMH** representative. Following the event, repairs shall be executed in accordance to the requirements of C.7.1.(e)

(e) If any hull moulding is repaired in any other way than described in C.7.1(d), an **official measurer** shall verify on the **measurement certificate** that the external shape is the same as the original design geometry and mechanical properties and that no substantial stiffness or other competitive advantage has been gained as a result of the repair. The **official measurer** shall also describe the details of the repair on the **measurement certificate**.

C.7.2 FITTINGS

(a) Drainage plug and inspection ports shall be in place while racing.

C.7.3 ADDITIONS AND ALTERATIONS

(a) Trim marks may be added.

(b) Non-skid surfaces may be added provided they are no greater than 3 mm thickness

(c) Gennaker sheet retaining apparatus may be added.

C.7.4 IDENTIFICATION

(a) The **HULL** shall carry a VX ONE certified equipment label.

C.8 HULL APPENDAGES

C.8.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) Repair to surface damage is permitted provided the original design geometry is maintained and no competitive advantage is gained.

(b) The keel blocks may be shimmed to align the **keel centerplane** with the **hull centerplane**.

C.8.2 FITTINGS

(a) The **rudder** shall be affixed to the transom using the factory supplied hardware.

C.8.3 LIMITATIONS

(a) Only one **keel** and one **rudder** shall be used during an event except when a **hull appendage** has been lost or damaged beyond repair.

(b) The **keel** and **rudder**, their fittings and rigging shall not be altered in any way except as permitted by Section C of these **class rules.**

C.8.4 IDENTIFICATION

(a) The **keel** and **rudder** shall carry a VX ONE certified equipment label.

C.8.5 KEEL

(a) The **keel**, its components and fittings shall only be manufactured and/or supplied by TMH approved entities.

(b) The **keel** fin, bulb and associated hardware and fittings shall conform to the geometry specified by the TMH, and may be checked by a class measurer or TMH representative.

KEEL	Minimum	Maximum
1. Keel Depth: Projection from the bottom of the hull to the top of bulb at trailing edge with all keel bolts tightened for sailing.	1097 mm	1103 mm
2. Keel Position: Leading edge of keel at the hull to transom datum point with all keel bolts tightened for sailing.	3012 mm	3020 mm
3. Keel Chord	292 mm	302 mm

(c) USE

(1) **Keel** blocks and retaining bolts shall be installed to prevent keel movement.

C.8.6 RUDDER

(a) The **rudder** and its fittings shall only be manufactured by TMH approved manufacturers, and supplied by TMH approved entities.

(b) The **rudder** shall conform to the geometry specified by the TMH, and may be checked by a class measurer or TMH representative.

(c) The **rudder** blade shall be positively secured in its fully lowered position.

(d) The **rudder**, and cartridge if used, shall be positively retained.

RUDDER	Minimum	Maximum
1. Maximum projection from the bottom corner of the rudder at the trailing edge to the lower datum point when the rudder is centred.	1017 mm	1023 mm

C.9 RIG

C.9.1 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) During an event, structural damage may be repaired with the intent to restore the original geometry and mechanical properties provided no competitive advantage is gained. The repair shall be approved by a **class measurer** or a **TMH** representative. Following the event, the damaged component(s) shall be replaced.

(b) Hardware may be replaced with equipment of similar function and design.

(c) Hardware may be relocated or replaced to match current factory supplied rigging.

(d) Telltales, windex, other non-electronic wind indicators, and shroud adjustment handles are permitted.

C.9.2 FITTINGS

(a) Only factory supplied rigging screws (open body turnbuckles) may be used.

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 has approved the substitution.

(b) **Spars** and their fittings shall only be manufactured by a TMH Licensed Manufacturer and shall comply with the Building Specification in force at the time of manufacture of the **spar.**

(c) **Spars**, their fittings and rigging shall not be altered in any way except as permitted by Section C of these **class rules.**

C.9.4 IDENTIFICATION

(a) The upper and lower **mast** sections, **boom**, **spreaders, bowsprit** and **GNAV** (vang strut) shall carry a VX ONE certified equipment label.

C.9.5 MAST

(a) USE

(1) Bolts shall be secured in the mast step track in the fourth hole from the front and third hole from the rear. The **mast tenon** shall be stepped in the mast step track in such a way that the tenon shall be fixed against the aft bolt.

(b) DIMENSIONS. The designed geometry per appendix H.5 shall be maintained. *Spot checks may be carried out at the discretion of an official measurer or TMH representative to confirm headstay length and mast intersection geometry.*

	Minimum	Maximum
1. Headstay Height: Bearing point of jib stay tang at mast to step bottom of heel tenon.	6448 mm	6452 mm
2. Mast Butt Position: Bearing surface of aft mast track bolt to aft face of top rudder pintle.	3326 mm	3336 mm
3. P: Top of lower mast point to bottom of upper mast point		7016 mm
4. Limit Mark Width		18 mm

C.9.6 BOOM

(a) DIMENSIONS

	Minimum	Maximum
Limit mark width	18 mm	-
E Outer point distance		2970 mm

(b) USE

(1) The intersection of the aft edge of the mast **spar** and the top of the boom **spar**, each extended as necessary, shall not be below the upper edge of the mast **lower limit mark** when the boom **spar** is at 90° to the mast **spar**.

C.9.7 GENNAKER BOWSPRIT

(a) DIMENSIONS

(1) The sprit shall be no longer than 2440 mm.

(b) USE

(1) The bowsprit shall be set only with the gennaker.

C.9.8 GNAV (VANG)

(a) DIMENSIONS

(1) The designed geometry per Appendix H.5 shall be maintained.

C.9.9 STANDING RIGGING

(a) DIMENSIONS

The standing rigging and associated hardware shall be manufactured according to the rig plan as shown in Appendix H.6.

	Minimum	Maximum
1. Headstay length: Bearing point of upper "T" tang to bearing point of the upper pin on furler unit.	6645 mm	6649 mm
2. Furler pin to pin. (Harken or equivalent)	61 mm	61 mm
3. Headstay eye strap (chain plate) CL to deck datum. Note: measurement requires launching sock to be unfastened.	3713 mm	3717 mm

(b) USE

(1) The rigging links and rigging screws shall not be adjusted after the warning signal.

C.9.10 RUNNING RIGGING

(a) USE

(1) The **mainsail sheet** shall be led 3:1.

(2) The headsail **sheet** shall be led through the factory-installed car, blocks and swivel cleat.

(3) The Gennaker **sheets** shall be led through the factory-installed turning blocks.

(4) The **bowsprit** setting line shall be led through the factory-installed turning blocks.

(5) The **gnav** shall be led through the factory-installed turning blocks.

(6) The **mainsail outhaul** shall be led through the factory installed turning blocks.

(7) The **mainsail** cunningham control shall be led through the factory-installed turning blocks.

(8) The jib furler shall be functional and the line shall be led through the factory-supplied cleat.

(9) Jib halyard tensioner shall be led through the factory-supplied purchase system.

C.10 SAILS

C.10.1 MODIFICATIONS, MAINTENANCE, REPAIR AND REPLACEMENT

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

(b) Routine maintenance is permitted without re-measurement and re-**certification**.

(c) Battens may be placed in the **batten pockets.**

(d) A sail damaged beyond repair may be replaced with the permission of the Race Committee.

(e) During an event, a sail shall not be modified after it has been measured.

(f) During an event, a damaged sail may be repaired and shall be re-measured following repair.

C.10.2 LIMITATIONS

(a) Not more than 1 mainsail, 1 jib, and 1 gennaker shall be carried aboard.

(b) Not more than 1 mainsail, 1 jib, and 1 gennaker shall be used during an event except when a **sail** has been lost or damaged beyond repair.

C.10.3 MAINSAIL

(a) USE

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

(2) The Throat 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**.

(3) The **luff** bolt rope shall be in the **spar** groove.

C.10.4 JIB

(a) USE

(1) The use of a zipper luff is mandatory.

(2) The jib shall be able to be fully furled.

C.10.5 GENNAKER

(a) USE

(1) When in use, the **sail** shall be hoisted on a **halyard**. The arrangement shall permit hoisting and lowering of the **sail** while afloat.

(2) The halyard tail shall be secured to a retrieval patch on the sail.

Section D – Hull

D.1 PARTS

D.1.1 MANDATORY

(a) Hull shell

(b) Deck and cockpit shell

(c) Foredeck hood

D.1.2 OPTIONAL

(a) A transom extension is permitted only to allow boats to meet minimum length requirements for mixed fleet racing.

D.2 GENERAL

D.2.1 RULES

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

(b) The VX ONE logo shall be affixed to the cockpit side tanks per Appendix H.1.

D.2.2 CERTIFICATION

See Appendix H.4.

D.2.3 MODIFICATIONS, MAINTENANCE AND REPAIR

(a) The hull shell, deck shell, foredeck hood and bulkheads shall not be altered in any way except as permitted by these **class rules**.

D.2.4 DEFINITIONS

(a) HULL DATUM POINT

The **hull datum point** is at centreline 25 mm forward of transom cut line. This shall be identified by a 2mm dot.

(b) The **deck datum point** is the top aft edge of the top transom pintle.

D.2.5 BUILDERS

(a) The hull shall be built by a builder licensed by the TMH.

(b) All moulds shall be approved by the TMH.

D.3 HULL SHELL, DECK SHELL AND FOREDECK HOOD

D.3.1 MATERIALS

(a) The hull shell, deck shell and foredeck hood shall be built from vinylester resin, e-glass fiber and PVC core.

D.3.2 CONSTRUCTION

(a) Vacuum resin infusion.

D.4 ASSEMBLED HULL

D.4.1 FITTINGS

(a) MANDATORY

The following fittings shall be positioned in accordance with the measurement diagram:

(1) Forestay fitting
(2) Shroud plates
(3) Headsail track
(4) Headsail sheet swivel cleat
(5) Headsail track car cleat
(6) Mast step
(7) Gennaker sheet cleats
(8) Rudder gudgeons
(9) Keel top plate
(10) GNAV fairleads and cleats

(b) OPTIONAL

(1) Mainsail sheet cleat on factory installed cam base
(2) Stowage clips for paddle(s), sail bags and other equipment

(c) REPLACEMENT

(1) Inspection hatches
(2) Hiking straps
(3) Storage and tail bags

Section E – Hull Appendages

E.1 PARTS

E.1.1 MANDATORY

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

E.2 GENERAL

E.2.1 RULES

(a) **Hull appendages** shall comply with the **class rules** in force at the time of **certification**.

(b) The **keel** and **rudder**, and their fittings shall only be manufactured by a TMH Licensed Manufacturer and shall comply with the Building Specification in force at the time of manufacture**.**

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 is permitted without re-measurement and re-**certification**.

E.2.3 CERTIFICATION

(a) The manufacturer or **official measurer** or TMH representative shall **certify hull appendages** and date the **certification mark**.

E.2.4 MANUFACTURERS

(a) The **hull appendages** shall be made by manufacturers licensed by the TMH.

E.3 KEEL

E.3.1 RULES

(a) The **keel,** its position and installation**,** shall comply with the **class rules** in force at the time of the **certification** of the **hull**.

E.3.2 CERTIFICATION

(a) E.2.3 SHALL APPLY

E.3.3 MANUFACTURERS

(a) Manufacturers shall be licensed by the TMH.

E.3.4 MATERIALS

(a) The **keel** shall be of extruded 6061 (T6) Aluminium.

(b) The **keel bulb** shall be lead-covered with a GRP casing.

E.3.5 CONSTRUCTION

(a) The **keel** shall be manufactured by extrusion, and manufactured by an extruder approved by the TMH.

E.3.6 FITTINGS

(a) MANDATORY

(1) Top plate

(2) Retaining bolts

(3) Lifting ring

E.3.7 WEIGHT

	Minimum	Maximum
Combined keel assembly including keel top and weed cutter.	74.0 kg	76.0 kg

E.4 RUDDER BLADE, RUDDER CARTRIDGE AND TILLER

E.4.1 RULES

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

E.4.2 CERTIFICATION

(a) The manufacturer or **official measurer** shall **certify rudder** blades

(b) E.2.3 shall apply

E.4.3 MATERIALS

(a) The **rudder** blade shall be of FRP with carbon fiber reinforcement.

(b) The **tiller** shall be of aluminium.

E.4.4 CONSTRUCTION

(a) The **rudder** blade shall be manufactured in a mould approved by the TMH.

(b) The **rudder** cartridge shall be supplied by an approved manufacturer.

E.4.5 FITTINGS

(a) MANDATORY

(1) Factory supplied gudgeons

(2) Securing apparatus to retain **rudder**

(b) OPTIONAL

(1) Factory supplied **rudder** cartridge.

E.4.6 WEIGHT

	Minimum	Maximum
Combined rudder and tiller assembly. (fixed or lifting rudders)	3.0 kg	4.0 kg

Section F. Rig

F.1 PARTS

F.1.1 MANDATORY

(a) **Mast**

(b) **Spreaders (2)**

(c) **Boom**

(d) **GNAV (vang)**

(e) **Bowsprit**

(f) **Standing rigging**

(g) **Running rigging**

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**.

(b) Routine maintenance is permitted without re-measurement and re-**certification**.

F.2.3 CERTIFICATION

(a) The manufacturer or **official measurer** or TMH representative shall **certify spars** and shall sign and date the **certification mark.**

(b) No **certification** of standing and running **rigging** is required.

(c) An MNA may appoint one or more **In-House Official Measurers** to measure and **certify rigs** produced by that manufacturer.

F.2.4 MANUFACTURER

(a) All builders shall be licensed by the TMH.

F.3 MAST

F.3.1 MATERIALS

(a) The **spar** shall be of carbon fiber.

F.3.2 CONSTRUCTION

(a) The **spar** extrusion shall include a fixed sail groove or track.

(b) The spar shall be filament wound using a proprietary processes.

(c) Permitted finish shall be of clear coat.

F.3.3 FITTINGS

(a) MANDATORY

(1) Shroud T tang

(2) Set of fixed spreaders

(3) Mainsail halyard sheave

(4) Headsail halyard sheave

(5) Gennaker halyard sheave

(6) Gooseneck

(7) GNAV attachment

(8) Heel fitting with sheaves for halyards

(b) OPTIONAL

(1) One mechanical wind indicator

(2) Compass bracket

F.4 BOOM

F.4.1 MATERIALS

(a) The **spar** shall be of carbon fiber.

(b) Permitted surface finish shall be of satin clear coat.

F.4.2 CONSTRUCTION

(a) The **spar** shall be filament wound using proprietary processes.

F.4.3 FITTINGS

(a) MANDATORY

(1) Three single sheave mainsheet blocks with attachments.

(2) Clew outhaul blocks and attachments.

(3) GNAV fittings, track and associated hardware.

(4) Gooseneck attachment.

F.5 GNAV (VANG)

F.5.1 MATERIALS

(a) The GNAV shall be of carbon fiber.

(b) The GNAV shoe shall be as supplied by the builder.

F.5.2 CONSTRUCTION

(a) Filament wound.

F.5.3 FITTINGS

(a) As supplied by the builder.

F.6 BOWSPRIT

F.6.1 MATERIALS

(a) The **spar** shall be of carbon fiber.

F.6.2 CONSTRUCTION

(a) Filament wound.

F.6.3 FITTINGS

(a) As supplied by the builder.

F.7 STANDING RIGGING

F.7.1 MATERIALS

(a) The **standing rigging** shall be of stainless steel.

(b) Solid rod rigging is prohibited.

F.7.2 CONSTRUCTION

(a) MANDATORY

(1) A stainless steel **forestay** with swaged upper T hook, connected to an upper swivel, 4.5 mm Dyform wire and swaged fork terminal at top and bottom.

(2) Stainless steel upper **shrouds** (V1/D2) with swaged shroud T hook, 4.5mm Dyform wire, swaged threaded stud on 4.5 mm Dyform wire. The shroud shall be linked with factory supplied spreader tip link plate.

(3) Stainless steel lower **shrouds** (D1) with swaged shroud T hook, 4.5 mm Dyform wire and swaged threaded stud.

(4) Stainless steel **check-stay** with swaged marine eye, 4.5 mm Dyform wire, and swaged threaded stud.

F.7.3 FITTINGS

(a) MANDATORY

(1) **Forestay** rigging tri-link between headstay and furler drum at the tack with a bearing to bearing dimension of 26 mm.

(2) Stainless steel open barrel on **shroud** and **check-stay** turnbuckles

F.8 RUNNING RIGGING

F.8.1 MATERIALS

(a) Materials are optional.

F.8.2 CONTROL LINES

(a) MANDATORY

(1) Bowsprit setting line
(2) Headsail sheet
(3) Headsail car line
(4) Gennaker halyard
(5) Headsail halyard
(6) Mainsail halyard
(7) Cunningham line
(8) Headsail halyard tension line
(9) GNAV control line
(10) Outhaul line
(11) Gennaker sheet
(12) Gennaker tack line
(13) Mainsail sheet
(14) Mainsheet bridle

(b) OPTIONAL

(1) Main halyard, Jib sheet, Gennaker halyard and sheet may be tapered.

F.8.3 FITTINGS

(a) MANDATORY

(1) Factory-installed fittings or any factory updated rigging configurations.

(b) OPTIONAL

(1) Shackles, strops, line or new halyard may be used to adjust the jib tack height above the furler trilink fitting.

(2) Mainsheet cam arm and block with cleat on centerline of cockpit floor.

(3) One or two ratchet blocks on main sheet

(c) Replacement of the following items is permitted. Parts may be obtained from any supplier:

(1) Blocks

(2) Cleats

(3) Jib cam swivel base.

(5) Shackles, Pins, Bolts

Section G – Sails

G.1 PARTS

G.1.1 MANDATORY

(a) **Mainsail**

(b) **Headsail**

(c) **Gennaker**

G.2 GENERAL

G.2.1 RULES

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

G.2.2 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**.

(b) The VXCA may appoint one or more **In-House Official Measurers** to measure and **certify sails** produced by that manufacturer.

G.2.3 DEFINITIONS

(a) The ERS definitions shall apply.

G.2.4 SAILMAKER

(a) No license is required.

(b) The weight in g/m^2 of the **body of the gennaker** shall be indelibly marked near the **head point** by the sailmaker together with the date and his signature or stamp.

G.3 MAINSAIL

G.3.1 IDENTIFICATION

(a) The class insignia shall conform with the dimensions and requirements as detailed in the diagram contained in Appendix H.1 and be placed in accordance with the diagram contained in Appendix H.1.

(b) The national letters and sail numbers shall comply with the RRS except where prescribed otherwise in these **class rules**.

G.3.2 MATERIALS

(a) Polyester fiber or film.

(b) Battens shall be made of fiberglass.

(c) **Sail reinforcement** shall consist of ply build up, webbing and/or pressed rings

G.3.3 CONSTRUCTION

(a) The construction shall be: **soft sail**, **single ply sail**.

(b) The **sail** shall have 5 batten **pockets** in the **leech**.

(c) Batten pocket number 1 shall be below the **upper leech point**.

(d) 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*.

(e) The **leech** shall not extend beyond straight lines between:

(1) The Peak Point and the intersection of the **leech** and the upper edge of the nearest **batten pocket,**

(2) The intersection of the **leech** and the lower edge of a **batten pocket** and the intersection of the **leech** and the upper edge of an adjacent **batten pocket**,

(3) The **clew point** and the intersection of the **leech** and the lower edge of the nearest **batten pocket**,

(4) The Peak Point and the Throat Point.

G.3.4 WEIGHT: The weight of the **mainsail** shall be no less than 5 kg including battens.

G.3.5 DIMENSIONS

	Minimum	Maximum
Clew Diagonal (ERS G.7.9(a))		7470 mm
Head Length (ERS G.7.12)		670 mm
Head Control Point (measured from Throat Point to the intersection at the Head Edge)	500 mm	500 mm
Luff Control Point (measured from Throat Point down to the intersection at the Luff Edge)	500 mm	500 mm
Head Angle Control Length (measured from Head Control Point to Luff Control Point)	737 mm (95°)	767 mm (100°)
Upper Leech Point (ERS G.5.4)	820 mm	820 mm
For sails manufactured before November 11, 2013: Upper Leech Point : Throat Point to leech	1260 mm	1260 mm
Upper Width (ERS G.7.7)		1135 mm
Three-Quarter Width (From Three Quarter Leech Point ERS G.5.3)		1580 mm
Half Width (from Half Leech Point ERS G.5.2)		2210 mm
Quarter Width		2650 mm
Mass of **ply** of the **body of the sail**	180 g/m^2	
Primary reinforcement		500 mm
Window area(s)	2.5 m²	
Maximum outside Batten Pocket Lengths (top to bottom) G.8.1(b)		
Sprit Pocket (full length) (top) Pocket 1 (full length) Pocket 2 (full length) Pockets 3 and 4		1085 mm 1185 mm 1715 mm 1210 mm
Sail Leech Hollow (ERS G.2.4)	0 mm	10 mm
Clew point to intersection of **leech** and centreline of lowermost **batten pocket**		1770 mm

G.4 HEADSAIL

G.4.1 MATERIALS

(a) Polyester fiber or film.

(b) Battens shall be made of fiberglass.

G.4.2 CONSTRUCTION

(a) The construction shall be: soft, single ply or laminated.

(b) Sail reinforcement shall consist of ply build-up, webbing and/or pressed ring.

(c) The headsail shall have 2 batten pockets in the leech.

(d) The following are permitted: stitching, glues, tapes, corner eyes, batten pocket elastic, batten pocket patches, batten pocket end caps, leech line with cleat, windows, tell tales, sail shape indicator stripes, windows and items as permitted or prescribed by other applicable *rules*.

G.4.3 WEIGHT: The weight of the **jib** shall be no less than 2.2 kg including battens.

G.4.4 DIMENSIONS

	Minimum	Maximum
Luff Length		6320 mm
Leech Length		5705 mm
Foot Length		2215 mm
Foot Median		6030 mm
Top Width		65 mm
Three Quarter Width (luff zipper closed)		614 mm
Half Width (luff zipper closed)		1104 mm
Quarter Width		1554 mm
Mass of **ply** of the **body of the sail**	180 g/m^2	
Primary reinforcement		350 mm
Window area(s)	1.45 m^2	
Maximum outside batten pocket lengths:		
Pocket 1 (top) **Pocket 2 (bottom)**		560 mm 845 mm
Head point to intersection of **leech** and centerline of uppermost **batten pocket**	1795 mm	
Clew point to intersection of **leech** and centerline of lowermost **batten pocket**	1895 mm	

G.5 GENNAKER

G.5.1 IDENTIFICATION

(a) The sail numbers shall comply with the RRS.

G.5.2 MATERIALS

(a) The **ply** fibers shall consist of nylon.

(b) **Sail reinforcement** shall consist of ply build up and or webbing straps.

G.5.3 CONSTRUCTION

(a) The construction shall be: **soft sail**, **single ply sail**.

(b)) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales and items as permitted or prescribed by other applicable *rules*.

G.5.3 DIMENSIONS

	Minimum	Maximum
Luff length		8515 mm
Leech length		6515 mm
Foot length		4328 mm
Foot median		7760 mm
Quarter width		4665 mm
Half width		4175 mm
Three quarter width		2405 mm
Mass of **ply** of the **body of the sail**	40 g/m2	
Primary reinforcement		205 mm
Secondary reinforcement:		
from **sail corner measurement points**		1150 mm
for recovery line point		500 mm

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.

Section H

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APPENDIX H.1 INSIGNIA

(a) Specification

(b) Mainsail Location

(c) Hull Location

APPENDIX H.2 CERTIFIED EQUIPMENT LABEL

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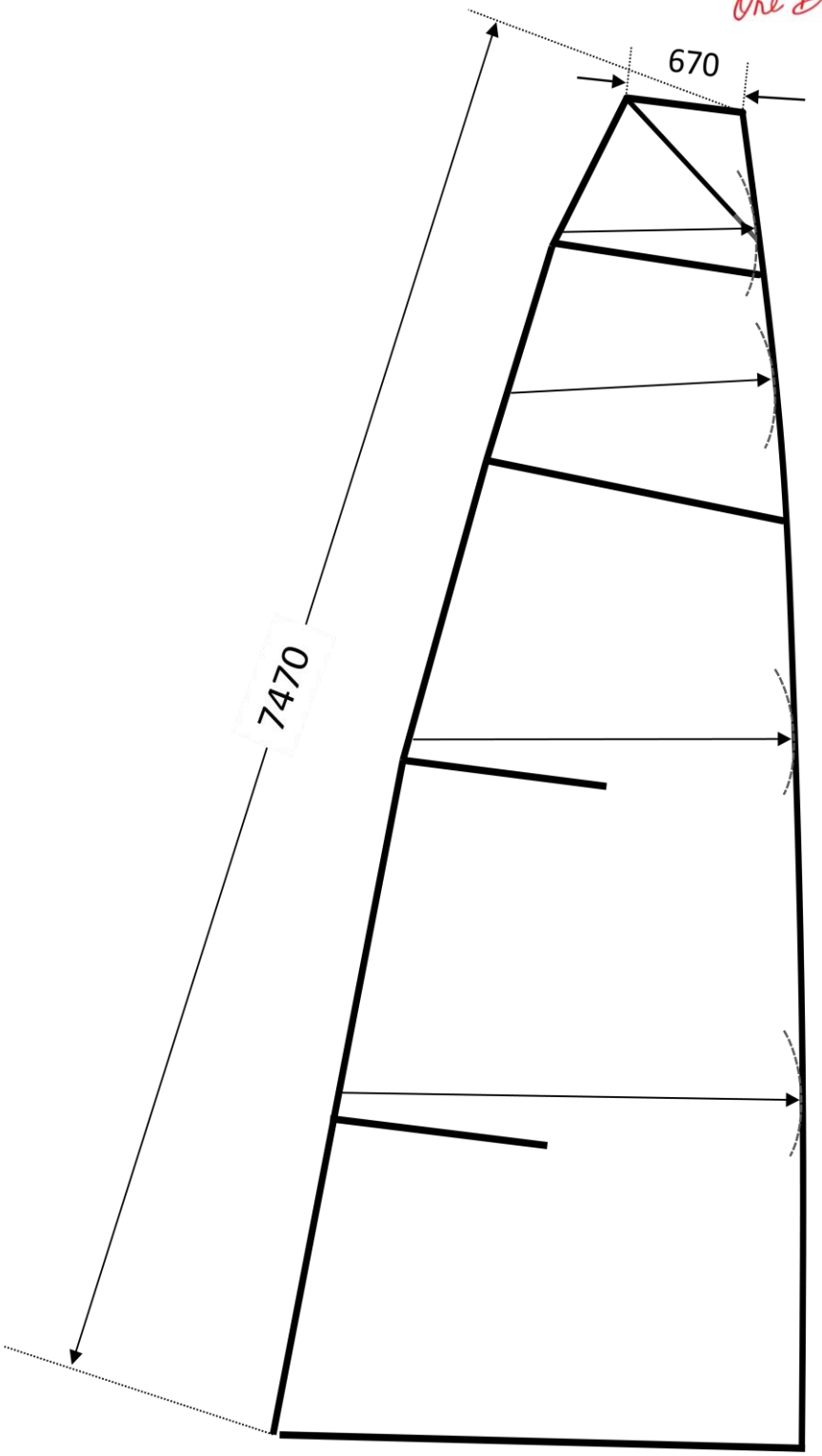
APPENDIX H.3 **SAIL PLAN**

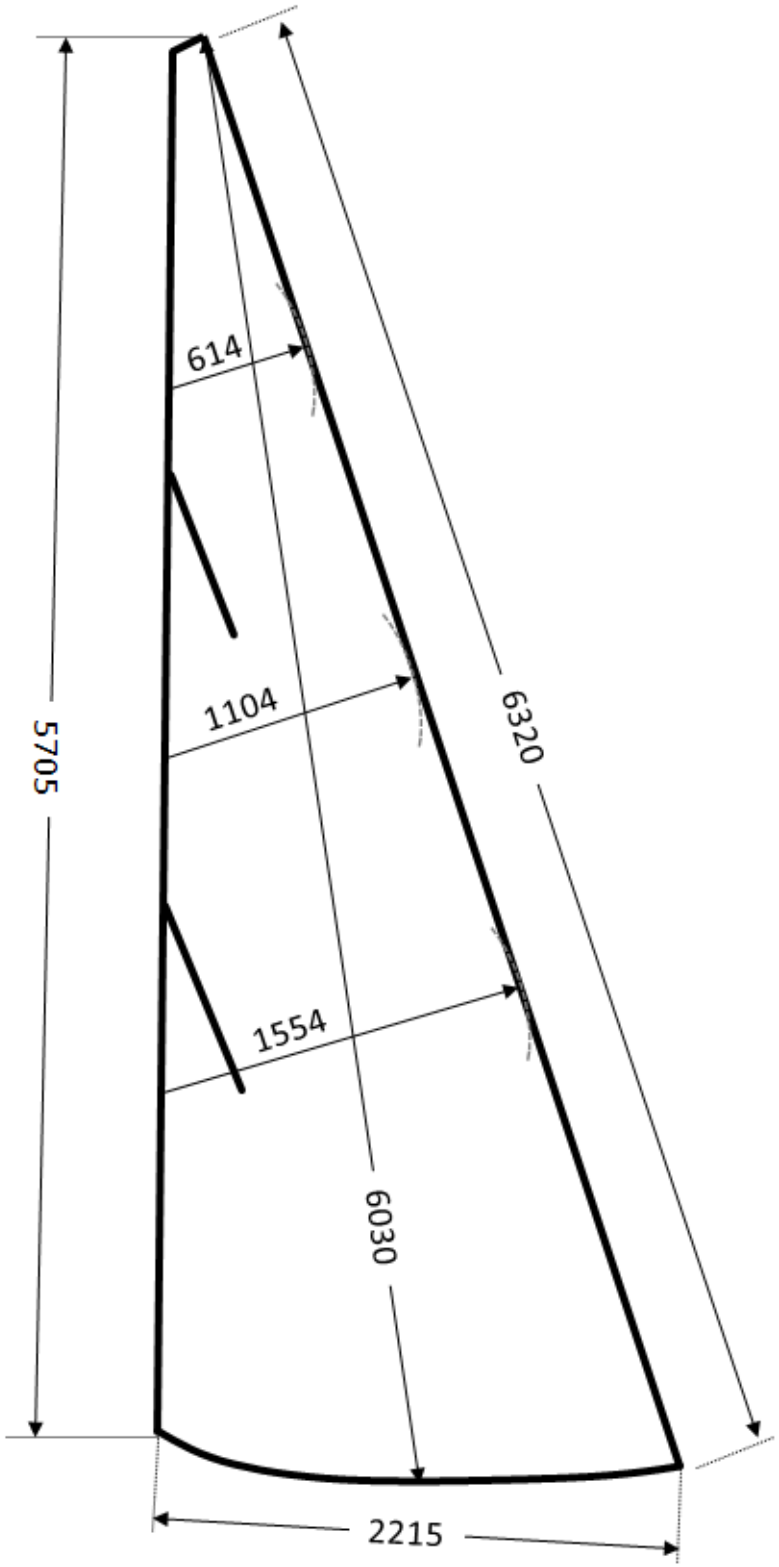
H.3.1 MAINSAIL

Mainsail



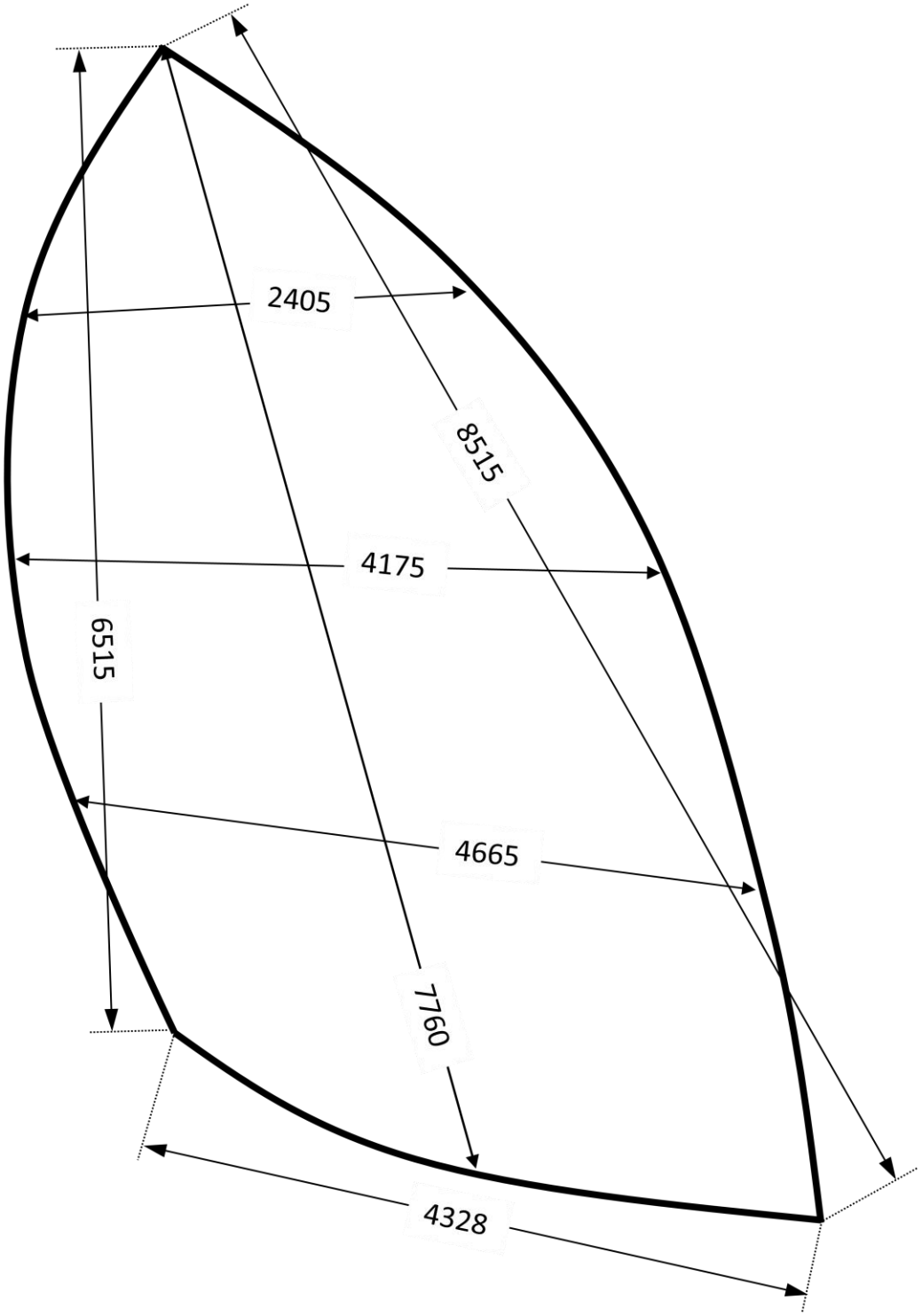
APPENDIX H.3 SAIL PLAN
H.3.2 Jib

Jib



APPENDIX H.3 SAIL PLAN

H.3.3 GENNAKER



APPENDIX H.4 MEASUREMENT CERTIFICATE

A Measurement Certificate is a boat's proof of eligibility for competition. No boat shall be recognized as a VX One or eligible to enter any VX One class race until it has been granted a valid Measurement Certificate. A boat which is out of compliance with the Measurement Certificate requirements is not a VX One. Except where variations are specifically permitted, VX One boats shall be alike in hull, keel, rudder and spar construction, weight and weight distribution, sail plan, and equipment. No performance advantage shall be obtained from any replacement, addition or repair permitted by these class rules. The Measurement Certificate shall be kept by the VXCA and owners shall keep a copy.

B.3.1 Measurement and Inspection
The methods of measurement unless otherwise stated shall be in accordance with the recommendations of the ISAF. Measurement is restricted to inspection, completing measurements and filing a report. The Measurement Certificate shall be signed by the owner, measurer and one additional member of the VXCA. When a certified measurer must measure his own boat the Measurement Certificate shall be signed by two additional members of the VXCA.

Weighing
When weighing, the lifting bridle and keel lifting tackle, if used, shall be subtracted from the recorded weight.

Datum points
There are two datum point locations created on the boat. The lower datum point is transferred from the hull mold and is on the centerline of the boat 25 mm forward of the transom cut line. The lower datum point is a circle of contrasting material 2mm in diameter. Measurements are taken from the center of the datum point. The upper datum point is created by the installation of the upper rudder pintle mounted on the transom. Measurements are taken from the aft edge of the pintle.

Report of repair, modification or replacements (C.7.1 (e))
Repairs may be carried out provided repairs are made in such a way that the essential shape, characteristics or function of the original are not affected. The hull, deck sole, bulkheads, and cockpit shall not be altered in any way. If any hull molding, hull appendage, spar or equipment is substantially repaired its measurement certificate shall cease to be valid until the repaired component(s) have been re-measured and the measurement certificate re-validated by the VXCA. Replacements including spars, hull appendage, whether original or replacements, shall be only those produced by a manufacturer licensed by the TMH.

The measurer's report shall include written and photographic documentation of evidence of damage, repair, modification or replacement, the person(s) responsible for the repair or modification, or anything which is considered to be a departure from the intended nature and design of the boat, or to be against the general interest of the class. In such a case a certificate may be refused or withdrawn even if the specific requirements of the VXCA rules are satisfied.

VX One Measurements

	Hull Identification Serial Number (ISN)		
	Sail Number		
Rule	Description	Range	Measured Or Observed
C.6.1 (a)	Boat Weight	260 Kg minimum	
C.6.1 (b)	Corrector Weights in proper position?	15 Kg maximum	
E.4.6	Rudder and Tiller Weight	3.0 - 4.0 kg	
C.9.9 (a) 1	Headstay Length: Bearing point of upper "T" tang to bearing point of the upper pin on furler unit.	6645-6649 mm	
C.9.5 (a) 1	Headstay Height: Bearing point of jib stay tang at mast to step bottom of heel tenon.	6448-6452 mm	
C.9.5 (a) 1	Mast track bolts secured in the mast step track in the fourth hole from the front and third hole from the rear?		
C.9.5 (b) 2	Mast Butt Position: Bearing surface of aft mast track bolt to aft face of top rudder pintle.	3326-3336 mm	
C.8.5 (b) 1	Keel Depth: projection from the bottom of the hull to the top of bulb at trailing edge with all keel bolts tightened for sailing.	1097-1103 mm	
C.8.5 (b) 2	Keel Position: leading edge of keel at the hull to lower datum point with all keel bolts tightened for sailing.	3012-3020 mm	
C.8.5 (b) 3	Keel chord	292-302 mm	
C.7.1 (e)	Report of repair, modification or replacements? (Yes or No)		

Signatures

	Printed Name	Signature
Owner		
Owner		
Owner		
Measurer		
Contact info	Email	phone
Measurer Certification		
VXCA Witness		
VXCA Witness		
Certificate Issue Date		

APPENDIX H.5 DESIGN GEOMETRY

Spars, Keel, Rudder

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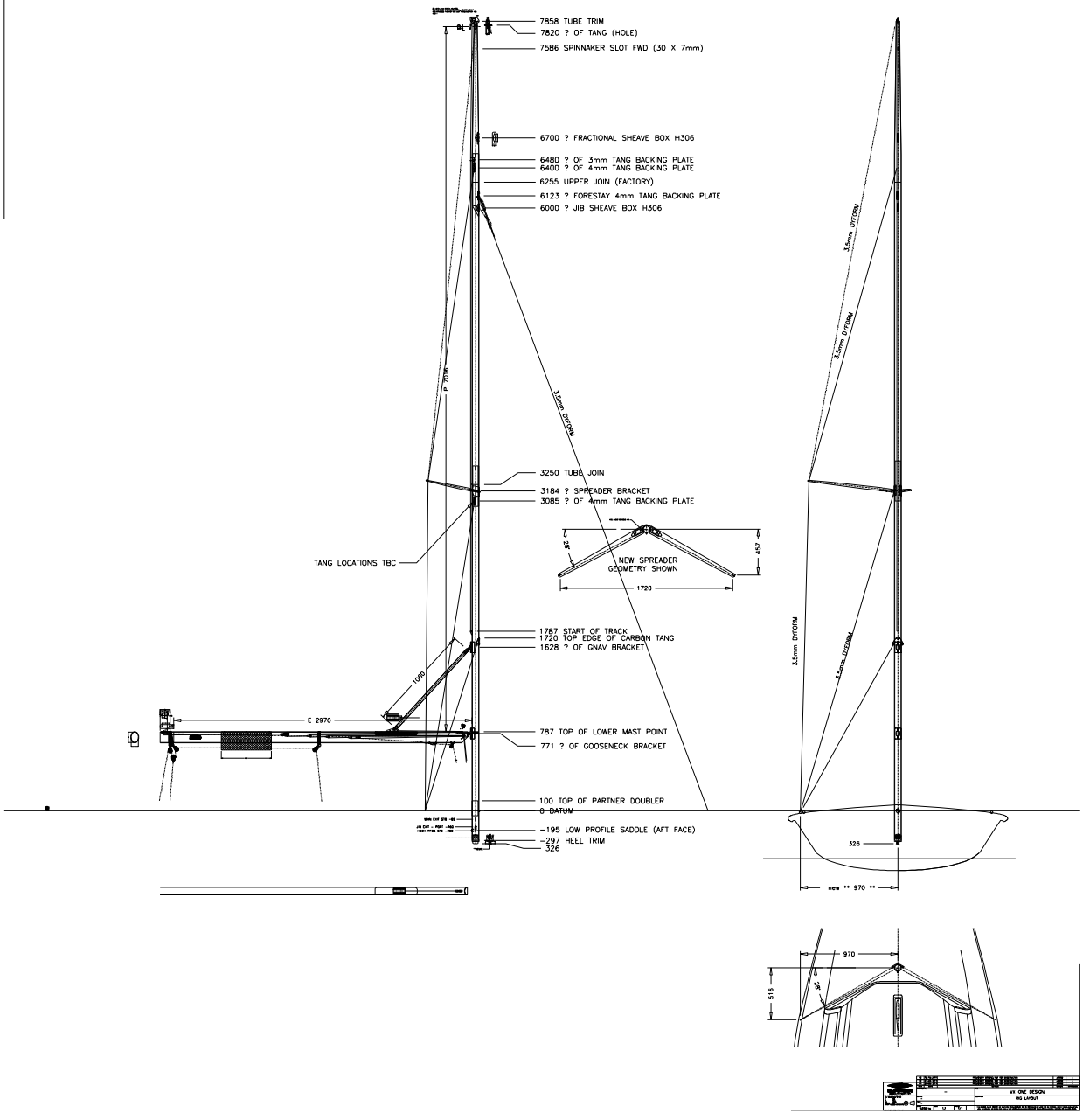
APPENDIX H.6 RIG PLAN



APPENDIX H.7 UNASSIGNED

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APPENDIX H.8 HULL FITTINGS LOCATION

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APPENDIX H.9 REGATTA GUIDELINES

H.9.1 RACE MANAGEMENT

RRS 50.4 shall not apply.

(A) RRS 42.2 (a) is changed as follows: Unlimited trimming and easing of the Assymetrical Spinnaker to promote a plane shall be permitted.

(B) The ERS Part I – Use of Equipment shall apply.

(C) The VX ONE shall be raced with hull, hull appendages, rig, bowsprit, boom, tiller, rudder and rigging as supplied by TMH conforming to these rules.

(D) Except in an emergency a boat shall receive no outside assistance from: support boats other than Race Committee boats, cell phone, radio communication, visual or vocal signalling, or transfer of equipment or victuals from the time she reaches the racing area until she leaves the racing area after the last race of the day or when she *retires from racing*.

(E) For one-design class events races shall not be started when the median wind speed is below 4 knots or exceeds 22 knots or gusts exceed 25 knots. It will remain at the discretion of the **PRO** to abandon a race when any of these conditions persist.

(F) If after the start, the median wind speed falls below 4 kts or exceeds 22 kts for a period of 15 minutes, it is recommended for the **PRO** to abandon racing.

(G) One-design class event races shall consist of approximately equal upwind and downwind distances.

(H) If a time limit is deemed necessary the time limit after the first boat finishes should be 30 minutes.

(I) The race committee is encouraged to use VHF radios to communicate with the fleet and individual competitors.

H.9.2 SCORING

(A) The Low Point Scoring system of Appendix "A" shall apply.

(B) Three completed races are required to constitute a series.

(C) When fewer than 6 races have been completed, a boat's series score shall be the total of her race scores.

(D) When six or more races have been completed, a boat's series score shall be total of her race scores excluding her worst score.