

YNGLING CLASS RULES 2008 v3





The Yngling was designed in 1967 by Jan Herman Linge and was adopted as an international class in May 1979 and was adopted for Women's Olympic competition in November 2000.

These Class Rules are effective from 22nd May 2008

INDEX

| Introc | luction 3 | Secti | on D– Hull | |
|---------|-----------------------------------|-------|--------------------------------|----|
| | | D.1 | General 18 - | 19 |
| PART | TI – ADMINISTRATION | D.2 | Hull Components | 19 |
| Section | on A – General | D.3 | Assembled Hull 19 - | 21 |
| A.1 | Language 4 | Secti | on E – Hull Appendages | |
| A.2 | Abbreviations 4 | E.1 | General | 22 |
| A.3 | Authorities and | E.2 | Keel 22 - | 23 |
| | Responsibilities 4 | E.3 | Rudder | 23 |
| A.4 | Administration of the Class 4 | Secti | on F – Rig | |
| A.5 | ISAF Rules 4 | F.1 | General | 24 |
| A.6 | Championship Rules5 | F.2 | Mast 24 - | 26 |
| A.7 | Sailing Instructions 5 | F.3 | Boom | 26 |
| A.8 | Amendments of Class | F.4 | Standing Rigging 26 - | 27 |
| 4.0 | Rules | Secti | on G – Sails | |
| A.9 | Interpretations of Class Rules 5 | G.1 | General | 28 |
| A 10 | International Class Fee(s) | G.2 | Mainsail 28 - | 30 |
| 71.10 | and ISAF Plaque 5 | G.3 | Jib 30 - | 31 |
| A.11 | Sail Numbers 5 | G.4 | Spinnaker | 31 |
| | Certification 5 - 6 | | | |
| A.13 | Validity of Certificates 6 | PAR' | T III – APPENDICES | |
| A.14 | Re-Certification 6 | Appe | endix 1 – Spinnaker Cloth List | 32 |
| Section | on B – Boat Eligibility | Appe | endix 2 – Class Insignia | 33 |
| B.1 | Certificate 7 | | endix 3A – Hull Control | |
| B.2 | Certification Marks 7 | | endix 3B – Template Control | |
| B.3 | Sail Labels 7 | | endix 4 – Keel Control | |
| B.4 | Class Association Sticker 7 | | endix 5 – Rudder Control | |
| | | | endix 6 – Rig Control | |
| | 「II – REQUIREMENTS AND TATIONS | Appe | endix 7 – Sail Control | 39 |
| Section | on C – Conditions for Racing | | | |
| C.1 | General 8 | | | |
| C.2 | Crew 8 | | | |
| C.3 | Personal Equipment 8 | | | |
| C.4 | Advertising 9 | | | |
| C.5 | Portable Equipment9 | | | |
| C.6 | Boat 9 - 10 | | | |
| C.7 | Hull 10 - 13 | | | |
| C.8 | Hull Appendages 13 | | | |
| C.9 | Rig 13 - 16 | | | |
| C.10 | Sails 16 - 17 | | | |

INTRODUCTION

The International YNGLING Class Rules, which include the Construction Manual, Building Specifications and plans are intended to ensure that boats of this class are as nearly alike as possible in hull, deck, construction, weight, keel form, rudder shape; mast, sail plan and in other items which affect performance.

International YNGLING hulls are manufactured by builders licensed by ISAF to build Ynglings, using moulds and patterns which derive from the master plugs. The hull shape is recorded as part of certification control at the builder, using ISAF issued templates

International YNGLING rigs and sails are measurement controlled.

International YNGLING hull appendages are partly manufacturer controlled and partly measurement controlled, as detailed in the class rules.

An International YNGLING, when racing, shall be equipped in accordance with Section C of these class rules, the ERS Part I and the Racing Rules of Sailing. Hulls, keels, rudders, rigs, sails and equipment may, after having left the manufacturer, only be altered to the extent permitted in Section C - Conditions when Racing, 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 control process. Owners and crews are also reminded of their general responsibilities as specified in RRS 78.1.

It should be noted that the Yngling class rules are closed class rules were anything not specifically stated in the class rules is prohibited.

This introduction only provides an informal background, and the International YNGLING Class Rules proper begin on the next page.

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.2 ABBREVIATIONS

A.2.1 ISAF International Sailing Federation

MNA ISAF Member National Authority

IYA International Yngling Association

NYA National Yngling Association

ERS Equipment Rules of Sailing

RRS Racing Rules of Sailing

A.3 AUTHORITIES AND RESPONSIBILITIES

- A.3.1 The international authority of the class is the ISAF which shall co-operate with the IYA in all matters concerning these **class rules** and their interpretation for the purposes of RRS 64.3 (b).
- A.3.2 Neither the **certification authority** nor an **official measurer**, an **international measurer** or an **equipment inspector** is under any legal responsibility in respect of these **class rules** or the accuracy of measurement and no claim arising from them can be entertained.
- A.3.3 Notwithstanding anything contained herein, the **certification authority** has the authority to withdraw a **certificate** and shall do so at the request of the ISAF.

A.4 ADMINISTRATION OF THE CLASS

A.4.1 In countries where there is no MNA, or the MNA does not wish to administer the class, its functions, as stated in these **class rules**, shall be carried out by the IYA which may delegate the administration to a NYA.

A.5 ISAF RULES

- A.5.1 These **class rules** shall be read in conjunction with the RRS and the ERS, except that ERS section H.2.1 shall not apply.
- A.5.2 Except where used in headings, when a term is printed in "**bold**" the ERS shall apply and when a term is printed in "*italics*" the RRS shall apply.

A.6 CHAMPIONSHIP RULES

A.6.1 The International Yngling Class Championship Rules shall apply at World and Continental Championships.

A.7 SAILING INSTRUCTIONS

- A.7.1 These **class rules** shall not be varied by sailing instructions except as provided by A.7.2.
- A.7.2 At World, Continental or Regional Championships the sailing instructions may vary these **class rules** with the agreement of the IYA and prior approval of the ISAF.

A.8 CLASS RULES CHANGES

A.8.1 Amendments to these **class rules** shall be proposed by the IYA and must be approved by the ISAF in accordance with ISAF Regulation 26.10.

A.9 CLASS RULES INTERPRETATIONS

A.9.1 Interpretations of **class rules** shall be made in accordance with ISAF regulation 26.11.

A.10 INTERNATIONAL CLASS FEE AND ISAF PLAQUE

- A.10.1 The licensed builder shall pay the International Class Fee.
- A.10.2 ISAF shall, after having received the International Class Fee for the hull, send the ISAF Building Plaque.

A.11 SAIL NUMBERS

- A.11.1 The owner shall apply to the MNA, or the NYA when delegated, for a sail number giving the ISAF plaque number and the builder's name.
- A.11.2 Numbering shall be national and shall start from "1". Sail numbers shall be used once only and shall be consecutive.

A.12 CERTIFICATION CONTROL AND CERTIFICATION

- A.12.1 For a **hull** and **keel** not previously **certified**, all items required by the certification control form to be controlled shall be controlled by an **official measurer** contracted by the builder and the details entered onto the form.
- A.12.2 The certification control form, or a certified copy, and any **certification** fee if required, shall be sent to the **certification authority** in the country where the **hull** is to be registered.
- A.12.3 Upon receipt of a satisfactorily completed certification control form and certification fee if required, the certification authority shall issue an International Yngling Class certificate. The certification authority shall retain the original certification control form which shall be transferred to the new certification authority when the hull is exported.

- A.12.4 No boat shall race unless a valid International Yngling Class **certificate** has been issued by the certification authority.
- A.12.5 Certification control of Yngling hulls shall only be performed by an official measurer, recognized by the International Yngling Association, who shall send a copy of the hull certification control form to the IYA.

VALIDITY OF CERTIFICATES A.13

- A.13.1 A hull **certificate** becomes invalid upon:
 - (a) change of ownership,
 - (b) withdrawal by the **certification authority**,
 - (c) the issue of another **certificate**,
 - (d) any alteration or repair to the hull, other than permitted routine maintenance,

A.14 RE-CERTIFICATION

- A.14.1 Upon change of ownership the new owner shall apply to the **certification** authority in the country where the hull will be registered for a new certificate. The application shall include the old certificate and any recertification fee that may be required. In the case of an imported hull the certification authority shall request the certification control form from the previous certification authority. A new International Yngling Class **certificate** shall then be issued to the new owner.
- A.14.2 Upon alteration or repair to an item required by the certification control form to be controlled, the relevant item shall be re-measured by an official measurer and the details entered on a new form. The new form together with the old International Yngling Class certificate and any re-certification fee that may be required shall be sent to the certification authority in the country where the hull is registered. A new International Yngling Class certificate, showing the dates of initial and new certification control, may then be issued to the owner.

Section B – Boat Eligibility

For a **boat** to be eligible for *racing*, the rules in this section shall be complied with.

B.1 CERTIFICATE

B.1.1 The **hull** shall have a valid International Yngling Class **Certificate** with the following data; the name and signature of the issuer, the official stamp of the **certification authority**, the **hull** builder's number, as moulded or engraved on the **hull**, the ISAF plaque number, the sail number. The **certification authority** may publish the **certificate**, without signature or stamp, on a secure web site.

B.2 CERTIFICATION MARKS

B.2.1 Sails shall carry certification marks. See G.1.2. & F.1.4

B.3 CLASS ASSOCIATION STICKERS

- B.3.1 An IYA class fee sticker for the current year shall be affixed approximately on the centreline of the deck between the **rudder** stock and the aft edge of the cockpit.
- B.3.2 **Sails** shall carry the numbered IYA Sail Label. See G.1.4.

PART II – REQUIREMENTS AND **LIMITATIONS**

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

The **crew** and the **boat** shall comply with the rules in Part II when racing. Control of conformity with rules of Section C is not part of certification control

C.1GENERAL

C.1.1RULES

The ERS Part I – Use of Equipment shall apply.

RRS 50.4 shall not apply to the class

C.2 CREW

C.2.1 LIMITATIONS

The **crew** shall consist of two or three persons.

C.2.2**WOMEN'S EVENTS**

For women's ISAF graded events and the Olympic Sailing Competition the crew shall consist of three women. The total weight of the mandatory threewoman crew (in at least swimwear, and weighed individually) shall not exceed 205.0 kg prior to racing each day of an event. Crew substitutions for the purpose of complying with the weight limits are not allowed. Crews failing to comply with the weight limit shall not race in any races sailed that day. This rule does not apply to Open or Mixed events, or women's trophies in open events.

C.3PERSONAL EQUIPMENT

C.3.1MANDATORY

(a) Personal flotation device for all **crew** members. Personal buoyancy shall be defined as a device worn around the upper part of the torso capable of supporting 50 N and meeting European CEN standards, or an equivalent standard.

C.3.2**OPTIONAL**

(a) One hiking harness and/or anklets with a quick release (See Rule C.7.2(c)(4)) for each **crew** member. A hiking harness shall not have a wet weight more than 2.5 kg and shall have positive buoyancy. For weighing the hiking harness includes anklets, body belt and all hiking equipment attached to the competitor. The weight shall be determined according to RRS Appendix H.

C.4 ADVERTISING

C.4.1 LIMITATIONS

Advertising shall only be displayed in accordance with the Category C of ISAF Regulation 20 - Advertising Code.

C.5 PORTABLE EQUIPMENT

C.5.1 FOR USE

(a) Mandatory

- (1) Not less than one hand bailer per **crew** member and one hand pump. The capacity of each hand bailer shall not be less than 4 litres. The total weight of the hand bailers and the hand pump(s) shall not exceed 4 kg. The hand bailers and the hand pump(s) shall be attached to the **boat** in such a way that they can be used anywhere in the cockpit while remaining attached.
- (2) One anchor, or anchor with chain securely attached thereto, and not less than 30 m of rope of not less than 10 mm in diameter securely attached thereto. The total weight of the anchor and chain shall not exceed 8 kg or be less than 6 kg of which the weight of the anchor shall be not less than 4 kg. The anchor line must be securely fastened to the boat.
- (3) When stowed, all safety equipment including the life jackets, paddles, bailers, hand pump and the anchor shall be stowed between the bulkheads and, for boats with it, above the double bottom.

(b) Optional

- (1) Electronic or mechanical timing devices.
- (2) Electronic or magnetic compasses, which may include a timing device and a memory function.

C.5.2 NOT FOR USE

(a) Mandatory

(1) Not less than one paddle minimum 1200 mm long, minimum weight 0.25 kg.

C.6 BOAT

C.6.1 WOMEN'S EVENTS

For women's ISAF-graded events and the Olympic Sailing Competition the following shall apply:

- (a) Boats shall have a raised cockpit floor (double-bottom) in accordance with the Class Rules.
- (b) Only **hulls** and **keels** built after 1st January 2001 shall be eligible to compete. These boats shall, in contravention to D.1.1 and E.2.1(b) comply with the current **class rules**.

C.6.2 WEIGHT

minimum maximum

The weight shall be taken excluding sails, sheets, portable equipment and personal equipment

C.6.3**CORRECTOR WEIGHTS**

Corrector weights of lead shall be fixed to the lower surface of the deck when the **boat** weight, is less than the minimum requirement, as specified in C.6.2. The weights shall be placed with approximately two-thirds of the total weight forward and one-third aft of the cockpit.

C.7 HULL

C.7.1 MODIFICATIONS AND MAINTENANCE

- (a) The hull mouldings shall not be altered in any way except as specifically permitted by these class rules.
- (b) The double bottom centre section, or floor boards if hull without double bottom, may be exchanged for other items of similar material, weight and dimensions.
- (c) The deck moulding shall not be modified except as follows:
 - One hole on each side not exceeding 240 mm x 35 mm for two handholds mounted side by side.
 - (ii) For fittings, covered holes not exceeding 120 mm in any direction may be made in the deck and cuddy cabin but only between the bulkheads.
 - (iii) The open area of holes/slots/fairleads/blocks shall not exceed 1000 mm^2 .
- (d) The cockpit coaming, shall not be modified except as follows:
 - Open holes/slots/fairleads shall not exceed 70 mm x 20 mm but not more than three transverse slots per side.
- (e) The deck beams between the forward and aft bulkheads:
 - Excluding the two drain holes at its ends, not more than four holes of maximum dimension 16 mm, are allowed in the mast deck beam under the cuddy.
 - (ii) Holes for control lines and fittings are allowed in the other deck beams.
 - (iii) Deckbeams may be modified to accommodate the handholds as specified in C.7.1(c)(i)
- (f) Holes or slots in the **hull** shell are allowed as specifically permitted by these Class Rules.
- (g) Any scribe lines in the external surface of the hull shell at the waterline may be filled.
- (h) The hull shell may be sanded and painted and/or polished and have scratches repaired providing the shape is not altered. The template reference marks shall remain visible.

(i) If any hull moulding is repaired in any other way than described in C.7.1(g), an **official measurer** shall verify that the external shape is the same as before the repair and that no substantial stiffness, or other advantage has been gained as a result of the repair. The **official measurer** shall describe the details of the repair on the **certification control** form.

C.7.2 OPTIONAL STRUCTURES, OPENINGS, FITTING SUPPORTS AND FITTINGS

(a) Materials

- (i) **For Structures**: Glass fibre, polyester resin, foam, wood, aluminium and stainless steel
- (ii) **For openings**: optional except that carbon fibre and titanium are prohibited.
- (iii) For fitting supports: Glass fibre, polyester resin, foam, wood, aluminium and stainless steel
- (iv) **For fittings**: optional except that titanium is prohibited.

(b) **Structures** Mandatory

- (i) A mast support under the cabin top, which is not adjustable when racing.
- (ii) One side deck stanchion each side of maximum fore and aft dimension 450 mm, between the deck and the double bottom / GRP side tanks or hull, which shall not extend more than 50 mm inboard of the cockpit coaming and to which fittings may be attached. These are optional on pre 2001 boats.

(c) **Structures** Optional

- (i) Kick bars of maximum section 50 mm high by 50mm wide attached to the double bottom may be hollow with control lines running through
- (ii) Cover tubes of maximum height 75 mm that may be integral with the console and/or the centre section. These may not extend transversely beyond the centre section. They may be integral with the console and/control lines may be run internally.

(d) **Openings** Optional

- (i) One draining hole with a maximum inner diameter of 30 mm in each buoyancy compartment with a plug.
- (ii) Not more than four self-bailers.
- (iii) Not more than two 30 mm diameter pump discharge pipes through the topsides between the watertight compartments, within 200 mm of the **sheerline**.

(e) Fitting Supports Optional

- (i) One control panel or dashboard arrangement fitted between the cabin sides, or the side decks and forward of a transverse plane 380 mm aft of the forward breakwater measurement point, provided it is nowhere closer than 180 mm to the hull shell.
- (ii) A console, which shall not extend above the top of the cockpit coaming. Maximum transverse and fore and aft dimension shall be

450 mm. Fittings may be attached except that the attachment points of any mainsheet block(s) be more than 250 mm below the top of the cockpit coaming, measured in the transverse plane of the attachment point.

(f) **Fittings** Mandatory

- (1) Mainsheet attachment point(s) or track with traveller fitted to the deck aft of the rudder stock.
- (2) One mast step

(g) **Fittings** Optional

- (1) Deck handles that shall not exceed 75 mm in height above deck and, if of rigid material, shall not extend outboard of the **hull**.
- (2) Not more than five handholds through each side deck. Each handhold may have two drain holes into the cockpit or through the topsides, in which case they shall be of a maximum diameter of 6 mm and within 150 mm of the **sheerline**.
- (3) Foot straps fastened inside the cockpit.
- (4) Body straps fastened inside the cockpit or on deck. Cleats used to attach the body strap to the deck may be recessed in the deck and hull topsides only so much as is required to prevent the cleat from protruding above the deck surface.
- (5) Sheet winches without a mechanical advantage.
- (6) Devices, with the exception of winches, to tension and/or hold mainsail and jib halyards.
- (7) Halyard cleats.
- (8) Halyard quick release systems
- (9) Backstay attachments, blocks, fairleads and cleats
- (10) Mainsheet track traveller control blocks, fairleads and cleats.
- (11) Mainsheet blocks at the mainsheet attachment point or track traveller and in the cockpit, one of which may be a ratchet block, and cleats.
- (12) Mainsheet, and jib sheet fine adjustment systems.
- (13) Attachment points, wire or rope, horizontal bars and traveller tracks on the double bottom to which hiking aids may be attached.
- (14) Control lines, together with any elastic retractors, fairlead, blocks or cleats.
- (15) Mainsail reefing fairleads, blocks and cleats.
- (16) Jib sheet blocks (of which one at each side may be a ratchet block), fairleads and cleats.
- (17) One jib sheet track on each side with traveller including either stops on the traveller and/or the track, or traveller control line blocks, fairleads and cleats.
- (18) Jib Barber hauler fairleads, blocks and cleats.
- (19) Spinnaker boom lift and downhaul blocks, fairleads and cleats.
- (20) Spinnaker sheet and guy blocks one of which at each side may be a ratchet block, fairleads, hooks and cleats.

- (21) Spinnaker Barber hauler blocks, fairleads and cleats.
- (22) A stemhead cover
- (23) Tiller lock.
- (24) Stowage clips for paddle(s), spinnaker pole, sail bags and other equipment.
- (25) Deck clips for cockpit cover and/or tent
- (26) Compass mounting
- (27) Kicking strap fitting on mast step and/or cuddy.
- (28) A flag pole fitting
- (28) An outboard motor bracket.
- (29) Spinnaker launch bags or spinnaker storage bins
- (30) Elastic cords on the foredeck for temporary storage of the jib

(h) Use

- Watertight bulkhead inspection covers shall be securely locked in (1) their positions.
- Watertight double bottom centre section if hull with double bottom (2) shall be in place. Floor boards if hull without double bottom, shall be in place.
- (3) Body straps shall only be used at the same time as foot straps and shall not enable a different position to be adopted than would be possible in their absence.
- No hiking system shall prevent its user from instantly releasing (4) himself/herself from the hull.

C.8 HULL APPENDAGES

C.8.1 **LIMITATIONS**

Only one **keel** and one **rudder** shall be used during an event, except when a hull appendage has been lost or damaged beyond repair. Such replacement may be made only with the approval of the race committee. The race committee shall then remove or cross out any event limitation mark attached to the replaced hull appendage.

MODIFICATIONS AND MAINTENANCE C.8.2

- (a) Hull appendages may be filled, sanded, painted and polished provided they comply with class rule appendices.
- (b) A glassed over keel-hull shell joint may be opened up to remove the keel and may be repaired after the keel is refitted.
- (c) The type of tiller and tiller extension is optional.

C.9 RIG

C.9.1LIMITATIONS

Only one set of spars and standing rigging shall be used during an event, except when an item has been lost or damaged beyond repair. Such replacement may be made only with the approval of the race committee. The race committee shall then remove or cross out any **event limitation mark** attached to a replaced **spar**.

C.9.2 MAST

(a) Gooseneck

The gooseneck construction shall prevent the boom **spar** from being set in a position that does not comply with ERS B.7.1.

(b) Fittings

The following are optional:

- (1) not more than two spinnaker pole fittings, which maybe on a track, provided that the maximum **spinnaker pole fitting height** can not be exceeded. Any spinnaker pole track may not extend more than 50mm above the maximum **spinnaker pole fitting height**,
- (2) spinnaker pole downhaul block with attachment,
- (3) kicking strap attachment and blocks,
- (4) devices, with the exception of winches, to tension and/or hold mainsail and jib halyards,
- (5) one mechanical wind indicator,
- (6) one compass bracket.
- (7) elastic cords on the rig

(c) Dimensions

| min | imum | maximum |
|--|------|---------|
| Distance from the mast datum point to the intersection of the cabin top and the aft face | | |
| of the spar | 5 mm | 505 mm |
| Longitudinal distance from the forward face of the spar at the cabin top to the fwd breakwater measurement point as defined in D.1.3 (b) | 0 mm | 360 mm |
| Except when on the centreplane of the mast spar , the central axis of the boom spar shall intersect the mast spar centreplane not more than 45 mm from the aft edge of the mast spar . See ERS H.4.2 | | |
| | | |

(d) Use

- (1) The **spar** shall be stepped on the mast step located on the cabin top.
- (2) The mast heel position shall not be adjusted.
- (3) Spreader position, length and angle shall not be adjusted.

C.9.3 BOOM

(a) Fittings

The following are optional:

- (1) mainsheet blocks
- (2) kicking strap blocks and attachment points,
- (3) mainsail clew outhaul blocks, fairleads and attachments,

- (4) spinnaker pole stowage fittings,
- (5) reefing hooks, blocks, fairleads and attachments,
- (6) Mainsail gybing line attachment point

(b) Dimensions

There shall be a **limit mark** at the **outer point**.

minimum maximum

Limit mark width 10 mm

C.9.4 SPINNAKER POLE

(a) Materials

Materials are optional.

(b) Construction

Construction is optional.

(c) Fittings

Fittings are optional.

(d) Dimensions

minimum maximum

C.9.5 STANDING RIGGING

(a) Fittings

The following are mandatory:

(1) Only one rigging screw of maximum adjustment 100 mm for each shroud.

The following are optional:

- (2) One forestay rigging screw,
- (3) Fittings for adjustment of the backstay with the exception of hydraulic systems.

(b) Construction

(1) The backstay shall be attached to the masthead fitting.

(c) Use

(1) Shrouds may only be adjusted by the one rigging screw per shroud, and by no other means.

C.9.6 RUNNING RIGGING

(a) Materials

Materials are optional.

(b) Fittings Mandatory:

- (1) mainsail halyard,
- (2) mainsail sheet,
- (3) kicking strap,

- (4) jib halyard,
- (5) jib sheets,
- (6) spinnaker halyard,
- (7) spinnaker sheet and guy,
- (8) spinnaker pole lift and downhaul.

(c) Fittings Optional:

- (1) mainsail Cunningham line,
- (2) mainsail clew outhaul,
- (3) mainsail tack control line.
- (4) mainsail gybing line,
- (6) two jib Barber haulers,
- (7) two spinnaker Barber haulers,
- (8) reefing lines,
- (9) jib furling gear which shall be attached to the forestay fitting.
- (10) loose rigging screw covers.

(d) Use

- (1) The jib shall not be furled.
- (2) All halyard arrangements shall allow sails to be taken down by the **crew** standing in the cockpit and/or on the deck. Mainsail and jib halyard release points shall be either above deck or aft of the forward breakwater measurement point and above the sheer-line.

C.10 SAILS

C.10.1 LIMITATIONS

- (a) Not more than one mainsail, two jibs and one spinnaker shall be carried aboard.
- (b) Not more than one mainsail, two jibs and one spinnaker shall be used during an event, except when a **sail** has been lost or damaged beyond repair. Such replacement may be made only with the approval of the race committee. The race committee shall then remove or cross out any **event limitation mark** attached to a replaced **sail**.

C.10.2 MODIFICATION AND MAINTENANCE

Routine maintenance such as repairing minor tears is permitted without new **certification control** and re-**certification**.

C.10.3 MAINSAIL

(a) **Identification**

The sail numbers shall comply with the RRS.

(b) Use

Luff and **foot** bolt ropes shall be in the **spar** sail grooves.

C.10.4 JIB

(a) Use

- (1) The **sail** shall be capable of being removed without disconnecting the forestay.
- (2) The **tack** shall be fixed to the forestay fitting on deck or the jib furling gear and shall not be adjusted.

C.10.5 SPINNAKER

(a) **Identification**

The sail numbers shall comply with the RRS.

C.10.6 SAIL CERTIFICATION / WOMEN'S EVENTS

For women's ISAF graded events and the Olympic Sailing Competition the spinnaker shall have the sail cloth declaration in accordance with class rules G.1.2(d)(i) and G.4.1(b)(i). For spinnakers **certified** before the 15th November 2007 this declaration may be made retrospectively by the sailmaker provided the cloth is on the approved list, see Appendix 1.

Section D – Hull

D.1 GENERAL

D.1.1 RULES

The **hull** shall comply with the **class rules** in force at the time of **certification control**. For boats built prior to 1st March 2002 they may comply with either the current or the 2001 **class rules**.

D.1.2 CERTIFICATION

See A.12.

D.1.3 DEFINITIONS

(a) Hull Datum Point

The point on the hull centreplane at the intersection of the underside of the hull shell and the transom both extended as necessary.

(b) Fwd Breakwater Measurement Point

The point on the **hull** in the centreplane at the forward edge of the breakwater one half of the breakwater height above the cabin top.

(c) Aft Breakwater Measurement Point

The point on the **hull** in the centreplane at the aft edge of the cockpit coaming one half of the coaming height above the deck.

(d) Stem Datum Point

The point in the **hull** centreplane where the extension of the top of the deck intersects the extension of the deck flange, excluding any stem head cover.

(e) Aft Deck Datum Points

The point at each aft corner of the aft deck at the intersection of the planes extending the deck flange over the topsides and over the transom and the upper surface of the deck.

(f) Template Reference Points

On all boats built or re-measured after 1 April 2002, Reference Points for positioning the 4 hull templates shall be marked on the external hull centerline and the deck flange in accordance with the Measurement Diagram Appendix 3A. The points shall consist of a 2.5 mm diameter hole approximately 2 mm deep drilled at the center of the measurement mark and filled with a material of contrasting colour. These points may not be removed or obliterated.

D.1.4 IDENTIFICATION

The hull shall carry permanently fixed:

- (a) the ISAF Plaque on the forward face of the aft bulkhead,
- (b) the Designer's Plaque on the aft end of the cockpit coaming, or on the forward face of the aft bulkhead.

- (c) a Builder's Plaque adjacent to the ISAF Plaque. The plaque shall show the builder's name, the ISAF plaque number, the hull shell mould number, the hull serial number and the year built.
- (d) a unique builder's code shall be moulded into or permanently engraved on the hull, on the transom, the aft topsides, or the aft bulkhead.
- (e) the sail number of the **boat.** This shall be clearly displayed on the transom in characters of minimum height of 50mm

D.1.5 **BUILDERS**

- (a) Hulls shall be built by a builder licenced by ISAF to build Ynglings in accordance with the ISAF International Yngling Construction Manual. Hull and deck moulds emanate from a common master plug controlled by ISAF.
- (b) The builder shall use production moulds obtained from official suppliers approved by the ISAF. The builder shall not alter the shape of these moulds unless specifically authorised in writing by ISAF.

D.2 HULL COMPONENTS

D.2.1 The hull components are: the hull shell, the bulkheads, the deck, the knees, the floor and deck beams and the double bottom, or the side tanks with floor boards and the mast support and fittings as listed in D.3.2(b).

D.2.2 **MATERIALS**

Shall comply with the Yngling Construction Manual issued by ISAF.

D.2.3 CONSTRUCTION

Shall comply with the Yngling Construction Manual issued by ISAF.

D.3 ASSEMBLED HULL

D.3.1 BUOYANCY

- (a) Blocks of buoyant rigid foam or expanded polystyrene shall be placed in the forward and aft buoyancy compartments such that with all buoyancy compartments open and the cockpit flooded the boat, with a crew of three aboard, floats essentially level.
- (b) Buoyancy materials shall not be structurally fixed to the hull or deck
- (c) Holes in the watertight bulkheads or in the deck above watertight compartments are prohibited, except that a drain hole, which shall be securely closed while racing, is permitted in the forward and aft bulkheads.
- (d) The compartment below the double bottom, of boats so fitted, shall be watertight.

D.3.2 **FITTINGS**

The following shall be fitted:

(a) one bollard (mooring eye) on the deck in front of the forestay attachment point and one bollard on the deck aft of the rudder stock. The bollards shall be made of solid stainless steel minimum 9.3 mm diameter and

each bollard shall be attached with not less than two threaded nuts of minimum M10 or 3/8",

The following fittings shall be fitted in accordance with the Construction Manual:

- (a) one watertight cover in each bulkhead,
- (b) one watertight sealed centre section hatch that provides access to the keel bolts if the hull is fitted with a double bottom,
- (c) one lifting eye strap weighing not more than 2 kg attached to the keel bolts,
- (d) two chain plates on each side,
- (e) one forestay attachment which shall be of stainless steel,
- (f) rudder tube

D.3.3 DIMENSIONS

| minimum maximum |
|---|
| Hull length |
| Radius between outside of transom and outside |
| of hull shell |
| Thickness of double bottom centre section 14 mm |
| Distance along the deck from centre of forestay attachment |
| hole in forestay fitting to stem datum point , minus |
| 1 mm for every 3 mm the hole is above the deck 380 mm 395 mm |
| Longitudinal distance from centre of the circular shroud |
| attachment hole in the fixed chain plate fittings in |
| front of aft breakwater measurement point 1830 mm 1860 mm |
| Shortest horizontal distance from the centre of the |
| circular shroud attachment hole in the upper shroud chain plates to the outside edge of the deck flange 60 mm |
| |
| Height of double bottom above inner surface of the |
| hull above the keel flange |
| Rudder stock centreline to hull datum point, see |
| D.1.3(a), as measured along the hull centreline 1045mm 1075 mm Forward bulkhead forward of the forward breakwater |
| measurement point |
| Aft bulkhead aft of the aft breakwater measurement |
| point |
| Total volume of the fore and the aft buoyancy |
| compartment buoyancy blocks 0.56 m ³ |
| Volume of buoyancy blocks in the forward buoyancy |
| compartment 0.36 m ³ |
| The gap between the transom template and the transom |
| centreline at the template mark |
| Baseline to stem datum point |
| Cabin top above sheer, Template 3 Dimension A |
| • • • |

Template Reference Mark positions and Centreline offsets

| Template | HDP | | 1 | | 2 | 3 | | 4 | | |
|----------------------|-----------|----------|------|----------|------|------|------|------|-----|-----|
| Distance from ADDP | | | 1145 | | 2503 | 3861 | | 5264 | | |
| along deck flange | | | 11.0 | | | 2001 | | | | |
| Distance from HDP | 0 | 675 | 1350 | 2025 | 2700 | 4050 | 4725 | 5400 | | |
| along the baseline | 0 67 | 073 | 1330 | 2023 | 2700 | 4030 | 4123 | 3400 | | |
| Minimum Centreline | 670 | 527 | | 317 | 227 | 202 | 282 | | | |
| to baseline distance | 070 337 | 70 537 | 337 | 10 331 | 421 | 317 | 221 | 202 | 282 | 439 |
| Maximum Centreline | 605 | 547 | 421 | 323 | 235 | 210 | 288 | 439 | | |
| to baseline distance | 685 | 347 | | 323 | 233 | 210 | 288 | | | |

Section E – Hull Appendages

E.1 GENERAL

E.1.1 BUILDERS

(a) The **Hull Appendages** shall be built by a builder licenced by ISAF to build Ynglings, and in accordance with the ISAF International Yngling Construction Manual.

E.2 KEEL

E.2.1 RULES

- (a) The builder shall use the casting pattern for the **keel** obtained from an official supplier approved by ISAF. The builder shall not alter the shape of the casting pattern unless specifically authorized in writing by ISAF. The castings may be modified but only such that they conforms to Class Design Drawing 2.
- (b) **Keels** shall comply with the class rules in force at the time of initial **certification control** of the hull, or for hulls built prior to 1 March 2002 they shall comply with the 2001 **class rules**.

E.2.2 MATERIALS

(a) Shall comply with the Yngling Construction Manual issued by ISAF.

E.2.3 DIMENSIONS

| | minimum | maximum |
|--|---------|---------|
| Keel leading edge deviation from a straight line | | |
| through points on the leading edge at 92 mm and | | |
| 734 mm from the leading edge baseline | | |
| intersection | | 2.0 mm |
| Keel trailing edge deviation from a straight line | | |
| through points on the trailing edge at 60 mm and | | |
| 734 mm from the KDP | | 2.0 mm |
| Keel leading edge radius and trailing edge radius | 2.0 mm | |
| Keel bottom edge radii forward of the point at | | |
| 320 mm from the KDP | 20 mm | |
| Keel bottom edge radii aft of the point at 320 mm | | |
| from KDP, tapered to | 2.0 mm | |
| Keel to hull joint radius | 25 mm | |
| Keel template gaps | 8.0 mm | 12.0 mm |
| | | |

The keel shall be checked with templates in accordance with Appendix 4 of the Class rules. Templates shall be at positions 92 mm, 293 mm, 391 mm, 489 mm and 734 mm from the baseline measured along both the leading and trailing edges of the keel. Between templates the keel shall have faired contours following those specified in the design drawing.

E.2.4 WEIGHTS

E.3 RUDDER

E.3.1 RULES

The **rudder** shall comply with the Yngling construction manual issued by ISAF and these **Class Rules** including Appendix 5.

E.3.2 DIMENSIONS

| | mınımum | maxımum |
|---|---------|---------|
| Radius of all rudder blade edges | 2 mm | |
| Diameter of rudder stock | 22 mm | |

The **rudder** profile is defined by the quadrilateral with

the following exact dimensions;

Trailing edge length 650 mm
Leading edge 635 mm
Top edge 400 mm
Bottom edge 250 mm

The bottom-leading edge to top-trailing edge

diagonal 638 mm

The **rudder** shall be within quadrilaterals with sides parallel to the above and at \pm 5 mm from the sides, as shown in **Class Rules** Appendix 5. The **rudder** section shall conform to the official ISAF Yngling **rudder** templates, as shown in **Class Rules** Appendix 5

E.3.3 WEIGHTS

| | minimum | maximum |
|---|---------|---------|
| Weight of rudder blade and stock | 6.0 kg | |

Section F – Rig

F.1 GENERAL

F.1.1 RULES

Rig components shall comply with these **class rules**.

F.1.2 MANUFACTURERS

Manufacturers are optional.

F.1.3 CERTIFICATION

An **official measurer** shall **certify** the mast.

F.2 MAST

F.2.1 DEFINITIONS

(a) Mast Datum Point

The **mast datum point** shall be the **lower point**.

F.2.2 MATERIALS

The **spar** shall be of aluminum alloy to the International 6000 Series Specifications.

The **spar** maybe be anodized, painted or powder coated.

F.2.3 CONSTRUCTION

- (a) The **spar** extrusion shall include an integral sail groove.
- (b) The **spar** extrusion shall be one single length and of constant section with the exception that the upper part of the **spar** shall be uniformly tapered. However, the wall thickness of the section shall not be tapered along the length of spar.
- (c) Below a point 350 mm above the **mast datum point** the sail groove may be opened up and/or the sides of the sail groove may be cutback providing the fore and aft dimension is reduced by not more than 25 mm.
- (d) The **spreaders** shall be attached above the lower shroud **rigging point**.
- (e) There shall be **limit marks** at the **lower point** and the **upper point**.

F.2.4 FITTINGS

(a) MANDATORY

- (1) one pair of **spreaders** with fittings which maybe adjusted at the **spreader**,
- (2) one mast head fitting which may include the mainsail halyard sheave,
- (3) shroud fittings,
- (4) forestay fitting,

- (5) mainsail halyard sheave box,
- (6) jib halyard sheave box,
- (7) spinnaker halyard block with attachment or sheave box with optional fairlead,
- (8) spinnaker pole fittings which may include a track,
- (9) spinnaker pole lift sheave box or block with attachment,
- (10) gooseneck,
- (11) A heel fitting, securely fixed to the **spar**, which transfers the compression load to the mast step which may include sheaves for halyards.

(b) OPTIONAL

(l) An external collar positioned below the gooseneck of a maximum length of 30 mm

F.2.5 DIMENSIONS

| minimum maximum |
|---|
| Limit mark widths 10 mm |
| |
| Mast spar cross section of non tapered extrusion: |
| fore-and-aft |
| transverse |
| Mast spar cross section at the upper point: |
| fore-and-aft |
| transverse |
| Mast datum point to beginning of spar |
| taper |
| Upper point height |
| Spinnaker hoist height |
| Forestay height |
| Upper shroud height |
| Lower shroud height |
| Distance from forward face of spinnaker sheave or |
| bearing point of the fairlead to the forward face |
| of the mast |
| Extension of masthead fittings, except the removable |
| wind indicator, from the upper point |
| Spreader; |
| length 590 mm |
| Spinnaker pole fitting: |
| height 1000 mm |
| projection |
| Gooseneck fitting length along the mast |
| Mast spar deflection when loaded with 20 kg at 3400mm |
| from the mast datum point measured at 3400 from datum : |
| fore-and-aft |
| Mast spar curvature |
| |

F.2.6 WEIGHTS

| min | imum | maximum |
|---|--------|---------|
| Mast Weight 1 | 7.0 kg | |
| Mast Tip Weight | .50 kg | |
| Weight of each halyard shackle, for the purpose | | |
| of mast tip weight | | 70 g |
| Tip Corrector Weights | | 300 g |

For the purpose of Rule F.2.6 (weights) any readily removable fittings such as wind indicators, shall be removed.

F.3 BOOM

F.3.1 MATERIALS

The spar shall be of aluminum alloy to the International 6000 Series Specifications. The spar maybe be anodized, painted or powder coated.

F.3.2 CONSTRUCTION

- (a) The **spar** extrusion shall be of constant section and shall include an integral sail groove. The boom maybe cut away to any shape beyond the **outer point**.
- (b) The sail groove may be cutaway at each end to permit entry of the mainsail.

F.3.3 FITTINGS

The following shall be fitted:

- (a) two or more mainsheet block attachments one being at the aft end of the **spar**,
- (b) a clew attachment arrangement,
- (c) a gooseneck attachment.

F.3.4 DIMENSIONS

minimum maximum

Boom spar cross section of the extrusion, forward of the outer point vertical 69 mm 75 mm transverse 51 mm 57 mm

F.4 STANDING RIGGING

F.4.1 MATERIALS

The standing **rigging** shall be of 1 x 19 strand stainless steel wire minimum 3 mm in diameter.

F.4.2 RIGGING

The following are mandatory:

(a) one forestay,

- (b) one pair of upper shrouds,
- (c) one pair of lower shrouds,
- (d) one backstay.

Section G – Sails

G.1 GENERAL

G.1.1 RULES

Sails shall comply with the current class rules.

G.1.2 CERTIFICATION

- (a) The **official measurer** shall **certify** mainsails and jibs in the **tack** and spinnakers in the **head** and date the **certification mark** with the date of **certification control** of the sail.
- (b) An ISAF In-House Certification (IHC) Authorizing Authority may appoint one or more Internal Official Measurers at a sailmaker to measure and certify sails produced by that manufacturer in accordance with the ISAF guidelines.
- (c) The weight in gsm of the **body of the sail** shall be indelibly marked in the **tack** in mainsails and jibs by the sailmaker, together with the date and his signature or stamp.
- (d) Sailmaker Cloth Declaration Spinnakers:
 - (i) For spinnakers **certified** from the 15th November 2007 a sailmakers cloth declaration shall be in the **head** of the sail. The declaration shall contain the date, sailmaker's signature and name in block capitals, cloth type and a unique serial number.
 - (ii) For spinnakers **certified** before the 15th November 2007 the sail cloth weight in gsm of the **body of the sail** shall be indelibly marked in the **head** by the sailmaker, together with the date and his signature or stamp.

G.1.3 IYA SAIL LABEL

The official numbered IYA sail label shall be permanently attached in the **tack** in mainsails and jibs and in the **head** in spinnakers. Sail labels shall be obtained from the NYA, or in the case of difficulty from the IYA, and shall not be reused.

G.1.4 SAILMAKERS

Sailmaker is optional.

G.2 MAINSAIL

G.2.1 IDENTIFICATION

The class insignia shall comply with Class Rule Appendix 2 and the RRS Appendix G.

G.2.2 CONSTRUCTION

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

- (b) Except within 250mm of the foot, the **body of the sail**, shall consist of the same **woven ply** throughout. The **ply** fibres shall be of polyester.
- (c) There shall be three **batten pockets** extending to the **leech**.
- (d) The **leech** shall not extend aft of straight lines between:
 - (1) the **aft head 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** below,
 - (3) the **clew point** and the intersection of the **leech** and the lower edge of the nearest **batten pocket**.
- (e) The following are permitted: Stitching, glues, tapes, **tabling**, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, **primary reinforcement**, **secondary reinforcement** listed in G.2.3,, battens, batten pocket elastic, leech line with a cleat in an optional position, two **windows**, telltales, one **spar** groove slider for each of the **head**, **clew** and **tack**, sail shape indicator stripes, and items permitted or prescribed by other applicable *rules*.

G.2.3 DIMENSIONS

| minimum maximum |
|---|
| Leech length |
| Quarter width |
| Half width |
| Three-quarter width |
| Top width |
| Weight of ply of the body of the sail |
| Primary reinforcement |
| Secondary reinforcement: |
| from sail corner measurement points 1065 mm |
| for two chafing patches each |
| for batten pockets patches |
| for flutter patches |
| Tabling width |
| Total window area |
| Window to sail edge |
| Extension of headboard from head point |
| Batten pocket length: |
| uppermost pocket: |
| inside |
| outside |
| other pockets: |
| inside |
| outside |
| Batten pocket width: |

| inside | 60 mm |
|--|---------|
| outside | 90 mm |
| Head point to intersection of leech and centreline | |
| of uppermost batten pocket | 1780 mm |
| Clew point to intersection of leech and centreline | |
| of lowermost batten pocket | 1780 mm |

G.3 JIB

G.3.1 RULES

(a) As an exception to ERS H.5.1 a jib shall be measured with battens in place.

G.3.2 CONSTRUCTION

- (a) The construction shall be: **Soft sail**, **single ply sail**.
- (b) The **body of the sail** shall consist of the same **woven ply** throughout. The **ply** fibres shall be of polyester.
- (c) There shall be two **batten pockets** in the **leech**.
- (d) The **leech** shall not extend outside a straight line from the **aft head point** to the **clew point**.
- (e) The following are permitted: Stitching, glues, tapes, **tabling**, bolt rope, corner eyes, hanks, **primary reinforcement**, **secondary reinforcement** listed in G..3.3,, battens, batten pockets elastic, foot and leech lines with optional cleats, two **windows**, telltales, sail shape indicator stripes and items permitted or prescribed by other applicable *rules*..

G.3.3 DIMENSIONS

| minimum maxi | mum |
|---|------------------|
| Luff length 5700 |) mm |
| Leech length |) mm |
| Luff perpendicular |) mm |
| Foot length |) mm |
| Foot median |) mm |
| Top width | 5 mm |
| Foot irregularity |) mm |
| Weight of the ply of the body of the sail 180 gr/m ² | |
| Primary reinforcement |) mm |
| Secondary reinforcement: | |
| from sail corner measurement points |) mm |
| for flutter patches 90 |) mm |
| for batten pockets patches 300 |) mm |
| Tabling width 50 |) mm |
| Total window area | $.3 \text{ m}^2$ |
| Window to sail edge | |
| Batten pocket length: | |
| inside 280 |) mm |

| outside | 310 mm |
|--|---------|
| Batten pocket width: | |
| inside | 60 mm |
| outside | 90 mm |
| The distance between the head point and the intersection of the leech and centreline of the upper batten pocket | 1730 mm |
| intersection of the leech and centreline of the lower batten pocket | 1730 mm |

G.4 SPINNAKER

G.4.1 CONSTRUCTION

- (a) The construction shall be: **Soft sail**, **single ply sail**.
- (b) Sailmaker Cloth:
 - (i) For sails **certified** from the 15th November 2007 the **body of the sail** shall consist of the same sailcloth type throughout, which shall be on the list of approved cloths in Appendix 1.
 - (ii) For sails **certified** before the 15th November 2007 the **body of the sail** shall consist of the same **woven ply** throughout. The **ply** fibers shall be of polyester or polyamide and the cloth weight shall be a minimum of 38 g/m², or conform with G.4.1(b) (i)
- (c) The following are permitted: Stitching, glues, tapes, **tabling**, corner eyes, **primary reinforcement**, **secondary reinforcement** listed in G.4.2, telltales and items permitted by other applicable *rules*.

G.4.2 DIMENSIONS

| | minimum | maximum |
|---|---------------------|-----------|
| Leech lengths | . 5600 mm . | 5800 mm |
| Foot length | | 4000 mm |
| Foot median | | 6600 mm |
| Quarter width | | . 4700 mm |
| Half width | | . 4200 mm |
| Three-quarter width | | 2300 mm |
| Difference between diagonals | | 20 mm |
| Weight of the ply of the body of the sail | 38 gr/m^2 | |
| Primary reinforcement | | 320 mm |
| Secondary reinforcement from sail corner | | |
| measurement points | | 960 mm |
| Tabling width | | 50 mm |

Effective Date: 22nd May 2008 Published Date: 22nd May 2008 Previous Issue: 30th January 2008

PART III – APPENDICES

Appendix 1 – Approved Spinnaker Sail Cloth Types

| Manufacturer | <u>Type</u> |
|---------------------|------------------------|
| Bainbridge | MP70 |
| Bainbridge | AIRX 650N, 700N, 720NS |
| Contender | DYNALITE-DYNACOTE 75 |
| Contender | SUPERKOTE 75, 80, 90 |
| Dimension Polyant | F65, F75 |
| North Sails | Norlite 60 |
| Teijin | T-7017 |

Cloth manufactures may apply to ISAF at any time for inclusion on this list. Please refer to www.sailing.org/yngling for the latest version of the class rules.

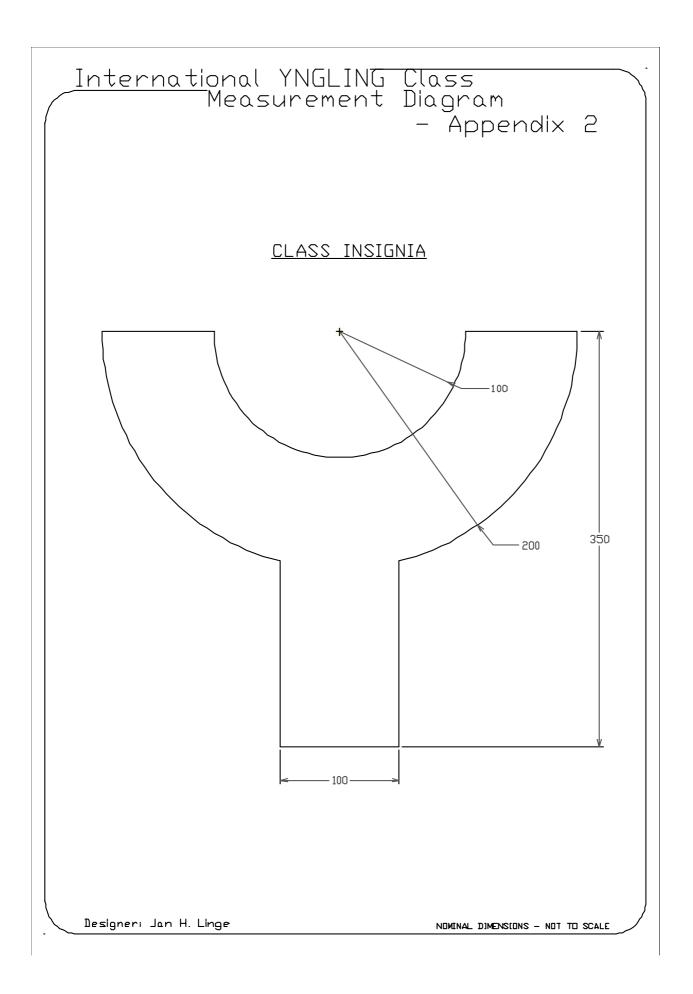
Procedure for Acceptance of spinnaker sailcloth types

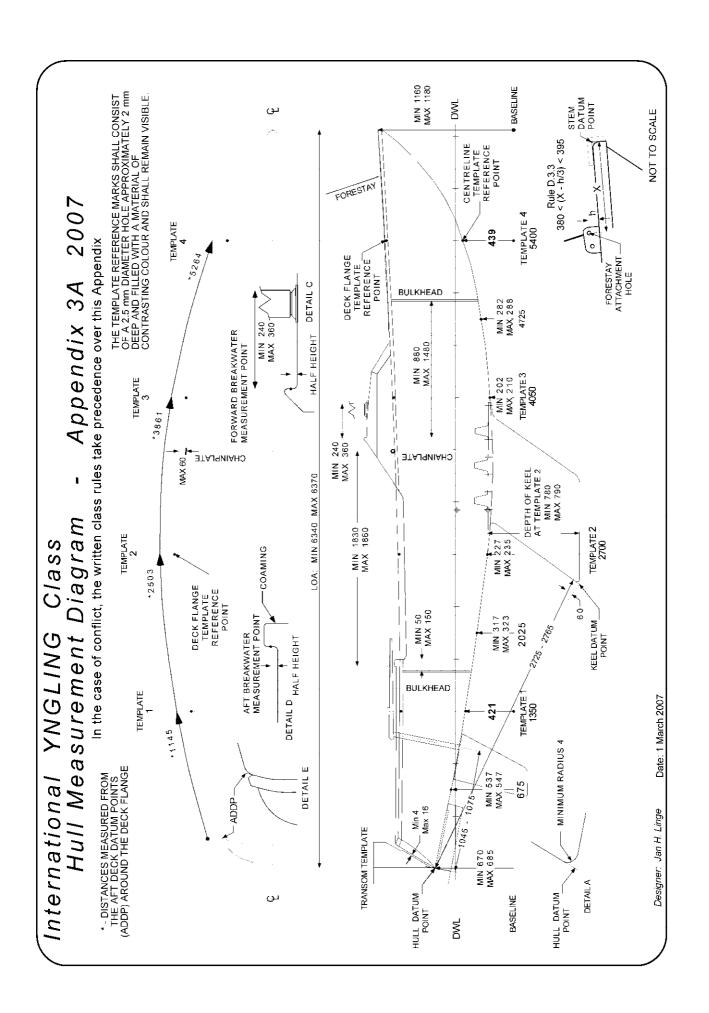
- 1 Sail cloth types will only be approved if spinnakers made of them will be commonly available
- 2 (a) The cloth weight is determined by referencing an average of the manufacturers' industry-standard test results. The nominal weight shall be greater than 38 gsm."
 - (b) A sample of minimum 1 m² of each cloth shall be sent to the ISAF and the IYA.
 - (c) From time to time ISAF will require from the manufactures their test results relating to cloth weight.
- 3. Sailcloth manufacturers shall notify the ISAF of any change in cloth production where upon:
 - (a) ISAF will decide if the cloth will remain on the approved list, Appendix 1
 - (b) If the cloth remains on the list the sail cloth manufacturer shall provide ISAF and the IYA with new cloth samples prior to its use by Yngling sailmakers
- 4 The ISAF in consultation with the IYA will review the current list and, subject to ISAF approval, accept proposals for new sail cloth materials to be added.

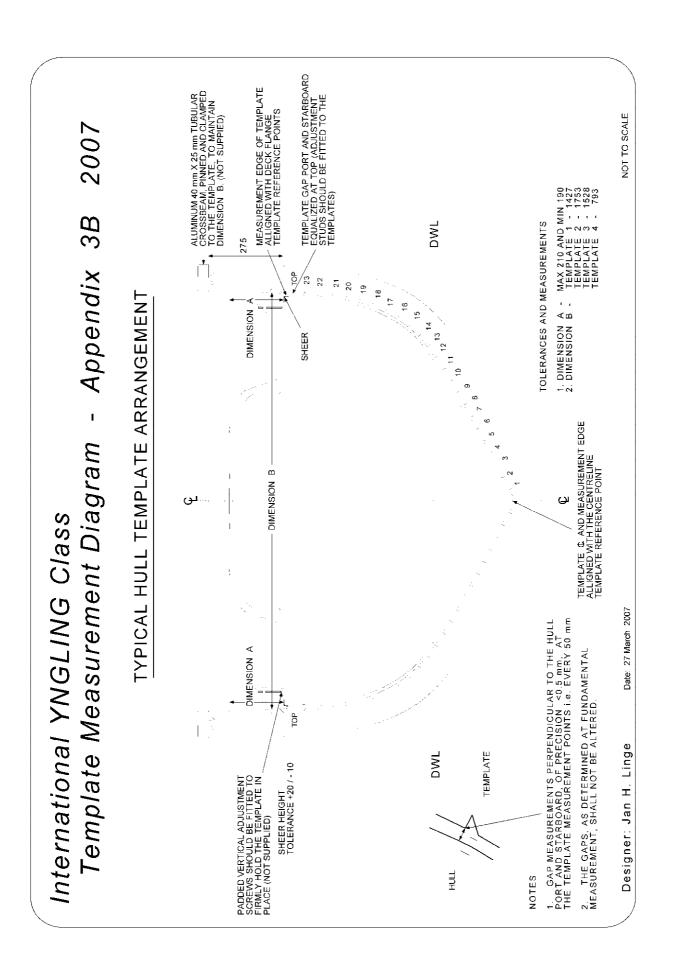
Recommended Sail Cloth Declaration

Although not a formal requirement the recommended sail cloth declaration sticker is as stated below:

| Sailmaker's cloth Certification | | |
|---------------------------------|---|--|
| Type of Cloth |) | |
| Date / / Serial No. | | |
| Name |) | |
| Signed |) | |







International YNGLING Class

Keel Measurement Diagram

Appendix 4 2008

In the case of conflict, the written class rules take precedence over this Appendix TEMPLATE END STOP AGAINST KEEL LEADING EDGE KEEL TO HULL MINIMUM RADIUS 25 mm ARRANGEMENT TEMPLATE TEMPLATE 600 **TEMPLATE 400 TEMPLATE 320** KEEL THE LEADING AND TRAILING EDGES MUST NOT DEVIATE MORE THAN +/-2 mm FROM A STRAIGHT EDGE. KEEL TRAILING EDGES MINIMUM RADIUS 2 mm AFT OF THIS POINT, TAPER THE BOTTOM RADII TO THE MININIMUM 2 mm

BETWEEN TEMPLATES THE KEEL SHALL HAVE FAIRED CONTOURS FOLLOWING THOSE SPECIFIED IN CLASS DESIGN DRAWING 2

734 DIMENSIONS ARE THE SAME FOR THE LEADING AND TRAILING EDGES

489

391

293

IEMPLATE 75

09

BASELINE IS THE UNDERSIDE OF THE KEEL

KEEL MEASUREMENT POINT

TEMPLATE 240

95

BOTTOM RADII MINIMUM 20 mm

310

KDP (KEEL DATUM -POINT)

TEMPLATE END STOP AGAINST KEEL LEADING EDGE

SECTION SHAPE TO HAVE A TOLLERNCE OF +/- 2 mm FROM TEMPLATE SHAPE (8 - 12 mm CLEARANCE FROM THE TEMPLATE EDGE).

Date: 2 Mar 2008

Designer: Jan H. Linge

International YNGLING Class

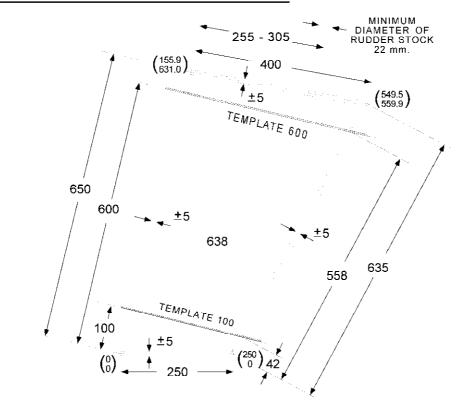
Rudder Measurement Diagram Appendix 5 2007

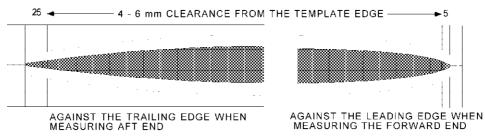
In the case of conflict, the written class rules take precedence over this Appendix

TOLERANCES:

- 1. RUDDER PROFILE SHALL NOT DEVIATE MORE THAN +/- 5 mm FROM THE OUTLINE SHOWN.
- 2. SECTION SHAPE TO HAVE A TOLLERNCE OF +/- 1 mm FROM TEMPLATE SHAPE (4 6 mm CLEARANCE FROM THE TEMPLATE EDGE).
- 3. MINIMUM RADIUS OF ALL RUDDER BLADE EDGES SHALL BE 2 mm.

RUDDER TEMPLATE ARRANGEMENT





NOTES

- 1. BLADE TO HAVE A STRAIGHT TAPER, SEE RULE E.3.3 THE TEMPLATES SHALL BE POSITIONED:
- AGAINST THE LEADING EDGE WHEN MEASURING THE FORWARD END BACK TO THE THICKEST SECTION,
- AGAINST THE TRAILING EDGE WHEN MEASURING AFT OF THE THICKEST SECTION.

THE TEMPLATES CONTROL THE SECTION BETWEEN POINTS 5 mm AFT OF THE LEADING EDGE AND 25 mm FORWARD OF THE TRAILING EDGE. OUTSIDE THESE POINTS THE SHAPE IS NOT CONTROLLED, EXCEPT THAT IT MUST BE A CONTINUOUS FAIR EXTENSION OF THE RUDDER SECTION WITH NO CONCAVITY. THE MINIMUM THICKNESS OF THE TRAILING EDGE SHALL BE 4 mm, MEASURED 2 mm FORWARD OF THE TRAILING EDGE.

Designer: Jan H. Linge Date: 22 Feb 2007 NOT TO SCALE

