# YNGLING CLASS RULES 2006





The Yngling was designed in 1967 by Jan Herman Linge and was adopted as an international class in May 1979.

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# Introduction to the International Yngling Class Rules

This introduction is an integral and binding part of the class rules.

Hulls and Hull Appendages are built by ISAF licensed builders in accordance with the ISAF International Yngling Construction Manual. Hull and deck moulds emanate from a common master plug controlled by ISAF. Moulds must not be altered in any way by the builder without the written authority of ISAF.

Any alteration of the form or construction of the hull, keel and rudder as supplied by the builder is prohibited unless specifically permitted by these class rules.

Rigs and Sails are controlled by measurement and no restrictions are imposed on the source of manufacture or supply. Variations are permitted within the specifications in Section F and G. Sails shall be certified.

An Yngling shall be equipped in accordance with Section C of these class rules.

The use of exotic materials such as carbon fibre and titanium is prohibited except for the use of: carbon fibre in the tiller; carbon fibre in the tiller extension, carbon fibre in the spinnaker pole, carbon fibre in blocks; and carbon fibre in cleats.

# 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.
- The word "shall" is mandatory and the word "may" is permissive. A.1.2

#### **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).
- Neither the ISAF, the MNA, the IYA, an NYA, the certification authority nor an A.3.2 official measurer is under any legal responsibility in respect of these class rules or accuracy of measurement and no claim arising from them can be entertained.
- Notwithstanding anything contained herein, the certification authority has the A.3.3 authority to withdraw a certificate and shall do so on 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.5.1These 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.
- At World, Continental or Regional Championships the sailing instructions may vary A.7.2 these class rules with the agreement of the IYA.

#### **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.

#### **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 and a measurement form to the licensed hull builder.

#### **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

- A.12.1 For a hull and keel not previously certified, all items required by the measurement form to be measured shall be measured by an official measurer contracted by the builder and the details entered onto the form.
- A.12.2 The measurement 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 measurement form and certification fee if required, the certification authority shall issue an International Yngling Class certificate. The certification authority shall retain a certified copy of the original measurement form. The form shall be transferred to the new certification authority when the **hull** is exported.
- A.12.4 No yacht shall race unless a current, valid International Yngling Class certificate has been issued by the certification authority.

A.12.5 Fundamental measurement 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 measurement form to the IYA.

## A.13 VALIDITY OF CERTIFICATES

- 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,
  - (e) any alteration to the boat **corrector weights**.

#### 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 shall be registered for a new **certificate**. The application shall include the old **certificate** and any re-certification fee that may be required. In the case of an imported hull the **certification authority** shall request the measurement form from the previous certification authority. A new certificate shall then be issued to the new owner.
- A.14.2 Upon alteration or repair to an item required by the measurement form to be measured 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 certificate and any recertification fee that may be required shall be sent to the certification authority in the country where the hull is registered. A new certificate, showing the dates of initial and new **certification control**, may then be issued to the owner.
- A.14.3 The corrector weights shall only be changed with the permission of an official measurer after a re-weighing of the boat. The official measurer shall enter the details on the existing certificate and notify the **certification authority** (within 2 weeks) of these details. A new **certificate** 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 **hull** weight, the **corrector weights** and their positions. The **certification authority** may publish the **certificate**, without signature or stamp, on a secure web site.

## **B.2** CERTIFICATION MARKS

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

## **B.3** FLOTATION CHECKS

B.3.1 A race committee may require that a **boat** shall pass a flotation test in accordance with Appendix 1.

## **B.4** CLASS ASSOCIATION STICKERS

- B.4.1 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.4.2
- B.4.3 **Sails** shall carry the IYA Sail Label. See G.1.4.

# PART II – REQUIREMENTS AND LIMITATIONS

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

The **crew** and the **boat** shall comply with the rules in Part II when *racing*. Measurement to check conformity with rules of Section C is not part of **fundamental measurement**.

# **Section C – Conditions for Racing**

## C.1 GENERAL

#### C.1.1 RULES

The ERS Part I – Use of Equipment shall apply.

## C.2 CREW

## C.2.1 LIMITATIONS

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

#### C.2.2 WOMEN'S CREW WEIGHT

For women's ISAF grade I, II and III events and other Olympic qualification events only, the crew shall consist of three women. The total weight of the mandatory three-woman 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.3 PERSONAL EQUIPMENT

## C.3.1 MANDATORY

(a) Personal buoyancy 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 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** and stored in the cockpit.
- (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.
- (3) The anchor with chain and rope may be stored under the cockpit floor, or under the centre section in **hull** with 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.

## C.6 BOAT

#### C.6.1 WEIGHT

minimum maximum

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

## C6.2 WEIGHT (EXCLUDING RIG)

minimum maximum

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

## C.6.3 CORRECTOR WEIGHTS

If a **boat** does not comply with C.6.1 it shall be allowed to race if additional **corrector weights** are fitted for that specific event (but if overweight no **corrector weights** shall be removed).

#### C.6.4 CORRECTOR WEIGHTS POSITIONING

**Corrector weights** of lead shall be permanently fixed to the lower surface of the deck when the weight of the **boat**, as specified in C.6.1 and C6.2, is less than the minimum requirement. The **corrector weights** shall be placed with approximately two-thirds of

the total weight forward and one-third aft of the cockpit. See also rules A.14.3 and B.1.1.

#### **C.7** HULL

#### C.7.1 MODIFICATIONS AND MAINTENANCE

- (a) The **hull** mouldings shall not be altered in any way except as 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) One hole on each side not exceeding 240 mm x 35 mm for two handholds mounted side by side and holes for fittings and other hand holds not exceeding 120 mm in any direction may be made in the deck between the bulkheads.
- (d) Holes not bigger than necessary for the installation and passage of body or foot straps and other equipment may be made in the knees and floor boards if any.
- (e) Any scribe lines in the external surface of the hull shell at the waterline may be filled.
- (f) 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.
- (g) If any hull moulding is repaired in any other way than described in C.7.1(e), an official measurer shall verify on the certificate 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 also describe the details of the repair on the **certificate**.

#### C.7.2**FITTINGS**

## (a) Mandatory

- A mast support under the cabin top, which is not adjustable when racing.
- (2) Mainsheet attachment point(s) or track with traveller fitted to the deck aft of the rudder stock.

#### (b) **Optional**

- One draining hole with a maximum inner diameter of 30 mm in each buoyancy compartment with a plug.
- Not more than four self-bailers. (2)
- Deck handles that shall not exceed 75 mm in height above deck and, if of (3) rigid material, shall not extend outboard of the hull.
- Not more than five hand holds through each side deck. Each hand hold may (4) 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.
- (5) Foot straps and/or anklets fastened inside the cockpit.
- Body straps fastened inside the cockpit or on deck. A cleat used to attach (6) 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.
- One control panel or dashboard arrangement fitted between the cabin sides, or the side decks provided it is nowhere closer than 180 mm to the hull shell.
- Sheet winches without a mechanical advantage. (8)
- Devices, with the exception of winches, attached to the cabin top or the top of the deck to tension or hold mainsail and jib halvards.
- (10) Halyard cleats.
- (11) Backstay attachments, blocks, fairleads and cleats
- (12) Mainsheet track traveller control blocks, fairleads and cleats.
- (13) Mainsheet blocks at the mainsail attachment point or track traveller and in the cockpit, one of which may be a ratchet block, and cleats.
- (14) A bridge, console or other attachment point for a mainsheet block in the cockpit provided that the attachment point of the mainsheet block(s) be not less than 250 mm below the top of the cockpit coaming, measured in the athwartships plane of the attachment point.
- (15) Mainsail Cunningham blocks, fairleads and cleats.
- (16) Mainsail reefing fairleads, blocks and cleats.
- (17) Jib sheet blocks (of which one at each side may be a ratchet block), fairleads and cleats.
- (18) 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.
- (19) Jib Cunningham blocks, fairleads and cleats.
- (20) Jib Barber hauler fairleads, blocks and cleats.
- (21) Spinnaker boom lift and downhaul blocks, fairleads and cleats.
- (22) Spinnaker sheet and guy blocks one of which at each side may be a ratchet block, fairleads, hooks and cleats.
- (23) Spinnaker Barber hauler blocks, fairleads and cleats.
- (24) A stemhead cover.
- (25) Tiller lock.
- (26) Stowage clips for paddle(s), spinnaker pole, sail bags and other equipment.
- (27) Deck clips for cockpit cover and/or tent
- (28) Compass mounting
- (29) Kicking strap fitting on mast step and/or cuddy.
- (30) A flag pole fitting
- (31) An outboard motor bracket.
- (32) Not more than two 30 mm diameter pump discharge pipes through the topsides between the watertight compartments within 200 mm of the sheerline.
- (33) Spinnaker launch bags or spinnaker storage bins

## (c) Use

Bulkhead inspection covers shall be securely locked in their positions. (1)

- Double bottom centre section if hull with double bottom, or floor boards if (2) hull without double bottom, shall be in place.
- Body straps shall only be used at the same time as foot straps and shall not (3) enable a different position to be adopted than would be possible in their absence.
- (4) No body straps or foot straps shall prevent its user from instantly releasing 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.

#### C.8.2MODIFICATIONS AND MAINTENANCE

- (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.9.1 **LIMITATIONS**

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:

- 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,
- Kicking strap attachment and blocks, (3)
- Devices, with the exception of winches, to tension and/or hold mainsail and (4) jib halyards,
- one mechanical wind indicator, (5)

(6) one compass bracket.

## (c) Dimensions

Mast datum point shall be the Lower Point: see F.2.1.

minimum maximum

Distance from the **mast datum point** to the

intersection of the cabin top and the aft face

Longitudinal distance from the forward face of the

spar at the cabin top to the breakwater measurement

#### (d) Use

- (1) The **spar** shall be stepped 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 is optional:

- (1) two or more mainsheet blocks and not more than two wire strops for mainsheet blocks,
- (2) kicking strap blocks,
- (3) mainsail clew outhaul blocks, fairleads and attachments,
- (4) spinnaker pole stowage fittings,
- (5) reefing hooks, blocks, fairleads and attachments.

## (b) Dimensions

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

minimum maximum

Limit mark width ...... 10 mm

#### C.9.4 SPINNAKER BOOM

#### (a) Fittings

Fittings are optional.

#### 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

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

#### C.9.6**RUNNING RIGGING**

#### (a) Materials

Materials are optional.

## (b) Construction

## Mandatory:

- mainsail halyard, (1)
- mainsail sheet, (2)
- (3) kicking strap,
- (4) jib halyard,
- (5) jib sheets,
- spinnaker halyard, (6)
- spinnaker sheet and guy, (7)
- spinnaker pole lift and downhaul. (8)

#### Optional:

- mainsail Cunningham line, (9)
- (10) mainsail clew outhaul,
- (11) mainsail track control lines,
- (12) jib Cunningham line,
- (13) two jib Barber haulers
- (14) two spinnaker Barber haulers
- (15) reefing lines,
- (16) jib furling gear which shall be attached to the forestay fitting.

## (c) 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.10SAILS

#### 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 remeasurement 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.
- The tack shall be fixed to the forestay fitting on deck or the jib furling gear (2) and shall not be adjustable.

## C.10.5 SPINNAKER

## (a) Identification

The sail numbers shall comply with the RRS.

## Section D – Hull

#### **D.1 GENERAL**

#### D.1.1 **RULES**

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

#### D.1.2 **CERTIFICATION**

See A.12.

#### D.1.3 **DEFINITIONS**

#### (1) **Hull Datum Point**

The intersection of the underside of the hull shell and the transom both extended as necessary.

#### (2) 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.

#### (3) 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.

#### (4) Stem Datum Point

The foremost point on the deck, extended to meet an extension of the deck flange, excluding any stemhead cover.

#### (5) Aft Deck Datum Points

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

## (6) 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 2.5mm diameter hole approximately 2mm 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.

#### **IDENTIFICATION** D.1.4

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 and 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) The hull shall be built by a builder licensed 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.

#### 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.
- (b) Buoyancy materials shall not be structurally fixed to the hull or deck
- (c) Sufficient buoyancy material shall be distributed such that the boat passes the Buoyancy test (Appendix 1).

#### 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:

- (b) One side deck stanchion each side between the deck and the double bottom.
- (c) one watertight cover in each bulkhead,
- (d) one watertight sealed centre section hatch that provides access to the keel bolts if the hull is fitted with a double bottom,
- (e) one lifting eye strap weighing not more than 2 kg attached to the keel bolts,

- (f) two chain plates on each side,
- (g) one forestay attachment which shall be of stainless steel,
- (h) one mast step.

#### D.3.3 **DIMENSIONS**

minimum maximum			
<b>Hull length</b>			
Radius between outside of transom and outside			
of hull shell			
Thickness of double bottom centre section 14 mm			
Longitudinal distance from the centre of the forestay attachment hole in the forestay fitting to stem datum			
point			
Longitudinal distance from centre of shroud attachment hole in chain plate fittings in front of			
aft breakwater datum point			
Shortest horizontal distance from the centre of the shroud			
attachment hole in the 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 <b>hull datum point</b> 1045mm 1075 mm			
Total volume of the fore and the aft buoyancy			
compartment buoyancy blocks 0.56 m <sup>3</sup>			

# **Section E – Hull Appendages**

## E.1 GENERAL

#### E.1.1 RULES

Hull appendages shall comply with the class rules in force at the time of initial certification control of the hull.

#### E.1.2 BUILDERS

- (a) The **hull appendages** shall be built by builders licensed by ISAF.
- (b) The builder shall use the casting pattern for the **keel** core obtained from an official supplier approved by ISAF. The builder shall not alter the shape of the casting pattern unless specifically authorised in writing by ISAF.

## E.2 KEEL

#### E.2.1 CERTIFICATION

See A.12.

#### E.2.2 MATERIALS

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

## E.2.3 DIMENSIONS

minimum maximum

Distance from **hull datum point** to a point on the trailing

edge of the keel, 60 mm above the lower edge of the keel

as measured along the trailing edge of the keel ....... 2725 mm ... 2765 mm

Depth of the keel measured at section 2 ...... 780 mm ..... 790 mm

The **keel** shall be checked with templates in accordance with Appendix 4 of the class rules.

## E.2.4 WEIGHTS

minimum maximum

## E.3 RUDDER

#### E.3.1 MATERIALS

Shall comply with the Yngling Construction Manual issued by ISAF.

#### E.3.2 CONSTRUCTION

Shall comply with the Yngling Construction Manual issued by ISAF.

#### E.3.3 **DIMENSIONS**

	minimum	maximum	
Radius of all <b>rudder</b> blade edges	2 mm		
Diameter of <b>rudder</b> stock	22 mm		
The rudder profile is defined by the quadrilateral with the following 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 Diag	gonal 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.3.4 **WEIGHTS**

	minimum	maximum
Weight of <b>rudder</b> 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.1.4 IYA MAST PLAQUE

On completion of mast **certification control** an official numbered IYA mast plaque shall be permanently attached to the mast spar below the gooseneck by the **official measurer**. The mast plaques shall be obtained from the IYA.

## F.2 MAST

#### F.2.1 DEFINITIONS

#### **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) 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 15mm below a point 350 mm above the **mast datum point**.
- (d) The **spreaders** shall be attached above the lower shroud **rigging point**.

## F.2.4 FITTINGS

The following shall be fitted:

- (a) one pair of **spreaders** with fittings which maybe adjusted at the **spreader**,
- (b) one mast head fitting which may include the mainsail halyard sheave,
- (c) shroud fittings,
- (d) forestay fitting,
- (e) mainsail halyard sheave box,

- (f) jib halyard sheave box,
- (g) spinnaker halyard block with attachment or sheave box with optional tripod fairlead,
- (h) spinnaker pole fittings which may include a track,
- (i) spinnaker pole lift sheave box or block with attachment,
- (j) gooseneck,
- (k) permanently attached heel fitting which may include sheaves for halyards.

#### F.2.5 **DIMENSIONS**

minimum maximum		
Limit mark width 10 mm		
Mast spar cross section of non tapered extrusion:		
fore-and-aft		
<b>transverse</b>		
Mast spar cross section at the upper point:		
<b>fore-and-aft</b>		
<b>transverse</b>		
Mast datum point to beginning of spar		
taper		
Upper point height		
<b>Spinnaker hoist height</b>		
<b>Forestay height</b>		
Upper <b>shroud height</b>		
Lower <b>shroud height</b>		
Distance from forward face of spinnaker sheave or bearing		
point of the fairlead to the forward face of the <b>mast</b>		
Spreader;		
<b>length</b> 590 mm		
Spinnaker pole fitting:		
<b>height</b> 1000 mm		
projection		
Mast spar deflection when loaded with 20 kg at 3400mm		
from the <b>mast datum point</b> measured at 3400 from <b>datum</b> :		
<b>fore-and-aft</b>		
Mast spar curvature		
Radius from the <b>Upper Point</b> to the extremity of the masthead fitting		
(Except for the removable wind indicator)		
There shall be <b>limit marks</b> at the <b>lower point</b> , the <b>upper point</b>		

#### **WEIGHTS** F.2.6

m	inimum	maximum
Mast Weight	17.0 kg	

	Mast Tip Weight		
	Corrector Weights		
	For the purpose of Rule F.2.6 (weights) any readily removable fittings such as wind indicators, shall be removed.		
<b>F.3</b>	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		
	<ul><li>(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.</li><li>(b) The sail groove may be cutaway at each end to permit entry of the mainsail.</li></ul>		
F.3.3	FITTINGS		
	The following shall be fitted:  (a) two or more mainsheet block attachments one being at the aft end of the <b>spar</b> ,  (b) a clew attachment arrangement,  (c) a kicking strap fitting,  (d) a gooseneck attachment.		
F.3.4	DIMENSIONS		
	Boom spar cross section of the extrusion, forward of the outer point  vertical		
<b>F.4</b>	SPINNAKER POLE		
F.4.1	MATERIALS		
	Spar material is optional.		
F.4.2	CONSTRUCTION		
	Construction is optional.		
F.4.3	FITTINGS		
	Fittings are optional.		
F.4.4	DIMENSIONS		
	Spinnaker pole length minimum maximum 2015 mm		

#### **F.5** STANDING RIGGING

#### F.5.1 **MATERIALS**

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

#### F.5.2 **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 class rules in force at the time of certification control.

#### 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 MNA may appoint one or more persons at a sailmaker to measure and **certify** sails produced by that manufacturer. A special license shall be awarded for that purpose.
- (c) The weight in g/m<sup>2</sup> of the **body of the sail** shall be indelibly marked in the **tack** in mainsails and jibs and in the **head** in spinnakers by the sailmaker, together with the date and his signature or stamp.

#### G.1.3 SAILMAKERS

Sailmaker is optional.

#### G.1.4 IYA SAIL LABEL

The official 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.

## 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, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, 2 **chafing patches** at

spreaders, flutter patches, battens, batten pocket reinforcement, batten pocket elastic, leech line with cleat, two windows, telltales, sail shape indicator stripes.

#### G.2.3 **DIMENSIONS**

minimum maximum
<b>Leech length</b>
Quarter width
<b>Half width</b> 1660 mm
Three-quarter width 960 mm
<b>Top width</b>
Weight of <b>ply</b> of the <b>body of the sail</b> 180 gr/m <sup>2</sup>
Primary reinforcement
Secondary reinforcement:
from sail corner measurement points 1065 mm
for <b>chafing patches</b>
at inner ends of <b>batten pockets</b>
for <b>flutter patches</b>
Total <b>window area</b> 0.3 m <sup>2</sup>
Window to sail edge
Extension of headboard from <b>head point</b>
Batten pocket length:
top pocket:
inside 530 mm
other pockets:
inside
Batten pocket width:
inside 60 mm
Head point to intersection of leech and centreline
of uppermost <b>batten pocket</b> 1780 mm
Clew point to intersection of leech and centreline
of lowermost <b>batten pocket</b>

#### **G.3** JIB

#### G.3.1CONSTRUCTION

- (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, corner eyes, Cunningham eye or pulley, tabling and or bolt rope, hanks, flutter patches, batten pockets elastic, battens, batten pocket reinforcement, foot and leech lines with optional cleats, two windows, telltales, sail shape indicator stripes.

#### G.3.2 **DIMENSIONS**

	minimum	maximum
Luff length		5700 mm
Leech length		5300 mm
Foot length		1950 mm
Foot median		5620 mm
Top width		35 mm
Foot irregularity		20 mm
Weight of the ply of the body of the sail	$180 \text{ gr/m}^2$	
Primary reinforcement		320 mm
Secondary reinforcement:		
from sail corner measurement points		960 mm
for <b>flutter patches</b>		90 mm
at the inner end of the batten pockets		300 mm
Total window area		
Window to sail edge	150 mm	
Batten pocket length:		
inside		280 mm
Batten pocket width:		
inside		60 mm
<b>Head point</b> to intersection of <b>leech</b> and centreline of		
top batten pocket	1730 mm	
Clew point to intersection of leech and centreline of		
lower batten pocket	1730 mm	

#### **SPINNAKER G.4**

#### G.4.1 **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 or polyamide.
- (c) The following are permitted: Stitching, glues, tapes, corner eyes, telltales.

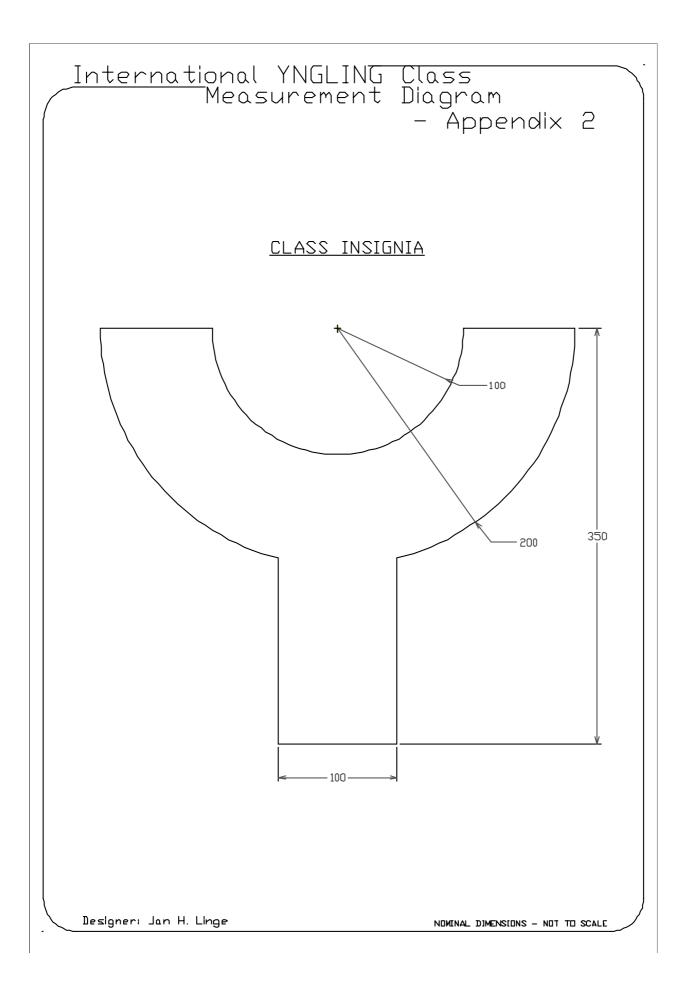
#### **DIMENSIONS** G.4.2

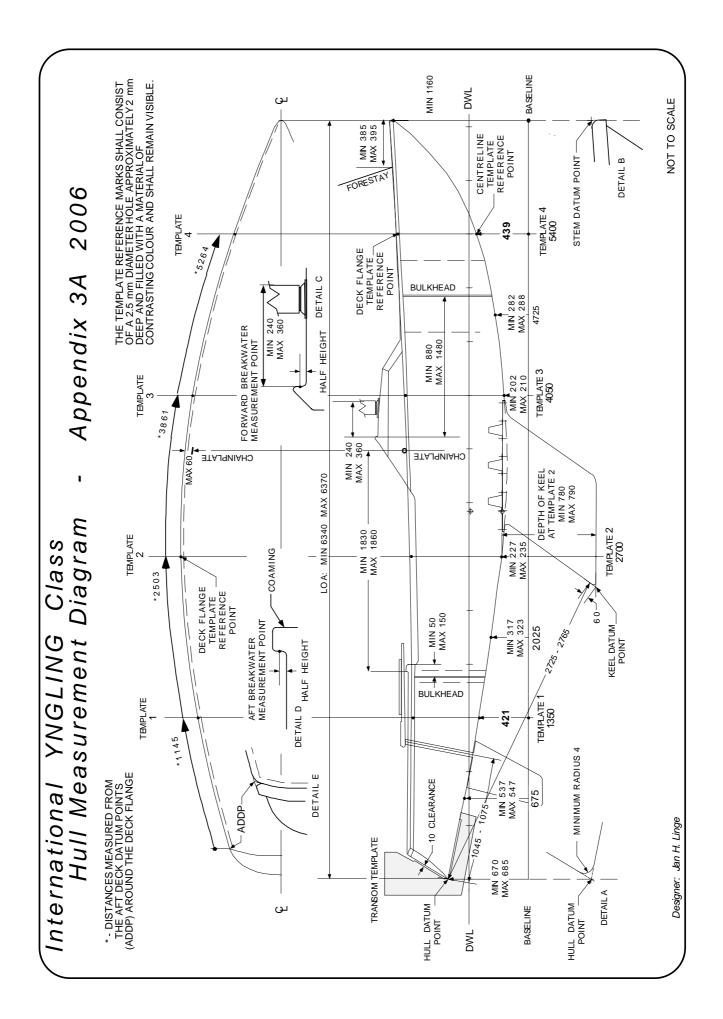
	minimum	maximum
Leech lengths	5600 mm	5800 mm
Foot length		4000 mm
Foot median		6600 mm
Quarter width		4700 mm
Half width		4200 mm
Three-quarter width		2300 mm
Difference between diagonals		20 mm
Weight of the ply of the body of the sail	$38 \text{ gr/m}^2$	
Primary reinforcement		320 mm
Secondary reinforcement: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

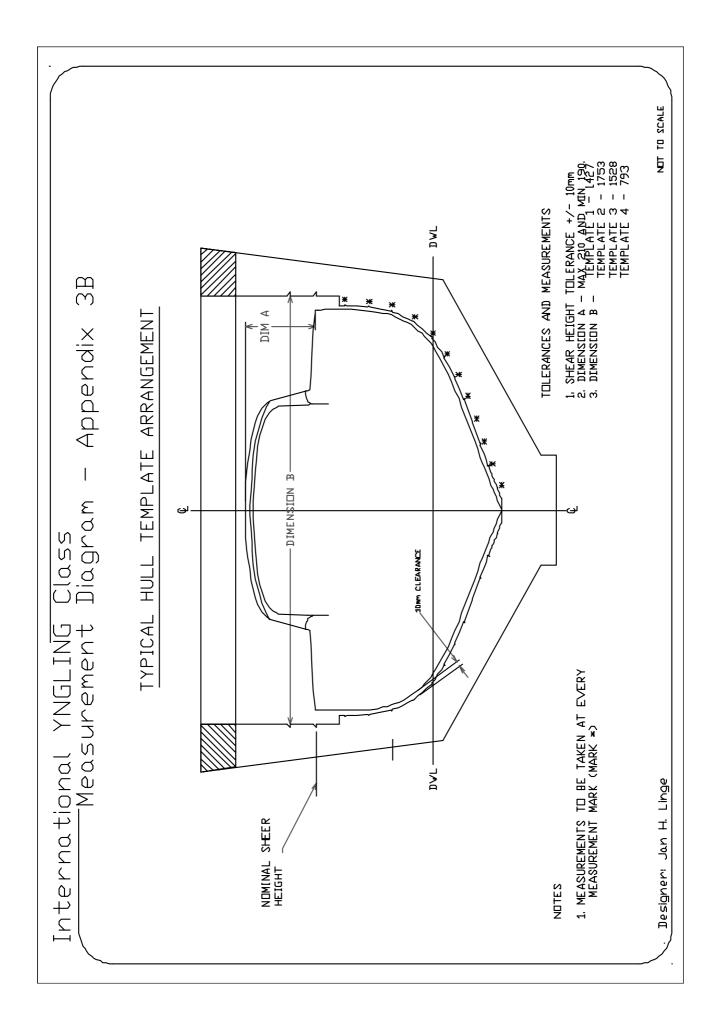
30<sup>th</sup> March 2006 Effective Date: 31<sup>th</sup> March 2006 Published Date: 1st March 2005 Previous Issue:

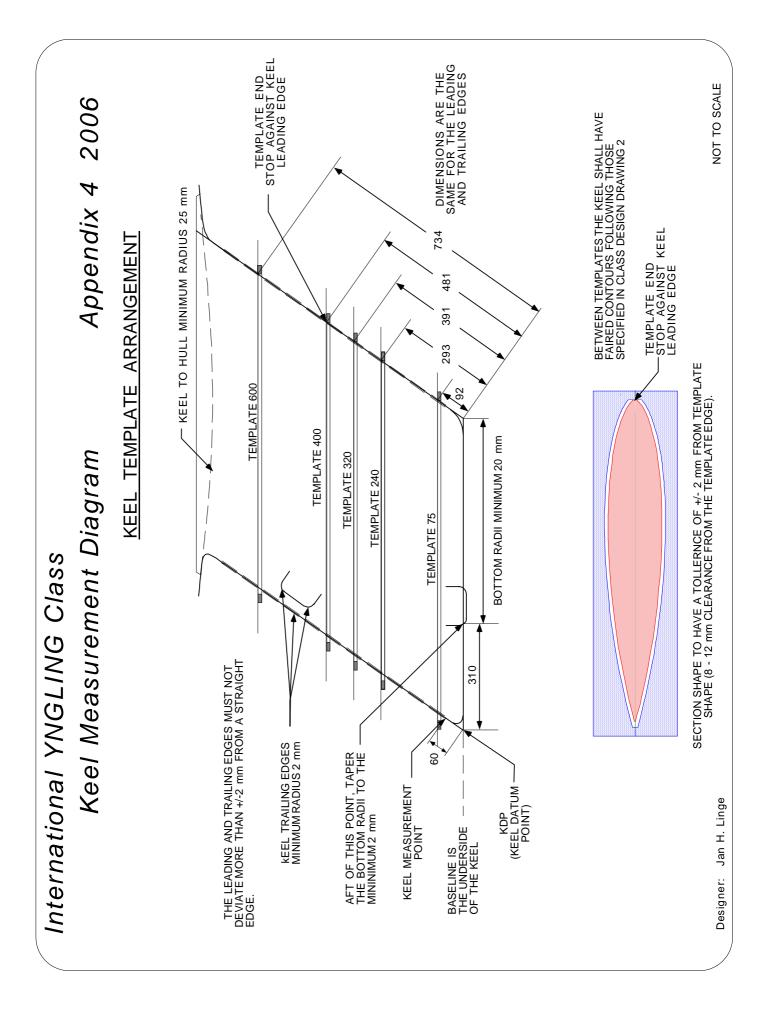
# **Appendix 1 – Flotation Check**

All hatches and draining plugs shall be open and the hull shall be totally filled with water. To ensure this, the **boat** shall, when filled with water, be tipped 30° to each side where after the crew shall go first to the stern then to the stem. The boat shall then float level with the **crew** in the cockpit area.







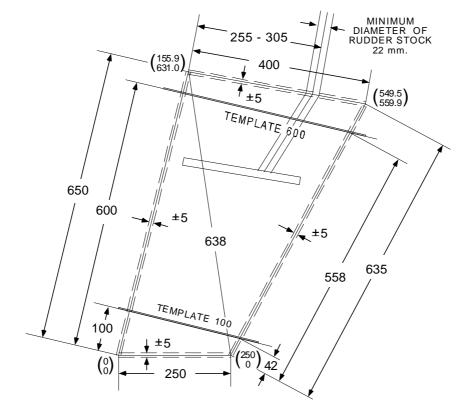


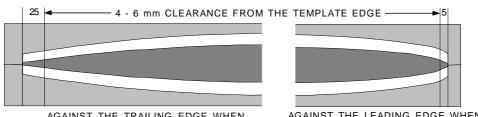
# International YNGLING Class Rudder Measurement Diagram Appendix 5 2006

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





AGAINST THE TRAILING EDGE WHEN MEASURING AFT END

AGAINST THE LEADING EDGE WHEN MEASURING THE FORWARD END

#### 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 NOT TO SCALE