

# International East Coast 12 Meter One-Design Class Rules 1990

Authority: International Model Yacht Racing Union (IMYRU)  
Date of International Status: January 1980

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## WARNING TO BUILDERS AND OWNERS

It is impossible to foresee every conceivable innovation which may be thought of in the future and to mention every suggestion which has been ruled illegal in the past.

When considering anything in connection with the boat or its sails or equipment which is not within established practice within the East Coast 12 Meter Class or is not clearly covered by this specification and its attached drawings, you must assume that it is illegal, or consult the Owners Association that can obtain a ruling from the IMYRU.

In interpreting any point not covered, or wording of obscure meaning, the IMYRU shall consider the intended meaning, rather than any technical misconstruction that might be derived from the wording, and shall bear in mind at all times the basic principle of the specifications which is to maintain the East Coast 12 Meter within reasonable limits as a standard one-design class.

## **1. General**

### **1.1 PURPOSE OF THE MEASUREMENT RULES**

- 1.1.1 The East Coast 12 Meter Class is a One-Design RC (Remote Control) racing class.
- 1.1.2 The intention of these rules is to ensure that all the yachts are as reasonably alike as possible in all respects affecting performance.
- 1.1.3 The East Coast 12 Meter is a model of a yacht, as distinct from being a model yacht. Her inadequacies in stability are an acceptable tradeoff for maintaining a boat which retains competitive longevity and presents an aesthetically pleasing appearance.
- 1.1.4 Anything not specifically permitted in these rules is prohibited.

### **1.2 AUTHORITY**

- 1.2.1 The governing International Authority of the class is the IMYRU which will cooperate with the Owners Association in all matters concerning these rules.
- 1.2.2 Neither the IMYRU nor the Owners Association accepts any legal responsibility with respect to these rules, the measurement diagrams and the measurement form or any claims arising therefrom.

### **1.3 ELIGIBILITY**

- 1.3.1 Before a yacht is eligible to race:
  - (a) The building fee shall have been paid and an official label fixed inside the hull;
  - (b) The yacht, her spars, sails and equipment shall have been measured by an official measurer, and marked as required;
  - (c) A measurement certificate shall have been issued by the yacht's national authority in the owners name.

### **1.4 CLASS RULES AND THEIR INTERPRETATION**

- 1.4.1 These rules are complementary to the measurement diagrams and form. Any interpretation shall be made by the IMYRU in consultation with the Owners Association.
- 1.4.2 In the event of discrepancy between these rules, the measurement diagrams and/or the measurement form, or the need for clarification of any matter, the matter shall be referred to the IMYRU.

### **1.5 MEASUREMENT AND MEASURERS**

- 1.5.1 Measurements shall be taken in accordance with the IYRU Measurement Instructions unless otherwise specified in these rules.
- 1.5.2 Only a measurer officially recognised by his National Authority shall measure a yacht, her spars, sails and equipment and sign measurement forms.
- 1.5.3 A measurer shall not measure a yacht, her spars, sails or equipment owned, designed or built by himself, or in which he is an interested party, or has a vested interest.
- 1.5.4 If a measurer is in any doubt as to the legality of any part of the yacht, spars, sails or equipment, he shall report accordingly on the measurement form.
- 1.5.5 Alterations, replacements or repairs to the yacht shall be made in accordance with these rules and shall be checked by an official measurer.
- 1.5.6 New or substantially altered sails shall be checked by an official measurer and be dated and stamped or signed near the tack.
- 1.5.7 All yachts, spars, sails and equipment shall be liable to check measurement by an official measurer at the discretion of a National Authority or Race Committee.

- 1.5.8 Hulls built before December 31, 1989 shall comply with the class rules in force at the time of their construction. Hulls built after December 31, 1989 shall comply with the 1980 rules if from a preexisting mould, or with the current rules if from an IMYRU licensed mould. All hulls built after December 31, 1992 shall be from IMYRU licensed moulds and shall comply with the current rules.

## **1.6 OWNERS RESPONSIBILITY**

- 1.6.1 It is the responsibility of the owner to see that his yacht, spars, sails and equipment:
- (a) Comply with the class rules and relevant International RC Yacht Racing Rules at all times and that alterations, replacements or repairs to the yacht, spars, sails or equipment do not invalidate the measurement certificate;
  - (b) That corrector weights are not moved or removed and changed without the yacht being officially remeasured and the measurement certificate revalidated;
  - (c) That stretching of sails after measurement does not result in the maximum allowed dimensions being exceeded.

## **2. Administration**

### **2.1 LANGUAGE**

- 2.1.1 The official language of the class is English and the English text shall prevail in the event of a dispute in translation.
- 2.1.2 In translating and interpreting these rules it shall be understood that the word "shall" is mandatory and the words "can" and "may" are permissive.
- 2.1.3 Wherever in these rules the words "class rules" are used, they shall be taken as including the measurement diagrams and measurement form.

### **2.2 ADMINISTRATION OF THE CLASS**

- 2.2.1 The administrative authority for the class shall be the Owners Association which shall cooperate with the IMYRU in all matters pertaining to the class and these rules.
- 2.2.2 In countries where the National Authority for model yachting (NA) does not wish to administer the class, those functions shall be carried out by a national class association which shall be affiliated with the Owners Association.

### **2.3 BUILDERS**

- 2.3.1 The East Coast 12 Meter Class is a Limited Construction Class and hulls shall be produced only by builders licensed by the IMYRU. Licenses shall be issued after consultation with the Owners Association.
- 2.3.2 Application for a license shall be made through a National Authority to the IMYRU.
- 2.3.3 The license shall include clauses requiring good standards of manufacture and quality control, inclusion of IMYRU labels moulded into the hulls, compliance with class rules, use of standardized IMYRU hull plugs for mould production, and a guarantee that all required fees shall be paid. Sufficient licenses will normally be issued in a country to ensure that the demand for hulls is satisfied.
- 2.3.4 Alterations of the plugs or moulds made without the approval of the Owners Association shall result in the builder's license being revoked. This same measure shall be taken in case of intentional and/or repeated infringements of the class rules by the builder.
- 2.3.5 The builder shall, at his own expense, correct or replace any hull which fails to pass measurement as the result of an omission or error of the builder, provided that the boat is submitted for measurement within twelve months of purchase.

## **2.4 REGISTRATION AND MEASUREMENT CERTIFICATE**

2.4.1 A valid measurement certificate is an original measurement form, or true copy of the measurement form which has been stamped by the National Authority.

### **2.4.2 Registration Procedures**

- (a) The builder or owner shall apply to the appropriate NA for a sail number. Any required registration fee shall be included with the application. The NA shall return two blank measurement forms.
- (b) The owner shall send the completed measurement forms to his NA. On receipt of these a certificate (validated form) may be issued to the owner. The other copy shall be retained by the NA.
- (c) Each Country shall issue sail numbers starting from 1, and only one boat in each country shall have the same sail number.
- (d) Change of ownership invalidates the certificate and the old certificate shall be returned to the NA with a written application containing the name and address of the new owner and any re-registration fee that may be required. A certificate shall then be issued to the new owner.

## **3. Protection of One-Design**

The Owners Association possesses and maintains all rights, title and interest to the original Morgan Design #2770, and all variants, modifications and associated technical information properly considered as directly related to the original design. It is the avowed purpose of the Owners Association to vigorously protect the one-design aspects of this model yacht and to maintain it in a configuration as near original as reasonable possible. The full force of available legal remedies will be utilized to maintain the integrity of the design, its configuration as manufactured, and its long term stability as a viable racing class. In the case of dissolution of the Owners Association, all rights, title and interest shall become the property of IMYRU. The primary standard for the hull form shall be the IMYRU plug and the supporting table of offsets maintained by the Owners Association.

## **4. Construction and Measurement Rules**

### **4.1 IDENTIFICATION MARKS**

The hull shall carry the moulded-in, serially numbered, IMYRU official label as well as the name of the manufacturer.

### **4.2 HULL SHELL AND DECK**

4.2.1 The hull shell shall be obtained from an official IMYRU licensed builder.

4.2.2 The hull shell shall be constructed only of glassfibre reinforced plastic (GRP) with interior surface unpainted and consisting of unpigmented resin to allow visual inspection of hull laminate and its materials. Resin type shall be unrestricted.

4.2.3 The hull shell shall only be modified by piercing for fitting of rudder tube and stock.

4.2.4 The length over all (LOA) shall be 1485-1500 mm.

4.2.5 The maximum load waterline length (LWL) shall be 1092 mm as measured in fresh water. Reference lines of length 25 mm and width 2 mm, whose edges mark the limits of the 1092 mm maximum LWL, of a colour which contrasts with the colour of the hull, shall be placed across the centreline of the hull in accordance with Fig.1. No part of either mark shall be below the LWL when the yacht is afloat, at rest in fresh water.

4.2.6 The beam at the deck shall comply with the measurements below for at least eight (8) of the stations and no more than two (2) consecutive stations shall be out of tolerance. Distances from the bow shall be taken along the deck.

Distance from bow, mm	Beam mm	Distance from bow, mm	Beam mm
0	0	762	286 - 294
127	74 - 82	889	292 - 300
254	134 - 142	1016	282 - 290
381	184 - 192	1143	252 - 260
508	232 - 240	1270	200 - 208
635	266 - 274	1397	134 - 142

4.2.7 The deck shall include either at least one layer of glassfibre cloth or mat, or consist of a preformed material such as melamine (formica). It shall have a thickness at least equivalent to the hull shell. Deck may be cored with wood, including balsa. Centreline of deck shall be either a straight line or a fair, continuous curve, concave upward. A single hatch opening is allowed abaft the mast and of maximum dimensions 152x254 mm.

4.2.8 Any colours, finishing paints, varnishes or lacquers may be used for exterior finish of hull, deck, rudder and spars.

4.2.9 The chainplates shall be placed on the deck athwartships of the mast.

4.2.10 The jib swivel, of any design, shall be attached to the deck approximately on the centreline of the yacht and may allow for manual adjustment.

### 4.3 RUDDER

4.3.1 The rudder shall neither extend above the bottom of the keel more than 125 mm nor below the bottom of the keel. No portion of the rudder shall extend more than 89 mm aft of the keel. The rudder shall have a maximum thickness no greater than the keel section immediately forward of it.

4.3.2 The rudder shall be made of GRP and/or wood. The rudder shaft shall be made of brass, aluminium or stainless steel.

4.3.3 The rudder shall be turned by remote control.

### 4.4 BALLAST

4.4.1 The ballast material shall have a density of no greater than lead (11.3 kg/dm<sup>3</sup>).

4.4.2 All ballast shall be located within the interior of the hull. Ballast shall be fixed in place and shall not be moveable.

4.4.3 Corrector or trim ballast shall meet the requirements of paragraph 4.4.2.

### 4.5 SPARS

#### 4.5.1 Mast

(a) Materials of construction shall be either wood, which may be solid or laminated, or aluminium.

(b) Masts may be stepped on deck or on the keel, with the forward edge at the deck 623-723 mm aft of the bow. Mast shall be non-rotating and may employ such equipment below the lower mast band necessary to restrain its bend or control its position.

(c) Masts shall carry three distinctly coloured measurement bands, not less than 3 mm wide and shall comply with Figures 1 & 2.

(d) Masthead crane shall extend a maximum of 75 mm aft and 10 mm forward of the mast. If higher than the top of the mast, the crane shall be measured as the masthead.

#### 4.5.2 Main Boom

- (a) The boom shall be constructed of wood, which may be solid or laminated, aluminium or GRP.
- (b) The main boom may be tapered at one or both ends and/or curved.
- (c) The boom shall comply with the measurements in Fig. 1. The top of the boom at the mast shall not be set more than 25 mm lower than the upper edge of the lower mast band.
- (d) The attachment points for the mainsail clew and the kicking strap (vang) may be adjusted by manual means.

#### 4.5.3 Jib Boom (Club)

- (a) The boom shall be constructed of wood, which may be solid or laminated, aluminium or GRP.
- (b) The jib boom may be tapered at one or both ends and/or curved.
- (c) The boom shall comply with the measurements in Fig. 1.
- (d) The attachment points for the jib tack, jib clew, boom swivel and topping lift may be adjustable by manual means.

### 4.6 RIGGING

4.6.1 The mast shall be supported by the following rigging, adjustable only by manual means:

- (a) Side Stays and Spreaders – Two (2) side stays shall be attached to the mast below the lower edge of the middle mast band, then pass through the outboard ends of the spreaders and terminate at the chainplates. Spreaders shall be attached to the mast as in Fig. 1. They shall be aligned athwartships to the mast in approximately the same plane as the mast and the side stays. They shall extend a maximum of 108 mm from the centreline of the mast and may be fixed or removeable for transport. They may be made of wood, brass, aluminium or stainless steel.
- (b) Lower Shrouds – Two (2) lower shrouds shall be attached to the mast as shown in Fig. 1. The lower shrouds shall terminate at the chainplates abaft the side stays.
- (c) Jumper Stays and Jumper Struts (Optional) – Jumper stays, if fitted, shall be attached within 10 mm of the mast head, pass through the jumper struts and attach to the mast at the point shown in Fig. 1. Tension on the jumper stays shall be adjustable by manual means. Jumper struts (2) shall be affixed to the front of the mast as shown in Fig. 1. Each strut shall be reasonably horizontal and make an angle of between 30 and 60 degrees with the centreline of the boat. They shall be made of wood, brass, aluminium or stainless steel, and shall have a length of 63 to 75 mm measured from the centreline of the front of the mast.
- (d) Backstay – The backstay shall be affixed to the top of the mast or the masthead crane and terminate on the deck in the vicinity of the transom and approximately on the centreline of the boat. Backstay tension may be adjustable by manual means.
- (e) Jib Stay – The jib shall be attached to the mast in such a way that a line through the jib tack and jib head cuts the forward face of the mast below the lower edge of the middle mast band when the jib boom is held on the centreline of the deck.

4.6.2 The position of the main and jib booms may be adjusted by remote control and/or manual means. No more than two radio channels shall be employed for control of the booms.

4.6.3 The following items, used in conjunction with running rigging and working in tension are permitted, but shall only be adjusted by manual means: main boom downhaul (kicking strap, vang), mainsail luff tensioner, jib luff halyard.

## 4.7 SAILS

### 4.7.1 General

- (a) Sails shall be constructed and measured according to the current IYRU Sail Measurement Instructions, except where varied herein. Sails may be measured on or off the spars.
- (b) Sails shall be made of polyester based material (Dacron, Mylar, Terylene, etc.) and may be single or multi-panelled construction.
- (c) Eyelets shall be placed entirely within 15 mm of each sail corner.
- (d) Corner reinforcements, broadseam reinforcements and batten pockets are unrestricted as to material. Corner reinforcements shall extend a maximum of 203 mm from the corners of the mainsail and 152 mm from the corners of the jib. Battens to be fitted when measuring.
- (e) The class insignia shall be the number 12 underlined. A line, a minimum of the same length as the width of the class insignia and minimum 4 mm in thickness, shall be placed under the insignia number.
- (f) Class insignia and national letter(s) shall not be less than the following dimensions:  
✘ Height 70 mm, Width 46 mm (except number 1 and letter I) and thickness 10 mm. ✘  
Minimum space between adjoining letters and numbers shall be 14 mm.
- (g) The class insignia, national letter(s) and sail number shall be placed as prescribed in the International RC Yacht Racing Rules. If it is not possible to comply with these rules, even if the national letter(s) is placed above the sail number, the sail number shall be placed as high as possible.
- (h) The sails of the A, B and C rigs shall be used only as distinct, unmixed sets, and marked for identification.

### 4.7.2 Mainsail

- (a) Mainsails shall comply with the measurements in Fig. 2. Foot and leech edges shall be equal to or less than the smooth curve produced by a constant section batten connecting the corners of the sail and the intervening measurement points, with no bending in the batten induced beyond those corners.
- (b) There shall be four (4) battens in the leech. They shall not exceed 127 mm in length and 10 mm in width.
- (c) The foot of the sail may be attached to the upper centreline of the main boom using attachment methods in 4.7.2(d) below.
- (d) The mainsail shall be attached to the after-centreline of the mast using boltrope or internal sail track slides in grooved mast, or attached to a jackline by hooks, tubes or loops.

### 4.7.3 Jib

- (a) Jibs shall comply with the measurements in Fig. 2. Foot and leech edges shall be equal to or less than the smooth curve produced by a constant section batten connecting the corners of the sail and the intervening measurement points, with no bending in the batten induced beyond those corners.
- (b) The foot of the jib may be attached to the upper centreline of the jib boom using attachment methods in 4.7.2(d) above.
- (c) The luff tabling shall enclose the jib stay.
- (d) The jib may have ~~two (2)~~ battens in the leech, of maximum length 51 mm and maximum width 10 mm.

## **5. Additional Rules which apply when Racing**

### **5.1 EQUIPMENT**

Only one (1) hull and one (1) rudder shall be used during a race or series of races, except in cases of authentic damage or loss. All replacements shall be authorized by the Race Committee.

### **5.2 CLASS RULES**

5.2.1 These rules shall not be varied by a Race Committee.

5.2.2 When in doubt over the interpretation or application of these rules, a Protest Committee shall refer the protest to the authority which issues certificates in the country in which the race is held.

### **5.3 RACING RULES**

Class races shall be sailed under the International RC Yacht Racing Rules. At National Championships, these rules shall be varied only with the agreement of the NA. At Regional, Continental or World Championships, these rules shall be varied only with the agreement of the NA, the IMYRU and the Owners Association.

### **5.4 OWNER TO BE A MEMBER OF THE CLASS ASSOCIATION**

The owner shall be a member of the national class association or, where there is no national class association, a member of the Owners Association.

This edition is effective from: 1 March 1990.

Date of previous edition: January 1980.

# Figure 1 RIGGING AND OUTBOARD PROFILE

All measurements in mm.

Maximum measurements except where stated otherwise.

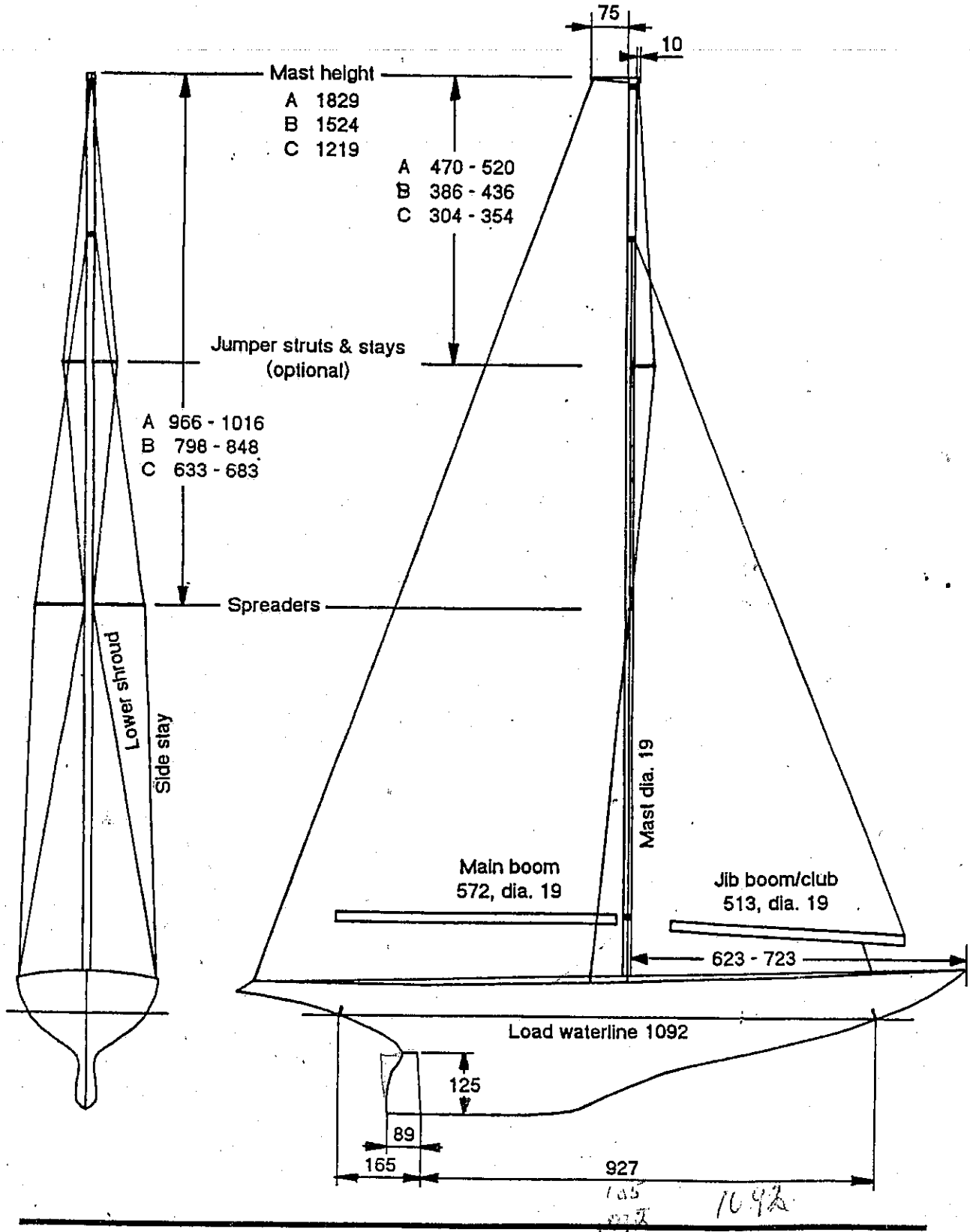


Figure 2 SAILPLAN

	RIG A	RIG B	RIG C
A	max 1702	max 1372	max 1026
B	553 - 559	553 - 559	553 - 559
C	1750 - 1768	1461 - 1457	1142 - 1148
D	1710 - 1727	1388 - 1394	1045 - 1051
E	max 19	max 19	max 19
F	469 - 465	440 - 446	422 - 428
G	341 - 347	309 - 315	286 - 292
H	192 - 198	167 - 173	150 - 156
J	1363 - 1369	1130 - 1136	884 - 900
K	477 - 483	477 - 483	477 - 483
L	<del>1278</del> - 1284	1029 - 1035	762 - 768
M	1322 - 1328	1064 - 1070	795 - 801
N	358 - 364	338 - 344	307 - 313
O	253 - 259	237 - 243	212 - 218
P	140 - 146	130 - 136	112 - 118
R	19 - 25	19 - 25	19 - 25
S	327 - 333	217 - 223	186 - 192
T	100 - 106	100 - 106	100 - 106

**DEFINITION OF MEASUREMENT POINTS**

**Clew:** The intersection of the leech and the foot.

**Tack:** The intersection of the foot and the luff.

**Head:** The highest point of the sail projected perpendicular to the luff or its extension.

**Aft point at the head:** The intersection of the leech and a line through the head perpendicular to the luff or its extension.

