

Additional main keel bands. (see Rules 11.4(e), 12.7 and 12.8).

**25.2** Minimum weight. In condition specified in rule 25.1

(a) SD versions only. 402 lbs (182.3 kg)

(b) All other versions. 372 lbs (168.7 kg)

**25.3** *Weight correction. Hulls weighing less than that specified under 25.2 and in the condition specified in 25.1 shall be made up to the required minimum weight by weight correctors made of any material, but of total weight not exceeding 15 lbs (6.8 kg). Weight correctors shall be fastened to the underside of the centre thwart.*

**25.4** *Reduction of weight correctors. Shall not be permitted without an official reweighing.*

**25.5** *Record of weight correction. Weight correctors shall be weighed separately and their weight entered on the Measurement Form.*

**25.6** *Change in weight. Any permitted alteration to the hull or fittings resulting in a change in weight shall require an official reweighing.*

## RIG CONTROLS

### 26. MAST

**26.1** *Material. Shall be metal or wood.*

**26.2** *Design of metal or wood masts. Shall comply with the official drawings. Heel may be tenoned.*

**26.3** *Metal masts shall be made from extrusion weighing not less than 0.732 lbs/ft (1.089 kg/m).*

**26.4** *Position of mast. Shall be determined by position of pivot holes in mast and kingposts, controlled by official drawings and Rule 26.5. The mast shall be secured by a bolt or pin of minimum diameter 1/4" (6) through the pivot holes and shall always be capable of being lowered without the removal of the pivot bolt or pin, or the adjustment, removal or disconnection of any mast restraining device attached to the hull at or below fore-deck level, other than kicking strap (boom vang) or halyards.*

**26.5** *Pivot holes in king posts. Shall be:-*

(a) *Centred 10'4½" +/- ½" (3163 +/- 13) from outside of transom.*

(b) *Measured vertically below the sheer at the pin centreline 4½" +/- ½" (114 +/- 13). The sheer is the point at which the straight line projection of the outer surface of the hull intersects with the upper surface of the deck.*

(c) *(MK III only) Centred 1'6" +/- ½" above level of cockpit floor.*

**(d) Maximum diameter 5/8" (16).**

**26.6** Sail limit bands. *Of distinctive colour, not less than 1/4" (7) wide. Shall be marked on the mast as follows:-*

**(a) Band No 1 with its upper edge 2'3 1/2" +/- 1/8" (699 +/- 3) above the upper edge of pivot hole in mast. [See also note after 26.6(c)]**

**(b) Band No 2 with its lower edge 16'2 1/2" +/- 1/4" (4941 +/- 7) above the upper edge of pivot hole in mast. [See also note after 26.6(c)]**

**(c) Band No 3 with its lower edge not more than 19'3" (5868) above the upper edge of Band No 1.**

**Note:** Some masts are being manufactured with a pivot pin hole smaller than the original 16 mm. *Masts with a smaller pivot pin hole SHALL and all masts MAY have the sail limit bands measured from the centre of the hole instead of the upper edge, in which case the measurement will be as follows:*

**(a) Band No 1: 2'3.13/16" +/- 1/8" (707 +/- 3)**

**(b) Band No 2: 16'2.13/16" +/- 1/4" (4949 +/- 7)**

**26.7** Extended line of forestay and jib luff. *Shall meet the mast below the lower edge of Band No 2 at a point not more than 75mm below the lower edge of this band.*

**26.8** Spinnaker halyard. *Shall be suspended from a bearing point not more than 1 1/2" (39) in any direction from the lower edge of Band No 2.*

**26.9** The height of the spreaders, at the centres of their roots, shall be 8'3 1/4" +/- 2" (2521 +/- 51) above the upper edge of the pivot hole in mast.

## **27. BOOM**

**27.1** Material. *Shall be metal or wood.*

**27.2** Design of metal or wood booms. *Shall comply with the official drawings, except that the boom wall forward of the sail limit band may have holes having a maximum aggregate area of 2 sq. ins (1290 sq. mm.) and aft of the sail limit band, some of the material may be cut away to accommodate a clew outhaul sheave.*

**27.3** Sail limit band No 4. *Of distinctive colour not less than 1/4" (7) wide. Shall be marked on the boom with its inner edge not more than 9'11" (3023) from the aft edge of the mast and track when in position on gooseneck.*

**27.4** Length overall including fittings. *10'5" +/- 1" (3175 +/- 26)*

**27.5** No fittings, devices or material may be added to the boom, the purpose or effect of which is to increase the stiffness of the boom section.

## 28. SPINNAKER POLE AND/OR JIB STICK

*Length overall. Shall not exceed 6'6" (1982)*

## 29. RIGGING

**29.1** Standing rigging. *Shall be a forestay and two shrouds. Shrouds shall be linked to the mast by one pair of spreaders which shall not be equipped with controls suitable for adjusting their angle or effective length while sailing. The forestay shall be capable of supporting the mast at all times when sailing.*

**29.2** Effective length of standing rigging. *Alteration shall be prohibited after the preparatory signal of a race, except in the case of breakage or failure in any part of the standing rigging.*

**29.3** Jib tack position. *The extended line of the luff of the jib shall meet the foredeck at a point not more than 1/2" (13) from its centre line and not more than 3.1/2" (89) from the extreme forward end of the hull, including fittings and stemband permitted by Rules 11.4 and 16.1(a).*

**29.4** Mainsheet. *Shall not be taken to a centre mainsheet horse or track. It shall not use more than a single purchase tackle (or its equivalent power gain) between the boom and the hull at any position forward of the transom.*

**29.5** Kicking strap (boom vang). *Shall not be attached to the boom at a point less than 6'11" (2109) from the inner edge of Band No. 4 (Rule 27.3)*

## SAILS

### 30. SAIL CONSTRUCTION AND MARKINGS

**30.1** Sail material. Shall be of single ply woven fibre cloth. The body of the sail shall be capable of being folded flat in any direction without damaging the ply. The material shall be such that if torn it can be separated into fibres without leaving evidence of a film.

**30.2** Unwoven transparent panels. One shall be permitted in any sail, but it shall be contained within a 2'7½" x 1'1¾" (800 x 350) rectangle. Except that a second transparent window shall be permitted in the mainsail near spreader height contained within a 22" x 12" (550 mm x 300 mm) rectangle. The longest side of the second panel shall be vertical. No part of any transparent panel shall be less than 6" (153) from any edge of a sail.

**30.3** Cringles.

**(a)** Cringles, not exceeding 1¾" (45) in any dimension shall be fitted at tack, clew and head so that their centres lie not more than 2" (51) from the edge (including roping) of the sail at the corners.

**(b)** At a corner where there is more than one cringle within the cloth of the sail and complying with 30.3(a), the measurements shall be taken from the outermost.

**30.4** Sailmaker's marks. Shall only be placed near the tack (or in the case of spinnakers, the foot) of

the sail and shall not exceed 6" x 6" (153 x 153).

**30.5 Emblem.** Shall be shown on both sides of the mainsail. To be in accordance with the official drawings (a stylised W, with its wing trailing towards the leech of the mainsail). On white sails the class emblem shall be red, and on other coloured sails of contrasting colour to sail.

**30.6 Sail numbers on mainsail.** Shall be shown on both sides below the class emblem and above the upper of the two lower battens. The numbers shall be of contrasting colour to the sail and not less than 11 $\frac{1}{4}$ " (300) in height, nor 7.7/8" (200) in width (except for numeral 1) nor 1 $\frac{3}{4}$ " (45) in thickness.

**30.7 Sail numbers on spinnaker.** Shall be shown on both sides at approximately half height. The numbers shall be of contrasting colour to the sail and not less than 11 $\frac{1}{4}$ " (300) in height nor 7.7/8" (200) in width (except for numeral 1) nor 1 $\frac{3}{4}$ " (45) in thickness.

**30.8 Other marks.** Shall not be permitted within 3'0" (915) of the emblem and numbers specified in rules 30.5, 30.6, and 30.7.

**30.9 Reinforcement at corners.** Reinforcement of any fabric having the effect of stiffening the sail is permitted only in accordance with Rules 31.6, 32.7 and 33.8. Other reinforcement, as a continuation of corner stiffening or elsewhere, shall comply with the ISAF Measurement Instructions Section III.

## SAIL DIMENSIONS AND THEIR MEASUREMENT

*All sail measurements in rules 31, 32 and 33 shall be taken with the sail dry and laid on a flat surface with just sufficient tension to remove wrinkles across the line of measurement.*

Sail measurements involving cringles shall be taken from cringle centres.

## 31. MAINSAIL

**31.1 Limits on spars.** Shall be as follows:-

(a) At the tack. The projected upper edge of the boom at the gooseneck shall not extend below the upper edge of Band No 1 [Rule 26.6(a)].

(b) At the head. No part of the mainsail shall extend above the lower edge of Band No 3 [Rule 26.6(c)].

(c) At the clew. No part of the mainsail shall extend beyond the forward edge of Band No 4 (Rule 27.3).

**31.2 Headboard width.** Maximum 4" (102), measured at right angles to luff.

**31.3 Leech length.** Maximum 21'4" (6503) measured between centres of head and clew cringles.

**31.4 Width measurements.** Shall be taken under the following conditions:-

(a) Half luff point. Shall be determined by folding the sail so that the centre of the head cringle lies directly over the centre of the tack cringle, with the two halves of the luff coinciding. The fold so

formed indicates the half luff point and is marked on the sail.

**(b)** Three-quarter luff point. Shall be determined by folding so that the centre of the head cringle lies directly over the mark made at half luff point [31.4(a)]. The fold indicates three-quarter luff point and is marked on the sail.

**(c)** Half leech point. Shall be determined by folding so that the centre of the head cringle lies directly over the centre of the clew cringle. The fold so formed indicates the half leech point and is marked on the sail.

**(d)** Three-quarter leech point. Shall be determined by folding so that the centre of the head cringle lies directly over the mark made at half leech point [31.4(c)]. The fold indicates three-quarter leech point and is marked on the sail.

**(e)** Width measurements. Shall be taken between luff and leech measurement points, over the full width of the sail, including roping, and any hollows in the leech shall be bridged by straight lines.

**(f)** Width at half height. 6'7" (2007) maximum.

**(g)** Width at three-quarter height. 3'9" (1143) maximum.

**31.5** Battens. Shall be permitted as follows:-

**(a)** Not more than four.

**(b)** Shall divide the leech into approximately equal parts.

**(c)** Length of top batten. 2'0" (610) maximum.

**(d)** Length of battens other than top. 2'6" (762) maximum.

**(e)** Width of battens. 2" (51) maximum.

**31.6** Stiffening at corners. Shall be of woven fabric. Shall not extend more than 1'0.7/8" (327) from the centres of outermost corner cringles.

**31.7** Sail Head Buoyancy. Shall be permitted as follows:-

**(a)** A patch may be sewn onto one side of the sail to form an openable self-draining pocket for buoyancy material. It may extend for a maximum of 3'0" (915mm) from the centre of the head cringle.

**(b)** Nothing inserted into the pocket shall have the effect of extending the leech.

**(c)** Nothing shall be inserted into the pocket other than buoyancy material.

**31.8** Loose footed mainsails are prohibited. The mainsail shall be fitted with a bolt rope along the foot from no more than 12" (305) from the tack to no more than 3" (76) from the clew. A slug slide may be fitted at the clew cringle. The bolt rope shall be contained within the groove in the boom whilst racing. The tack of the mainsail shall be secured by a pin through the tack fitting on the boom and the

tack cringle on the sail.

## 32. JIBS

**32.1** The jib shall be a three cornered sail. A convex curve is permitted in the foot but not in the leech. The luff of the sail shall not enclose the forestay.

**32.2** Luff length. Maximum 13'6" (4115) measured between centres of head and tack cringles.

**32.3** Foot length. Maximum 7'2" (2198) measured between centres of tack and clew cringles.

**32.4** Leech length. Maximum 13'0" (3963) measured between centres of head and clew cringles.

**32.5** Foot depth. Maximum 13'4" (4064) measured from centre of head cringle to mid point on the foot. Mid point of the foot shall be found by folding so that the centre of tack cringle lies directly over the centre of clew cringle.

**32.6** Battens. Prohibited.

**32.7** Stiffening at corners. Shall be of woven fabric. Shall not extend more than 10 $\frac{3}{4}$ " (273) from the centres of corner cringles.

## 33. SPINNAKER

**33.1** Shape. Shall be three cornered and symmetrical about a centreline which joins the centre of the head cringle to the midpoint of the foot.

**33.2** Measurement conditions. For the purposes of 33.3, 33.4 and 33.5, the sail shall be folded in half about its vertical centreline, with both halves coinciding.

**33.3** Length. Maximum 15'6" (4725) from centre of head cringle to any part of the foot.

**33.4** Width measurement points on the luffs and centrefold. Each shall be determined by measurement in a straight line 7'1.1/2" (2172) from the centre of the head cringle.

**33.5** Width measurements. Between the points determined in Rule 33.4. Maximum 5'6" (1677) Minimum 5'2" (1575).

**33.6** Head Shape. Points shall be marked on the luffs at 5.1/8" (130) measured in a straight line from the centre of the head cringle, with the sail unfolded. Maximum distance between these points measured over the surface of the sail shall be 9.7/8" (251).

**33.7** Foot. Measured (unfolded) between centres of clew and tack cringles. Maximum 11'0" (3353).

**33.8** Stiffening. Stiffening shall be of woven fabric. Shall not extend more than 11.5/8" (296) from the centres of the head, tack, clew or downhaul cringles.

## SECTION IV - GENERAL