

# MISTRAL CLASS RESTRICTIONS

2009

## 1. GENERAL

### 1.1. Objective

- 1.1.1. The Mistral Class is a one-design racing dinghy. The object of the Class Restrictions is to ensure that in hull form, hull weight, sails and spars, the boats are as alike as possible; whilst permitting some freedom in the choice and layout of fittings, running rigging and equipment, and in the design and construction of the rudder, tiller and centre-board.
- 1.1.2. Any owner wishing to deviate from the class norm should seek a written interpretation of the Class Restrictions from the Mistral Owners' Association (MOA)

### 1.2. Applicability

- 1.2.1. These restrictions apply to all boats defined as Mistrals.
- 1.2.2. Boats constructed or restored prior to the adoption of these restrictions, where in the opinion of the Mistral Owners' Association, it is unreasonable or impractical to alter to comply with these restrictions, may be granted a Measurement Certificate, provided that:
  - 1.2.2.1. The boat complies with the restrictions in force at the time of its construction or subsequent restoration, or;
  - 1.2.2.2. Variation from these restrictions does not provide any significant advantage.

### 1.3. Governance

- 1.3.1. These Class Restrictions shall be governed by the Mistral Owners' Association (Inc.) ("the Class Association") in accordance with its constitution. The MOA, in Committee or General Meeting, shall be the final arbiter in all questions related to the Class Restrictions.

### 1.4. Spirit of the Class Restrictions

- 1.4.1. All boats shall be manufactured, refurbished, finished and rigged so as to comply with the spirit and intentions of these Class Restrictions.

### 1.5. Precedence

- 1.5.1. These restrictions shall take precedence in the event of a contradiction appearing in any other document.

### 1.6. Units of Measurement

The official units of measurement are metric.

### 1.7. Registration and Measurement

- 1.7.1. All Mistrals racing shall be registered with the MOA.
- 1.7.2. All Mistrals racing shall hold a current measurement certificate issued by the MOA
- 1.7.3. Boats shall be measured by official Measurers appointed by the MOA.
- 1.7.4. A record of measurement shall be passed to the MOA. The MOA shall then determine if a Measurement Certificate will be issued.
- 1.7.5. The form of the measurement certificate, the manner and duration of its issue, and any applicable fee shall be determined by the MOA.
- 1.7.6. When ownership of a boat changes, a boat previously measured does not need to be re-measured if the MOA is satisfied no significant change to the boat has occurred since it was last measured. The new owner may apply to the MOA for a new certificate, stating the necessary particulars. A certificate shall be supplied to the owner.
- 1.7.7. It is the owner's responsibility to ensure that the boat, its spars, sails and equipment

comply with the class restrictions at all times and that alterations or replacements to the boat, spars, sails or equipment do not invalidate the certificate.

1.8. Identification Marks

1.8.1. Each hull must be permanently identified with the number issued for that hull;

1.8.1.1. Wooden hulls; carved, burnt or embossed on the keelson.

1.8.1.2. GRP hulls; by a permanent imprint or permanently affixed plaque on the hull.

**2. HULL**

2.1. Mistral hulls shall be built by a builder approved by the MOA in general meeting. Modifications to Mistral hulls as supplied by the licensed builder may only be made with the written permission of the MOA.

2.2. Glass reinforced plastic hulls must be completed to a specification approved by the MOA in general meeting.

2.3. Wooden hulls shall be of triple skin, diagonal cold moulded construction, completed to a specification approved by the MOA in general meeting.

2.4. Any repairs to a Mistral hull shall comply with the current Class Restrictions. Where substantial repairs to a hull are undertaken, such repairs shall be submitted for re-measurement,

2.5. Deck (Wooden Boats)

2.5.1. The deck shall be of marine ply, not less than 4mm thick. Deck beams may be rounded to 5mm convex radius.

2.5.2. Decking shall completely cover, aft from the stemhead to the main deck beam, the side decks and aft deck to the aft face of the transom.

2.5.3. In the case of refurbishment and repair, the original dimensions (40x20mm), profile and position of the deckbeams shall be retained.

2.6. Hull Weight

2.6.1. The hull shall be weighed in a dry condition with all fixed fittings in place, but excluding all removeable gear. It shall weigh not less than 64 kilograms.

2.6.2. "Fixed fittings" means all permanent fittings normally screwed, glued to the hull and includes, by way of example, cleats, cam jambs, fairleads and blocks; main sheet traveller track and block; bulkhead port covers; venturis; compass etc.

2.6.3. "Removable gear" includes ropes, sheets, toe-straps, spinnaker bags and any loose blocks, weights or other objects (other than weight correctors approved by the measurer) intended, in the view of the measurer, to increase the weight of the boat for the purposes of complying with this clause.

2.6.4. If necessary, weight correctors sufficient to bring the hull up to minimum weight shall be fitted to the centre-case. No more than four weight correctors, indelibly marked with their weight, may be used. Their details shall be noted on the Measuring Certificate.

2.7. Centrecase

2.7.1. The sides of the centre-case may be either solid timber not less than 12mm thick, or marine plywood not less than 8mm thick.

2.7.2. The centre-case slot shall not exceed 22mm in width;

2.7.3. The centrecase must be a minimum of 340mm high measured from outside of the hull through the centrecase at any point, to the top of the centrecase capping.

2.7.4. the centrecase capping may be of any dimension

2.7.5. The aft face of the centrecase kingpost (forward) may be no more than 2070mm from the aft face of the transom(tuck), measured along the keel.

2.7.6. The forward face of the centrecase queen post (aft) may be no less than 1650mm from

the aft face of the transom (tuck) measured along the keel.

## 2.8. Splash Boards

- 2.8.1. Each splash board is to be at least 800mm long and made of wood. They are to be raked forward at an angle (to be measured at the centreline) of approximately 60 degrees.
- 2.8.2. The minimum height off the deck is to be 64mm at the centreline and 25mm high, measured 25mm from its most outboard end. The forward edge of the splashboards at the centreline is to be at least 800mm from the bow.

## 2.9. Mast Partner

- 2.9.1. The centre of the aperture for the mast shall be 2540mm  $\pm$  10mm from the centre of the outside face of the tuck.
- 2.9.2. The aperture shall be not more than 80 x 80mm. Shape optional. Keyholes to permit the passage of control lines are permitted as long as the movement of the mast is permanently restricted.
- 2.9.3. Packing between the mast and mast aperture (chocking) is permitted.
- 2.9.4. Mast collars, to a maximum height of 25mm, may be fitted.

## 2.10. Floor Battens (Wooden Boats)

- 2.10.1. At least two continuous floor battens 6mm x 45mm minimum sizes shall be fitted per side, approximately parallel to centreline of boat.
- 2.10.2. Minimum total length 6000mm.

## 2.11. Buoyancy

- 2.11.1. Buoyancy arrangements must comply with YNZ Safety Regulations for Unballasted Centreboard yachts.
- 2.11.2. The distance between the side bulkheads, measured across the cockpit floor at the centrethwart shall be 930  $\pm$  50mm.
- 2.11.3. Enclosed forward bulkheads must be fitted at the mast forward deck beam and may be triangulated no further aft than the kingpost deck beam at the gunwale
- 2.11.4. An aft bulkhead is recommended.

## 2.12. Beadings

- 2.12.1. All end grain ply shall be covered
- 2.12.2. Gunwale beadings, running the full length of the boat, shall not be less than 20mm in height and may extend a minimum of 10mm and a maximum of 35mm from the shell.
- 2.12.3. Any tapering of gunwale beadings must be in a fair and continuous curve. Internal cockpit beadings must project and be not be less than 3mm thick and 15mm in height.
- 2.12.4. The cockpit front and rear beadings and external transom beading may be rebated.

# 3. HULL FITTINGS AND EQUIPMENT

## 3.1. Mast Step

- 3.1.1. Maximum height 125mm from keel to topside of step. Any variance in mast step height in existing boats shall be included within the measured length of the mast.
- 3.1.2. A compartment enclosing the mast step may extend aft to the leading surface of the centrecase king post, and is deemed to be part of the mast step.
- 3.1.3. A hog or strongback between the centrecase king post and the front bulkhead is permitted.

## 3.2. Chainplates

- 3.2.1. Chainplates shall be fitted with centre of shackle eye not more than 2275mm from the

aft face of the transom.

### 3.3. Main Sheet System

3.3.1. Design optional but central sheeting is recommended

## 4. RUDDER AND TILLER

- 4.1. The design and construction of the rudder, rudder blade and tiller are optional, except that they must be of a tilting type.
- 4.2. The steering pivot axis for the rudder and stocks shall not be more than 35mm aft of the transom and on the centreline.

## 5. CENTRE PLATE

- 5.1. Design and construction of the centreboard is optional but maximum size to be 1330mm (measured from under cheeks to tip of centre-board) by 280mm.

## 6. SPARS

- 6.1. Wooden masts and booms to the 1959 Mistral Plans are permitted.
- 6.2. Alloy masts and booms to be supplied by a single manufacturer determined by the MOA in general meeting.
- 6.3. Alloy masts to be a 57 mm extruded aluminium section with a riveted external track, to the following specifications (all measurements being taken from bearing surface of base plug, excluding locating pins or lug, to the top of the sheave):
  - 6.3.1. Overall length - not exceeding 5715mm
  - 6.3.2. Any fitting which stands above the step shall be included in the measured length of the mast
  - 6.3.3. Intersection of jib strop or side stays with outside surface of mast section- not higher than 4040 nor lower than 3810mm
  - 6.3.4. Taper - even taper from full size to 34mm fore and aft (minus track) x 34mm sideways at top +/- 2mm, taper to start no lower than 4300mm
  - 6.3.5. Spinnaker halyard exit not higher than 4190mm when halyard extended at right angles to forward surface of mast.
  - 6.3.6. Mast to be supplied with a welded top cap incorporating the mainsail halyard sheave box.
- 6.4. Choice of fittings (where fixing is compulsory) and other finishing details to be determined jointly by the designated mast supplier and the MOA.
- 6.5. Mast Rigging
  - 6.5.1. The mast shall be supported by two sidestays and one forestay.
  - 6.5.2. Stay material shall be stainless steel wire, minimum 2.3mm diameter.
  - 6.5.3. The forestay wire shall be incorporated in the luff of the jib.
  - 6.5.4. The jib may be hoisted by means of a wire or braid halyard
  - 6.5.5. The sidestays and forestay may not be adjusted while racing.
  - 6.5.6. No other rigging is permitted. The mast shall not have spreaders or any alternative systems that may be deemed to have the same function as spreaders.
  - 6.5.7. The mast shall not rotate or cant.
  - 6.5.8. The heel of the mast shall remain in a fixed position while sailing.
  - 6.5.9. The mainsail halyard shall in no way be connected to the boom and the sail must be capable of being lowered by the crew from deck level with boat upright.
  - 6.5.10. Goosenecks: Any type of gooseneck is permitted. The centre gooseneck pivot point to be within 35mm of the aft face of the mast.

## 6.6. Main Boom

- 6.6.1. Alloy booms to be a 57.5mm extruded aluminium section with a riveted sail track.
- 6.6.2. The sail track shall be cut away at gooseneck end for distance of not more than 175mm (measured from a projection of sail track on mast).
- 6.6.3. Maximum overall length of boom (measured from the same point) when fixed to the mast 2690mm

## 6.7. Spinnaker Boom

- 6.7.1. Overall length (inclusive of all fittings and projections) not to exceed 2285mm from the mast. Maximum diameter 50mm. Minimum diameter 32mm. Wood or aluminium only permitted.
- 6.7.2. A maximum of two spinnaker booms may be carried while sailing.

## 7. SAILS

- 7.1. Not more than one mainsail, one head sail and one spinnaker shall be carried on board when the boat is racing.
- 7.2. All new sails shall be made by a sail maker approved by the MOA in general meeting, to the computer generated design and specifications current at 30th January 2007. No further new sails will be made from the earlier pattern. Existing sails from the previous approved pattern may remain in use.
- 7.3. No alteration to sails shall be permitted apart from making good flaws during manufacture, shrinkage of bolt ropes and fair wear and tear except that jib cunninghams are permitted.

## 8. CREW

- 8.1. At least two persons.

## 9. PROHIBITIONS

- False floors
- Sliding seats
- Gybing centerboards,
- Trapezes,
- Additional splashboards or, decking
- Ballast (other than approved weight correctors)
- Saw cuts or etching in mast to promote bending
- Sleeves in mast or boom, other than to effect a repair
- Holes or other openings in boom to reduce weight
- Spinnaker chutes
- Bowsprits
- Pivoting centreboard
- Gnaws
- Carbon fibre for hull repairs
- Deck stepped masts