

ZEPHYR CLASS RULES

These are the first known rules that were probably supplied with the hulls to assist with completion.

The class shall be known as the Zephyr Class and shall be sponsored in Auckland by the Tamaki Yacht Club Inc.

It is the endeavour of the sponsoring club to restrict the hull form and sail plan, while allowing certain freedom of finish and equipment. The following specification should be read.

The following rules are designed to keep the class uniform, and of a high standard, therefore no weight restriction should be necessary.

HULL:

All hulls shall be built on the one mould and shall be supplied with deckbeams, gunwales, carlins, centrethwart and posts permanently fitted. No alteration to the hull as supplied shall be permitted.

DECK:

The deck shall be of marine ply not less than $\frac{3}{16}$ th in. and glued down.

BEADINGS:

Beading shall be fitted to gunwales and carlins. External beading shall not be less than $\frac{3}{8}$ th in. thick and must not extend beyond $1\frac{3}{8}$ in. from shell.

COAMINGS:

Approximately 60° $2\frac{1}{2}$ " high at centre, tapering to 1" gunwales. No further than 4" aft of mast.

MAST COLLAR MUST BE FITTED:

CASE:

Minimum 11" from top of keel, $\frac{3}{4}$ " timber.

Fore and aft toes 9".

Width of slot $\frac{7}{8}$ " maximum.

Maximum slot length 12" at top, $15\frac{1}{2}$ " at planking.

Forward end of slot measured from outside face of tuck between 5' 10 $\frac{1}{2}$ " and 5' 11 $\frac{1}{2}$ ".

MAST POSITION:

8' 7 $\frac{1}{2}$ " from outside face of tuck at deck to centre of $2\frac{1}{2}$ " circle.

MAST STEP:

The mast step shall be made up of two bearers glued and screwed across the keel, and step glued and screwed straddling bearers not more than $2\frac{1}{2}$ " from keel to topside of step

FLOOR BATTENS:

At least 2 per side glued to hull, $1\frac{3}{4}$ " x $\frac{1}{4}$ " minimum. Minimum total length 20'.

PLATE:

Within sizes 4' 6" x 11 $\frac{1}{2}$ ".

RUDDER:

Optional

MAST:

Overall length 18' 6" maximum. At least 15" of mast to be below deck level.

Width measurements. Bottom of track $3\frac{1}{2}$ " x $2\frac{3}{4}$ ".

Intersection of stays with mast between 12' 6" and 13' 6" from heel of mast 3" x $2\frac{1}{4}$ "

Top of truck $2\frac{1}{4}$ " x $1\frac{5}{8}$ ".

(A tolerance of $\frac{1}{4}$ " under the above measurements permitted)

Weight 12lbs. stripped. Make weights added to tangs.

BOOM:

Maximum length 8' 10" from aft face of mast.
Circular 2½" in diameter (¼" under permitted).
Weight 6lbs stripped.

RIGGING:

Two sidestays and one forestay fitted. (No further rigging permitted.) The halyard can be operated from the cockpit and is not connected to the boom.

MAIN SHEET:

Mainsheet system optional.

CHAIN PLATES:

Centre not more than 6" forward of main deck beam.

SAIL:

Supplied by Messrs. Boyd & McMaster, Sailmakers, to class pattern.

BOUYANCY:

Minimum 2 cubic feet distributed approximately fore and aft.

WATERLINE:

Optional

Mark 2'0" centres from tuck, square off keel.

Tuck	Point
Station 1	15 ¹ / ₈ "
Station 2	20 ¹ / ₂ "
Station 3	19 ¹ / ₄ "
Station 4	13 ³ / ₈ "
Top of Stem	18 ¹ / ₈ "
Boot top	1"extra

CERTIFICATE OF OWNERSHIP:

A certificate shall be issued to all boats complying with the above, on payment of 10/- measuring fee. This will be cancelled if the boat is sold, is altered, or is allowed to fall into disrepair. It will be re-issuable at the direction of the Committee.

CHANGE OF RULES:

No change of rules and restrictions shall be made unless:

1. Notice proposing a change has been given to the Tamaki Yacht Club in writing signed by 6 owners
2. Details of such change together with the relevant details have been circulated to all registered boat owners.
3. The proposed change has been approved by ²/₃ rds of the registered owners.

NOT PERMITTED:

Spreaders, trapezes, sliding seats, splash boards, additional decking, ballast, revolving masts.

ZEPHYR FINISHING INSTRUCTIONS

Finished List		Finished Sizes
Kahikatea, Kauri or Clean Radiata		
Centre Case	12" x 3/4"	2 x 3'
	9" x 13/16"	1 x 3'
Mast Step	6" x 3/4"	1 x 5'
Bulkheads	7' x 3' x 1/4"	Sheet Marine Plywood
Deck	7' x 3' x 1/4"	2
Beadings	1" x 1/4"	2 x 12'
	1" x 1/4"	1 x 4'
	1 1/4" x 1/2"	2 x 6'
	4" x 1/2"	2 x 3'
Coamings	6" x 1/2"	2 x 3'
Flooring	1 3/4" x 1/4"	2 x 5'6"
		2 x 5'0"
Rudder	9" x 3/4"	1 x 2'
	6" x 3/4"	1 x 4'
Tiller	4" x 3/4"	1 x 4'
Centre Board	12" x 3/4"	1 x 4'6"
Mast	3 1/2" x 1 1/2" Fin	2 x 19'. Clean spar oregon or spruce
Boom	2 3/4" x 1 3/8" Fin	2 x 9'. Clean spar oregon or spruce

CENTRE CASE:

The hull is supplied with the centreline of the case slot and its fore and aft limits marked. It should be noted as the 1/4" tenons on the king and queen posts are checked through the keel the slot cut will be extended 1/4". beyond the marks shown. The case is fitted in position piece by piece and held together with screws holding the case walls on to the king and queen posts. At this stage it is advisable to drill holes for the screws which will hold the case walls down on the keel and the centre strut to the case. It is then dismantled and reassembled on the bench and all sanding and shaping completed. The inside faces which will not be glued should be painted with red lead. The king and queen posts are spread with glue and positioned in the boat and the case walls with glue spread along the bottom edges are screwed back onto them. The keel and centre strut screws are put in and all excess glue wiped off with a wet cloth. A 1/2" capping completes the job.

MAST STEP:

The step and bearers as shown on the plan are screwed and glued to the hull within the marks shown on the keel. The position for the heel of the mast is found by placing a straight stick about six feet long in the mast hole. By standing back from the boat the stick can be sighted until a satisfactory rake is obtained. In general the Zephyr will perform best with the mast raked slightly aft. A 1" hole is drilled through the step and a peg is cut in the bottom of the mast.

BULKHEADS:

Bulkheads are quite optional but if they are desired they should be fitted before the deck is fixed down. To fit bulkheads at each end of the cockpit the carlins are first removed. Plywood bulkheads are easier to fit when divided into two panels i.e. port and starboard. A panel, cut roughly to shape, is held against the deck beam and scribed to the hull. When fitting neatly a 1/2" by 1/8" rib is glued to the hull behind the panel. The panel is glued to the deck beam and the rib. To ensure a strong bond, the corner between the panel and rib should be wadded with a thick mixture of glue and sawdust or wood flour. Remember to drill large drain holes in each panel before it is finally fixed in. Large inspection ports are desirable in bulkheads in order that the hull may be aired properly when laid up. A permanently sealed bulkhead is a sure way to start dry rot.

DECK:

Before decking all parts enclosed by the bulkheads must be painted with a least one coat of red lead and two coats of enamel. The deck is cut out and lightly tacked in position. Leave approximately 1/2" of overhang all round on the ply and make sure that all joints are fitted tight as any water getting into these will eventually stain the deck. Remove one section of the deck at a time. Spread plenty of glue on

the deck beams and fix the sections down firmly either with staples which can be removed when the glue has set, or small brass nails which should be punched and puttied over.

BEADING:

The deck is trimmed off so that a fair line is obtained round the gunwales, carlins etc. Do not plane against the grain of the top veneer of ply or shattering will result. Beadings are best fitted in the square and rounded off when glued in position. The cockpit side beads are fitted first. The end beads are scribed out of boards as it is difficult to bend and fit these at the same time.

The following method of fitting beadings gives a pleasing appearance and ensures a tight fit. Holes are drilled ($\frac{3}{16}$ "th) at 5" centres along the bead making sure that none coincide with holes already in the gunwales such as deck fastening etc. The glue is spread and working from bow to stern the bead is screwed on using 1 $\frac{1}{4}$ " x 10 swg. Screws with 1/16" plywood washers under the countersunk head to prevent marking the surface. The screws are removed when the glue is set and the holes plugged with pieces of wood $\frac{1}{4}$ " diameter sharpened at one end with a pencil sharpener and hammered firmly home. The beads are rounded off and sanded, bearing in mind that the more they are rounded over the easier they will be to sit on later. No glue is needed on the plugs as the varnish will soak in the end grain and tighten them.

COAMINGS:

The centre knee is first angled and bevelled and screwed in position. One at a time the coamings are laid against this knee and scribed on to the deck. One coaming is then mitred up and fixed down permanently and the other coming fitted up to it. As their removal, due to damage, would probably tear the top veneer of the deck, the coamings should not be glued down but held by screws put in from under the deck.

FLOOR BATTRNS:

The battens should have all corners well rounded over and are best attached in the same manner as the beadings. Recommended spacing from the centre of the keel to the centre of each batten are;

Aft	6"	12 $\frac{3}{4}$ "
Forward	6 $\frac{3}{4}$ "	14"

VENTURIS:

Two $\frac{3}{4}$ " OD venturis fitted 10" aft of the centre strut and alongside the inner edge of the outer floor batten have proved quite adequate.

PAINTING:

The radiata pine used in planking should on no account be varnished. While there are various methods of sealing the timber the following painting schedule should be regarded as minimum:

- Raise the grain with warm water and sand down when timber is dry.
- Fill remaining indentations with a plastic filler such as "Bordo-fill" and sand down hull to a smooth surface using dry paper only.
 - 1 coat of red lead
 - 5 coats of Dulux Preparakote
 - 2 coats of undercoat tinted to final colour
 - 2 coats enamel
 - Polish