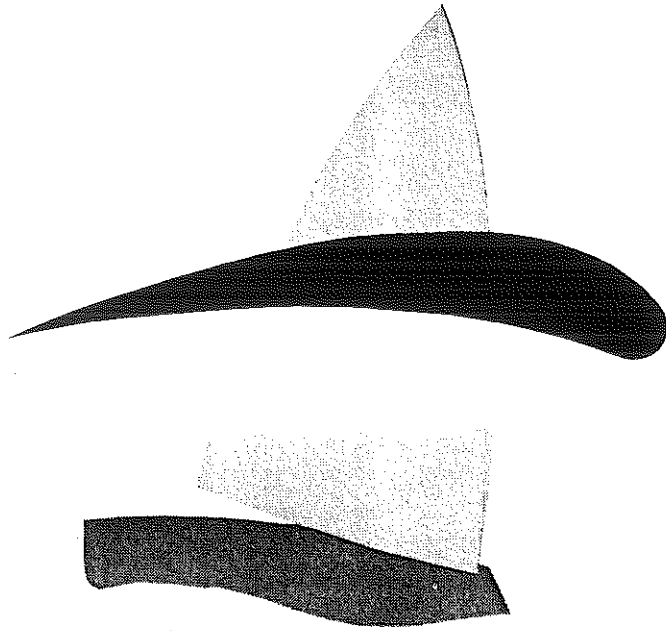


# ZEPHYR CLASS RULES



OCTOBER 1990

## PART A General

1. Name: The class shall be known as the Zephyr Class.  
The Zephyr is a one design class.
2. Control: The class shall be administered by the Zephyr Owners' Association Inc.
3. Policy: It is the policy of the ZOA to restrict the hull form & sail plan, while allowing a certain freedom of finish & equipment, so as to ensure that all boats have the same potential speed.  
It is impossible to define completely every aspect of the craft and thus any aspect deemed to be "not within the spirit of the class rules" may be cause for the refusal of a measurement certificate or for disqualification. It is essential, should an owner wish to deviate from the norm, that an interpretation of class rules be requested in writing from the ZOA.
4. General: These rules consist of Part A General, Part B Restrictions, Part C Equipment, Part D Builder's Specifications, Finishing Plans, and the Measurement Form.  
In the event of a discrepancy between these rules, the measurement form and/or the finishing plans, the matter shall be referred to the ZOA.  
All boats shall be built in accordance with the class rules.  
Anything contrary to the spirit of these rules is not permitted.  
Where doubt exists as to the validity of any matter it should be referred to the committee for decision.  
Where appropriate the committee shall have such questions decided by ballot in accordance with Clause 9 of these rules.  
Neither the NZYF or the ZOA accept any legal responsibility in respect of these rules or any claim arising therefrom.
5. Definitions: Committee means the Committee of the Zephyr Owner's Association Inc.  
Registered owners means current financial members of the Zephyr Owners' Association who are listed as Zephyr Owners on the current register held by the Committee.
6. Hulls: To maintain the one-design nature of the class, all hulls shall be built by a Builder approved by the Committee and in accordance with the current specifications and plans for the construction of Zephyr hulls.  
All hulls shall be finished in accordance with Part B of these rules.  
Boats finished prior to January 1984 shall comply with the bracketed imperial dimensions, where given.

7. Sails: All sails shall be made by a sailmaker approved by the Committee to the approved pattern and in accordance with the current specifications for the construction of Zephyr sails. No alteration to sails shall be permitted apart from making good, flaws during manufacture or for the purpose of making good shrinkage of bolt ropes. All repairs shall be carried out by the sail manufacturer currently appointed for the manufacture of the sails or where sails are unable to be presented to the sailmaker so appointed, by such other maker as may be permitted by the Committee of the ZOA. Owners shall purchase sails from the ZOA.

8. Equipment: All boats shall be equipped in accordance with Part C of these rules and the NZYF Safety Regulations Part 1.

9. Rule Changes: No changes of rules or restrictions shall be made unless:-

1. Notice proposing the change has been given to the Committee in writing and signed by six registered owners.
2. Details of such change, together with relevant details have been circulated to all registered owners, at least six weeks before the vote being taken.
3. The proposed rule change has been approved by two-thirds of the registered owners who have voted.
4. Where voting is being decided at a Special General Meeting called for the purpose, Registered Owners unable to attend may register their vote by mail or by proxy.
5. The proposed rule change will be effective only after approval by the New Zealand Yachting Federation.

10. Registration and Measurement:

From the 1st October 1990, no boat is permitted to race in the class unless it has a valid measurement certificate.

A measurement certificate shall be obtained by the owner making application to their local measurer appointed by the Committee. The measurer will complete a measurement form and submit it to the Committee for approval. The Committee will then issue a measurement certificate to the owner. Any peculiarities will be noted by the measurer on the measurement form.

Change of ownership invalidates the certificate but shall not necessitate re-measurement. The new owner may apply to the ZOA for a new certificate, returning the old certificate and stating the necessary particulars. A certificate shall be supplied to the owner.

It is the owner's responsibility to ensure that the boat, it's spars, sails and equipment comply with the class rules at all times and that alterations or replacements to the boat, spars,

sails or equipment do not invalidate the certificate.

Notwithstanding anything contained in these rules, the NZYF or ZOA shall have power to refuse to grant a certificate to, or withdraw a certificate from, any boat.

A measurer shall not measure a boat, spars, sails, or equipment owned or built by himself, or in which he has a vested interest.

Templates used for official measurements shall be supplied by the ZOA.

Measurement tolerances are intended to allow for genuine building errors only, and shall not be deliberately used to alter the design.

The measurer shall report on the measurement form anything which he considers to be a departure from the intended nature and design of the boat, or to be against the general nature of the class, and a certificate may be refused even if the specific requirements of the rules are satisfied.

All boats, spars, sails and equipment shall comply with current rules applied to them at the time the current certificate was issued. Any alterations or replacements shall comply with the current rules.

All boats, spars, sails and equipment shall be liable to re-measurement at the discretion of the ZOA or the race committee.

Where these rules are silent on any point of measurement procedure the IYRU measurement handbook shall be used.

11. Identification Marks:

All hulls shall have, permanently marked, on the keelson, immediately forward of the centrecase, the registration number issued by the ZOA.

PART B Restrictions and Finishing Instructions for Hulls.

1. Hulls

1. Hulls shall be supplied with deck beams, gunwales, carlins, deckposts, centrethwart, centrebase and maststep permanently fitted. No alteration to the hull as supplied shall be permitted except as provided for herein.
2. The minimum weight of the hull, including all permanently attached fittings shall be 57kgs. Permanently attached fittings include chainplates, rudder fittings, cleats and forestay fittings, compass, but exclude centreplate, rudder and all items which rotate with the rudder, blocks, shackles, lashings, sheets, stacking straps, pussy pads, gear bags. Internal ballasting is not permitted.
3. Hulls weighing less than the minimum weight are to be brought up to weight by the addition of lead. This additional weight shall be attached to the upper corners of the outside face of the transom. Weights must be attached to the hull so as to be readily visible.

2. Deck

The deck shall be of marine ply, not less than 4mm(3/16") thick and shall be glued down. Deck beams may be rounded to 5mm convex radius. The decking shall completely cover, aft from the stemhead to the main deck beam, the side decks and aft deck. Apertures to a maximum of 20mm diameter shall be allowed, to accommodate the passage of control lines only.

3. Beadings

Shall be fitted to the gunwales, carlins and main deck beams. External beadings shall not be less than 10mm(3/8") thickness and must not extend more than 35mm(1 3/8") from the shell. Internal beadings shall not be less than 3mm thick x 15mm wide.

4. Coamings

Shall be set at 60 degrees plus or minus 10 degrees and shall be permanently fixed, on the centreline no further than 100mm(4") aft of the mast and no part shall extend more than 150mm ahead of the mast.

5. Mast Collar

A mast collar not less than 20mm(3/4") high shall be permanently fixed to the deck. The mast hole shall be 2625mm(8'7 1/2") +(-)10mm from the outside face of the tuck to the centre of the hole. The hole shall be a 65mm(2 1/2") diameter circle +(-)2mm.

6. Mast Step

Maximum height 90mm(3 1/2") from keel to topside of step. Any fitting which stands more than 5mm above the timber step installed by the builder shall be

added to the measured length of the mast.

7. Floor Battens

At least two floor battens 6mm(1/4") x 45mm(1 3/4") minimum sizes shall be fitted per side, parallel to centreline of boat. Minimum total length 6000mm(20'). Except that where full side bulkheads are fitted the minimum length may be reduced to 4000mm.

8. Buoyancy

A minimum of 0.2 cubic metres and it shall comply with NZIF Safety Regulations Part 1. Bulkheads are permitted and recommended and may enclose the whole or part of the area covered by the deck.

PART C Equipment

1. Masts
  - (a) Timber masts (Oregon or spruce) shall conform to the following dimensions:-
    - (1) Overall length 5640mm max.
    - (2) Sizes at 1100mm from heel 89 x 70mm  
at 3800mm from heel 76 x 57mm  
at 100mm from top 57 x 41mmA tolerance of +(-) 6mm is permitted.
  - (b) Aluminium masts shall be Baverstock B85 or Standard McKechnie die 57.15 round section with track glued & riveted, supplied by a manufacturer approved by the ZOA Committee to the following specifications:-
    1. Overall length 5640mm max.
    2. Taper to start within 3500 and 4000mm from the heel and be +22 or -2mm at 5500mm from the heel (excluding the sail track), in both side and fore/aft dimensions.
    3. Mast to be supplied with base plug (not glued), welded top cap, sail track cut away to maximum of 1000mm above the heel.
  - (c) Weight:-

Minimum weight shall be 5.4kgs when stripped of all shrouds, stays, halyards and fittings not permanently attached to the spar.  
Make weights shall be added to mast tangs.
  - (d) The mast shall not revolve. The heel may slide freely fore and aft to a maximum of 20mm. No adjuster may be applied to the heel of the mast while sailing.
  - (e) Rigging:-
    - (1) Two side stays and one forestay shall be fitted.
    - (2) The forestay may be adjusted from the cockpit. The sidestays shall not be adjusted while sailing.
    - (3) The halyard complying with NZYF Safety Requirements shall be fitted.
    - (4) No other rigging is permitted.
    - (5) Stays shall be attached to the mast between 3810mm (12'6") and 4115mm (13'6") from the heel.
  - (f) Chainplates shall be fitted with centre of shackle eye not more than 172mm (6 3/4") forward of the aft face of the main deck beam.
2. Boom
  - (a) Timber booms (Oregon or spruce) shall comply with the following dimensions:-
    - (1) Overall length 2690mm max. (from aft face of mast)
    - (2) Circular size 63mm + or - 6mm.
  - (b) Aluminium booms shall be Baverstock B85 or Standard McKechnie die 57.15 round section with track glued and riveted, and built to the following specifications:-
    - (1) Overall length 2690mm (from aft face of the mast).
    - (2) To be supplied by a manufacturer approved by the ZOA Committee with the sail track cut away not more than 180mm from the aft face of the mast.
  - (c) Minimum weight shall be 2.7kgs when stripped.
  - (d) Boom vang are permitted.
3. Mainsheet The mainsheet shall be operated off the centrethwart.  
Mainsail may not be sheeted outboard of carlin.
4. Centreplate Shall fit within a rectangle 1370 x 292 mm (4'6" x 11 1/2").  
Max. thickness shall be 22 mm (7/8").  
Shape is optional.
5. Rudder Blade shall fit within a rectangle 900 x 292 mm x 22 mm. Minimum size shall be 500 x 180 mm.  
Blade may be fixed or mounted in stocks.  
Shape is optional.  
The steering pivot axis for the rudder and stocks shall not be more than 100mm aft of the transom.
6. Venturis Are permitted and/or a maximum of 2 stern drains, each to have a maximum area of 5400 sq.mm.
7. Cunningham Eye The sail luff tension may be adjusted from the cockpit while sailing by the use of a Cunningham eye in the sail.
8. Items not Permitted.  
Sliding seats, spreaders, trapezes, ballast, weight jackets, additional decking, false flooring.

PART D

Builder's Specifications.

1. The Builder's responsibility.  
Zephyr hulls shall be built by a builder approved by the ZOA Committee.  
The hulls shall be built strictly in accordance with the Zephyr Class Rules - 1989 Parts A,B, and D. The builder will keep the objectives and policies set out in Part A uppermost while constructing Zephyr hulls.  
The builder shall be answerable to the ZOA Committee and/or its representatives.  
Where doubt exists as to the validity of any matter, it should be referred to the Committee for decision.  
Hulls will be purchased only by the ZOA.
2. Quality of Work and Materials.  
All work carried out by the builder and his employees, shall be to a standard that is recognised and accepted as good trade practice.  
All timber and materials used shall be the best of their type available. No second grade or faulty materials shall be used.  
There shall be no change of materials or building methods, from this specification by the builder, without the specific permission of the ZOA Committee and where deemed necessary the vote of owners in accordance with Part A(9).
3. Hull Shell.  
Shells shall be built over a male mould approved by the ZOA for the construction of Zephyr hulls. No alterations shall be made to this mould without the inspection and specific permission of the Committee.  
Shells shall be constructed using either triple skin diagonal cold moulding or single skin strip plank, glassed both sides.
  - (a) Triple skin diagonal cold moulding.  
The shell shall be constructed of three skins of 1/10" approved timber.
  - (b) Single skin strip plank, glassed both sides.  
The shell shall be one skin of 7mm Western red cedar or equivalent, planks edge glued with an approved marine glue. Each glass skin shall be a minimum weight of 6oz E-Glass combining to a total glass weight of 16ozs laid in epoxy resin.

4.

Framing Timbers.

These items shall be made in accordance with the plans and patterns supplied by the ZOA.

Transom	20mm
Keelson	70 x 20mm tapered
Stem	20mm
King Plank	114 x 20mm
Carlins	20 x 20mm
Gunwales	16 x 20mm
Centrethwart	20mm
Deck Beams	20mm
Centrecase	Sides 20mm Centrespacer 21mm
Deckposts	25mm
Mast Step	20mm

Hulls will be supplied by the builder with these framing members, glued and screwed in place permanently.

5.

Finish and Supply.

This specification covers the minimum work by the builder for the supply of Zephyr hulls.  
No hull shall be released by the builder to an owner until it has been inspected and approved by the Committee and/or its representative, as meeting this minimum specification.

ZEPHYR CLASS RULES - THE MEASUREMENT FORM

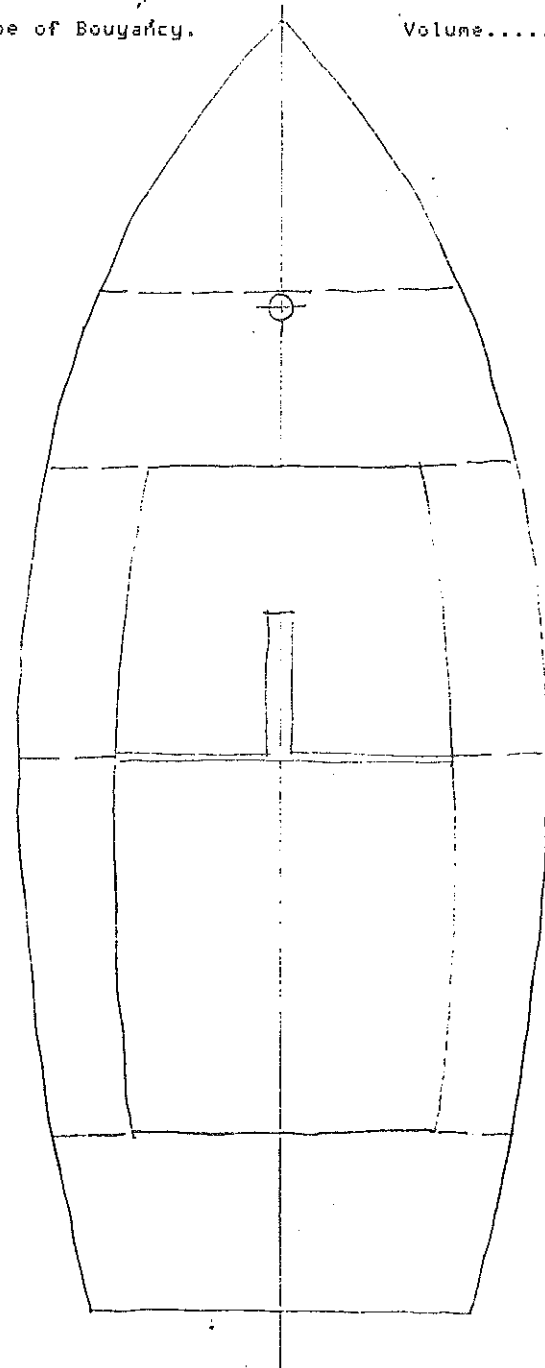
Owner's Name.....  
 Owner's Address.....  
 Boat Name.....Registration No.....  
 Date of Measurement.....  
 Name of Measurer's Present (1).....  
 (2).....  
 Builder's Name.....

A:HULL MEASUREMENTS

Construction Method	3 Skin / Strip Plank		
	Minimum	Actual	Maximum
Overall Length			
Beam @ Centrethwart			
Position of C/case slot	1795		1815
Position of Mast Step	340		380
Position of Mast Hole	2615		2635
Diameter of Mast Hole	63		67
Height of Mast Collar	20		
Deck Thickness	4		
External Beading Width	10		35
Internal Beading Dimensions	3 x 15		
Height of Coaming @ Centreline	65		
Outside Height @ Gunwale	25		
Chainplates Ahead of Deckbeam.			172
Floor Batten Length	4000		
Coaming position from Mast			
Hull Weight	57kgs		
Correction Weights			

Position and Type of Bouyancy.

Volume.....



B:-MAST MEASUREMENTS

TIMBER MASTS

Overall Length			5640
Size @ 1100 from Butt	83 x 64		95 x 76
Size @ 3800 from Butt	70 x 51		82 x 63
Size @ 100 from Top	51 x 37		63 x 47

ALUMINIUM MASTS

Overall Length			5640
Taper starts from Butt	3500		4000
Size @ 5500 from Butt	20		24
Height of Sailtrack above Butt			1000

GENERAL MAST MEASUREMENTS

Weight	5.4 kg		
Height of Stays	3810		4115

C:-BOOM MEASUREMENTS

Overall length			2690
Weight	2.7 kg		
Timber Boon Dimensions	57		69
Track Cutaway			180

D:-CENTREBOARD MEASUREMENTS

Length			1370
Width			292
Thickness			22

E:-RUDDER MEASUREMENTS

Length	500		900
Width	180		292
Thickness			22

F:-SAIL MEASUREMENTS

Is Sail Signed Yes / No

Note any alteration.



