



# INTERNATIONAL MOTH 1989

IMCA (U.K.)

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## INTERNATIONAL MOTH CLASS ASSOCIATION (UK)

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### INTERNATIONAL MOTH CLASS ASSOCIATION (UK) MEMBERSHIP 1989 DUE 1.1.89.

#### Membership Fees:

Family Member:	£15.00 (Includes children under 19 years).
Full Member:	£12.00 (From 1st. January after member's 19th birthday)
Junior Member:	£9.00 (From January 1st after 15th birthday until Dec. 31st after 19th birthday.)
Cadet Member:	£8.00 (Until December 31st after 15th birthday).
Associate Member	£8.00 (Anyone interested who doesn't own a boat).

N.B. The Association reserves the right to charge increased membership fees to overseas members to defray increased postal charges.

## PRESIDENT'S REPORT

1988 was a great year for "Mothing" with far greater interest being shown in the class than for many years, in fact the biggest problem was the shortage of 2nd hand boats. The UK sailor's in particular have been giving their all to expand the fleet, and we wish to congratulate Roger and Helen Angell, John and Ann Pearce, John and Midori Claridge, Martin and Cath Saveker, Sue and Nigel Williams, and Steve and Pam Reece on the birth of their sons and daughters. We also had great publicity with a John Claridge profile in Yachts & Yachting; John being a crew member on the Blue Arrow Americas Cup Challenge, and of course Jason Belben being selected to represent G.B. in the 470 heat of the Olympics with Simon Payne going as reserve.

Britain hosted a very successful European/National Championships at Hythe and Saltwood with Roger Angell winning his 3rd European and 5th National title, with Toby Collyer returning to the class to finish a worthy runner-up.

I would like to thank my committee for all their work, and in particular Martin Saveker who did much of the organisation for the Europeans and whose firm Saveker Shop Fittings was the main sponsor.

With all the new designs and enthusiasm 1989 looks as if it will be even better, especially with the European and National Championships being held at such popular venues.

Anyway hoping to see you on the start line.

Good Sailing.

Steve Reece.



## FIXTURES LIST 1989

**February 18th-19th**  
Hoo Freezer

**March 25th, 26th and 27th.**  
Royal Lymington Easter Regatta.

**April 8th**  
Bartley Green S.C.

**April**  
Maylandsea Bay Easterns ?

**May 6th-7th**  
Queen Mary

**May 13th-14th**  
Keynes Park

**May 27th-29th**  
Rutland Regatta Midlands

**June 5th-10th**  
European Championship Laowersmeer,  
Holland.

**July 1st-2nd**  
Lymington Town Southern.

**July 29th and 30th**  
Lee-on-Solent Regatta.

**August 26th-28th**  
Rutland Regatta.

**August 31st-3rd September**  
Nationals Seasalter S.C.

**September 9th-10th.**  
Greenwithens Northern.

**September 16th-17th**  
Minnis Bay Regatta

**October 29th**  
Hollowell S.C.



# BOAT PREPARATION—THE VITAL FIRST STEP

By Roger Angell

For the less experienced Mothist seeking more speed, the first thing to do is to thoroughly prepare your boat to ensure that you are getting the best possible performance from it.

The quickest way to set about this is to try and make your boat as 'standard' as possible. Initially many newcomers to the class think they have a great new idea, not realising that many ideas have been tried out before and discarded. There are new ideas to be discovered, but initially the quickest way to an understanding of Moths, and what makes them quick is to keep it simple. Most Moths at the front of the fleet look deceptively simple, do not let this fool you, they have evolved over many years of development. Everything has its place for a reason.

Now lets look at each part of the boat individually:-

## Hull.

Ideally, your hull should be strong, fair and light in that order. The odd few pounds of weight in the hull has minimal effect.

Make sure the hull is watertight, as a pint of water weighs over a pound. Always fit a breather tube to allow for expansion and contraction of the air in the hull. It prevents any water being sucked into the hull when it is put onto the water on a hot day and the air contracts, or when the hull pants when sailing in rough water. The tube is usually fitted by the king post on the shroud bulkhead. If your boat has twin tanks you will need two breather tubes.

The hull if necessary can be faired up, and repainted. Beware of using chalked based fillers, since these are porous and will actively pass water through to the hull by capillary action, or if the hull is sealed, cause water blisters under the paint. There are no short cuts to a fair hull, just lots of elbow grease and a long sanding board. A lot of people sand the gloss off after painting to achieve a super smooth finish. I personally just use 400 grit because I am lazy.

Tubes and trampolines, should be firmly tied down, with special care taken to check the tubes and reinforcing where they cross the gun'le. Look for grazing or stress marks in the aluminium, or lumps where metal has creased. Check that the lacing eyes in the hull and trampolines are smooth and cannot chafe the lacing ropes, otherwise a swim is guaranteed. As an additional precaution, an extra knot half way along and at the front corner will ensure all is not lost if a break occurs.

## Foils

These should ideally be the correct shape and profile. Measure the chord depth to ensure it is correct. If in doubt compare it to a set of foils that are known to be correct. Sight along the foils to ensure there is no twist or bending. The trailing edges need to be made as sharp as practical. Many books recommend a flat 3mm, but I've found that this produces a vibration as the water eddies and breaks free repeatedly.

Both foils should either be varnished or painted white, white is good to minimise heat distortion and also to see weed clearly. I prefer varnish as you can see sheathing damage at earlier stages.

Ensure that the dagger board has the minimum practical clearance in the dagger board box to avoid the board flopping from side to side when sailing. The board should be vertical and on the hull centreline. The rudder should also be checked for centrality, and that the leading edge is below the pintals to avoid the blade sweeping and stalling out. Equally ensure as little play as possible to avoid tip movement of the blade which can cause the same effect. Check your rudder and foils regularly for strain marks to avoid breakages on the water.

## Mast and Sails

Check that your mast is straight and true without any rig tension applied. If not find a convenient gate post and carefully straighten it. Take off all unnecessary fittings and get the mast as clean and simple as possible. Check all the rivet holes (filled and otherwise), for fatigue cracks. If you find any, it is time to start looking for a new mast. Look at the top and bottom of the track and also the exit, to ensure that there are no sharp edges to chafe the sail.

Check the boom for fatigue cracks especially around the kicker section. They can be stopped for a time by drilling a small hole at the end of them to remove the stress point. How long they will last afterwards is a lottery though.

Look at the mast alignment with the boom. According to the stepping system used, the mast alignment can change according to the position of the boom when it is rotated. The track should stay straight and in alignment with the boom as it is rotated. The mast should behave identically on both tacks.

Hound height and rigging depend on many factors, but again start from known dimensions. Do check your rigging for wear regularly especially if you are sailing in rough conditions. It is normal for the thimbles in the rigging to straighten out so after a time it may be necessary to drop the pins in the shroud plates a hole to compensate. Always use good size wire. 3mm is suitable with little stretch in windy conditions.

Next check the sail for chafing, broken batten ties, stitching wearing, holes worn by prodders etc. Take whatever action is needed to put it right or better still prevent it from happening.

Sail setting is a subject all of its own but quickly check that the curve of the mast is smooth, that the sail shape is clean and even and the camber is approximately 50%. If the camber is not even up the sail, adjust the prodder or spreaders to allow or reduce the correct amount of mast bend. Also the hound or prodder position may need to be adjusted to correct any major faults. Let the spreaders back or shorten the prodder if the mast is too straight and vice versa.

Tell tails can be put on the sail to check the flow but do not put them too close to the mast or they will be its turbulence.

I prefer approx 5-6 up luff approx 1/4 chord length back from mast. More can be confusing.

## Control lines and fittings.

Whatever system of controls you use do make sure that all controls work, and that they can be adjusted with the minimum of effort. There are lots of capsizes from people fighting and fiddling with control lines with their heads in the "office," and not concentrating on sailing.

Make sure all ropes pass cleanly through blocks and do not drag down the cheeks on a windy day, with heavy loads on they can become almost unmoveable.

Finally, Toestraps. Get them right for you. Hiking is painful enough, if the toestraps are too long or too short, fixed at the wrong points or just "wrong." It becomes intensely painful, and can detract from the sailing. Check them regularly.

These pointers will help guide you towards a sound start to setting up your Moth. Get the basics right and the rest might follow!

*Simple control system showing rotating mast tiller and compression kicker system*





## LIGHT WIND SAILING

by John Claridge

Many helms believe that light wind sailing is both boring and offers no challenge, so consequently they only go out to practice when they can reach back and forwards at great speed. It will be noticed that it's the same people whose boats or rigs "just don't go in a light wind."

Like anything else to be successful one requires careful preparation, concentration, physical fitness and practice.

Before going afloat make sure your hull and foils are fair, smooth and free from grease, also that there is no water in it. Generally I believe that slackness is the key to light air success. The rig tension should be slack to aid mast bend and rotation and maybe set up without so much mast rake. Your battens should be as flexible as is practicable, and it's worthwhile checking that controls work easily and smoothly.

### Upwind

Your centre board should be fully down, and body movements kept to the minimum, just enough to counteract wind and wave variations. Approximately 5° heel to leeward appears to be the best compromise as this reduces wetted surface, and gives the helm the weight of the rig to balance against.

The sail should be set up initially with a camber depth of approximately 12%, but should be adjusted so that when the sail is lightly sheeted in its upwind position, with moderate luff downhaul, and virtually no kicker all the tell tales collapse at the same time.

The boat should be sailed sitting as far forward as possible, keeping the tell tales just on the verge of collapse. If there are any waves or swell it is better to sail a little freer.

Although great concentration is required just to sail the boat, you must also be aware and make the best use of wind shifts, and always keep to the side of the course from which any wind increase (eg. sea breeze, low flying aircraft etc) is likely to come.



*John Claridge mark rounding in light airs*

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### Reaching

Keep the centreboard down, sit well forward, ease the luff downhaul, increase kicker tension, and sit well forward keeping body movements and sail trimming to a minimum. More speed can be achieved by gently rocking the boat and sheeting the sail. The usual excuse for this is "my boat is so unstable that it is the only way to stay in it." This is seldom true and is just a way of cheating, why not use a paddle or outboard motor.

### Running

This is the most tedious and difficult point of sailing, as the helm needs to sit as far forward as possible, to reduce wetted surface, but at the same time has no weight to balance against. The kicker should be slack and the luff downhaul given just enough tension to keep the leach open. The dagger-board can be slowly raised and even removed from the box, the resulting wild girations, obscene language and inevitable capsize is of great benefit to the moral and general well being of the rest of the fleet.



*Wetted area can be reduced by sitting back*

*Light weather set up.*

*Note shroud lever settings -*

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## SUCCESSFUL DESIGNS THROUGH THE AGES

### WORLDS HELM

		NATIONALITY	BOAT
1965	Jean Piere Roggo	Swedish	Roggo
1966	Jean Piere Roggo	Swedish	Roggo
1967	Blair Fletcher	U.S.A.	Florida
1968	M.C. Faronx	French	Duflos
1969	Dave McKay	Australia	Scow
1970	Dave McKay	Australia	Scow
1971	Jacques Fauroux	French	Duflos
1972	Jacques Fauroux	French	Duflos
1973	I. Brown	Australian	Charley Brown
1974	Rob. O'Sullivan	Australian	Scow
1975	Peter Moore	Australian	Scow
1976	Ted Causer	U.S.A.	Poacher
1977	Bill Short	G.B.	Womble
1978	Rob O'Sullivan	Australian	Scow
1979	Dave Iszatt	G.B.	Magnum 3
1980	Dave Iszatt	G.B.	Magnum 3
1981	Dave Iszatt	G.B.	Magnum 5
1982	Greg Hilton	Australian	Scow
1983	Robin Wood	G.B.	Magnum 5
1984	Robin Wood	G.B.	Magnum 6
1985	Roger Angell	G.B.	Magnum 6
1986	Steve Shimeld	Australian	Cuddy (Skiff)
1987	Steve Shimeld	Australian	French (Skiff)

### EUROPEANS WINNER

	DESIGN
1955	Raymond Fragniere
1956	Serge Vernieul
1957	Lucien Frison
1958	Serge Vernieul
1959	Jean Claude Jammes
1960	Alexy Bailly
1961	Michel Nerbollier
1963	Joel Roland
1965	Jean Piere Roggo
1967	Lennart Lind
1969	Jacques Fauroux
1970	Marie C. Fauroux
1972	Chris Edwards
1973	Colin Brown
1975	John Claridge
1976	Horst Deyhle
1978	John Claridge
1980	Dave Iszatt
1982	Robin Wood
1984	Roger Angell
1986	Roger Angell
1988	Roger Angell

### U.K. NATIONALS.

	BOAT DESIGN
1964	Robin Cemp
1965	Chris Nielson
1966	Tony Blachford
1967	Charlie Reeves
1968	Eddie Dunhill
1969	Chris Eyre
1970	Dick Owen
1971	John Claridge
1972	Colin Brown
1973	Sean Cox
1974	Not Sailed
1975	John Claridge
1976	Peter Conway
1977	Bill Short
1978	David Iszatt
1979	David Iszatt
1980	David Iszatt
1981	David Iszatt
1982	Roger Angell
1983	Robin Wood
1984	Toby Collyer
1985	Roger Angell
1986	Roger Angell
1987	Roger Angell
1988	Roger Angell

## DESIGNS

Back in the 60/70's it seemed that every man and his dog was designing and building his own Moth, without much previous experience in either. This produced many good interesting novel and some ridiculous designs, but many had severe structural problems which gave the class an uneivable reputation, but a few of the better ones can still be seen around like the Shelly, Skol, Scow and of course the Europe. The introduction of the Magnum in 1972 proved so successful that it stopped home development, although people like Sean Cox with the Dragon, and Peter Conway with his beautifully constructed Womble, still had success with their boats.

The Magnum continued to be developed, some of the Marks being notably more successful than others, and the mark 8 is still very much the boat to beat. However it is refreshing that people like John Butler, Clive Everest, John Pierce, Ian Ridge and Russell Belben, all experienced sailors and builders are again having a go at their own thing. Drawing on their considerable Mothing experience. Interestingly they are all using different forms of construction, and with many Europeans, also experimenting. 1989 will be an interesting year.

### THE MK 2 GHOUL

Designed by Clive Everest.

The concept behind this boat was the same as for the MK 1 Ghoul, as was the design process followed, with some further development and refinements.

The design objectives were to produce a hull form with very straight and narrow static water lines, high prismatic coefficient, low wetted surface area, an effective planing surface and as much inherent resistance to nose diving as possible. Experiments this summer with the front 11' of a single Unicorn cat hull had confirmed that static stability was not really necessary.

With the aid of computer generated hull sections, the resulting hull form has a flat bottom, tight turn of bilge, and considerable topside flare.



Ghoul II in the making

Front 11' of Unicorn used  
for static stability tests!





The hull has a maximum static water line of 42 cm 3' forward of the transom (a 10 cm reduction on the MK 1 Ghoul), a prismatic coefficient of 0.71 (unchanged), a static wetted surface area of 1.6M<sup>2</sup> (8% reduction). The boat is finer in the bow than the MK 1 but not as fine as most modern Moths.

The actual bow is blunt and radiused (it's really a 12' boat with 8" cut of the bow and 4" of the stern).

The planing surface is of almost constant width from the mast aft. The rocker has been increased, particularly in the bow though the mid sections are flat.

It was felt that Magnum style flares are unnecessary if the boat can be made to run freely enough, otherwise we would have seen them on the big multihulls.

The prototype MK 2 Ghoul has a moulded dome foredeck, similar to the big multihulls to allow it to sail through waves and nosedives and make it look better than the MK 1. The wings are arranged similarly to the MK 1 though the mast tripod has been simplified and moved forwards 10 cm.

So far a single foam sandwich hull has been built on a male mould, using Diviniceell foam, Epoxy and predominantly glass laminations.

The laminates are considerably thicker than has been used on foam Moths in the past, though the finished hull still only weighs 14 kgs.

The expected launch date is early February.

If anyone wants to borrow the moulds or get more information contact Clive.



*Ghoul 1 unique rig system*

*Ghoul 1 receives some TLC from Clive*



## RADICAL

Designed and sailed by veteran Mothists John Butler and Steve Reece.

The design was originally developed from the Truffles and Titan designs. The hull is constructed inside a female mould utilising plywood laid at an angle to the hog with additional stiffening in high stress areas. The 1988 version sported shallow 'V' chines with a narrow waterline to give a well balanced low drag hull shape with good weight carrying abilities. A set of plans can be purchased from Reece Butler but due to the degree of stressing, it is necessary to construct the hull in female mould.

## MAGNUM

Since 1972, the Claridge Cook Magnum designs have influenced not only the Moth class but virtually all other development classes. Over the years there have been many variations, but the basic flat rocker narrow U sections highly flaired hull concept has remained the same.

The MK 8 is the narrowest, flattest most U'd section variant so far. The hull is of tortured ply/epoxy construction, and has led the trend in the U.K. to the high foredeck low bend rig system. This combination easily took 1st, 2nd and 4th places in the Nationals and Europeans in 1988 with a standard Magnum 6 finishing 3rd.

Suitable for helms 0-12½ stone.



*Magnum 8 internal construction*



*Melvin Cooper sailing his Magnum 8 at the Europeans*



*Magnum 8*



# MAGNUM

---

Simply the most successful Moth ever!

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Roger Angell on his way to winning the Easter Regatta 1988.  
Melvyn Cooper photo.

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## BLITZ Mk 1

Designed by Russell Belben

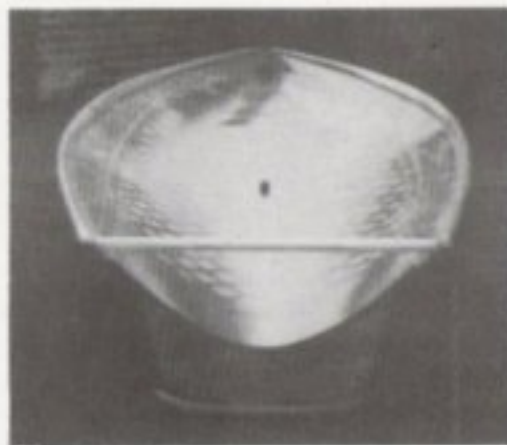
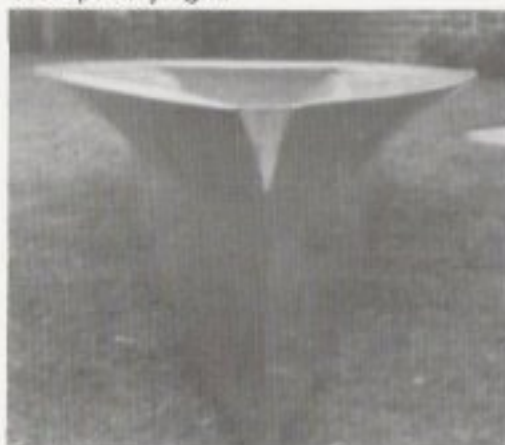
### Design Features:

Every effort was made to keep the prismatic coefficient high e.g. low rocker, flat U-shaped bow sections below waterline. This helps to promote planing and reduces pitching in a seaway.

It has a narrow transom with flat planing sections aft thus moving the centre of buoyancy forward to prevent bow diving. The low rocker and very flat wide sections at the centre of dynamic pressure (approx. under the mast) reduce the drag lift ratio, hence a good lifting surface is provided.

The flair disappears approx. 3ft from the bow giving hollow sections and hence a sharp half angle of entrance at and above waterline. The flare is also kept high and sections below it kept narrow to reduce the wetted surface, especially when heeled.

It has an open deck configuration i.e. no foredeck, with a space frame which carries the loads from the wings, shrouds, mast foot, gooseneck and forestay, hence the hull can be kept very light.



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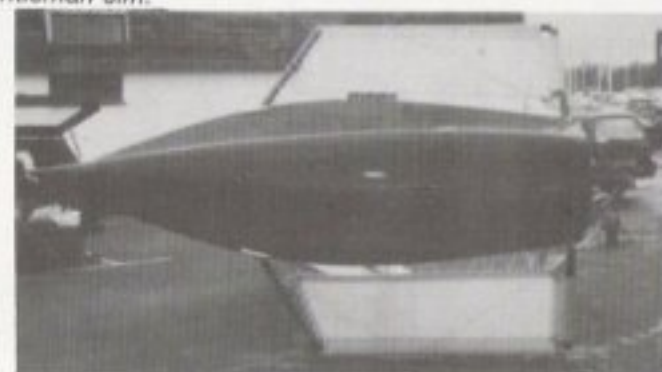
Genesis



Gentleman Jim



Gentleman Jim



## GENESIS

Designed and sailed by John Pearce. The prototype was built over a male mould of 2mm ply on the flat sections and glass/microballons to fill in the gaps. The shell was then internally sheathed with Kevlar. The severe hull form has very narrow entry and sharp U sections. Maximum beam is 500 mm and the run aft is dead flat. The boat sported a conventional rig and served its purpose well as a test bed.

### Take 2! Gentleman Jim

The Genesis mould was modified to give a fuller bow, a 4% beam increase and much softer bilge turn. The mods are intended to increase displacement and light weather performance, also the softer lines should prove more manageable in a breeze and also the rig configuration has been modified in line with the successful Magnum 8 system.



## VERY HEAVY WIND SAILING

by Roger Angell

Boat preparation is vital in order to make sailing possible, let alone racing. It is essential to keep everything in the boat as simple and as uncluttered as possible.

Firstly the rig, I prefer the stiff cruciform section battens as this allows the sail to be flattened and being stiffer the sail will not flog, it also holds the leach tighter which is important for control. I prefer a lot of rig tension especially when the sea is very rough as this will reduce rig movement. It is important that everything is stiff and positive. The sail should be set up with minimal shape see photo 1 and leach flex will flatten off the remaining shape in a progressive fashion photo 2 in response to gusts. It is usual to pull the rig back 1 notch on the shrouds before tightening the rig as slightly increased rake is preferable. The boat should still feel completely balanced without weather helm or lee helm. Some helms prefer a small amount of weather helm but in my opinion this can only possibly act as drag and must be wrong.

The dagger board should be raised approximately 9 - 10" and left there. Check everything in sight to make sure you will not have problems, having got the boat right you have now got to sail it, here's how.

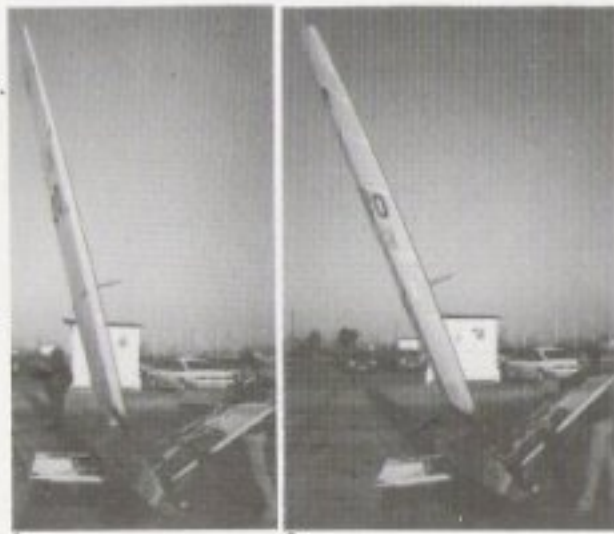
### Upwind

Keep the boat level at all times, you must set up the toe straps so that hiking is comfortable in such a way that you can easily extend your upper body in and out to help power and control over waves. The sail power must be set up to match the leverage you apply when hiking. The upper leach must exercise correctly to automatically exhaust excess power in the gusts. Sheet angle and kicker tension depend on water conditions but the sail should be sheeted much wider than normal conditions. Do not pinch the boat the harder is blows, the wider you must sheet and the lower you sail. Kicker, generally in flat water conditions, use the maximum you can without distorting the sail. You may need to slightly reduce kicker tension in rough sea conditions to increase the amount of rig twist, this helps the boat to accelerate over waves and also reduces the amount of sail sheeting necessary to maintain control. Concentrate on keeping the hull moving cleanly by accurate steering and use of your body weight to allow the hull to follow the water as naturally as possible. It is essential to watch the waves and water pattern very carefully to choose the fastest route and to ensure that your body does not slam into waves as this is very tiring and loses a lot of ground to windward.

### Tacking

Always tack facing backwards and practice lots in very rough conditions. You must learn how to pick the correct wave to tack on and only experience will teach you this. You must be bold and once you have started the tack must go through and get out on the wing as quickly as possible whether you are up to your neck in water or not, it doesn't matter for if you time things correctly the wind should soon lift you clear.

1. Heavy air set-up with minimal shape
2. Leach flex flattening top of rig



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### Broadreaching Downwind

If the wind and water conditions are excessive, you will not be able to adjust the sail settings, don't try. The same as upwind sailing, it is necessary to concentrate on keeping the boat as level as possible and again concentrate on the waves. You must steer the hull for maximum speed this means sailing down the wave faces as much as possible usually your hull speed will exceed the wave speed, so you must decide when to change waves or when and where to punch through the face of the next wave. Take great care in picking the right route and avoid getting stuck in a deep wave trough as you are likely to get one of your wings stuck, you will then capsize. The faster you go, the safer it is, if you chicken out you will simply nosedive and capsize anyway. You must try to sail the boat as smoothly and as accurately as you can, it helps to try to lock your body into the back corner of the wing and to wedge your feet between the toestraps and the gunwhale, to make sure you do not slip, otherwise again you fall in. Your rudder must be strong enough to allow you to force the boat where you want it to go.

### Gybing

Practice precision and speed are essential, the faster the hull is moving the easier it is to gybe as the apparent wind is less. This does make steering the boat tricky. It is best to gybe run to run having chosen the moment, steer the boat into the gybe and help the main through with a sharp tug if necessary. During the gybe you have to steer the hull back under the rig so that when the boom reaches the other side the centre of effort of the rig is virtually aligned with the hull. Too little steering and you capsize to leeward too much and you roll straight in to windward.

### Nose Diving

This can cause problems especially when broadreaching as de-powering is virtually impossible. However, the faster you get the less you nosedive. It is occasionally necessary to pop the boat out of a serious nosedive by bearing up sharply but this should only be done in emergencies as you lose a lot of ground downwind. Sailing dead downwind once you have managed to get the boat onto a dead run, is relatively simple, it is best to sit on the back quarter of the wing and to lock your feet one against the central kick bar and the other wedged somewhere in the toetraps and gunwhale, hold the end of the tiller and with the tiller and mainsheet force the boat to go where you want it to and hang on for grim death.

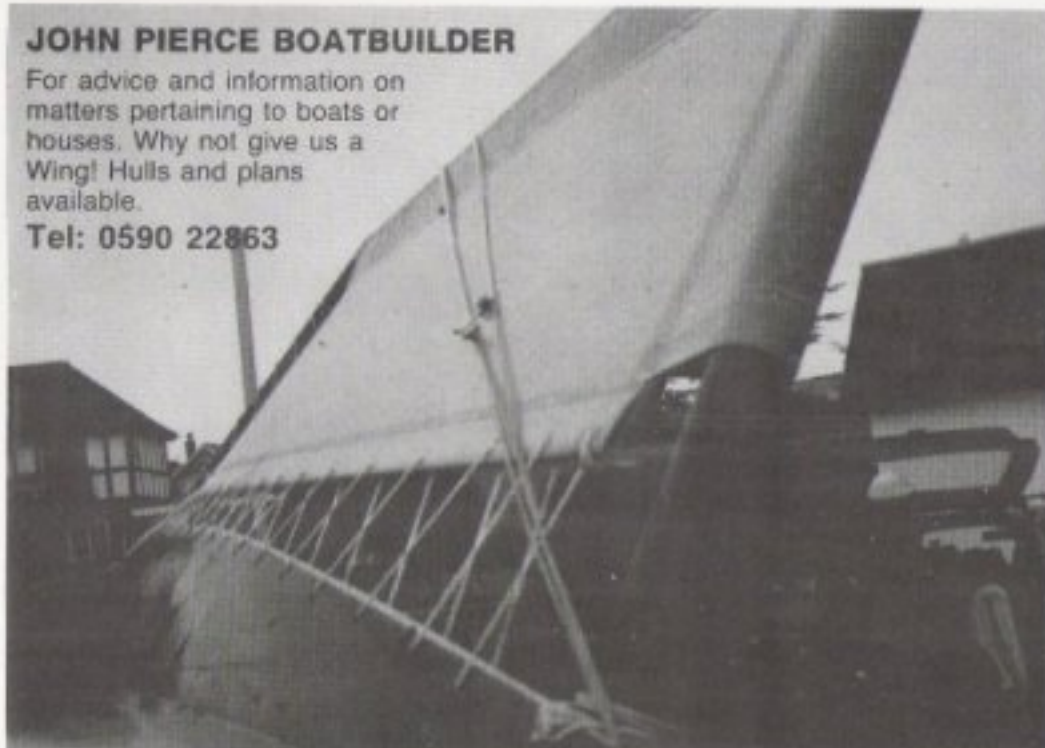
Roger's European Championship winning *Magnum 8*, *Prime 8* showing simple uncluttered layout.



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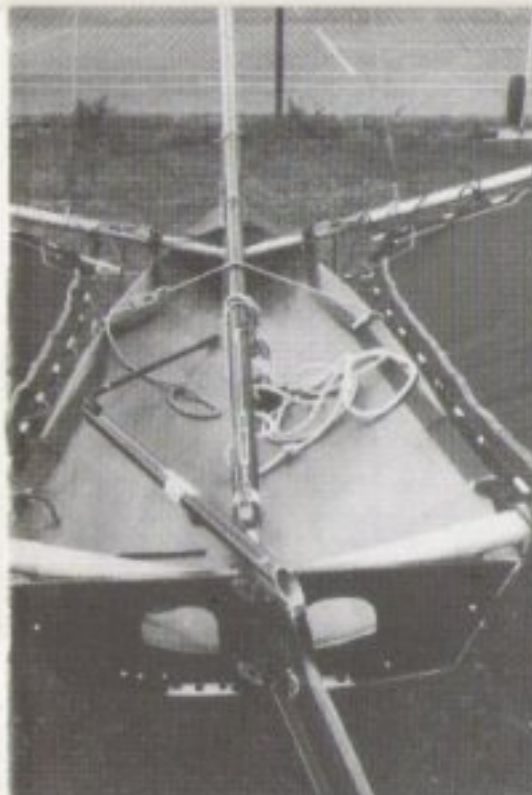
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Dutch design. 'Murphy's Law'

## RESULTS OF EUROPEANS

1. Roger Angell
  2. Toby Collyer
  3. Ian Fryett
  4. John Claridge
  5. Clive Everest
  6. Melvin Cooper
  7. Ian Ridge
  8. Lars Marklund-Sweden
  9. Andrew Paterson
  10. Ian Marshall
- Junior Champion  
Richard Westbury

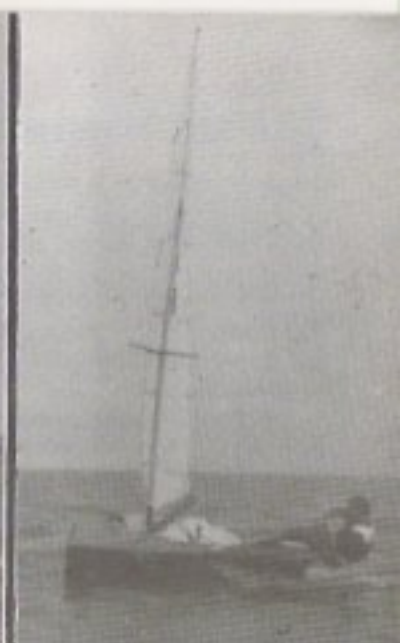


Keith Scott and father, preparing Magnum 6

Magnum gets the carpet treatment  
by JC and Steve Reece.



Toby Collyer, 2nd Europeans. Note ingenious spray deflector.



Melvin you're going  
the wrong way!

Dutch Scow Gerben Wassenaar



The Blaggard



Beautifully built. Swedish Magic II epoxy  
skin design. Note I beam wings



German National Champ. boat



Andy Roger and Richard and  
yes Melvin's there throwing up





# Measurement Matters

## NEW BOATS

### A. Obtaining a Building Fee Receipt and Sail Number

The Building Fee Receipt is theoretically payable at the time the "keel" is laid. However most people wait until the boat is almost complete before obtaining one, and with it the allocated Sail Number.

The Building Fee and Registration Charge should be sent to the Measurement Chairman, together with a covering letter incorporating details of the design, builder's name and address, owner's name and address and boat name (if known).

By return of post you should receive your official I.Y.R.U. Building Fee Receipt, a set of current Class Rules and Measurement Forms, a list of Class Measurers and guidelines on how to prepare your boat for measurement.

### B. Measurement checks you can carry out

Thoroughly read the rules and make sure that the essential requirements have been fulfilled. Items which an owner can easily check beforehand are listed as follows:

1. Bands of contrasting colour to the spars indicating the maximum positions that the head and tack will be set to on the mast. There is a maximum luff length of 5185mm but no maximum or minimum for the foot length. Bands should be either painted, etched or indelibly marked on, and must be a minimum of 15mm wide.
2. National letters and Sail Numbers should be marked indelibly on the port side aft, in letters minimum 30mm high. Only drilled, carved, burnt or moulded numbers are acceptable.
3. Overall width from wing edge to wing edge (including trampolines) shall not exceed 2,250mm. Please bear in mind that di-hedral wings will bend, and make allowance for this, as your measurer will compress both wings simultaneously to make this measurement.
4. Overall length. This can be measured first by running a tape along the keel line. If this measurement is under that required, the boat will pass. But the measurer will measure along the horizontal water line by using a caliper or frame.
5. Hollow in the hull. No concavities below static water line are allowed.
6. Check that your boat is watertight. If the measurer has any doubts, he may do a pressure test.
7. Check that the sail numbers are correct, and that their spacing and positioning are as laid out in the rules.

### C. Find a Measurer

Arrange with a listed measurer to have your boat measured at a mutually convenient time and place. Remember that he is a volunteer and under no obligation to travel to you. He is entitled and expected to charge for out-of-pocket expenses, with a normal minimum of £2.00 for the measurement charge itself.

On measurement day, take everything with you as if you were going sailing (including tools!) The Measurer may ask for a sailing demonstration or a flotation buoyancy test, if he has any doubts about compliance with certain rules.

### D. Certification

Send the completed measurement forms, (and fee if appropriate) to the Measurement Chairman. He will issue you with a printed certificate in your name.

When you receive your certificate please remember to sign it; it's a bit like a Driving Licence! Remember that the Certificate is not valid if the boat is sold to a new owner, the owner is not a current paid up member of I.M.C.A. or is used with sails that are not recorded on the certificate. When a boat is substantially altered after the original measurement the owner is required to have the boat completely re-measured.

### E. Measurement of Extra Sails

If you purchase a new sail then write to the Measurement Chairman for a spare Sail Area Measurement Form. Contact a Measurer and arrange for him to measure your sail. Remember that he will require your mast and boom to verify the luff and foot lengths that you declare. The Measurer will endorse your certificate "on the spot" as long as you send the completed and signed form to the Measurement Chairman.

## SECONDHAND BOATS

The Measurement Chairman keeps records of all measurements completed and registered, sanctioned boat names, and certificates issued.

If your boat already has a certificate, transfer of ownership will have invalidated it. Send the old certificate together with the re-certification fee, any proposed change of name, and your ownership details to the Measurement Chairman. He will issue a new certificate in your name.

If your boat does not have a certificate, first check with the Measurement Chairman to see if it ever had one. If it did, then it can be treated as above, otherwise it will require a full measurement as if it were a new boat.

### U.K. Scale of Charges as 1st January, 1989

Building Fee and Registration Charge:	£25.00
Incorporating fees payable to the I.Y.R.U., I.M.C.A. World Association, Certification Fee, I.M.C.A. U.K. Levy and cost of Rules, Forms, etc.)	
Certification Fee (Post K3807)	No Charge
(Pre K3807)	£2.00
Re-Certification Fee	£2.00
Copies of Class Rules, Forms, List of Measurers, etc.	£1.00

When applying for the above, please include a stamped addressed envelope. Cheques, Postal Orders, etc., to be payable to I.M.C.A. (U.K.) please.

The Association reserves the right to amend these charges at any time, as the major element of costs is payable to independent price-fixing bodies such as the I.Y.R.U., who are able to raise their charge at short notice.

### U.K. Measurement Chairman

Martin Saveker  
Dale Farm, Worcester Lane, Four Oaks  
Sutton Coldfield, W. Midlands B75 5QT  
Tel: 021 308 7597



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### 4 CONSTRUCTION

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\* West System is the registered Trade Mark of Gougeon Bros. Inc.

\* West System products have Lloyds approval.



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