

TYPICAL BOOM VANG

## "CONSTRUCTION TIPS"

### *Read Specifications Very Thoroughly*

1. It is recommended that your boat be kept as light as possible without sacrificing strength; however, a minimum weight limit on completed hull with centerboard, ready-to-go of 130 lbs. is a Class requirement.
2. The inwale may be deleted; this will necessitate some revision to the shape of the breasthook and quarter-knees (these still must be 6" on each leg).
3. Spruce or a good grade of cedar may be safely used for structural members in place of mahogany or oak.
4. Use extra care in fitting the centerboard trunk to the keel; poor fit results in leaks.
5. You should protect the raw edges of plywood; use a 1/4" mahogany chine batten or cover with fiber glass.
6. It is easier to bevel the chines for good drainage before the plywood skin is laid on.
7. Monel or copper-bronze boat nails can be used instead of brass screws for laying on the plywood skin.
8. African mahogany is cheaper than Honduras or Philippine mahogany and generally will make a good rudder and centerboard. Don't use plywood for these.
9. Sand all structural members before assembly; it's hard to do afterwards.
10. Treat the plywood with some good sealer such as "Firzite" or "Val-Oil" before painting or varnishing.
11. "Famowood" makes a good cover over screw or nail heads.
12. Bend a piece of copper or stainless steel tubing for use at the mast-head and the end of the boom in place of a sheave.
13. Mast tangs—should be placed somewhere between 4' and 5' below top of mast.
14. Suggestion for Halliard—Wire halliard should be of 1/16" s.s. cable; provide a rope tail; provide cable end with thimble and micropress clamp; place a 1 1/4" brass screw about #10 in the mast at a point where the halliard end raises the sail properly; allow the screw end to protrude about 3/16"—this provides a secure halliard hitch.
15. Limber Holes—Be sure to provide adequate limber holes through the bottom ribs at the keel; some also have limber holes at the chines but this may weaken the structure.
16. Centerboard Trunk—If centerboard trunk has tendency to warp inward, use outside stiffeners between the head ledges as well as an interior stiffener at top of trunk.
17. Stem Cap—should be made of mahogany or oak. Be sure to get a good tight fit as leaks often originate here.

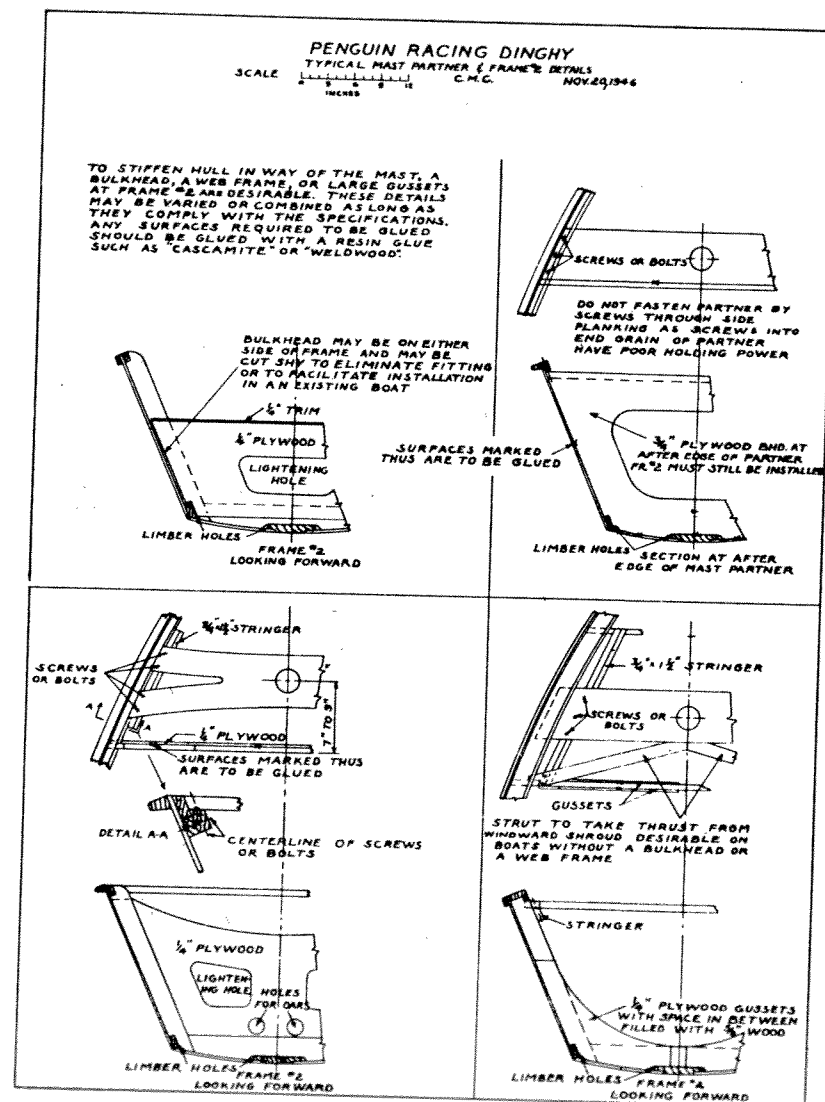
18. Mast-Partner—many boats have adjustable mast-partners and mast-steps so that the boat may be more finely trimmed.

19. Floorboards—if plywood floorboards are used, also use a stiffener along outer edge. It may crack otherwise.

20. Streamlining—check the specs and plans very carefully for allowable streamlining of stem, skeg, rudder, and centerboard.

21. Track-rail—many boats have been provided with a track-rail at the sheer line between frames No. 1 and No. 3. These rails are about 2" to 3" wide at the widest point and, of course, are curved to fit the gunwale. The tops of side frame No. 2 may be cut off to fit the track-rail. Rail should be dowelled, screwed, and glued into gunwale. This track-rail allows for full adjustment of the shrouds and allows the lee shroud to be fully slacked for down-wind course.

## CONSTRUCTION AND RIGGING DETAILS



Note: Substitute Cascophen for Cascamite



## PENGUIN SAIL MEASUREMENTS

AS OF 1 JANUARY 1950

- 1- SET OF SAIL BETWEEN MARKS ON SPARS
- 2- MID-GIRTH MEASUREMENT
- 3- WIDTH AND LOCATION OF HEADBOARD
- 4- IF APPARENTLY EXCESSIVE: LENGTH OF LEACH  
LENGTH OF BATTENS  
ROACH ON FOOT

3<sup>rd</sup> - HOLD F  
TAUT AT M

MATERIAL WITH  
FLEXIBLE RULE OR  
2 1/4" TAPE

RIAL WITH  
LC RULE OR  
TAPE

MID-GIRTH MEASUREMENT

2<sup>ND</sup>-FOLD  
HEAD TO  
NEW FOR  
POINT  
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1st - FOLD  
HEAD TO  
TACK FOR  
MID-POINT  
OF LUFF

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ED REGATTAS  
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CESSIVE:  
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TENS  
ROACH ON LEACH NOW LIMITED ONLY BY MID-GIRTH  
MEASUREMENT  
24" BATTEN  
35" HOLD FOLDED SAIL  
TAUT AT MID-POINTS

CLEARANCE FOR MAST -  
1" MAXIMUM

TYPICAL HEADBOARD

\_\_\_\_\_ 4 1/2" \_\_\_\_\_  
MAXIMUM WIDTH

18"  
BATTEN

LEACH AND FOOT  
MEASUREMENTS ARE  
TAKEN PARALLEL TO  
CHORD OF ROACH

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## EFFECTIVE 1 JANUARY 1950

NOTE: THE OUTLINE OF THIS RUDDER IS OFFICIAL AND MUST BE STRICTLY FOLLOWED. THE THICKNESS OF THE RUDDER MUST BE AS SPECIFIED ALONG LINE "A-A" AND ABOVE THE LINE SHOWN FOR THE LOWER EDGE OF THE CHEEK PIECES.

THE REEFED SECTION FOR A KNEE IS AS FOLLOWS. THE RUDDER SHALL BE  $\frac{3}{4}$ " THICK IF FITTED WITH ADEQUATE CHEEK PIECES, OTHERWISE IT SHALL BE NOT LESS THAN  $\frac{1}{8}$ " THICK.

THE CHEEK PIECES SHOWN ON THIS PLAN ARE THE MINIMUM IN THICKNESS AND EXTENT THAT SHALL BE DEEMED ADEQUATE. IF THE RUDDER HEAD IS MORTISED FOR THE TILLER, THE CHEEK PIECES SHALL BE NOT LESS THAN 5/8" THICK.

HEAD OF RUDDER & TILLER  
ATTACHMENT TO BE OPTIONAL  
(SEE NOTE)

[illegible]

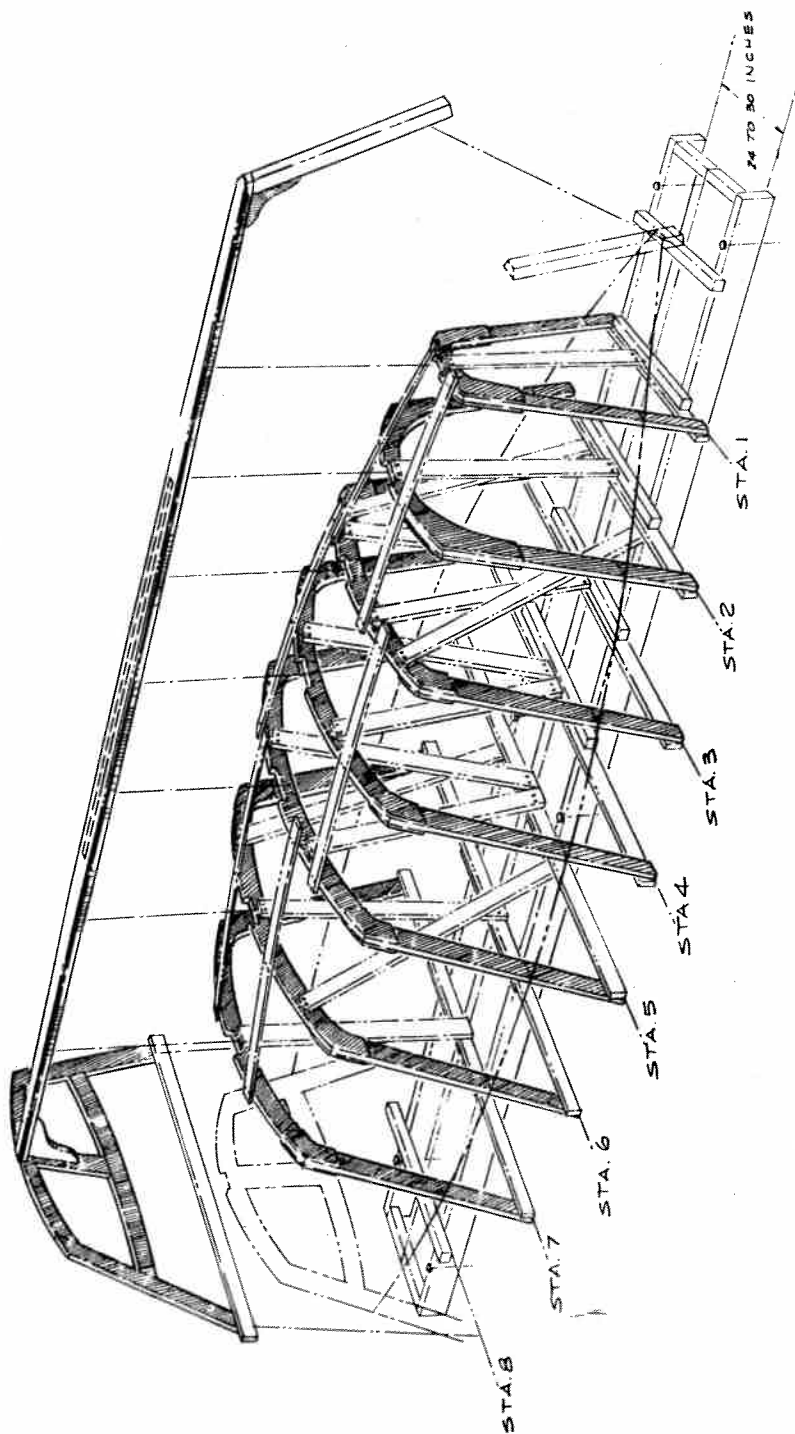
1" SQUARES

**FULL SCALE**

DESIGNED BY PHILIP L. RHODES, N.A.

APPROVED BY EXECUTIVE COMMITTEE  
PENGUIN CLASS DINGHY ASSOCIATION  
31 DECEMBER 1949

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## History of the Penguin Class Dinghy Association

In 1938-39, a small group of Potomac and Chesapeake Bay sailors, near Alexandria, Virginia, wrote to the leading naval architects for plans of a dinghy which could easily be built by an amateur. Philip Rhodes came up with the 11½' dinghy, which could be built of water-proof plywood.

By the end of 1939, twelve boats, from these plans, were being sailed on the Potomac River. Herbert L. Stone, Editor of YACHTING, printed an article in May 1940, showing plans and specifications of the Penguin, and requests for these plans nearly swamped the office. This resulted in the organization of the National Class. At a fall meeting in Alexandria, the By-Laws were adopted and officers elected: President—W. W. Heintz, Executive Vice President—Paul Tomalin, and Secretary-Treasurer—Ralph A. Youngs.

Fleets began to pop up in all sections of the country. In 1941, Seattle had one of the largest fleets, and for the first time there, races were held in the winter season. Manhasset Bay, on Long Island Sound, soon boasted of a large fleet. The first open regatta was held at the Old Dominion Boat Club, at Alexandria, and there were present Penguins from three states and the District of Columbia. Plans for holding a National Regatta were being made.

With the start of World War II, Penguins became more popular than ever, as they were inexpensive to build, could be sailed within small harbors and were easily transported. Fleets were chartered at Tacoma, Washington, Los Angeles and San Diego, California, and at Vancouver, British Columbia. The latter was the first fleet chartered outside the United States.

In September 1941, the first National Penguin Class Dinghy Association Regatta was held at Annapolis, Maryland, with 35 Penguins from 10 Fleets taking part. Walter Lawson, of the Potomac River Fleet, won with No. 8, "Potlatch"; Leonard Penso, in "Gadget," No. 96, was second; and Charles Runyon, in "Murgaes," No. 20, was third. Paul Morris, in "Mike Fright," No. 132, the only contender from the West Coast, took sixth place.

Because the racing fleet was too large to sail as one group, it was necessary to have a preliminary series of three races to divide the contenders into two divisions. The first division competed for the National Championship Trophy (Perpetual) donated by the Annapolis Yacht Club. The second division trophy, donated by Class President William Heintz, was won by Junerose Markusson, in "June," No. 304, of Staten Island, N. Y.

At the Annual Meeting, William Heintz was elected President again, Charles Runyon became Executive Vice President, and Ralph Youngs remained Secretary-Treasurer.

With World War II in full force, yachtsmen were allowed to continue sailing under certain conditions. Everyone who sailed had to have Coast Guard Identification cards. Power boats had so little gas they had to stay tied to the docks. And Penguins became more popular than ever. The U. S. Naval Training Center at San Diego bought a large fleet of Penguins. Captain H. C. Gearing, head of the Training Center, donated a handsome silver trophy, to be raced for as often as possible, between the sailors at the Station and the San Diego Yacht Club.

No National Regattas were held in 1942-43-44, war years, but in 1945, in spite of restriction on travel and gas rationing, it was decided to have a National meet once more. Local boats, from the Potomac River and Hampton Fleets, were loaned for the occasion. The races were sponsored by the Old Dominion Boat Club at Alexandria, Virginia. Again there were so many skippers that they were divided into two groups of 15 each. Eliminations were run off with the first 10 of each group the lucky ones.

Again Walter Lawson took first place with J. L. Stevens of Hampton second, and Len Penso, third. Len Penso was elected President of the Class; J. Nelson Daniel, Executive Vice President; Walter Lawson, Secretary; and Robert Browning, Treasurer.

In order to keep the National Championship Regattas from becoming top-heavy, it was decided to hold elimination races in each fleet to select the top one, two, or three skippers as contenders.

Only eleven contestants from five fleets sailed in the 1946 National races held at Port Washington Yacht Club, Manhasset Bay, Long Island, N. Y. Walter Lawson in "Pink Lady," No. 617, again came out on top. C. M. Cox, of Hampton, in "Cat's Paw," No. 14, was second, and Wirt Gill, Potomac River Fleet, in "Skeptic," No. 7, third. The National Officers elected for 1947 were Leonard Penso, President; George C. Jessop, Executive Vice President; Wirt Gill, Secretary; and Robert C. Browning, Treasurer.

The 1947 Regatta was held at the Hampton Yacht Club, Hampton, Virginia. There was no doubt about the new National Champion, when Runyon Colie, Jr., in "Outsider," No. 1377, from the Downer Fleet of Mantoloking, N. J., won four firsts and one second, out of a field of ten contestants from six fleets. Joe Krafft, of the Potomac Fleet, in "Pluto," No. 900, took second place; and R. D. Israel, in "Chilly," No. 571, of the San Diego Bay Fleet was third. Bert and Faith Israel drove all the way from San Diego, California, with the Penguin on top of their car, to compete in the Nationals.

Election of officers was held and Edward B. Rowe, Jr. was made President of the Association; R. D. Israel, Executive Vice President; Alvin E. Cox, Treasurer; and Charles V. Boykin, Secretary. Headquarters was moved to Hampton from Washington, D. C., early in January 1948, with San Diego, California, becoming the Branch Office location.

In 1948 the National Regatta was held at Mantoloking, the home waters of the winner, Runyon Colie.

Ex-champ Walter Lawson sailed in a boat built in a little over a week, a car having crashed into his boat, stowed in Lawson's yard, wrecking it. The same contestants were on hand: Lawson, Len Penso, Wirt Gill, Ed Rowe, Jack Reckord, Joe Krafft, Burton E. Morris, Charles Boykin and Ray Hooker. Many penalties were suffered by the contestants, for barging, collisions, touching markers and other fouls.

Marshall Morehouse won the first challenge trophy, for the high-point man of the fleets competing for the first time. Runyon Colie again won first place with crew Betsy Allen, 8.2 points ahead of Len and Dorothy Penso, with Jack and Janet Record, third. Walter Lawson was fourth. Mantoloking Yacht Club furnished free lunches and beverages between races.

With one "West Indian disturbance" skittering along the Atlantic seaboard and another busily tearing across Florida and points northward, the 1949 Penguin Class Dinghy Association's National Championship series was sailed in the mouth of the Severn River under sponsorship of the Annapolis Yacht Club. Twenty-seven boats gathered from far places, including California and the Gulf States; sailed five races in assorted winds, with Runyon Colie, Jr., of the Downer fleet at Mantoloking, N. J., for the third straight year establishing himself as class champion of champions. With Miss Mary Elizabeth Pilling as crew, Colie left no doubts as to his right to the title.

Successive years' winners are tabulated in your Yearbook and the narrative of each Championship can be found in the next annual following the races.

From a modest beginning of only twelve boats in 1939 the Class has grown to be one of the world's leaders. At the present writing, early in 1956, registrations have exceeded 4500. For each of the past two years, registrations have been in excess of 400, and what is more important, a much higher percentage of boats are being built. Commercial boat builders from coast to coast have increased production many fold and new builders are entering the Penguin field.

New fleets are being chartered at the rate of a dozen a year and now total nearly one hundred. Canada, Hawaii, and Brazil were the latest fleets in the International field and Penguins may be found in all European and some Asiatic countries.

The precepts upon which the Class was founded have been closely followed with amendments only those which strengthened the Class. Strict adherence to Class rules will assure the future success of this true One-Design Class, the International Penguin Class Dinghy Association.

### SOME TIPS ON PENGUIN SAILING

I have been asked to try to put down some "tips" on Penguin sailing for the new Class Book.

Much of what I have to say may seem elementary to the expert, but I do feel that it can be of some help to the novice. I have expounded on many of the following views often enough to know that some of them will not receive universal agreement, but where in question, they are my thoughts.

Probably my first tip would be that the novice skipper (and also the expert) devote some time to the study of the really voluminous literature presently available on yacht racing. Of the many books on racing which I have read, three which come to my mind as possibly the most valuable are "Yacht Racing, Aerodynamics of Sails and Racing Tactics," by Manfred Curry, Scribner's; "Race Your Boat Right," by Arthur Knapp, Norton; and a little English book called "Racing Dinghy Maintenance," by Ian Proctor, also published by Scribner's. Curry's book has long been considered the Bible of Sailing and, although it does contain some controversial ideas, many of the developments in racing in the past twenty-five years can be directly attributed to it. Its influence on sailing has been revolutionary. The real meat of this book is in the second section, Racing Tactics, and I would suggest that any but the most scientifically minded read the book in reverse, Racing Tactics first and the Aerodynamics of Sails, which contains little of value to the Penguin skipper, last.

"Race Your Boat Right," written by unquestionably one of America's top racing helmsmen, is an amazingly practical book going into a degree of detail which, as far as I know, is not available elsewhere. I cannot too highly urge the study of this book for all, novice and expert alike.

"Racing Dinghy Maintenance" is just what its name implies—a practical book on how to keep your racing dinghy in top notch shape. Although written with the International 14's and other sloop rigged dinghies in mind, there is much in this book that is applicable to the Penguin.

One further book, which should be studied by all, but which is often overlooked, is the Rule Book. A general knowledge of the rules is necessary for any kind of racing, if not for your own benefit, then at least in fairness to your competitors who know and are trying to abide by them. A more complete knowledge of the rules and their application makes your racing

not only more enjoyable, but also more successful. It permits you to go with confidence into situations from which otherwise you might be "bluffed" out. A membership in the North American Yacht Racing Union, at \$5.00 a year, is a real bargain for the serious racing skipper. Any and all Penguiners are eligible for membership. I find that the Decisions on Appeals to N.A.Y.R.U., which are published and sent to all members free of charge, are well worth the annual dues. It is only from the interpretations of the Rules contained in these Decisions that we get the precedents that will decide otherwise controversial questions in the future.

In the actual sailing of a Penguin, one of the most important single factors is to learn to sail the boat with a minimum of rudder. If you will bear in mind at all times that any motion of the rudder, or any position of the rudder other than fore and aft, is exerting a braking influence on the forward motion of the boat, and will sail to keep this drag at all times to minimum, you should gradually find your boat going through the water faster. There are a number of ways to keep this rudder drag down, but the key one is to have the boat as nearly balanced as possible at all times. As the normal tendency of a Penguin is to have a weather helm, I try to balance this by sailing the boat as flat as possible when going to windward and heeling slightly to windward when going down wind. You will find that, other things being equal, a boat has a tendency to head away from the direction toward which she is being tipped. By the proper distribution of your weight laterally in the boat you should be able to almost completely eliminate the helm under most conditions—and the key is to sail the boat flat or even tipping to windward. Just try letting your boat heel to leeward and see how much force you have to exert on the tiller to keep her on course—and this force is transmitted through your rudder as drag. This, what might be called "light touch on the helm," should also be used when tacking. Don't slam your helm hard over and in so doing put the rudder athwartship, almost like a board held down from the transom. If you do, you will appreciably slow the boat each time you tack and she will have to start almost from a standstill on the new tack—rather, gently sail her about. You will have to practice this to find the proper amount of helm, and degree of speed to apply it, to get your Penguin about and onto the new tack as quickly as possible, but still with a maximum of way on.

These last thoughts bring me to two "exercises" I have which I find quite helpful. The first may be tried before any regatta, or even between races. It is to tack the boat as often and as quickly as possible a number of times. The object is to make the tacks as short as possible—even as short as a boat length or two. This exercise will quickly let you know whether you are tacking the boat properly, which to me means getting her going with good speed on the new tack as soon as possible. If you are not tacking the boat well you will either very soon find yourself in stays because of not having enough headway to tack back after the second or third tack, or you will find

yourself taking unnecessarily long hitches. I can assure you that the intelligent practice of these short tacks will help your tacking, for it magnifies faults which you may overlook when taking long hitches.

My other personal exercise will not bring as rapid results, but still is one you might find interesting to try sometime—but not when there are other boats around or just before a race. This is to sail without a rudder. I usually do this when sailing alone, for it is difficult to find a crew patient enough to put up with going around in circles or getting into stays—which usually happens when you are without rudder. But this will, more rapidly than any other way I know, teach you what you can do by just change in trim and heel. The first time you try this it might pay you to leave the rudder in for emergencies, but not touch the tiller. A word of warning—to make her bear off you will have to heel her much farther to windward than you expect, even to where you fear she may upset to windward, for she will be hard to pull off. Conversely, tip her to leeward gingerly, for once she starts to head up, she will come up faster than you want her to.

I feel that, particularly as the wind blows up, the position of the crew in the boat is quite important. An unwritten rule in my Penguin is to stay out of the ends—both bow and stern. Until we can be shown that we are wrong, we will continue to try to keep our boat on more or less an even fore and aft trim. We accomplish this by sitting as near the middle of the boat as possible. I used slightly longer than usual tiller, about 3'6", and with this sit right up against the thwart and have the crew slide back against it from forward. This accomplishes the three fold purpose of getting our weight at the widest part of the boat where it naturally does the most good, keeping the combined windage, which is significant, down by presenting one body rather than two separated bodies to wind, and last, it minimizes the change in trim with change in crews, for we are both as nearly over center of gravity as possible. This discussion of location of skipper and crew applies, of course, only to conditions where there is enough wind to be sitting out or almost enough where both helmsman and crew are just inside the hull on their haunches ready to slide out. As you can gather from the earlier discussion of helm, I want both skipper and crew hanging out as far as is necessary to counteract the naturally weather helm, even though the boat may not be tipping at all. A good long hiking stick of about 22" is indispensable for really getting your weight out when going to windward. Incidentally, a point of sailing where hanging way out pays big dividends is on a reach in heavy air. Here you have the greatest tendency toward a weather helm and consequently the greatest opportunity to counteract rudder drag. The next time you see one boat reach through a fleet on a windy day check and see whether the crew of that boat are not out farther than their opponents and whether they are not playing the sheet to keep the boat flat and on her feet—i.e., easing the sheet whenever the wind is so great that in spite of their hanging out, the boat tips and rudder has to be applied. The ability to ease the sheet

quickly as puffs hit and get it back in rapidly without requiring the use of much rudder can have sensational results not only on a heavy weather reach but also when going to windward in a knockdown breeze.

Another important point to keep in mind, comparable in some ways with using a minimum of rudder, is for skipper and crew to keep as still in the boat as possible. This is, of course, second nature for the more experienced helmsman, but every time you move in the slightest you shake the boat and this in turn shakes some wind out of the sail. The lighter the air, the more important this is. In a drifter, when sailing in close proximity to another boat, changing your position in the boat may be fatal to your chances in that race. It seems to me that the skipper, particularly when tacking, may not be aware of how much he shakes the boat when moving from side to side. My wife (and my regular crew) is my most severe task master in this matter. She will often criticize me for moving unnecessarily in the boat while tacking. I am never aware that my motion is anything but as light as can be, but for some reason the criticism always seems to coincide with times when our boat is not going well.

Another "tip" which is self-evident to the more experienced skipper, is to keep the boat as dry as possible. Not only does water make the boat heavier and therefore, in my opinion, slower, and does give it a free surface which makes the boat less stable, but also water breeds water. By this, I mean that as you take in water, you lower your freeboard and an increasing amount of each successive wave will find its way into your bilge. This is the reason that light crews often beat much heavier crews in strong winds and good seas, when you might at first think the heavier crew would have an advantage. I have often seen the heavy crew start out very well under these conditions and then gradually be overtaken and passed by their lighter opponents. While the heavier crew was driving through waves and consequently taking water, the lighter crew was riding over the seas and staying relatively dry. Jack Wright, himself no lightweight, has often said that he feels at the greater disadvantage the heavier the wind, whereas he competes on equal terms with his lighter opponents in very light airs. Besides the use of a spray shield when the conditions so indicate, I have only two suggestions to make to keep the water out. First, if you are sailing in a series of a number of short races, get your boat completely dry at the end of each race no matter how cold and uncomfortable a job this may be. Unless you have an actual equipment breakdown, this getting the water out of the boat should take precedence over everything else in the short interval you have between races. My other suggestion is to have some kind of a bailer on the end of a relatively long stick so that the crew can bail while hanging out to windward. A plastic refrigerator container makes a good bailer, as it will not scratch your finish. Incidentally, if you are sailing a long race, such as is often the case in the summer, and start making water, it may pay to temporarily sacrifice your place in the race and sail easily until you get the water out of the boat and start sailing



again. The prizes are few and far between for the boat that, although possibly still in first place, sails herself right under and then naturally turns over—and the few prizes they do give for this are generally of such a nature that the recipient would rather forget about them.

The tips I have tried to give above have, with the exception of study of available literature, all been directed toward making the boat go as fast as possible, without regard to other boats. Tactics is naturally a most important field but is too inclusive for a short article such as this.

Of interest to other Penguiners might be the comments of two well known skippers to whom I have shown this article. Both of them more or less agreed with what I have to say, but felt that the article is incomplete in that it ignores too many factors involved in the speed of a Penguin. Jack Wright, a builder, felt that some emphasis should be put on the importance of having the boat as light as possible, with smooth bottom and stiff, light rig. Jim Merrill, a sailmaker, felt that an additional tip to many helmsmen would be to take more care in the setting of the sail—the only actual driving power a Penguin has. Jim feels that most Penguins usually have the foot of the sail too loose. His rule of thumb (varied with the wind) is that the foot of the sail at its farthest point should not be more distant from the boom than the width of ones outspread hand.

Possibly the views of these two will bring to your mind some other factors I have omitted.

RUNYON COLIE, JR.

Taking the Hull and Skipper as a constant and the sail as a variable, I believe proper adjustment of the sail will increase the speed of a dinghy more than any other factor.

Having sailed other class and style of boats the skipper often does not realize the theory and balance of a loose foot cut rig.

The proper shape is controlled by two major factors: 1st, the sailmaker's skill and 2nd, the tension and direction of tension upon the sides and corners of the sail.

We can spoil the sailmaker's skill by not applying the proper tension and direction to the right place.

I realize I am on a subject which is hard to explain on paper and most of us have learned through experience and experimentation. I only hope to make you conscious of these facts so you will work them out for yourself.

Luff: Most sails are cut with a slight outward curve along the luff. Extreme tension will show one or more folds running up and down the mast in a slack sail. I prefer just tension enough to make one fold just barely visible. As bolt ropes are sewed on with variable tension, the proper tension varies. My present sail sets best with just the weight of the boom for tension—others require as much as a 30 lb. pull.

Draft: Is controlled by clew outhaul and cut. To properly adjust the outhaul, the distance from the clew to boom should remain the same. Playing with this adjustment while racing will teach you more than any other sail adjustment.

A few simple rules: Reaching and light air, more draft. Beating and heavy air, less draft.

I do not believe any Penguin goes best with outhaul pulled as tight as possible or with a large bag in it.

Leach and Foot: The shape of these edges may be varied by adjusting the height of the clew from the boom the same as moving jib fairleaders fore and aft. Also, the position of the traveler block and the tension of the vang will effect the leach to a small extent.

Miscellaneous: I prefer a 3 or 4 to one outhaul adjustment within reach of the crew—an adjustable clew downhaul rigged like a traveler.

To notice the change in your sail due to adjustment rig your boat dry, in a light air, belay your sheet lightly on the wind, pivot your boat so she sails correctly and change the tensions and directions and notice the change in your sail.

If proper luff tension leaves too many wrinkles running aft from the mast, re sew the bolt rope.

DR. WALTER LAWSON.



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**INTERNATIONAL PENGUIN CLASS DINGHY ASSOCIATION**

1217 Fourth Road, Baltimore 20, Maryland

**BUSINESS SECRETARY:**

MRS. ELLA B. LEIGHTON-HERRMANN

1217 Fourth Road

Baltimore 20, Maryland

Telephone: Murdock 7-5407

**CLASS MEASURER:**

MR. MONTE CLARE

2191 Mesa Drive

Santa Ana, California

Telephone: Kimberley 5-2773

*Additional copies of this book are available at \$1.00  
per copy upon application to the Business Secretary.*

By Executive Committee Action

1. Article X, par. 23 (page 17 of Handbook). Revise to "Sail material shall be limited for a two year period ending evening of the Annual Meeting in 1958 --".
2. Article X, par. 8 (page 14 of Handbook). Add the following:  
"Side-frames no. 1 may be curved along the outer edge a maximum of  $3/8$  inch; point of maximum curvature to be mid way between chine and gunwale."
3. Article X, par. 21 (page 16 of Handbook). Add the following:  
"In order to take the slack out of the head-stay when running fair wind, shock cord only, no greater than  $1/4$  inch in diameter may be utilized as a stop or halter. No adjusting mechanism is allowed; no cables or lines may be used as head-stay bridle."

(Paste in your Handbook)