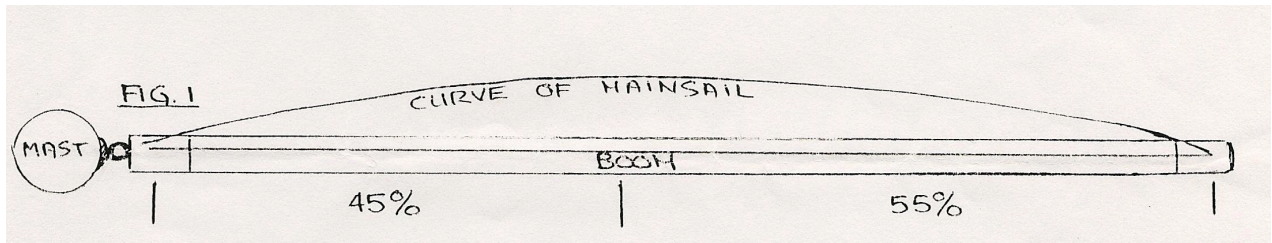


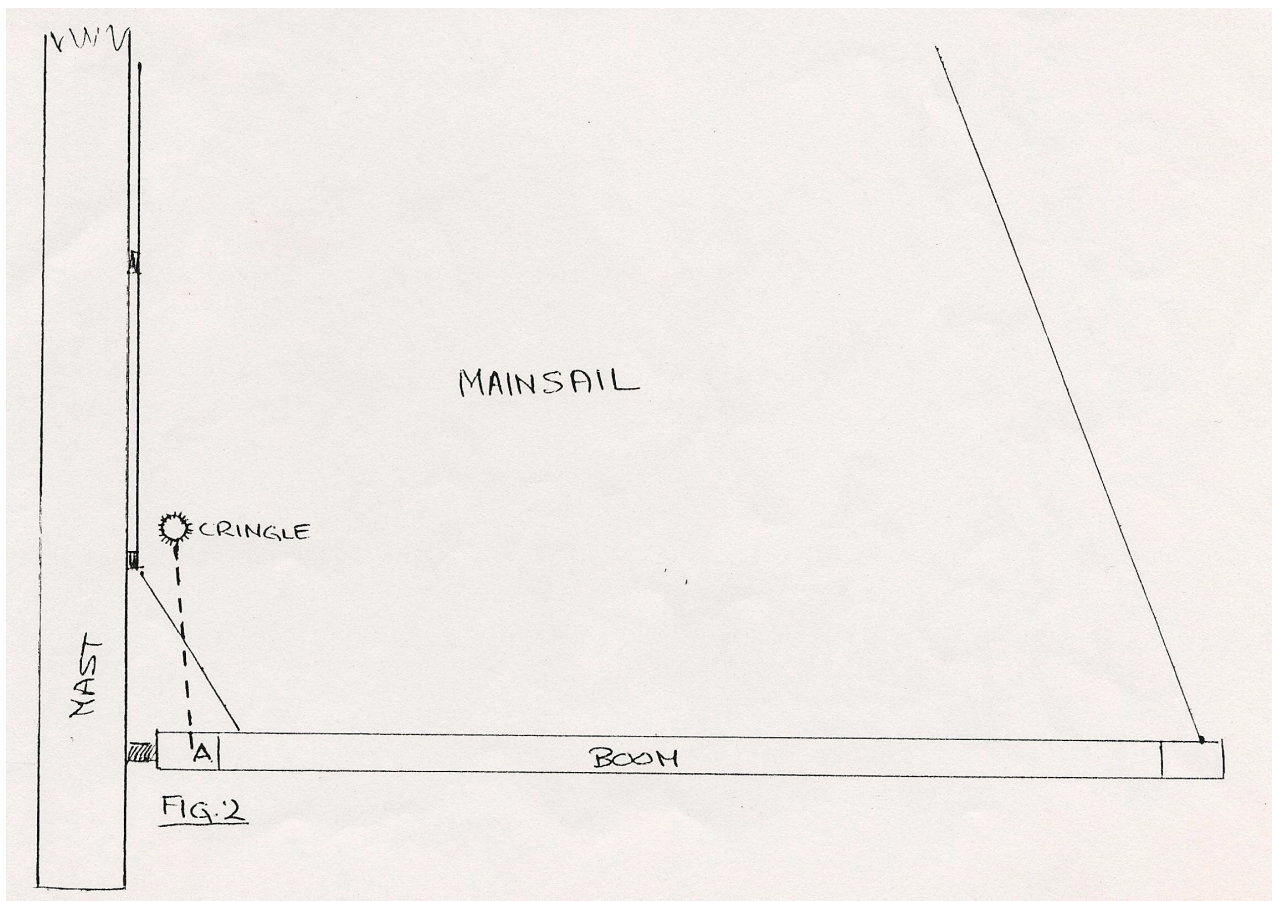
Many people have described the Atalanta as a slow old tub, but with proper tuning she can be made to go like a thoroughbred. This pamphlet updates an article by Dr and Mrs W R R Thursfield (A180) which appeared in the 73/74 Bulletin. It describes how the techniques evolved in dinghy and cruiser racing can be applied to an Atalanta.

### MAINSAIL

The three-quarter sloop rig version, allows alteration in the shape of the mainsail which is important in view of the relatively large size of the sail. The basic idea is to have a hollow mainsail but not so hollow that it is not possible to flatten the sail in strong winds. In the perfect sail the deepest point of the hollow should be 40/45% of the way along the curve running from the luff to the leach. (Fig 1).

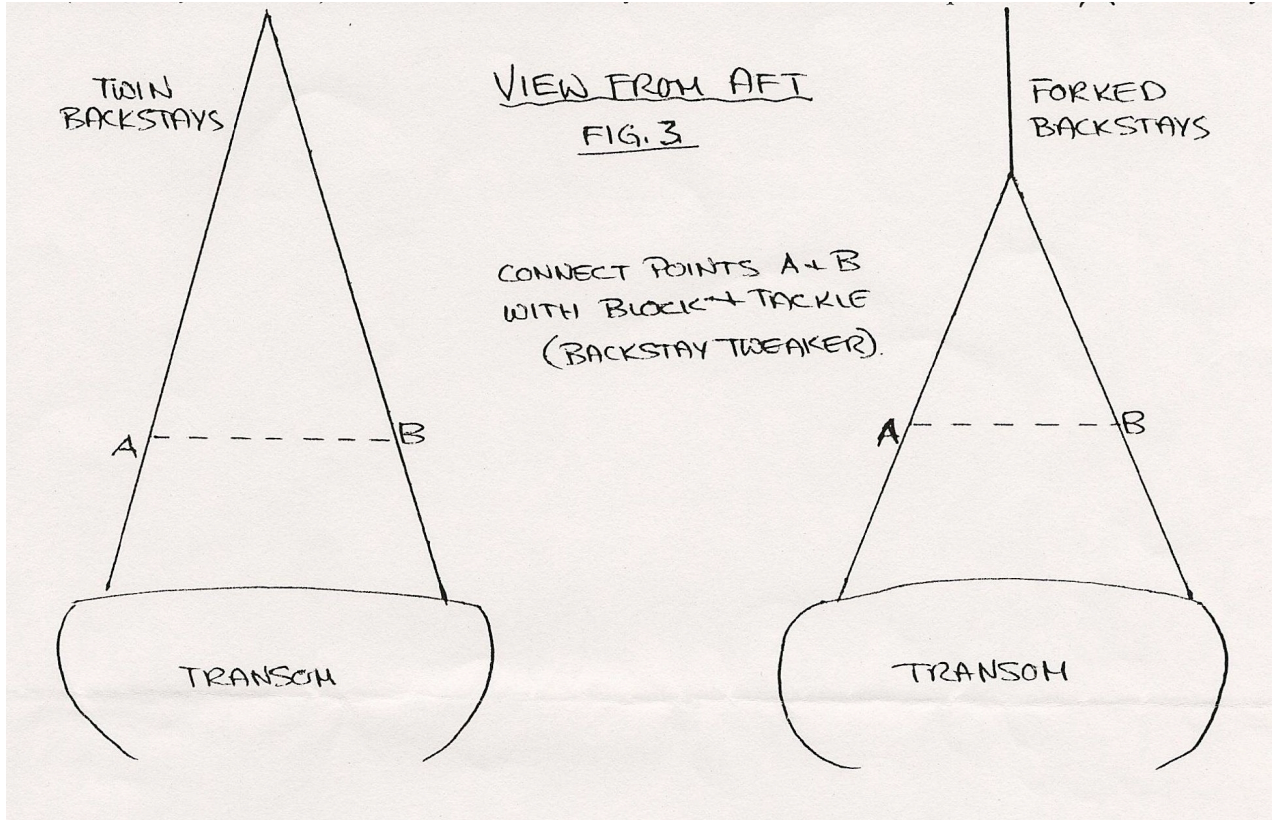


Stronger winds force the hollowest part of the sail aft which reduces the forward drive and increases heel. By tightening the luff the hollow is pulled towards the front edge of the sail. If the sail is too large it cannot be pulled upwards any further and the same result can be achieved by pulling downwards on a Cunningham hole. This is a cringle (attachment point) sewn into the luff about one foot above the tack and it can be pulled down by a block and tackle, rigged between the cringle and the forward end of the boom. (Fig 2)



**MAST BENDING**

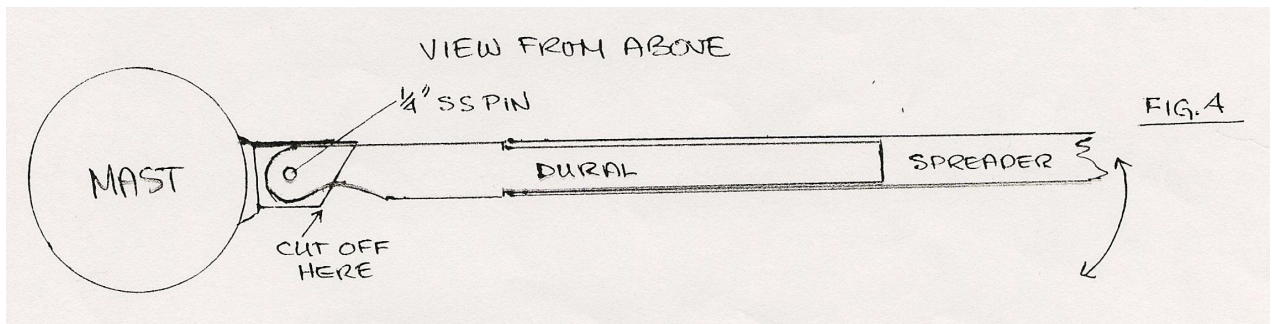
The next step, with increasing wind strength, is to flatten the sail. This is done by bending the mast. In order to bend the mast the backstay must be tightened. This can be achieved by rigging a block and tackle (Backstay Tweaker) between twin backstays or between the lower part of a forked backstay (Fig 3).



**CROSS TREE ANGULATION**

The crosstrees MUST be free to move fore and aft at the mast fitting or the latter will resist the mast bending and may be strained.

The inner end is replaced by a solid Dural, Nylon or Tufnol bar of the same diameter which is turned on a lathe to plug into the spreader and drilled to act as a hinge joint at the inner end. (Fig 4).





### JUMPER STAYS AND AFT LOWER SHROUDS

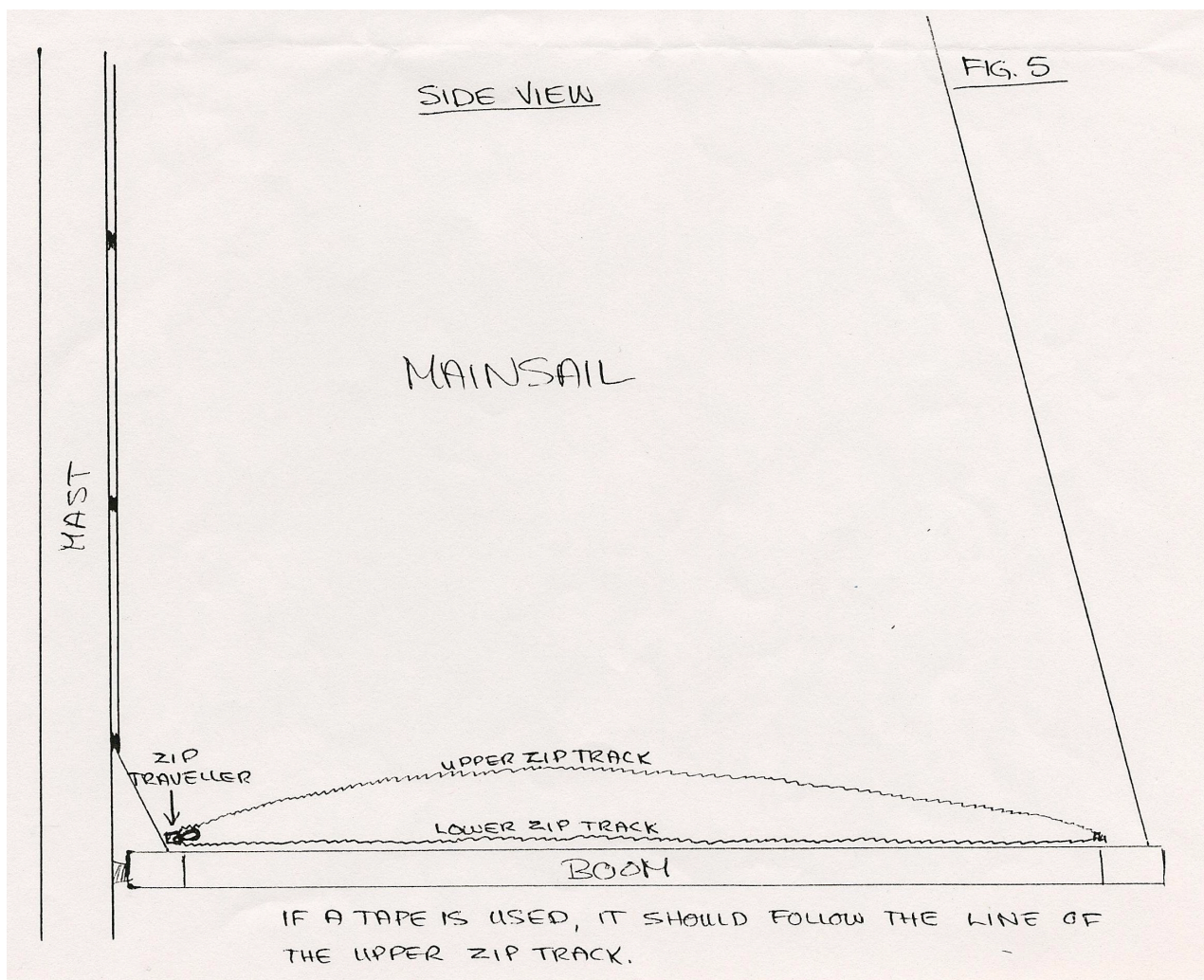
The mast will not bend evenly unless the jumper stays and aft lower shrouds are slackened. The more these are slackened the more the mast will bend when the backstay is tightened. The amount this is done depends on one's nerve but a bend of about 4 inches forward of a straight line should be safe. The jumper stays will have to be rigged loose for this in advance.

To keep the mast straight athwartship the forward lower shrouds need to be tightened or loosened until looking up the mast the track is straight. This must be done while going to windward in Force three to four.

The old type of piano jumper stays are not strong enough and need replacing with 1 by 19 wire.

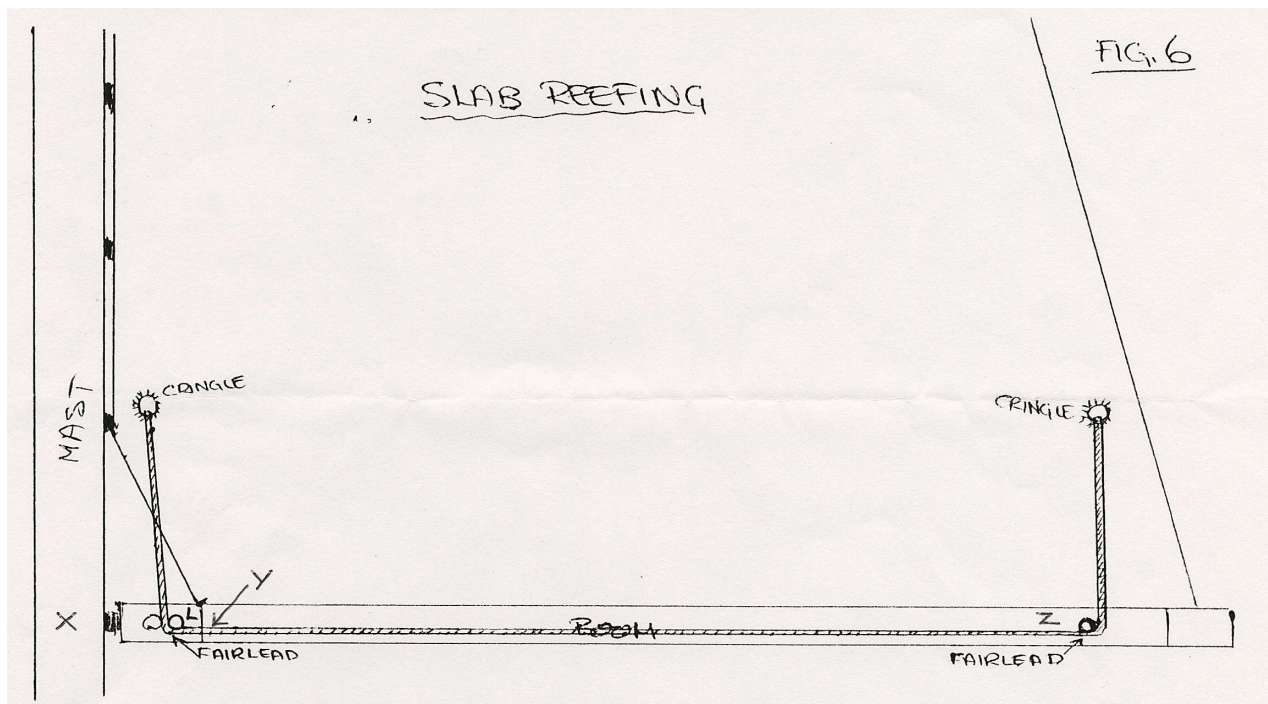
### FOOT OF MAINSAIL

There are various ways of flattening the foot of the sail. A powerful outhaul in conjunction with either a zip fastener or a tape sewn into the foot of the sail extending in a curve convex upwards, from tack to clew is one answer. (See Fig 5) An alloy boom with a 6 part purchase inside the boom and a pulley built into the aft end solves the outhaul problem. A Keyhole shaped slot cut in the bottom of the boom at the forward end allows the rope, upon which one pulls, to be jambed. This still allows roller reefing and it is a good thing to pull the foot out fully before roller reefing as the sail will set better.



## REEFING

The latest idea on small cruiser racers is slab reefing. This is an extremely simple method of reefing (See Fig 6) which is effected by tightening a line running from a point on the boom near the clew of the mainsail up to a cringle in the leach then back down the other side of the sail to a fairlead opposite the point of origin, then forward along the boom to another fairlead close to the tack, through the fairlead and up through another cringle and finally down to a jamb cleat on the boom. Referring to Fig 6, the slab which will be "taken out" is the quadrilateral A B C D, with the line A B becoming the new foot of the sail. A small slab only a few inches above the boom produces the same flattening effect as described in the previous paragraph. A whole series of slabs can be taken out by this method - with some untidiness! Shortening the slab line involves lengthening the Main Halyard. The terminal points of the slab line should therefore be on the same side as the halyard gear.



ZIGZAG line show the SLAB REEFING LINE on the Port side where the Main Halyard Gear is on the Starboard side. Thus on the Starboard side and not shown there will be:

- Opposite X the main Halyard gear
- Opposite Y the jamb cleat for the slab line
- Opposite Z the point of attachment for the slab line

## KICKING STRAP

A kicking strap is probably the most important extra of all. It greatly increases speed and safety on the run and improves performance on the reach.

A boom claw allows the kicker to be used when reefed and a two part handy billy (block and tackle) can be clipped to a shackle attached to the after most chain plate (See A.6) or to the Genoa Traveller if fitted.



### **MAINSAIL TRAVELLER**

A ball bearing traveller which moves easily is recommended instead of the rather stubborn standard fixture. "Limiting lines" should be rigged so the mainsail can be held up to windward in light airs. When close reaching the sail can be eased on the traveller while keeping the mainsheet tight. This helps keep the mainsail flat in a fresh breeze.

### **GENOA**

A tight forestay is vital. Tightening up the backstay tweaker (See Fig 3) applies a load for the brief period in a boat's life when she is going windward and this can safely be a greater load than you would expect, assuming sound gear.

A stretched luff is of the greatest importance and the halyard should be pulled up as tight as one's strength allows. The strength of modern cloth enables the use of a heat-sealed leech which is much better than the usual tabbing and leech line assembly which invariably produces a curl when the leech line is tightened enough to prevent shaking.

Good sail cloth is well worth the extra cost particularly in regard to the Working Genoa as stretch distorts the desirable shape and there is no chance of correcting this by mast bending or foot tightening. The Genoa can be carried in Force 5-6 having taken 4 rolls in the mainsail.

### **GENOA TRACK**

A Genoa track can be mounted on a long piece of wood bolted to the topsides amidships, (about 9 inches below the cockpit combing). This allows adjustment of the sheet lead and it provides a point of attachment for the kicker when reaching. This being through an adjustable slide with an eye or pulley.

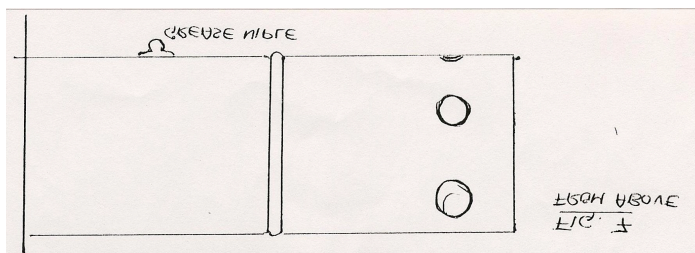
### **SPINNAKER**

If you can afford one only choose a rather flat cut reaching sail as speed is greatly increased on a reach and only a little is lost on the run in light airs. If it blows hard maximum hull speed is soon reached.

### **KEELS**

On the run it pays to retract the keels completely but keep out of the way of the boats that you are overtaking as control is reduced. Don't get luffed with your keels up!

Incidentally, we have heard of owners having trouble with keel bolts rusting within their housing. Our boat is equipped with 6 grease nipples threaded into tubular housings inside the aft end of the main cabin. By annual injection of underwater grease the bolts will remain free indefinitely. Drilling the sleeves and tapping the holes to take the grease nipples must be done when the keel bolts are withdrawn, otherwise the point of the drilling bit will penetrate the keel bolt. (See Fig 7)



There are differences of opinion about the best position of the keels when on the wind. The consensus seems to favour having the windward keel right down and the leeward one two-thirds down, to give a maximum sideways profile. Dr Thursfield does NOT agree.

## PROPELLER

A folding propeller is worth fifteen to twenty minutes in a "Round the I.O.W. Race" (about 60 miles).

The shallow draft of an Atalanta poses a particularly difficult problem if one wishes to have good performance under both sail and power. An 11 inch diameter propeller is the maximum size that can be used in the usual position and this means direct drive and three bladed propeller if power is placed first.

A two bladed folding propeller is a compromise towards sailing efficiency. If a slow revving engine or reduction gear is used it is possible to use a three bladed propeller with coarse pitch which could be left free to rotate when sailing. A fine pitch propeller creates about the same drag whether clamped or free to rotate.

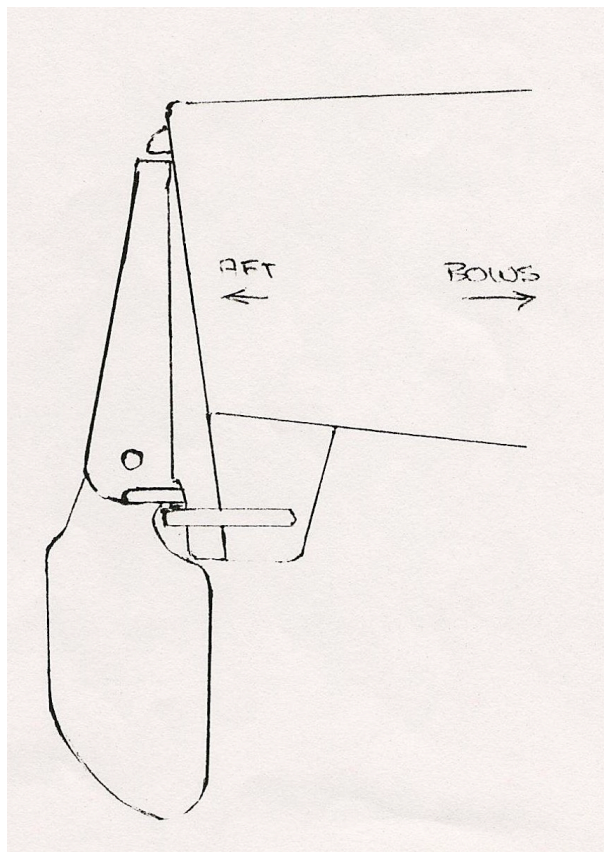
One day a completely retractable propeller may be evolved with hydraulic or Z drive.

## RUDDER

When one hears that somebody has experienced severe weather helm it usually means that the rudder blade has been put in back to front (See Fig 8) or that the rudder downhaul is not working efficiently. A block and tackle - under the deck head in the rear cabin - which applies a strong pull via heavy gauge shockcord will help to keep the rudder down. It is a considerable hindrance to pulling it up and it must therefore be released before doing so.

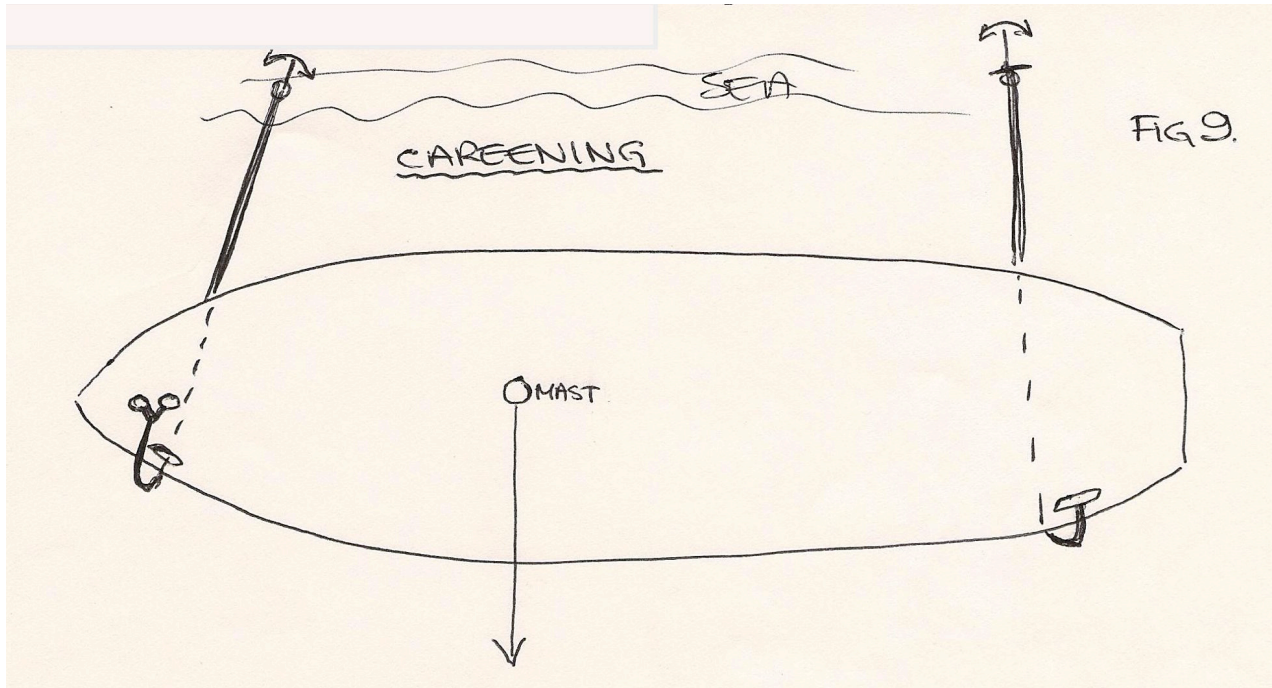
### Correct fitting of Standard Rudder (Fig 8)

The forward edge is a straight line in the Standard Model. The early type Rudder is lozenge shaped and it is difficult to determine which is the forward edge



**SCRUBBING**

An easy way to have a quick scrub is to come into two feet of water on a rising tide where the sandy beach shelves gradually. With the boat broadside onto the shore two anchors are run out to sea with their warps passing under the boat. (See Fig 9) A third warp is taken from the mast head and run to a landrover, third anchor or to a gang of willing slaves.



**SCOTT STABILISER - FOR ROAD TOWING**

This is a friction damper which stops the boat from snaking when towing. This super gadget enables one to travel in a relaxed manner at much greater speeds than before. The maximum speed attained cannot be divulged in print.