

RAUDASCHL SAILS INTERNATIONAL

INFORMATION

7 Superior Ave.
Toronto 14 Ont. M8V 2J1
tel. 255 3431

ALBACORE TRIM TIPS

Dear Albacore Sailor:

This year we are able to provide you with detailed information. These are our thoughts and we hope you can benefit. We also asked Ian Brown to write down his thoughts, since he was very successful in the 1974 Canadian Albacore Championship, using the newest cut 1974 Raudaschl Sails. We thank Ian for his cooperation and his additional comments on trim and tuning tips.

During the past four years, sailshape, draft location, cloth flexibility, bending devices and fitting location have been changing constantly in the Albacore Class.

The Albacore Class seems to be a class, in which continuing developments have created a high standard of performance, however we feel the ultimate has not been reached and therefore we contribute a great deal of time and efforts in research, we continue in our intensive program to match the ideal sailshape to masts, and are able to offer the competitive sailor, sails which are consistantly faster and which are made to the highest quality standard.

As we specialize in racing sails, these are cut as allround sails for very light to extremely heavy winds. The provided sail adjustment devices should be constantly used under changing wind conditions to gain the optimum sailshape and boatspeed.

As sailshape, sail trim, mast bend, rigging tuning remains the secret of successful sailing, we try to take out some of the mystery with this article and we believe, that our contribution in details not only in sails will help keen sailors gain more knowledge resulting in better competitive sailing.

Four years ago the trend for sails on the Albacore was a full cut main in combination with free bending masts.

Three years ago sails became more flat with the fairlead position of the jib starting to move inboard.

Two years ago Albacore mainsails were flattened out more, as the shape of the jib was redesigned to accompany closer inboard sheeting. In general the jibs were cut with max. long luffs, short foot and long leech, cut medium flat.

Last year in 1974 we were experimenting with a medium flat main for reasons of using a completely new designed jib, which is to

Service
international:

St. Wolfgang
Austria

Kiel
Germany

Toronto
Canada

Hyères
France

Sao Paulo
Brazil

page 2

be sheeted inboard as close as 8° . Even with this close sheeting angle we noticed very little backwinding in the main, therefore more total sailarea is been used more effectively and especially upwind the boatspeed has increased. This new sailcombination is now our standard production made sail for 1975 after it has been proven successful in the 1974 Canadian Albacore Championship.

Main:

The new flatter type main is best used on a mast which is to be controlled for mast bend. The mast should be blocked off at the deck level. When boomvang tension is applied the mast will take an even curve and the top of the mast should be bending off to leeward. Typical masts with these features are Proctors and Bruder aluminum masts and to some degree Elvstrom masts. Our new mainsail is cut to allow for this limited mast bend. Using these slightly stiffer masts it was necessary to cut the leech more open, with the result of less weatherhelm and better heavy wind performance. In light air the leech needs to be tightened and light boomvang tension needs to be applied.

Main hoisting:

When hoisting the main, it is most important to keep the head of the sail to the black band painted on the top of the mast. When setting the tack of the main to the lower black band, the luff takes some tension and the flexibility of the main halyard will result in slipping of the head below the black band, especially after applying cunningham tension to the luff of the main. After you have found out the perfect setting, you should mark the halyard and the mast perhaps with tape, which will insure you the right setting every time. If an all wire halyard is used, which is recommended, there is no stretch involved and it is rather simple to have an eyesplice at the end which will fit over a lever tensioner.

Tack position:

To easily hoist the main, the tack position will be raised by sliding the gooseneck app. 6 to 8 inches above the black band. After the top of the sail is set, you will then start to lower the tack. For light wind the sail should be set app. 2 inches above the black band. When the wind reaches app. 8 miles perH. you should lower and set the tack to the black band. In this position the sail is in its natural cut length, showing no luff wrinkles, with the draft in our designed location 40 to 50% aft.

Foot setting:

As the wind increases, we first tighten the fairly loose set foot of the main to app. one inch from the black band with no cloth wrinkles showing. This will help to open the leech between clew and first batten and also will decrease the shelf along the boom. When the velocity of the wind begins to increase, the foot needs to be pulled out to the extreme black band limit.

Cunningham:

Supplementing the foot setting (see above) the luff with the cunningham block needs to be tensinned to keep the draft in its designed location. In very brisk winds it will be necessary to tighten the cunningham extremely. This might bring the draft further forward to perhaps 35%. However with this tension we achieve the

page 3

leech at the upper part to open up in combination with the mast bending sideways on top. With the leech opening in heavy wind, you will feel much less weatherhelm and you will be able to drive the boat much more easily through gusts and waves.

Boomvang:

In very light wind the boomvang needs very little tension as we do not need any mastbend; we need to maintain a full main. The weight of the boom keeps the required tension on the leech.

In medium wind we put slightly more tension on the boomvang, just enough to keep the boom from raising. It may require additional tension when reaching. The mast takes now a slight curve and the sail starts to become a little flatter. With increasing wind we keep tensioning the boomvang, always a little more for reaching, with the mast bending now to the limited max. bend. It is however essential that the top part of the mast carries an even bend to leeward to put a twist into the leech of the main even with boomvang tight. If this twist cannot be achieved, the boat will be easily overpowered, and the alternative is to sail with less boomvang tension and traveller eased to leeward.

Steering through heavy wind on a reach

If you are overpowered on a reach, the first thing to do is to quickly lay off, which automatically levels the boat, maintaining max. speed. If you are not able to level the boat with quick tiller reaction, the mainsheet should be eased also. However it is also important that you quickly bring the boat back on its course and at the same time pull in the mainsheet where it was before. You should always do this while using some of the extreme puff to quickly get back on course with max. speed. If you wait until the gust has completely diminished and would then bring in the mainsheet and alter course, you will find, that the boat has stalled out and it will take some time to regain max. speed. A loss of 50 to 100 ft. or more to the competitor is possible if you cannot make use of a gust to your favour.

Steering through heavy wind on a buck or close hauled

Being overpowered upwind requires first a great physical effort of both crew and skipper trying to level the boat by hiking out. In sudden gusts the skipper needs to react instantly, heading into the wind to level the boat and falling back on course, always trying to maintain the same heeling angle (as flat as possible) with max. windforce applying to the sails, resulting in max. boat-speed.

Traveller action

The traveller is important and should be used along with mainsheet trim action. In light air the traveller should be pulled app. 3 " to weather of the centre point with the mainsheet eased slightly and with the boomend pointing 3' below the centreline. This would give the main a soft setting and still set well for optimum pointing. Centre sheeting on a stiff boom is preferable. With increasing wind the traveller is eased to the centre with mainsheet pulled in tighter. Before easing the traveller further, better performance would be gained by working on the mainsheet. This however would mean constant easing and pulling of the sheet and not everybody is physically able to do this over a long period of time. In very heavy wind the traveller should be eased app. 12"

page 4

over the centreline (centre boom sheeting) with the mainsheet pulled tight. It is now most important to actively work with the tiller to steer the boat up and down through the waves and gusts, preventing the boat from extreme heeling and stalling. Since the skipper has to concentrate on this action constantly, the crew should hold the jib sheet in his hand, if possible not cleated, to ease and pull in the jib to trim to the boat's changes of course through the waves.

Slot effect:

Assuming the mainsail is set perfectly for the existing wind condition, you should look along the leeward side of the main from the boom upwards. You will see the draft of the main very clearly from that angle and you will notice, that the draft depth changes from the top of the mast to the boom, while the max. draft depth is app. in the middle of the mast. As the mast takes an even bend under tension, the max. bend occurs app. in centre while at the boom very little mastbend exists, therefore the sail in this area needs to be cut flatter. A second reason for the main being cut flatter towards the boom is the extreme inboard sheeting angle of app. 8° of the jib, which will make the boat point higher into the wind, but would force also a lot of backwinding into the main if cut too full. The reason for the main being cut medium flat towards the top of the mast is to achieve a very open leech with the top of the mast bending more extremely in heavy wind.

Now if you look along the draft of the main and while with fairlead position is being changed to set the jib in such way that the leech of the jib will take an almost identical curve and twist to the draft curve of the main. If you look at the jib now you will find that you have almost identical tension on both foot and leech. This position is perfect for heavy wind, as the leech will open up automatically spilling excessive wind. As the new Albacore jib is rather skinny towards the top and may open up more than required, this must be adjusted by moving the fairlead position slightly forward to tighten the leech. In very light air the fairlead position needs to be set forward with the jibsheet eased slightly to produce a very slight twist in the jib leech. Our new medium full cut jibs also carry a very large footroach, which is very effective in light to medium wind. If the jib is sheeted in too hard, a foot tension wrinkle from tack to clew will show and the large roach below will tend to collapse. In heavy upwind sailing you sometimes must sail with a very tight foot and you should make sure that the roach is set on the deck which will stabilize the shape of the jib along the bottom area. If the roach is blown to leeward, flapping may occur with negative influence on the air flow.

Hiking:

In heavy air it has been found in the Albacore that control of the boat is the major importance. Concentration in upwind sailing in heavy waves and on reaches with surfing and planing when properly done will bring you great benefits. Hiking out on an Albacore on a long buck is very exhausting and only sailors with good physical stamina can strongly hike at the end. It is therefore very important to control your stamina and make the awkward hiking on an Albacore as comfortable as possible with the installation of foamrubber coated hiking straps, which should be adjustable separately for skipper and crew. As the hiking for the crew is far more exhausting than for the skipper, the skipper needs to hike out almost constantly while the crew adjusts to keep the boat as flat as possible.

Mast Rake:

You must arrive at your max. mastrake with jib luff set tight, boomvang and mainsheet pulled tight, and mast blocked solid at deck level, the mast bent and main flat. The end of the boom should be pointing downwards towards the transom. If you release the boomvang and mainsheet, the mast will straighten itself and the boom will be level or horizontal with the boat. The shrouds and jib wire luff remain tight. The luff of the jib should always be tighter than the forestay to avoid sagging of the jib. A tight set jib luff will help the boat point higher. The forestay therefore is not really needed but must be attached as per class specifications. We suggest attaching the forestay to the bow fitting with a flexible line to gain a certain amount of stretch.

Rigging:

With our new sail cut it is important to control the mast. We already mentioned that the mast should be blocked off at deck level and that the rigging is set very tight. If spreaders are used, these should not be longer than 15" and they should be set at an angle of app. 5° aft. They should also be fixed in this position, not allowing any swing or limited swing action.

Perfect boat condition:

The serious Albacore sailor should always keep his hull in good condition; any rough spots should be sanded; any small chips should be smoothed out and the plastic or rubber strip along the centre-board bottom should be straight, not twisted or wavy. The centre-board and rudder should be very smooth.

You should always check the rudder fittings, your standing rigging, halyards and fittings, to avoid breakage which could put you in dangerous situations or which could turn the successful start of a racing event into a disaster.

And keep in mind that the key to successful sailing besides the technical knowhow is continuing practise and teamwork efforts. As the Albacore officially is being raced without spinnakers, the boat remains one of the only dinghies which can be sailed very competitively with husband and wife as a pleasant family boat. It is noticable that husband and wife teams are doing well in top events among professionals, like boatbuilders, sailmakers etc. More and more sailors even from high performance classes like Tornados, 470, 505 etc. switch periodically to an Albacore, realizing the competition which this class has created during the past few years.

The backbone for this class is the strong Class Association doing an excellent job in continuing to demonstrate the popularity of the Albacore, insuring to each member and boat owner the value of Canada's most popular one design Class Dinghy.

We wish you a successful sailing season 1975

With sailors greetings

Heider Funck
Heider Funck