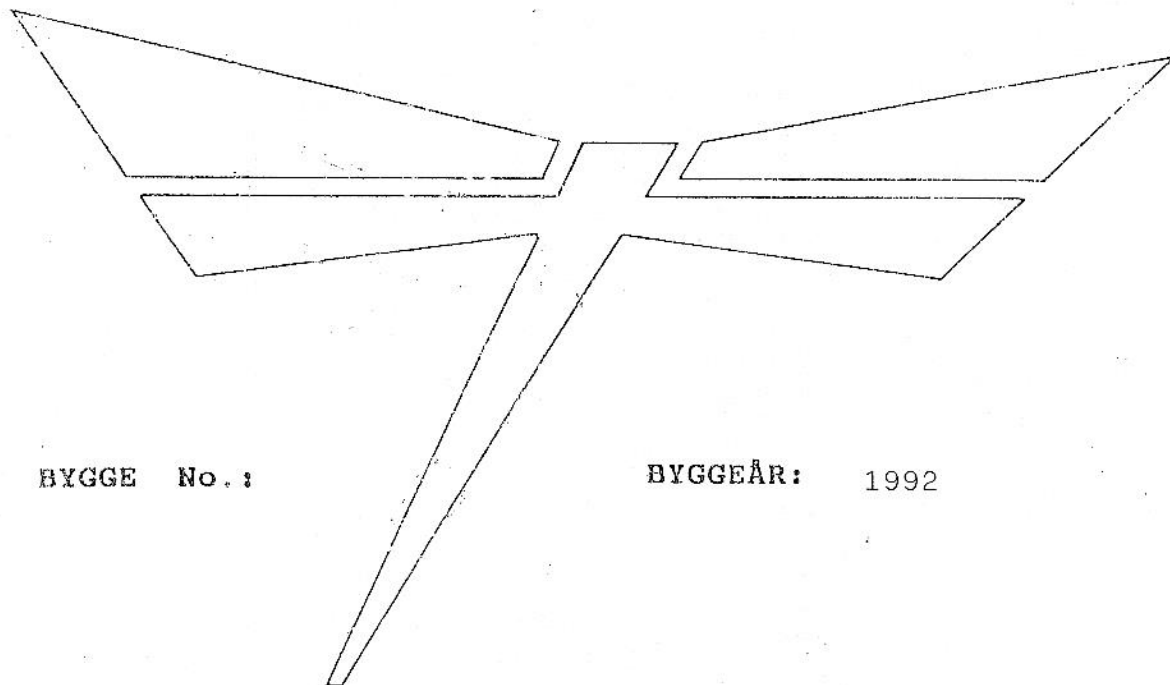


DRAGONFLY 800 SWING WING

OWNER'S MANUAL



BYGGE No.:

BYGGEÅR: 1992

1. ejer: M. Goesten & Arno Pont

PREFACE:

Anybody sailing a Dragonfly 800, owner and crew should read this manual to make the most and for better understanding of this beautiful product that offers, correctly used, the greatest pleasure of sailing.

You should be acquainted with the manual before using the boat. Dragonfly is built on more than 25 years of experience in multihulls, and we feel that today we are delivering a hightech quality product. Quorning Boats endeavours to deliver a perfect product. Should this not be the case with your boat we ask you kindly to contact us soonest.

Have a good time, and please keep "our" proud product respectable on the water and on land, we find that the Dragonfly deserves that.

Birthe Quorning

Børge Quorning

Jens Quorning

IMPORTANT:

The Swing wing system must only be used in protected harbour areas. Any use elsewhere at owner's own risk.

NAMES OF PRODUCTS USED FOR DRAGONFLY:

HULLCOLOUR: Topcoat no. WHITE 200 (2000) or
International RAL no. 9010.

INTERIOR COLOUR: Topcoat no. 5022.

RED STREAMERS: 3M no. 3650 - 176.

ANTIFOULING: International VC 17 M

THE WOODWORK should be oiled at least once a year with oil for furniture. Internal, only!

DRAGONFLY is built of handlaid, reinforced glasfibre polyester combined with sandwichcore.

For eventual repairs use ONLY products on polyesterbasis. Epoxy can be used in an emergency, but cannot be cosmetically improved later as you can with the polyesterproducts.

OPERATING THE SWING WING SYSTEM:

The unique swing wing system is built and constructed for use in protected areas, such as marinas, to fit into a normal "berth". We recommend to use the swing wing system only where it is necessary f.inst. due to lack of space. On any other occasions use the boat with its full beam.

IMPORTANT:

ALWAYS use the swing wing system **WITHOUT SAILS**.

The sails must **NEVER** be hoisted when the floats are folded in.

Always stow the sails **BEFORE** you start touching the swing wing mechanism.

Make it a habit every time you use the swing wing system, **FIRST TO TURN THE MAST 90 degrees** to one side as by doing so you reduce the resistance of the wind by app. 40%.

USING THE SYSTEM: Example: The boat is unfolded and must now be folded in.

1. First of all you loosen the combined backstay-top-shroud.

2. No persons are allowed on the trampoline, the wings or the floats when folding in.

Also loosen evt. spinnakersheets, barberhauls etc.

3. Remove the stopbolt in the aluminiumslackingtube at the cockpit coaming aft and release the easylock for the outhaul inside the glovecompartment.

Remember only to use the lines coming up from the double-wheel in the coaming for the swing wing system. The outer line is for the outhaul and the inner for the inhaul.

4. The system is now open and you use the inhaul via the selftailing winch on the coaming. As the line is endles through the connection with the outhaul make sure always to straighten the line to avoid "kincks". The float is now ready to be pulled in, and when it is possible to lock the lockingtube the float is in position. Make sure to leave the inhaul on the winch as it holds the front part of the float in, then you can adjust the backstay by setting it lightly.

Same procedure in the other side.

5. To unfold the boat the procedure is the same, just reverse, but make sure that the various lines are NOT jammed between the wings and the hull and beware of children. And to start the swing a gentle push on the float will get past the "dead" angle.

6. In case the boat does not unfold easily do not use power on the winch, most probably a line has been jammed or a similar little detail. Same procedure just reverse when folding.

7. When the floats are unfolded you have quite a lot of line over the coaming. Put your hand into the coaming and pull the line for the outhaul down in the coaming again, at the same time tighten the line for the inhaul to prevent it from falling into the water.

8. Make sure there is no sand on the sliding areas of the floats. If you f.inst. just launched or berthed you should rinse with a bucket of water over each saddle to clean the surfaces.

Should the system after some time start squeaking, oil the sheavebox where the wire goes into the wing with teflon-spray or the like, and the sliding surfaces on the floats should be waxed.

ASSEMBLING OF DRAGONFLY SWING WING:

9. Wings: First of all mount the wings in respective places with the big keybolts and lock them with washers and lockrings. The aftwings must be mounted and fixed in outfolded position by means of the aluminium locking tubes. In case of only two persons on the job the front wings must be held folded out with ropes when mounting the floats. The floats are placed on the ground under the wings in position for mounting.

10. FLOATS: Lift up the floats and mount - first with a nut on each bolt. Afterwards these are tightened just so that the floats lie against the underside of the wing, then mount the locker washer and a locknut on top - tighten hard! When using the boat you must regularly look after and make sure that these are always tightened.

11. WATERSTAYS: All 4 waterstays have the same length and can be mounted both aft and forward. The threadpart of the waterstay you have to turn into the big stainless steelfitting in the end of the beam where the ama is mounted. Then you adjust it so that when a person pushes down on the float you put the pin through by the centerhull, just so that the waterstay is not loose.

12. NETTING: The trampoline nettings are marked for either BB (port) or SB (starboard) mounting. Pull them into the netting tracks alongside the cabinsides and the frontwings. The wire in the netting is fastened at the front wing (A) by the stainless shackle to "the wingfitting" - and at the aftwing-mainhull connection in the stainless triangle fitting is mounted a forkterminal is mounted and the wire is mounted to the wing on the metal wheel in the netting.

13. STEPPING THE MAST: Roll the mast forward on the rubberroll on the bowpulpit. The best way is having a person on the boat and one on the ground supporting the mast. On the racing version you roll the mast forward with the back of the mast on the rubber roll and then you turn the mast. Now fix the mast in the maststep by mounting the keybolt through the hole in the shaft and through the mastfoot.

Remember to mount the windex and evt. antennas. Then pull the mainhalyard and genoahalyard "down" from the mast and pull reefinglines and halyards through various leading-blocks back to the halyardstoppers on the cabinroof. These are marked to show where the various lines have to go.

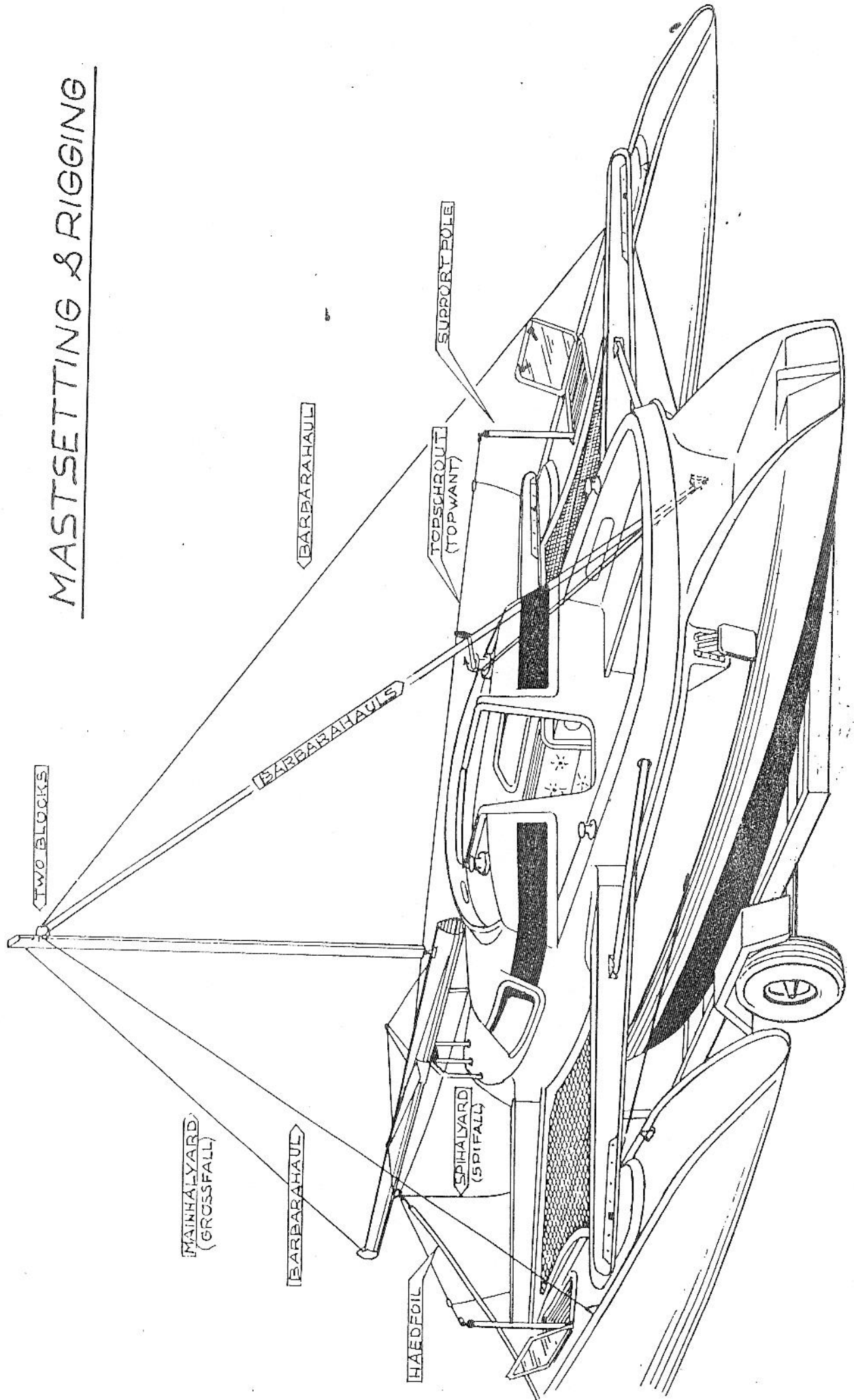
14. Backstay tackles and forestayprofile are mounted in the big "lockingring" by the topshroudfitting as follows. The lockingring is opened with key No. 17 and then you mount the topshroud, then toggle joint to the forestay and topshroud. On the topshroud the large eye with the white plastic is at the top with the two short wires downward.

15. Now mount the steeringtubes lieing in the floats. They are mounted in the respective eyes in the floats.

The short wirestrap in the topshrouds is mounted with the shackle in the steering tube. - Same is repeated on the opposite side. So the mast is supported sideways under the whole procedure.

16. Tie the barberhaul to the padeye in front of the aftwing in the floatrail. Then through a block you place in the boom where the mainsheet is fastened, pull it through the one double wheel in the cockpitbottom aft, and lead it to the SB winch on cabinroof. Same goes for the opposite side. Finally mount the mainhalyard with its block in the aft eye on upperedge of the boom. The spinnaker halyard is mounted in the eye on the bow. Hold the halyard tight to avoid the mast from falling backward with a jerk just

MASTSETTING & RIGGING



before it is raised, and again when the mast is laid down, you pull the mast forward in the beginning until the mast is over centre.

17. One person lifts up the boom and both "barberhaul" lines are pulled at the same time over the SB halyardwinch on the cabinroof. The boom is now hoisted and ready to lift the mast. Barberhaul and mainhalyard are adjusted in a way that the boom points forward so that when starting hoisting the mast the boom is still pointing a little forward. Before setting the mast check once again that everything is in order and placed properly!!

18. Make sure that **ONLY** one or two persons hoist the mast. One person hoists the mast over the winch with the two barberhaullines - and one person who only holds back on the spinnakerhalyard to prevent the mast from falling aftwards.

19. Then hoist the mast slowly - take your time - take it easy. Have an eye on all the lines - that they are not hanging on to something! When the mast is hoisted $3/4$, the forestayprofile is mounted to the rollingdrum in the foredeck. Again holding back easily on the spinnakerhalyard so that the mast is raised quietly.

20. When the mast is in place you mount the spinnaker-halyard in the eye where the barberhaulline is fastened on the floatrail. The spinnakerhalyard is tightened lightly to enable dismounting the topshroud from the steeringtube and mount the long wirestrap in the topshroud fitting on the outer rail of the float behind the floathatch. The same goes for the other side and now the topshroud tackles are placed in the remaining short wirestrap respectively in the padeye aft of the aftwing inside of the float.

Now that the rigging is in order, **REMEMBER** to move the mast (the topshroud tackles must not be tight) back in the maststep so that the mast is free to revolve by removing the keybolt. Push the mast backwards and mount the keybolt

again in front of the revolving shaft. Now clear up all halyards and lines. Mount the mainsheet etc.

Important: When lowering the mast, first mount both barberhaullines via the amaboom, the doubleblock in cockpit to winch so the mast does not tilt forward when mounting the sidestays to the aluminum supportpoles in the amas. The procedure is reverse when you lower the mast. For trailering demount the sidestay/backstays - this is the easiest and simplest way of doing it.

If you own a genoaprotection you can leave the genoa on the forestay during transport and over the winter.

Another small timesaver: leave the halyards and the reefinglines in maststep and easylocks.

21. SETTING THE GENOA: Before hoisting the genoa make sure to roll some line on the drum. Turn the headfoil clockwise until you have app. 3 feet line left in the cockpit. In this way you are able to furl the genoa at once when it is hoisted.

22. Shackle the genoa to the sliding fitting on the headfoil and mount the release wire in the genoa to the small wirestrap in the headfoil sliding fitting. In the boat you will find a thin line mounted with a S-hook. Mount the spinnaker halyard in the upper closed hole and the thin line will turn downwards, lead the open hook into the open hole in the headfoil sliding fitting, which will automatically go up too. When the genoa is in place - try first to pull the luff downward of the genoa and make sure that it is well hooked in the top. Now you can pull the spinnaker halyard down again with the thin line! Before you hoist the genoa we recommend tying the genoa sheet firmly and take it through the genoatrack fitting to the halyard stopper, which enables you to control the genoa.

To lower the genoa, release the sliding fitting in the top by pulling the little wire which is sewn into the genoa below the luff.

22a. BATTENS IN GENOA: "Elvström's" battens in the genoa, the two-in-one system, has been developed for maximum use of the genoa in connection with rollerreefing.

You mount the battens from the bottom of the genoa, pressing hard upwards, with the "small batten" and the batten is automatically locked up with velcrotape.

To dismount the battens you "open" the velcrotape with the small batten and the batten can be pulled out. The best way of transporting the battens is putting them into the mast.

23. MOUNTING THE MAINSAIL: Remove the screw at the mast-feeder just above the gooseneck. The sail is placed on the boom between the lazy jacks and the sailgliders are lead in from the top of the sail. Finally you mount the screw into the feeder again so that the gliders do not fall out.

24. LAUNCHING FROM TRAILER:

IMPORTANT: Beware of high tension wires etc.

We recommend launching the boat in its full width if your mast is set. In case the width of the ramp prevents this you launch your boat in folded position with the mast lying on the cabin roof as it does when transported. When lying in the water unfold it again and then hoist the mast. Remove the backlights from the trailer (but do not forget them again). Whether sandbeach or ramp, drive the trailer out into the water until **only the rubber** of the tires is in the water and you prevent your brakes from becoming rusty. The boat is still easily launched.

In any case flush with freshwater afterwards.

Before launching the boat make sure that everything is completely in order, that f.inst. the motor is mounted and ready to start up and that the rudder is fixed etc.

25. You disconnect the trailerwinch from the trailereye on the boat and now you can roll it into the water. When the boat starts rolling off **one** person must keep the balance at one of the floatbows while the other person is pushing.

This way the boat will roll easily into the water. But beforehand check that there is enough water for the boat and search the bottom for sharp articles like stones, old iron etc.

26. The same procedure but in reverse order goes for taking the boat out of the water. If you work from a sandbeach you will definitely need a fourwheeldrive with wide tires. Maybe you could find some boards for the tyres to get a firm grip to prevent the car from digging into the sand, an ordinary car cannot cope with this job.

26 a. LAUNCHING WITH A CRANE: If you are unable to launch from trailer, but only by crane you will need some straps to put around the hull from side to side just in front of and behind the wings to lift the boat. You can make use of this technique with the wings in- or outfolded.

The liftingpoints are app. above the centre of the cabin entrance.

When you place the front liftingstrap make sure you avoid the log under the bottom. Push the strap aft.

SAILINGTIPS.

27. MANEUVERING IN HARBOUR: If the water is deep enough always sail with the swingkeel DOWN for better maneuvering. The maneuverability is good whether in folded or unfolded position. By turning rudder and motor at the same time Dragonfly 800 is actually able to rotate round its own axis. This fact is nice knowing to get out of difficult situations. Remember the boat is light and has some potential wind resistance to make it stop easily and drift quickly in heavy winds.

In marinas you might use the low draft to moor where nobody else can go. If you find room in a normal small berth always enter with the bow first as the floats are 1 m longer aft than the mainhull when the boat is folded.

Again remember to rotate the mast 90 degrees for better stability by reducing the windage.

28. RECOMMENDED SAILAREA TO WINDSPEED.

knots		upwind
0 - 15	0 - 7,5	full sailarea
15 - 20		full main - genoa 1 reef
20 - 25	12	full main - genoa 2 reefs
25 - 30		main 1 reef - genoa 2 reefs
30 - 40		main 2 reefs - genoa 2 reefs
40 +		main 2 reefs - tiny bit genoa

knots		beam reach (wind from the side)
0 - 20	0, - 10,5	full sailarea
20 - 25		genoa 1 reef
25 - 30		main 1 reef - genoa 2 reefs
30 - 40		main 2 reefs - genoa 2 reefs
40 +		only genoa 2 reefs

knots		downwind
0 - 25	13	full main + spinnaker or genoa
25 - 30		main - genoa
30 - 35		main 1 reef - genoa 1 reef
35 - 40		main 2 reefs - genoa 2 reefs
40 +		only genoa 2 reefs

This should be considered a general outline with reservations for sailing experience, familiarity with the boat, and wavesize.

SAILING AND TRIMMING.

IMPORTANT: It is of great importance to keep your sheets and halyards tidy when sailing, this is an important safety factor and improves the sailing.

29. MAST ROTATION.

Tacking: The mast must turn app. 45 degrees to each side for normal sailing. In light wind up till app. 60 degrees to each side. In hard wind only app. 30 degrees to each side.

Beam reach and broad reach. Generally the mast in this kind of wind must turn app. 60 degrees to each side, i.e. again in lighter wind up to 90 degrees and in hard wind adjust to app. 45 degrees.

Downwind: The mast must always be turned completely to the side 90 degrees.

These tips on trimming the mast are meant to be hints and are not decisive, but **do remember** that when using the mast preventer (easykick), remember to release those before jibing or tacking if you use them.

When sailing - go to the mast and look to leeward of the main, this tells you a lot.

30. MAST TRIMMING: The mast is always in trim from the yard, but generally the mast may bend app. 10 cm over the aft edge in full length. When holding the main halyard close to the aft end of the mastends, the distance to the mast should be app. 10 cm at the diamonds position. The more particular sailors can loosen the diamondstays for a fuller main in light air, and also tighten to obtain a more flat sail in heavy winds.

31. TRIMMING THE GENOA: The genoa is the easiest sail to trim. As previously mentioned it is easy in light wind to loosen the downhaul a little. In hard wind you tighten the downhaul to flatten the sail to avoid wrinkles.

Under normal conditions the genoa car on the cabinroof should be placed aft on the track, if the genoa "closes" in the aftleach, place the genoa car aft, and if the genoa "opens" in the aftleach, pull the genoacar forward. You can adjust the genoacar from the cockpit via the outhaul on the easylock, and also the genoasheet goes through the easylock on the outside, marked GENOA I. The easylock is just left open to use if the winch is needed for another purpose. In case you need to put a reef in the genoa you must pull the genoa car forward for right trim. For reef 1 the genoawagon is pulled app. to the middle of the track, and for reef 2 it is pulled almost all the way forward. You only use the barberhaul downwind.

TRIMMING THE MAINSAIL:

32. REEF CUNNINGHAM: It is recommended for normal "ordinary" sailing always to have reef 1 mounted in the sail, i.e. that the singleblock with the wichardhook at the boom is mounted in the port side by the luffleach on the main in the stainless ring at reef 1. The reefingline will automatically go further down in the boom and appear aft in the boom by the turtleblock and from here it runs through the ring at the aftleach in reef 1 and down on the other side it is fastened to the eyebolt. In this way you have a one-line reefingsystem. Same goes for reef 2, which for daily use is recommended used as a cunningham to minimize the amount of lines in the sail.

If reef 2 is mounted you will miss a cunningham, but here again you use reef 2 by taking the reef 2-line, where it comes out of the mast and put reef 2 in through the cunninghameye in the sail and fasten reef 2 in the clamcleat on the mast. In this way the cunningham is easily changed into reef 2 again.

REEFING THE MAINSAIL: In order to reef the main you loosen the mainsail halyard and it is recommended to mark on the halyard partly where reef 1 and partly where reef 2 is. I.e. the halyard is loosened and the reef is pulled hard so that the wichardblocks by the mast are app. 30 cm above the boom.

If possible you will of course luff into the wind and ease off the mainsheet, the mainhalyard is loosened till the mark reef 1 and then you pull the line reef 1 which is marked on the easylock. This line will then automatically reef the luff first and then the leach. Same procedure applies to reef 2 and the reverse when reefing out. After each reef the sail ought to be "packed" with rubbercords for less windresistance.

33. MAINSAIL. The main needs much trimming, especially on the mainsheet as the boat has many speedpotentials within few windforces, this calls for concentrated trimming if you want maximum speed in your boat. Generally the leach seen from the boomend to the masttop must be almost straight, no matter what windforce: the roach must absolutely not "fall out" or twist unless the boat is pressed too hard. Trimming the main in a breeze takes great effort. If you get tired in rough conditions you take your mainsheet on a vacant winch.

34. SAIL FOOT is trimmed as usual. Light wind when tacking, light curve. Downwind, big curve. Medium air tacking, flat bottom. And downwind, large curve.

Hard wind tacking, flat bottom, and downwind also flat bottom.

35. CUNNINGHAM: In light wind you set the cunningham to avoid "wrinkles" in the sail, which has the effect that you have to help the main when tacking so that the battens are turned right for the new tack.

In medium air the cunningham is only tightened so much that the wrinkles in the sail are gone and the luff straight.

In heavy wind the cunningham is tightened hard to flatten the sail at the same time you pull hard in the mainsheet.

If f.inst. you are anchoring or beaching for a short time with the mainsail set loosen the cunningham to release the tension in the sail to quieten the boat.

36. MAINSHEET CAR: Multihulls have a rule that goes: the mainsheetcar must never pass the centerline of the boat to windward. Not even in light air. If the wind is increasing when tacking and you find the main has too much power try sheeting the mainsheetwagon, app. 10 - 15 cm to leeward instead of slackening the mainsheet and therefore hollowing the main. Doing this the boat can take more wind without reefing. - Eventually you can also ease off the sheet.

37. USING THE BACKSTAY: The combined topshroud-backstay has been developed because of the swing wing system to enable easy and quick trimming of the topshrouds.

When tacking always set the backstays in both sides to obtain the right tension on the topshrouds (on the racing-version this goes for the outer backstays), and in light air you can set them directly with your hand and fasten them in a camcleat.

In a little more wind set the backstays light on the selftailing winch with the handle. In heavy wind you set the backstays on the selftailing winch as hard as you directly can, turning the winchhandle with one hand.

(On the Racing-version you set the outer backstays as hard as you can with one hand and place it directly in a camcleat -and the inner backstay you also set as hard as you can with one hand on the winchhandle on the selftailing-winch.

Downwind you ease off leeward backstay and windward is tightened the same way as before. If you ease it you can use leeward backstay as **kickenstrap** at the same time as preventer (prevents unwilled jybining), but also remember to demount it again before a voluntary tacking.

37. SPINNAKER SAILING.

Sailing with the spinnaker is a third dimension in sailing which a lot of people dread caused by bad experiences. On a trimaran spinnaker sailing is fun and a comfortable adventure. A trimaran is not heeling over from one side to the other (rolling), and the spinnakerpole is nonexistent. With a little practice you can actually handle the spinnaker alone, but always handle it with respect!!

If you respect the spinnaker and use it with reason it is great, - also when cruising.

BARBERHAUL: If your spinnaker equipment is delivered from the yard you mount the barberhaul as follows: The barberhaul for the genoa is combined with that of the spinnaker (15 m). You will find a small block in the end of the barberhaul which is meant for the spinnakersheet.

First you lead the barberhaul through the block in the bow of the float, further back to the outer side of the frontwing, - through the small black plastic fitting with the steeleye, further on up to the the doubleblock, which is placed in front of the genoa-lead block. The barberhaul goes through the other wheel in the doubleblock and from here to the "bottom ratchetblock" which is placed at the end in front of the aftwing. Make sure you put the barberhaul right through the ratchtblock from this point it is lead to the cockpit in a camcleat. Now you have mounted a barberhaul system serving both spinnaker and genoa.

SPINNAKERSHEET: Is lead from the cockpit to the top "reacher block" above the barberhaul and directly outside the topshroud to the small block at the end of the barberhaul on the floatbow through this block to the eye in the pulpit.

SPINNAKER: After sailing with the spinnaker pack it every time, i.e. pack it systematically, so that you end up with the head and the two clews at the top of the bag, ready for use. If the spinnaker has been damp or wet from sailing it dried before packing. Or if it is not too wet leave it in the cabin spread out to dry.

SETTING THE SPINNAKER: You can set the spinnaker either from the lee trampolinenetting or from the bowpulpit in front of the forestay. Tie the spinnakerbag to the boat and mount sheets and the halyard. Make sure the lines run correctly (see sketch), that the spinnaker f.inst. is not twisted round the forestay or the diamond spreader. When the sheets are mounted, pack it all into the spinnakerbag so it does not fall out. Set the windward barberhaul and slacken the one in the leeward side. Alter your course to full downwind (watch out for the boom) and hoist the spinnaker quickly to prevent it from falling into the water. It is a good thing if another person starts pulling the leeward sheet when the spinnaker is halfway up and when 3/4 up pull the windward and your spinnaker is perfect.

Caution: If you feel any resistance hoisting it or sheeting it, stop pulling immediately. It does not take much to rip it apart if it is stuck!

When the spinnaker is full, roll in the genoa. It is very important that your spinnaker fills first or you will find yourself rolling it into the genoa. It never pays sailing with both genoa and spinnaker.

USING THE BARBERHAUL: Leeward side must always be slack. The windward barberhaul must always be tightened on beam reach, and sailing downwind all loose should be fastened lightly if windy, app. 1 m from the bow.

JIBING WITH SPINNAKER: Bear off to downwind course and set both barberhauls in broad reach position, (very high barberhaulpressure). Loosen the backstay clipped to the mainsheet as kickenstrap and remount the backstay on the topshroud. It is **IMPORTANT** to loosen the mast controller and loosen the windward backstay and at the same time setting the leeward backstay. Now everything is ready and you slowly jibe to your course and at the same time jibe the main under control to the other side. All this while the spinnaker still pulls, if it is very windy pull the mainsheet tight when jibing and slack again afterwards. This way you avoid the so called "bang"-jibings that can smash everything. The new leeward barberhaul is loosened again and the job is done.

TAKING DOWN THE SPINNAKER: NEVER sail with spinnaker without mainsail.

If the wind increases it is difficult to take down the spinnaker. Practice can eliminate this problem. Prepare the spinnaker halyard and sheets so that they can "run" without problems. Bear off to a dead run, slacken windward sheet and from the leeward trampolinenetting you can collect the bottom of the spinnaker close behind the main like a folded curtain to take out the wind. This way you can control the spinnaker, easily and elegantly, now you can ease off the halyard and pull the spinnaker down. Do not ease off faster than it is pulled down and the spinnaker will not fly out and "draw air".

DISTRIBUTION OF WEIGHT.

The weight aboard should when possible be placed closest to the centre of the boat. The Dragonfly 800 is a very slim boat under water compared to ordinary boats and also much more sensitive to presence and distribution of weight. Naturally: bring as little as possible on board and remember that the boat must displace every kilogram you carry on board.

In light winds, pack the boat to tip a little on the "nose" giving less drag. Opposite in rough weather, make the bow light and move the weight aft to give the rudder a better grip and minimize nosediving. Maximum weight in each float is 25 kg and remember that max. recommended payload is 500 kgs incl. crew = 50% of the equipment of the boat exceeding what we call the standard boat.

39. SWINGKEEL - kick-up system.

The centreboard has been constructed in such a way that even the slightest touch of ground makes it kick up automatically via the releasecleat on the aftend of the centerboardbox.

To remount the clamcleat there is a small pawl on the underside which you bob down and the clamcleat can be repositioned.

Up- and downhaul are marked with arrows and when the knot on the line reaches the box the centerboard is down. Just like you can trim a dinghy on the centerboard you can also profitably do that on the Dragonfly.

Generally we always recommend to place the centerboard all the way down when tacking. On a reach half way down and sailing downwind all up.

Do remember, though, lowering the centreboard before tacking again. Under sailpressure you cannot possibly adjust the centerboard you will have to either luff or bear off to dead downwind to adjust the centreboard. Downwind you will seldom find adjusting problems.

CLEANING UP FOR THE WINTER.

1. You are recommended to wash the boat completely clean, wax and polish all surfaces except the skidpattern.
2. Make sure to take off the sails, sprayhood and cockpit-tent. Wash and rinse out dirt and salt. Everything must be completely dry, before stowed away for the winter and kept in a dry place.
3. CUSHIONS: For cleaning of cushions you can remove the cover by unfastening the zip on the back of the cushion. The material is pure wool and IS NOT machinewashable. Must be dry cleaned.
4. Various steel wires can be washed in warm soap and water, rinsed clean, dried and afterwards wiped with an oilcloth.
5. ALL ROPES AND BLOCKS should be washed in warm soap and water, rinsed and dried.
6. RIGGING AND BOOM. Make sure all lines and halyards are intact. Should a halyard have a failure at the end, turn it over. Every year all halyards and reefinglines should be shortened app. 25 cm.
7. THE WATERTANK must be emptied and cleaned by unscrewing the acryllid under the front bunk.
8. THE OUTBOARD ENGINE - ask your dealer.

9. THE MARINE BATTERY is removed from the boat and decharged, then you recharge the battery and store it like the cushions and the sails in a nice dry place.

10. Dry out the hulls completely to avoid frost damage.

11. Make sure the VENTILATION is good before storing the boat for the winter.

The best thing to do is to store the boat indoors for the winterperiod, if you use a canvas cover make sure it does not touch the boat in too many places as it might scratch.

ANY DAMAGES AND LACKS on boat, sails or instrumentation should be fixed in the autumn, everybody can give the best service at that time of the year.

SPRINGCLEANING.

1. EXTERIOR: Wash and wax the boat. (Do not wax the skid-pattern).

INTERIOR: Wash the boat everywhere to freshen up. If necessary oil your teak.

2. ANTIFOULING: Mainhull VC 17 M. First wash the bottom of the boat with freshwater, evt. high pressure washing, dry it out and apply VC 17 M with a lacquerroll. You will need app. 1 1/2 tin.

The centreboard has enough antifouling for the first three seasons, you will then have to lift the boat with a crane or place the boat on some car tyres and turn it from side to side to antifoul the centreboard.

The floats are treated with VC OFFSHORE WHITE which we recommend you paint on. Remember to tape off the "waterline" and maybe cover up the hull. You will need app. 1/2 tin for both floats.

3. It is recommended that all blocks, wheels and easylocks are greased with teflonspray, especially the easylocks - this should preferably be repeated a few times through the season.

4. Mast, boom and headfoil must be washed and waxed to keep the sails clean. If you do not immediately succeed in cleaning the aluminium you can use polishcream or cleaning powder.

HAPPY SAILING

SHEETING & TRIMMING

Spinn. sheet
outside

