



Europe dinghy Trim Guide - by Jonas Ullmann (DEN10)

Trimming a boat is a very individual matter, and depends on several factors, such as weight, size, physique, and style of the sailor, as well as his or her choice of rig/mast and sail.

This trimguide is based on my personal experience, and should therefore not be seen as a fact list, but rather as inspiration.

Who am I?

I got my first Europe dinghy in the summer of 2016, and have been racing ever since. I participated in several Danish and Swedish regattas, as well as three consecutive years of Easter regatta at Lake Garda in Italy. Furthermore, I participated in three junior European championships, and twice in the World championships (2017+2018). Four years of racing the Europe dinghy has left me with quite some trimming experience, which I will try to pass on here.

Selected results:

- Silver - DIF Danish championships 2020 in Soenderborg, Denmark
- Gold - DIF Danish championships 2019 in Nyborg, Denmark
- Silver - Junior European championship in Faaborg, Denmark
- Bronze - Junior European championship 2018 in Lake Garda, Italy

Mast:

The Europe dinghy is equipped with an unstayed, bendable carbon fiber mast. The mast curve (back- and sidebend) is crucial to the sailing characteristics of the dinghy. Several sailors hold opinions about which mast curve is more optimal. However, objectively and unbiased one could conclude that in general a hard/rigid mast fits the larger/heavier sailor, and consequently a softer mast fits the smaller/lighter sailor. The mast should be chosen to suit the size, physique, and experience of the sailor in question.



The difference between a soft and stiff mast.

As well as when choosing a sail, it is almost impossible to find a mast, which performs superb under all weather conditions. Consequently, one should compromise and go for an alternative that performs well in the long run and under most weather conditions. My mast is relatively hard/rigid to fit my size, physique, and experience. Apart from this, the figures in back and side bend seem to correlate, as seen in the graphs on page 4. We found that masts with almost identical measure points for back and side bend are the fastest. Also, my mast top is relatively rigid, however it still has a high back

bend number, as it is relatively bendy below the boom to the foot. The advantage being that the luff curve of the sail will perfectly to the mast under most weather conditions, and concurrently the mast will bend aftwards. These above circumstances are the main reasons for my choice of mast.

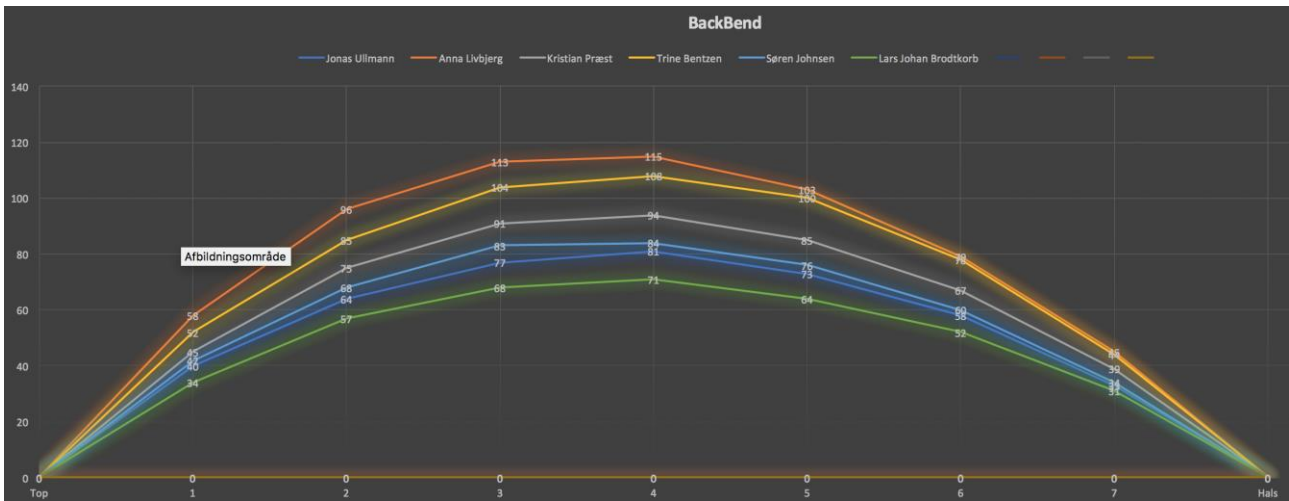


My mast in 10 knots. The mast top is relatively rigid, however still a large backbend number. The advantage being that the luff curve of the sail will fit snug to the mast under most weather conditions. It is obvious how the mast is softer in the bottom than the top

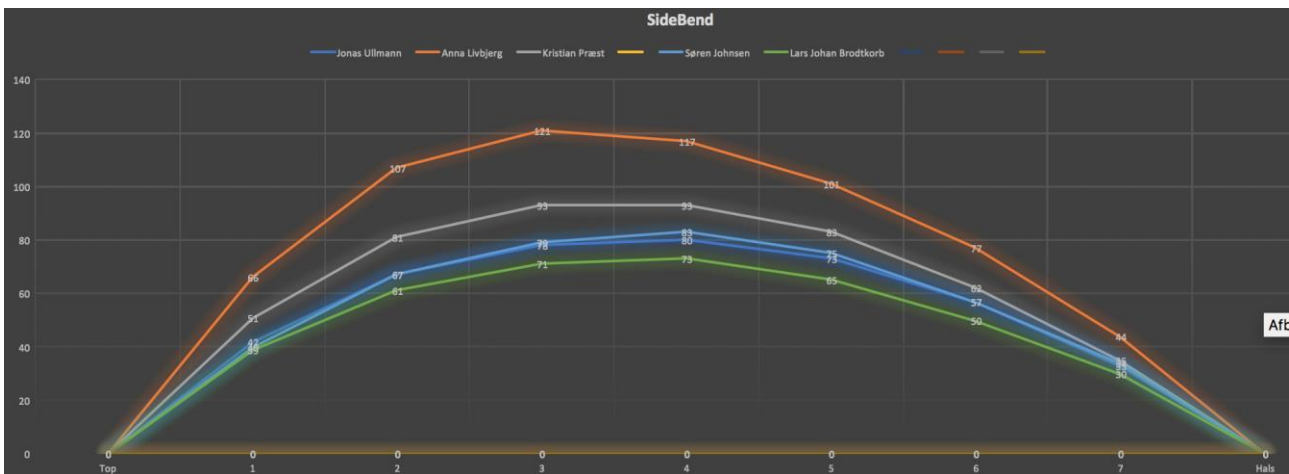
The best way to measure a mast is by tightening the mast horizontal and hanging a 10-kg solder from the top. This simulates a sheet pressure similar to a medium breeze. Then fasten a tightly stretched line from boom to top, and measure the difference between mast and line on seven different points.

On the following page, you will find back-and side bend graphs of selected sailors' masts. The x-axis is the measure points, and the y-axis is in millimeters. The diagram is organised with the mast top on the left, and the bottom to the right.

Back bend - mast bends aft



Side bend - mast bends to port or starboard



The choice of mast and mast curves might seem a rather difficult task. If in doubt, you are welcome to contact Morten Ullmann at UK Sails Denmark, who can give you an assessment by looking up your mast diagram. Tel +45 4586 6820.

Please note that when buying a new sail, the main luff curve will be made to fit the mast bend. Consequently, a used sail will most likely not be a precise fit to your mast. Should you however be on the lookout for a used sail, you might want to check if the seller's mast is a relative match to your own.

Sails:

I use EVO L from UK Sails Denmark. The aft leech of this model measures 512 cm, which is a bit more than EVO S and EVO M, both measuring 506 cm. Below I have listed the different UK SAILS models and their weight ranges.

UK Sailmakers - EVO S

- Sailors weighing less than 58 kg

UK Sailmakers - EVO M

- Sailors weighing between 59-70 kg

UK Sailmakers - EVO L

- Sailors weighing between 71-80 kg

UK Sailmakers - EVO XL

- Sailors weighing more than 80 kg

Basics:

To enable the perfect sail trim, you need to be on top of your basics and routines. First of all, the boat must function impeccably! Important checkpoints:

- Blocks, fittings, and lines etc. must work flawlessly. Breakdown of gear can easily be avoided by checking your boat thoroughly before and after each session. Always replace gear before it gets critical/fatal.
- All trim lines must be fitted/geared enabling sufficient slacking and tightening.
 - o Cunningham: Must be possible to slack sufficiently to prevent pulling the sail downwards, and nonetheless to tighten so hard that the sail almost rips.
 - o Kicker: Must be possible to slack so much that the boom reaches shoulder height when placed on a dinghy trailer ashore. Furthermore, you must be able to tighten the kicker so hard that it brings down the boom below deck aft when sheeted beyond the edge.

- Inhaul: Must be possible to tighten until the sail touches the point where boom and mast meet. This might prove difficult on a Marstrom Mast, if using the metal eye on the side of the boom fitting. Still, one could equip the fitting with a pulley or cross bar, enabling the line to run as seen on a Celidh Mast. The inhaul must be able to slack sufficiently to not pull the sail at all.
 - Outhaul: Must be possible to tighten until the sail touches the stop screw. Furthermore, it must be possible to slack about 15-20 cm. A safetyline of about 15-20 cm, fitted from the end of the boom to the clew of the sail - in case of a defect boom outhaul - is an advisable security measure.
- Trim lines: The side deck cleats should be arranged according to importance and frequency of use. I placed the kicker furthest aft, enabling easy access, particularly when sailing downwind. This is important to avoid unnecessary movements forwards, and consequently, avoid losing speed and keep the stern from diving at high wind speeds. Also, it enables quick action when, for instance, the boom dips in the water on a reach, allowing you to quickly slack the kick and thus avoid capsizing. Second from aft, I placed my Cunningham. This enables a fast and easy adjustment of pressure, which you need quite frequently for upwind sailing. Placement of in and out haul in the two remaining cleats is insignificant.
 - A line through the eye of the Cunningham and around the mast is REALLY important. The line ensures the shape at the foot of the sail, and prevents the luff from being pulled out of the mast. To ensure smooth running on the mast, you can fit small boggles on this line.



- Always use the same measuring equipment when measuring the mast rake, and make sure you measure in a uniform way every time. I use an elastic line, fitted from the lowest part of the mast ring to the adjustment screw for mast alignment/calibration. This allows me to observe on the twirls of the elastic band, whether the mast rake is in base/neutral. This is also an advantage on the water, and enables you to reset your trim, if necessary. Another advantage of the elastic line is the elimination of inaccuracy of your measurement equipment, as wind will often indicate imprecision of several centimeters.



Mast rake i base/neutral



Mast rake out of base/neutral

- Blocks: The sheet blocks on traveller and boom should not be freely twirlable, as this might result in a twisted sheet while sailing. Also, the sheet must be six mm or thicker, as it might otherwise get tangled in the sheet block. The sheet itself should measure approx. 6.7 meters, if fitted with a triple block. It is advisable to invest in two sheets, a thicker one and a thinner one for harder or lighter winds respectively. The lighter sheet gives you a better feel due to less friction. The thicker sheet provides a better grip and more friction perfect for hard winds.
- The rudder should, at the bottom, be angled forwards as much as allowed by class rules. This releases the pressure on the rudder, and enhances the steering of the boat considerably.
- The daggerboard must fit well to the daggerboard slot. It must be easily adjustable and with a snug fit. This is achieved by placing horizontal and vertical tapes on the board.

Mast rake and sheet pressure:

Mast rake and sheet pressure is incredibly important for the balance of the dinghy. When I go sailing, I usually start with a mast rake of 547.5 cm. On the EVO L, the leech is longer (512 cm) than on the EVO M & S (506 cm). The actual mast rake is always corrected according to circumstances when on water. The main goal is to bring down the boom to about one cm above the aft deck, simultaneously assuring the perfect tension of the leech. The reason for bringing the boom close to deck is to prevent turbulent winds passing under the sail as seen on recent AC boats as a so-called “Deck-sweeper”.



Deck-sweeper on New Zealand's Te Retuhai

The main reason why I prefer to trim the mast rake in order to bring the boom down to one cm above deck, is to enable a higher sheet pressure if necessary. I hardly ever bring the boom completely to the deck, unless a weather change on the water implies that my mast rake is no longer optimal.

When sailing in a very light breeze (0-4 kn), I always adjust the mast fairly backwards, to bring the boom closer to the deck. This is due to the fact that my mast is relatively hard/stiff. In lighter winds, the boom will always float quite a bit over the deck, as too much pressure on the sheet will close the sail. An open twisted sail generates speed.

When sailing in 5-6 kn I keep my mast in base position (547.5 cm), and the boom often floats 10-20 cm above deck. I constantly adjust the pressure on the sheet, depending on whether the sail is too open or too closed. The effect will show on your boatspeed or on the tell tales on the leech of the sail. As a rule, they should fly horizontal at least 80% of the time.



8kn and the boom is sheeted 10 cm over deck

When weather conditions offer 8-10 kn, I tend to deal differently when trimming the mast rake and sheet pressure. I always try to use my intuition on the boat. Once on the water, I will always check the balance going upwind. I pull the sheet in until the sail is one cm above deck. I then make sure that all other trimmings are optimal, i.e. centerboard, traveller, in- and outhaul and Cunningham. If the mast is too far aft, the sail will open too much, and the boat will feel unstable. If, on the contrary, the mast is too much forward, the sheet pressure is too hard, and the sail will close. This makes the boat feel overpowered, and almost impossible to keep flat. Intuitively, I adjust the mast to a correct balance between the power in the sail and the heeling stability. A small change of half a turn on the adjustment screw can generate a huge difference for your speed and balance. This method implies that all other trimming options are set perfectly. When you hit the correct mast rake, you should be able to keep the speed, and simultaneously hold the dinghy flat.

It is a common misconception that if you can't hang the dinghy down flat, all you have to do is to add mast rake further aft. I often observe sailors with their mast so far aft that the leech falls out and becomes ineffective. Consequently, it becomes tough to hold a balanced heel and the boat becomes unsettled. Generally, it is tough for the lighter sailor to hold down a Europe dinghy in hard winds, however there is a limit to the mast rake aft wards. In this situation, you are better off by pulling the daggerboard a bit up, and then simply hang out! So, rather a stable but overpowered boat, than an unstable and unsettled one, which will not help you achieve the wanted boatspeed.



12-14kn and perfect balance

Once you achieve experience sailing the Europe dinghy, and get the feel of the balance, I recommend you to simply ditch all “recommended numbers” for mast trim. All sailors and all masts are unique, so the emphasis should be on gaining your own experience.

Get out there and start exploring! That's essential!

Daggerboard:

The primary function of the daggerboard is to avoid drifting when sailing upwind or reaching. It also plays a role for the steering of the dinghy. The daggerboard on the Europe dinghy has three adjustment possibilities: Move up or down, angled forwards or aftwards, or moved horizontally in the daggerboard slot.

The daggerboard on upwind:

When going upwind in a light breeze (0-8 kn) I always angle my daggerboard vertically down, and at the very front of the daggerboard slot. This minimises drifting, and the daggerboard being at the very front also allows you to point higher to the wind, and thus makes the boat's steering more stable. In very light breezes, I often angle the daggerboard completely forward when tacking, as it enables me to pump the boat harder to windward.

When the wind picks up to over 8 – 10 kn, I angle it further back, without moving it aftwards in the slot. I tend to do it sooner in waves than on flat waters, as a vertical daggerboard makes the steering quite demanding. When the daggerboard is angled aftwards, the turning point moves closer to the rudder making the steering easier.

If the wind picks up further, I pull the daggerboard up, whilst keeping it angled completely aftwards. At about 16 kn I reach a point, where I stop lifting it further up, even though the wind increases. Although the dinghy gets considerably easier to keep flat, I don't think that the increased speed makes up for the loss of height. My VMG simply gets poorer. From 16 kn and over, the upper and front corner of my daggerboard is in line with the centre of the inspection hatch. This is as high as my daggerboard ever comes.



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If you are a lighter sailor with a smaller physique, it seems an advantage to prioritize your energy by pulling the daggerboard a wee bit further up. Another important point is that greater speed reduces drift. If you have no momentum, pull up the daggerboard and try to estimate your VMG compared to surrounding dinghies. Remember that the trimming of the daggerboard is very individual, depending on your boat handling, size, and physique.

The daggerboard when reaching:

When reaching, you will want to pull up the daggerboard, as it reduces the water resistance. How high depends on the balance between drifting and water resistance. Generally, you can conclude that if the dinghy drifts sideways, it's simply a waste of energy. You must then shove the daggerboard further down. If, on the other hand, you are not drifting sideways, leaving a part of the daggerboard in the water will only mean unnecessary water resistance, and the daggerboard must then be pulled up higher. The perfect balance point of the daggerboard lies somewhere between these two scenarios. This can only be achieved after several hours on the water, which will eventually give you the "feel".

However, if you are new to the dinghy, there are a few usable beacons. Wind speed and course are the important factors when deciding how high to pull up the daggerboard. If you are close reaching, you push the daggerboard further down, than when it's broad reaching. If the wind increases, you must pull it further up, as the drifting is less at high boatspeed.

The absolute hardest situation to trim the daggerboard well is when reaching, and the weather conditions are on the margin between the dinghy planing or not. The daggerboard must be pulled significantly higher up when planing. This is due to the speed picking up drastically, and the drifting is reduced accordingly. In this situation, you are better off if you settle on a middle height for the daggerboard. In strong winds, when planing is easy, it is significantly better to pull it up too much than too little. If the daggerboard is in too deep, the boat handling gets tougher, and the pressure on the rudder will be severe.



Reaching in strong winds. The daggerboard is pulled up.

The daggerboard on aft wind:

When sailing in light winds, the daggerboard must come up high, placing the top and forwardmost corner approx. five to ten cm over the edge of the deck level. This leaves just enough daggerboard in the water, to keep the boat on the course.

When the weather conditions allow steering in the waves, the daggerboard must come further down. If carrying the daggerboard too high it becomes challenging to change course, as the dinghy wants to drift sideways. Your boat will tell you loud and clear. On the contrary, if the daggerboard is too deep, the dinghy, as when reaching, becomes difficult to handle. The pressure on the rudder is significant, and the dinghy seems to “stumble” forwards over the daggerboard. The dinghy will then not only capsize sideways, when changing course, but also “capsize” forwards. The tendency to nose-dive in the waves increases as the dinghy “tumbles” over the board.



Placement of the daggerboard dead downwind in light wind conditions

Cunningham:

Cunningham provides the most uncomplicated trim feature in the Europe dinghy. When reaching or running downwind, it should always be totally loose.

When beating, you should only adjust it when it gets hard to keep the dinghy flat, and all other options have been trimmed according to the wind conditions. Then you may gradually tighten it, as the wind picks up, aiming to create a twist and open the sail on the top. The twist is attained, when the deepest point of the sail is moved forwards.

In weather conditions that acquire full hiking, the Cunningham is my most frequently used trim feature. It is my first choice to slack when the wind drops, and the first to tighten when it picks up. Consequently, I often adjust the tension, depending on whether I am in pressure, or not. In hard winds, you should not be afraid to tighten the Cunningham too much - personally, I often pull it to the limit of breaking my sail. I never use the Cunningham to simply remove wrinkles in the sail.



Cunningham pulled tight - the sail is twisted and open in the top

To care well for your sail, it is crucial to loosen the Cunningham before slacking the sheet on upwind, or when bearing of. When your sheet is pulled all in for upwind, the mast will bend aftwards, so when slacking the sheet the mast will consequently straighten up. If the Cunningham is set hard, it prevents the mast from straightening up and overstretches the luff. This will ruin the shape of your sail over time. Consequently, you should ALWAYS slacken your Cunningham, BEFORE changing course to reaching or downwind - or quit going upwind.

When training, I almost always loosen the Cunningham before tacking, simply to save my sail. I obviously don't do it when racing, since in this situation, I want a maximal acceleration after the tack.

Inhaul - outhaul:

Working with the in- and outhaul enables you to adjust the depth in the lower parts of the sail as well as the twist in the top. The inhaul on the Europe dinghy is constructed in a way that enables you to pull the sail diagonally forward and downwards. This entails a “Cunningham effect”, where the inhaul opens the top of the sail slightly. I generally don’t use the inhaul to adjust the depth at the entrance of the sail, as this is more or less already locked with the set-up I have. Instead, I primarily trim the inhaul to open or close the foot of the sail.



Medium winds - inhaul slacked about 1-2 cm to close the lowest part of the sail to gain power

In a very light breeze, from 0-8 kn, I tighten the inhaul maximally all the way down to where boom and mast meet. This is to open the lowermost part of the sail. In 10-16 kn I loosen the inhaul about 1-2 cm to close the lowest part of the sail and thus gain more power. When over 16 kn, I again tighten the inhaul maximally to open up the foot of the sail. On downwind the inhaul must be loosened no less than 6-8 cm or until completely slack. There are many opinions on whether you should go for a larger spread of sail or rather more depth in the sail when running. I personally never adjust the outhaul when going downwind, I merely slack the inhaul.

As a start I set the outhaul in order to avoid wrinkles on the foot of the sail, and then trim according to circumstances. In very light winds and on flat waters I tighten the outhaul until a fold occurs parallel to the boom. This helps flatten and open the sail. When over 6-8 kn breeze and waves I slacken the outhaul in order to gain power. I avoid large folds by not slacking too much. When it is very windy, and the dinghy is hard to keep flat, it is hazardous to tighten the outhaul too much, as you risk stretching all shape out of the sail, which is not fast. When beating in hard winds, I therefore never tighten the outhaul to create the fold parallel to the boom.

Traveller:

The traveller is used to adjust the angle of the dinghy to the wind. Consequently, the traveller is an important tool when you wish to trim according to speed and pointing while going upwind. When pulling the traveller closer to the centre of the boat, you can sail closer to the wind. When slacking, however, you achieve more speed. When trimming the traveller you depend on waves, wind, and whether you wish for more speed or pointing. In a light breeze, you can allow yourself to pull the traveller relatively far up windwards. This allows you to sail closer to the wind, but has no obvious consequence on your speed. I personally never check where the traveller is placed, but rather how the boom is placed in relation to the aft edge of the dinghy.



On flat water, I would never pull the traveller more than the area shown by the arrow

When the wind picks up, you should generally move the traveller further down leeward. This gives you a better VMG than when leaving it higher up. The obvious way to check how to set the traveller optimal, is by comparing your height vs speed with the surrounding dinghies. It is important to remember that the traveller should not always be trimmed alike on both tacks, as the waves are often deviating to the wind and/or current. When the waves are mainly from ahead, the traveller should be

slackened more than when the waves come more from the side. The dinghy consequently picks up in speed and achieves a better angle to the waves.

The traveller can also be used as a tactic or strategic tool, when for instance you don't prefer the best VMG. If, for instance, you are being pressured by a leeward boat, you can advantageously pull the traveller very high and thus achieve more pointing. On the contrary, if a boat in full speed comes down on you from windwards, you slack off the traveller and achieve enough speed to move free of him. These are merely a few of many tactical situations. Speaking of strategy, you can make efficient use of the “speed and pointing mode”. For instance, you might want to achieve a higher speed, when the wind lifts a few degrees, and on the contrary point higher when the wind header. This is to ensure that you are on top for the next wind shift. You might also want to quickly get out on a certain side of the course, and therefore choose to go speed-mode.

It is also important to note that the boom can be sheeted harder, if it reaches beyond the gunwale. If the wind picks up while racing, and the mast rake is too far aft, it might prove advantageous to let the traveller run far down, enabling increased pressure on the sheet as well as tension on the leech. This is not an optimal solution, but rather an emergency quick-fix until you are able to move the mast rake forwards. When reaching I don't adjust the traveller, as the kicker will control the tension on the leech. This also applies for downwind.

Kicker:

The kicker is primarily used when sailing downwind or reaching, as in this situation your sheet cannot control the tension on the leech. The kick is thus used to control how much power you want.

Kicker when reaching

In a light breeze and on a reaching course, the kick should be set to open and slightly twist the sail. Too much kick will close the sail and kill the wind flow. Too loose a kick will open the sail too much, and consequently you lose the power. In this situation, it is crucial to read the tell-tales, which should fly horizontally at least 80 % of the time. Same principle should be followed in a medium breeze. In harder winds the situation changes. If you struggle to control the dinghy and keep it flat, you may depower it by loosening the kick. When eventually the kick is loose, the effect of pumping the sail is

not as effective, but the dinghy becomes easier to handle. If the waves get big it might also be necessary to loosen the kick to avoid the boom getting caught in the water.

Kicker on downwind

In light breezes and on downwind the kick should be set relatively loose. It is important that the leech is not too tight, as you want it to be able to work by pumping. In 0-4 kn the kick must be totally loose, and in 4-8 kn slightly tightened. In 8-12 kn it is important to tighten the kick relatively hard in order to get your pumping effective. If set too loose, the windflow will disappear out of the sail when pumping. If set too hard, the sail will close. As a consequence, when changing course running to the lee or a broad reaching, you will not create the positive, respectively negative windflow in the sail. Make sure to loosen the kick until the leech moves slightly!



The kick loose enough for the leech to work

When sailing downwind in over 12 kn a precise steering is crucial, particularly in waves. Handling the dinghy is a more important, than having power. Many sailors, who previously sailed the Optimist, believe that a tight kick enhances the stability and boat handling. However, this is not true. When sailing downwind, you use the kick to power up and down. If it is too tight, you will have trouble changing course, and the boat will dive with the bow in the water. Also the boom will have a tendency to dip in the water. A loose kick gives the dinghy a lighter feel. It becomes significantly easier to

control the heeling as well as to make severe changes of course. For instance, the kick should be looser in 20 kn than in 16 kn.



Loose kick makes boat handling easier on downwinds in strong winds

It is important to adjust the angle of the boom when running downwind, according to how slack the kick is. The looser the kick, the more the leech will twist outwards. Consequently the boom should not be sheeted out to 90 degrees in winds over 12-14 kn and a loose kicker. The boom angle should rather be adjusted in such a way that the top of the leech makes an approximate 90 degrees angle to the boat. It is hard to estimate when this is the case, and it's thus more a matter of sensing when to decide how far out to sheet the boom. I will try to explain it here.

When in winds over 8 – 10 kn I always tie a knot on the sheet in order to achieve an optimal boat handling. The knot enables you to slack the sheet with a fast move, and the leech will pump, when the knot hits the block. This is effective, if you need a small pump to lift you over a wave. Also, there is no need to hold on to the sheet continually, permitting me to move more freely in the dinghy. However, moving the knot whilst racing is troublesome, so it's crucial that it is placed correctly before start. As a consequence, when in hard winds I will also always check the balance downwind.

Firstly, I set the kick to an enhanced balance between power and boat handling without tying the knot on the sheet. Secondly, I investigate how much slack the sheet needs, and eventually I tie the knot.

When the knot is tied correctly, and I change the course drastically to running lee, the dinghy should not have a tendency to capsize windwards. It is a delicate balance, and the boat may cause a reasonable pressure windwards, but I should still be able to hold the dinghy flat, when pressing my knee, foot, or hand forcefully onto the leeward hull. Should the knot be tied inaccurately, allowing the boom to fly too far out, you often see windward capsizing as a consequence.

The best advice I have ever received about sailing downwind, is to not focus on achieving top speed but rather on not stopping the boat. I often see sailors pumping insanely without it enhancing their steering in the waves. They might catch one good wave, only to sail straight into the next one, stopping the boat completely. You are better off, if you concentrate on staying on the surf, until you find a good spot to move onto the next wave. Don't let yourself fall into a steady regular pumping routine sailing downwind. You could benefit more by estimating the waves continuously, ditch the routine, and follow the waves.

Kick on close reaching

Apart from reaching and running downwind, the kick is used in one additional scenario, i.e. when reaching close to the wind, usually after overstanding the layline. Sometimes, you might also experience it at a larger change of wind, where the gybe mark is suddenly askew, and the course thus changes drastically. In this situation, it is vital that the kick can be fastened, pulling the boom beneath deck height aft. If hard winds prevail, the daggerboard should also be pulled further up, and the Cunningham should be tightened. Subsequently you need to balance your dinghy flat, as the boom might dip in the water. In a lighter breeze you should set the kick according to weather conditions to prevent the sail from opening and closing too much. Principally, it is the same as described in the paragraph: "Mast rake and leech tension", only here the kick controls the leech tension, instead of the sheet.

Change of weather conditions whilst on the water - prioritizing your trimming tools

Please find a list of scenarios below, indicating the trimming tools I prioritize first and last.

Scenario one - a slowly and gradually increasing wind

1. Sheet pressure

2. Traveller
3. Centreboard
4. Inhaul
5. Outhaul
6. Cunningham

Scenario two - a slowly and gradually descending wind

1. Cunningham
2. Outhaul
3. Inhaul
4. Centreboard
5. Traveller
6. Sheet pressure

Scenario three - leaping winds, 12-20 kn - pressure with holes

1. Cunningham
2. Traveller
3. Sheet pressure

Four clever pieces of advice that really influenced my racing

- If you don't sail fast, try something different. Never accept that your speed is too low.
- Manage your trimming tools to a 100% perfection, enabling you to adapt promptly when the weather conditions change.
- It is not a question of top speed when sailing downwind, it's all about not stopping.
- The ability to switch between speed and height mode in winds over 10 kn is tactically essential.

Good luck on the race course!