

It was with some sadness that Linda and I packed away *Jumpin Jack Splash* after Langstone which was our last away event of the season. It has been an immensely enjoyable sea-son of open events, and we have a rich patchwork of memo-off ries to carry us through the winter season.

The Nationals were again tremendous fun, sailing in a beautiful and challenging bay, with friendly and sociable company on and off the water. The evening socials were also very enjoyable, assisted by a high absorption rate of the local Thomas Watkins ale. Unfortunately (or maybe fortunately) supplies ran out early.

I offered to support the association by measuring peoples boats, which gave me the opportunity to talk with lots of sailors, and somewhat to the consternation of my crew avoid rigging my own boat on most mornings. My tape measure become a familiar sight, so that one afternoon after sailing, on walking into the gents changing rooms which was full of naked men showering I was greeted with the comment "oh, watch out here comes the technical officer with his tape! and ribald laughter.

Actually, there was surprisingly little variation in ten-

Tim Hulley measures the top boats at Saundersfoot, but

Some of these settings

sions and lengths as recorded in the table below. I hope this helps you set your boat up, and complements Skips tips previous MM article. From my conversations at the Nationals, rig settings seem to be more art than science and what feels right generally prevails. However, there was some consensus around the following settings:

O Mast rake approximately 656 (measured simply from top of mast to top of gudgeon, and tying the tape up to the halyard to prevent too much gain/loss at the knot). This is approximately 2 cm raked back compared to Skips preferences. (If you have followed Skips method, 656cm translates to 658cm, as he had taped the halyard to the measure in order to achieve his 5.25 datum distance down to the gooseneck, and consequently had roughly 2cm of tape sticking above the mast a more precise but slightly fiddlier method which eliminated gains/losses at the knot).

O Back of the foot of mast to the top of the gudgeon:

Position and boat number	Helm	Crew	All up weight	Mast rake	Rig tension	Mast foot position	Spreader sweep back	Spreader length	Tim's obser
				<i>Top of mast to top of gudgeon, baseline 623mm top of mast to top of gooseneck</i>	<i>Measured with Tims Loos meter professional</i>	<i>Back of mast (bottom) to top of gudgeon</i>	<i>Line between spreaders to mast</i>	<i>Spreader mast attachment to tip</i>	<i>Why prefer t settings?</i>
1st: 2458	Rob Burridge	Ant Greenfield	136kg	658 hi wind, 656 medium, 650 low	Hi: 340lb, med: 300lb, light: lee shroud just tight upwind	272cm	17.5cm	87cm (Tim estimate)	Boat dead fl regardless o hiking very if possible, consistently compass nu (jib tired) p
2nd: 211529	Mike Hart	Sally Kilpatrick	137kg	659	325lb	272	?		Mike picked Plan Menai He had not Tried hard t settings of h experiment
3rd: 2458	Tim Hulley	Linda Hulley	146kg	656	300lb	272	16.5	85cm	Dont like t tension, pu conditions light winds back as far
4th: 21158	Matt Sargent	Jack Wade	140kg	655	325lb	272	16.5		First time M had sailed t
16th: 21033	Helen Phillips	Andrew Phillips	148kg	661	330lb	272	18.5	86cm	Keep boat fl just 1 inch i

finds that winning needs more than the right figures

s for speed



The position where measurements are taken to (back of hull at transom/gudgeon). In this case the measurement from base of mast = 272 cm.

272cm this is standard on most boats, and is worth checking. I found a few boats which had the mast foot a few cm more than this, and once the mast had been moved back, faster upwind speed was reported.

❑ Rig tension 330lb. Interestingly there was a general preference for easing off the rig tension for lighter winds, down to about 300lb for force 3, and then much less than that for lighter winds (few were precise on this, feel it is just a personal setting). The only explanation I heard was this opens up the jib/main slot.

❑ I did not manage to measure spreader rake back, but judging by eye 17.5cm is about the average of the faster boats, not quite as swept back as Skip preferred.

❑ Spreader width was also difficult to measure, but I would guess the average was about 87cm, a couple of cm more than Skips.

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Observations	Changes for different wind strengths	Helm's comments	Obvious 'tweaks' from supplied boat
these	What changes, and reasoning?	Preferences: flat/heeling, pinch/full (sheet tension), jib car positions?	Toe stap bungees, new ropes/blocks, etc
flat upwind, gusty downwind, gusty hard, stands upwind downwind, looking around for shifts behind, picks the right shifts, analyses numbers. Used fairly old sails purchased with the boat.	High tension for strong winds, drop back to 300lb and then quite loose (no other changes than rig tension)	Foot off slightly if other boats allow	Big compass just below boom, upgraded jib/mainsheet, elastic holding out footstraps
and the best boat from the racks at i, looked brand new throughout. sailed or rigged the boat previously! through the week to replicate the his previous boat (so was fitting often).		Sail flat all the time, foot off upwind if possible	Upgraded jib/main sheet
the feel of the boat with too much rig t on what I feel is right for most (beware choking feeling in s). When reefed, drop the rig right as it will go.		Realise I have forgotten a lot of the basics, not sailing flat enough upwind (concentration), and cant drop the lake sailor's inbuilt tendency to constantly stuff upwind. The 2000 hates this!	Upgraded ropes (but dont like the mainsheet and put the old one on when it is windy!). Spinlock for genny halyard, extendable tiller extension (from Laser 4k), Ronstan blocks for genny
Matt and young (11 yr old) Jack together.		Tight tension for strong winds (325lb) for tight jib luff and negative mast pre bend. Progressively release to minimum of 150lb for lighter winds, deliberately to open up the jib/main slot. In light wind ease half an inch of jib sheet to keep shape.	Very long carbon tiller extension (160cm)
flat upwind, with jib inside the inner gunwhale.		Had previously tried dropping mast back to 650 ish, but felt downwind speed suffered.	Rooster jib and main sheets, standard blocks and fairleads, carbon tiller extension

A guide to the settings in fashion

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There is nothing radically different about these numbers so unfortunately, for those of us wondering why the National Champion is so substantially faster, rig settings are not the answer, as we are probably using roughly similar settings. Interestingly, the few times I was on a similar track and near Rob Burridge and Ant Greenfield, my boat speed was similar. They simply went the right way more times than I did. Their boat was always very flat, and looking across to them up the windy first beats all I could see was their feet, knees and chins in a straight line both Rob and Ant were very fit and sat out hard.

For myself, analysing recollections of the Nationals leads to a conviction to work hard on the basics. I was often so distracted by other boats (and Mr Watkins) that I was not sailing the boat flat and occasionally reached the windward mark without once thinking about windshifts. Obviously not fast.

My daughter Amy got the basics very wrong on one start. At the five milling minute to go around stage, she was sailing the windward leg, and was almost at the top mark. With one minute to go she was blasting down wind with the gennaker flying, looking very worried, having noticed all the boats lining up heading towards her. Luckily for her, this was one of the few starts where the fleet was recalled.

Sailing the upwind leg before the race is useful, but being on the start line in good time to prepare (line bias, transits, left or right up the beat?) is more important, and actually being there before the starting signal is very basic.

Taking a less technical view on race speed on the page opposite, I have also included a list of some of the more important things to look for when racing. Much of this is standard textbook stuff, but I would just emphasize that the 2000 has a very flexible mainsail leech and therefore demands more attention than most dinghies.

Now its back to our local clubs for racing for the winter season. Time to practise the basics and maybe check our settings against what proved fast at the Nationals. Also perhaps an opportunity to spread the word on the 2000 at our clubs and encourage new boats into the fleet for next year.

We are looking forward to 2006 already. Roll on Bough Beech!

³ Tape hooked into back of mast, mast marked to set tension easily according to shroud position and Spinlock cleat (Spinlock item PX0308/SW). Photos: John Cox

Tim Hulleys daughter Amy has been sponsored by holiday firm Neilson in her L2k sailing. Here's an extract from her article on the companys website. Go to www.neilson.co.uk/NeilsonNews/ and click on the Active article box to read the whole report.

Sailing with Amy in Amygo!

Hiya! My name is Amy. I am 14 and have enjoyed fantastic Neilson holidays regularly since the age of two. This year I have sailed a Laser 2000, which has been kindly supported by Neilson. My friend Joe tolerated/crewed for me.

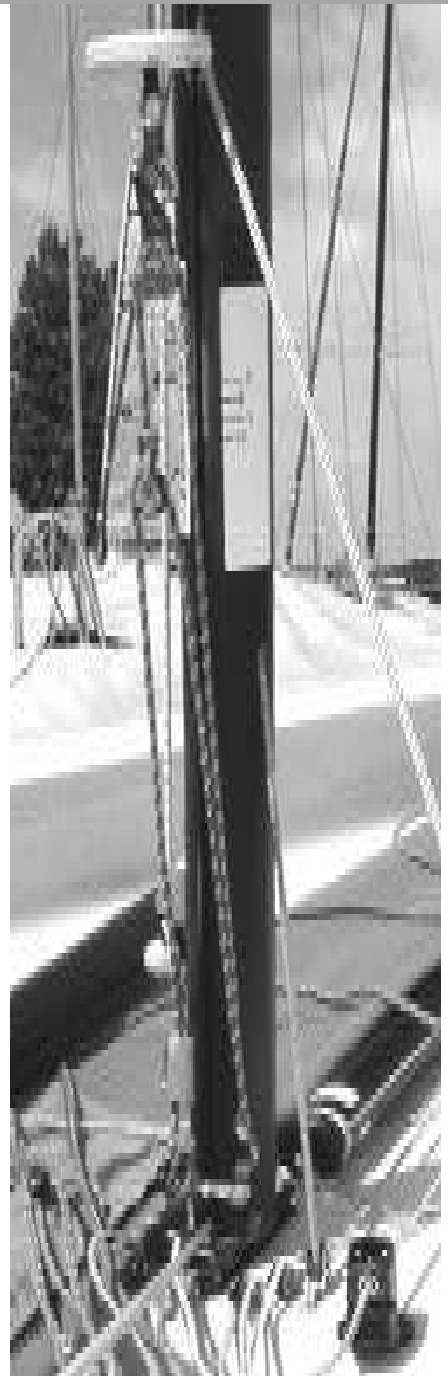
I love sailing the 2000; I can race it in a wide range

of conditions because I have the option of putting a reef in if it gets too windy. It is also great boat to learn new aspects of sailing like asymmetrics and race tactics.

The Laser 2000 class has a very friendly and encouraging racing scene with sailors of all ages and ability – and the boat is strong enough to withstand teenagers!

Our best one-day event of the season was at Bough Beech sailing club on the May bank holiday. When we turned up there was no wind but gradually the wind picked up to a steady force 2-3 with blazing hot sun-shine. Our overall results were a 5th, 3rd, 1st, 1st, making us the overall winners by just one point. They

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Going too slowly? Reasons and remedies

Question: Are you stopping in light winds upwind?

What it might be: Too much jib and mainsheet tension, the jib is in tight and flat (would be OK for stronger winds which would force a curve in the jib), and main-sail leech is hooked in towards the centre line.

Kicker over-tight, flattening mast and hooking leech. Dragging the flat transom area through the water

Why it is slow: Jib/main slot is closed, jib has no curve, mainsail is stalled.

Net result: the wind is not flowing smoothly around the sails (especially the back of them).

Laser 2000s have a very big flat area at the back (and nice pointy bows).

Things to try: Ease the jib sheet in light winds half an inch, then pull back in as the wind increases the crew must develop a feel for this.

Constantly watch the mainsheet leech and control it with mainsheet tension, ease in lighter winds to keep the top tell tales only just stalling. As the wind builds pull the leech in with more tension, then start using kicker. Sit forwards and get the transom out (a longer tiller extension may help but is not essential).

Question: In light winds, are other boats getting to the downwind mark quicker?

What it might be: You may be sailing too high, with the gennaker in too tight.

The helm cant go low if the genny is in too tight, the crew cant ease the genny if the helm is pointing too high!

Dagger is down.

Why it is slow: Sailing high gives more speed through the water but you are going the wrong way! You are almost reaching, great fun but gets you no-where!

When you are deep the force of the sails is balanced around the centreline and little dagger is needed the dagger adds a lot of extra resistance.

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didn't let us get in front easily – not without blood on the boat from Joe's feet from where he had been hiking so hard and a few nerve-racking races.

The most recent and favourite event of the season was definitely the Nationals in August. Sun, wind, water, sausage and chips seven days a week! Brilliant! And a social every night. It was a really good experience and hard work. I had to concentrate! We came 6th overall out of 43, along with 1st under 18 helm and 1st first nationals. One of our prizes was a rulebook!

I have learnt so much in the 2000. I can't wait to learn even more! Most of all it's full of fun!

Things to try: Bear away deep, ease the gennaker, and feel when it is just about to collapse because you are going too low.

Helm/crew communication needed to get the boat running deep with the genny eased.

Dagger up, but ready to drop if wind increases or boat becomes unstable.

Question: In medium/heavy winds are you are going deep, but are slow to the downwind mark?

What it might be: You are doing exactly what I say above!

Why it is slow: Sailing higher gets the boat planing, and the greater increase in speed more than makes up for the ground lost because you are not as deep.

Things to try: As the wind builds bring progressively more weight up to the windward side.

In very strong winds both sit out hard, sit back and the boat flies... yeeehaaa!

In marginal planing winds, helm on the side and crew in the middle may just bring you up on the plane. Dagger down the forces are now on the side of the boat and well forward.

Question: Are you losing places as gusts hit, trying to resist heeling by sitting out harder?

What it might be: Heeling each time a gust hits.

Why it is slow: Every time the boat heels it slips over the water (dagger is not pointing down) and the forces are all wrong (sails downwards, dagger up), plus the windage on the side of the hull is increased.

Things to try: Sail flat all the time!

Ease the main in the gusts, and steer very slightly into the wind (as a guide, the mainsheet moves twice as much as the tiller).

Sheet on at the back of the gust.

Question: Why am I slow to the windward mark, I'm sailing flat and not pinching?

What it might be: Not spotting headers and lifts.

In the midst of the melee working up to the windward mark how many times did you think about windshifts?

Why it is slow: The lifts take you where you want to go if you are on the right tack!

Things to try: Everyone has their own way of doing this, but you need a method and you must use it. Don't be distracted by other boats.

Popular methods are watching the relative angle of other boats (did they take a knock upwind?), taking a reference point on the shore, relative heading to the windward mark, compasses (not very popular, too technical), or gut feel.

Tim Hulley