

DRAGON NEWS

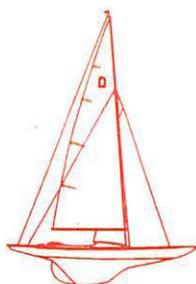
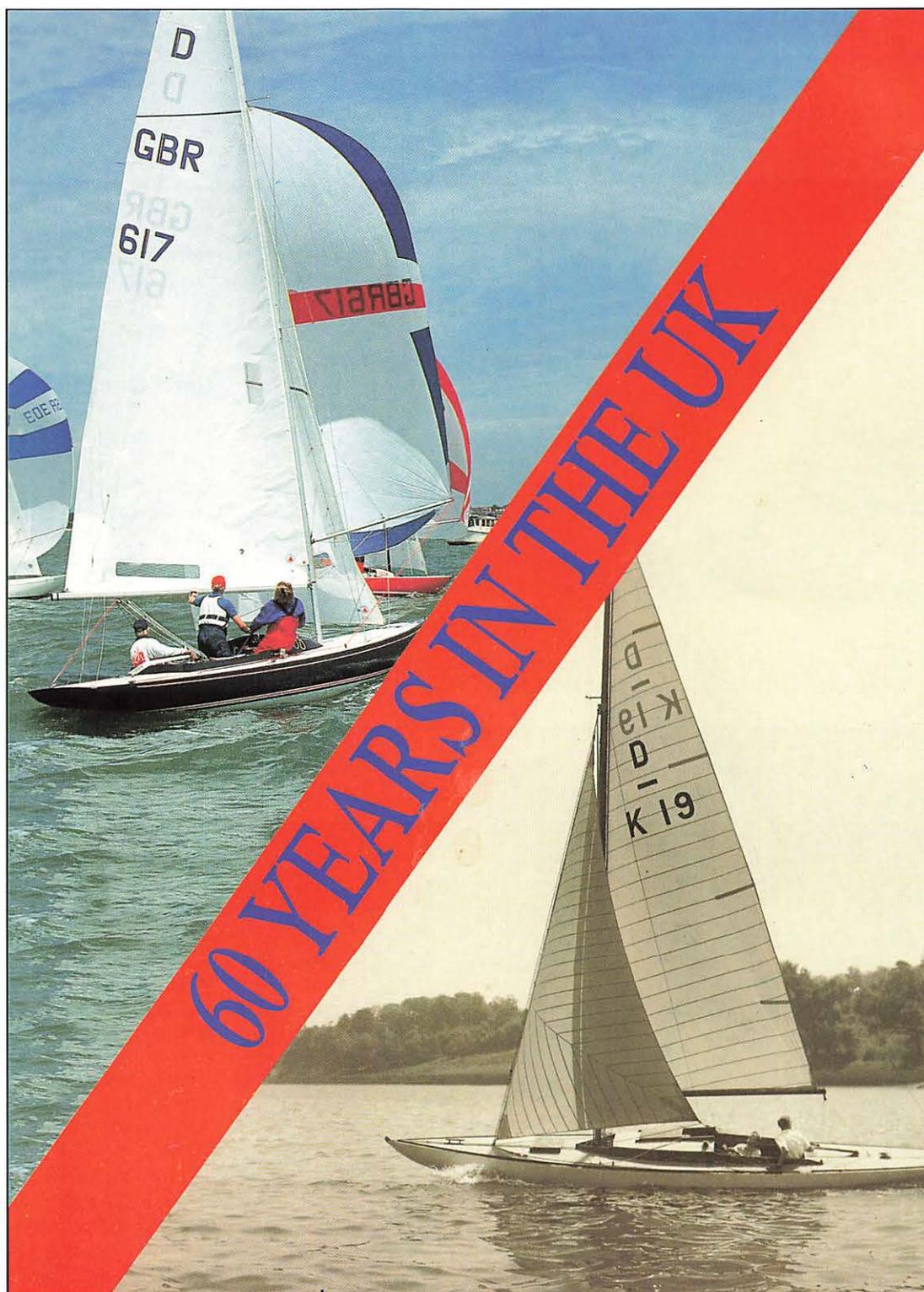
SUMMER 1996

TUNING
GUIDE

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ACTION

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SHOP



CLASSIC PLANS

SIMON HOLT, owner of the beautifully restored *Liz* (GBR 403) has agreed to act as co-ordinator of the Classics Section. He has written to many owners of wood boats – if you have not been contacted direct, but have ideas about how the older Dragons could be further encouraged, or assisted, by the Class, please get in touch.

One of Simon's initiatives has been to explore the possibility of a Classics

Regatta. He has obtained the agreement of the Royal Windermere YC to hold a regatta in October 1997. This will be combined with the Northern Areas so that the Northern and Classic Regatta will be held on the first weekend of October next year. It is hoped that this new venue will prove enticing to members, particularly at a time when the lake will be free from tourists, and have steady winds.

Sapphire III and *Baz* (aka *Basilisk*) at the Edinburgh Cup – photo by Christel clear



Simon Brien, winner of the Irish Championship for the second year, and action from the Irish Championship, photographed by Gordon Finlay.



RESULTS

Edinburgh Cup

1st *Danish Blue* (P. R. Hoj Jensen) 2nd *Dragon Lady* (A. Garrett and M. Payne) 3rd *Yankee Doodle Dandy* (G. Foster) 4th *Quicksilver II* (R. Campbell) 5th *Ruyjin* (R. Palmer) 6th *Mustang* (P. Price)

Southern Areas

1st equal *Dragon Lady* (A. Garrett and M. Payne) *Mustang* (P. and A. Price) 3rd *Rackham* (R. Gray) 4th *Hat Trick* (M. Holmes) 5th *Spitfire* (K. Freivok) 6th *Sandpiper* (N. Streeter)

East Coasts

1st *Dragon Lady* (A. Garrett and M. Payne) 2nd *Scorpio* (P. Dicker) 3rd *Basilisk* (P. Gifford) 4th *Whistle* (S. Fulford) 5th *Atalanta* (N. Truman) 6th *Quicksilver II* (R. Campbell)

Irish Championship

1st *Kin* (S. Brien) 2nd *Water Rat* (R. Hennessy) 3rd *Tiamat* (G. Chadwick) 4th *Lightning* (P. Maguire) 5th *Hari* (J. Kidney) 6th *Rampage* (G. Patterson)

Irish Dragon News

MICK COTTER'S new Petticrow *Whisper*, with IDA treasurer Andrew Craig at the helm, won the Lisney Cup, on Lough Ree in April. Mick crewed for Claire Hogan in *Aphrodite* and finished eighth, despite nearly contacting a new form of marine CJD from Olaf Sorensen's aptly named *Mad Cow* during one of the wilder gusts on Friday.

No sooner were the Ree blackfly dried onto the coachroofs than the Irish Dragon fleet (which now numbers 50, with four new boats this year) were into the next event. In mainly light to moderate conditions Simon Brien in *Kin* took the Alcatel East Coasts emphatically, with *Whisper* second and the Paterson brothers from Belfast Lough third, in their new *Rampage*

The following weekend (May 31-June 3) the Teachers' Irish national championship was held at the Royal Ulster YC on Belfast Lough. In trying conditions which varied from light and shifty to 40 knots of breeze, Simon Brien took his second national title in a row. Going into the last race, *Kin* and *Water Rat* (Robin Hennessy) had two wins apiece: *Water Rat* had only to finish within three places of *Kin* to take the title, but was unfortunate not only to blow out her genoa a minute before the start, but to lose her mast on a subsequent downwind leg.

60 YEARS AND THRIVING!

It is 60 years since Dragons were introduced to the UK, with the first boats arriving on the Clyde.

Despite drawing her pension for nine years, the Dragon is thriving.

We have welcomed 30 new members to the Association this year. Four brand-new boats have joined the UK fleet and four the Irish. It is particularly pleasing to see a new *Kanpai* and a new *Water Rat* after a short spell as *Etchells*!

The black and white cover picture of *Hai-Lung* was taken by Beken in 1947 just as the boats attained International status and took on their modern configuration. *Hai-Lung* still has the long coach roof, but the original standing topmast forestay has been replaced by jumpers and stays and slightly inboard stays. These changes allowed the newly introduced spinnaker to be gybed.

Beken has a large archive of Dragon photographs, including the 1948 Olympic Games. They are well worth a look, not only for owners of old boats, but also for those brought up in the modern plastic wonders.

Sarah Threlfall

International Dragon Plans and Rules are available from the Assistant IDA Secretary:

Dinny Reed
PO Box 2
Bordon
Hants
GU35 9JX
Telephone 01420 472293

The Hon Secretary British Dragon Association

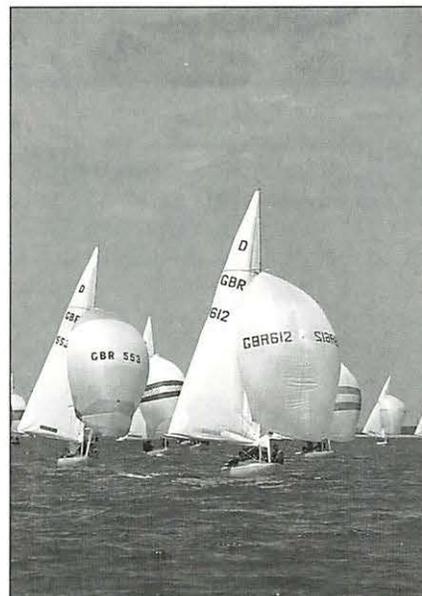
Sarah Threlfall
110c Highbury Hill
London N5 1AT

Phone and fax: 0171 704 6160

Please contact me for details of second-hand boats, sails and trailers, or to sell yours.

Also remember to inform me of changes of address and boat ownership, and notify me of any inaccuracies in the Yearbook.

Printed by Wednesday Press



Danish Blue on her way to winning the Edinburgh Cup – this photo, and colour cover picture, by Christel clear

DRAGONS FOREVER!

ATTENTION ALL Dragon sailors who are under 30ish, or consider themselves young. The Committee is very keen that the Dragon class continues for ever! In order for this to be the case, they need to encourage young people into the class.

So that younger sailors can air their opinions, a position of 'young persons' rep' has been created on the committee. I am happy to represent this section of the fleet. However, if anyone feels more able, or has more time, they are very welcome.

The Crews' Race at the Edinburgh Cup (won by Owen Pay in *Tyr*) with

David Donan (*Saphire III*) first under 30, was the first of these initiatives. It was greatly enhanced by the generous prizes provided by Harken, in addition to John Thornton's Under 30 Trophy, and one from George Gale & Co.

Other suggestions include a Crews' Register, an invitation young persons' regatta, and priority for an under 35 helmsperson for the qualification events.

I hope to act as a contact point at regattas. If anyone has any ideas, please give me a call on 0181 5215187.

Mike Shepherd

DRAGON SHOP

Winning Races by John Heyes £12.99

Sweaters (navy lambswool with logo) M.L.XL £25

Silk Ties £18.50

Prices include postage, Payment with order, cheques to British Dragon Association, from Sarah Threlfall, 110c Highbury Hill, London, N5 1AJ

The Why's and Wherefore's of Tuning a Dragon rig

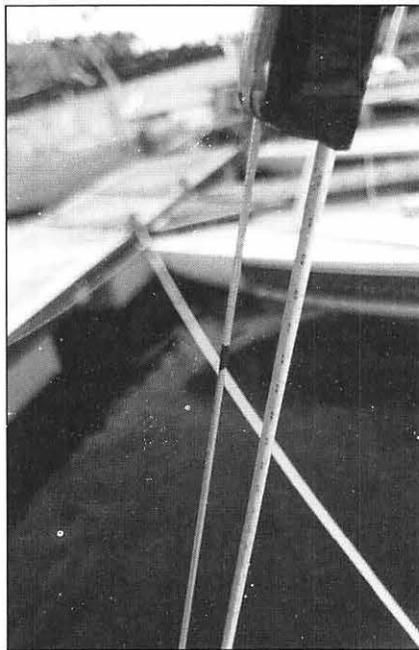
When I was asked by the Chairman to produce a tuning guide I decided it might be useful for readers to look at why we tune the boat to a particular setting, and what you should be looking for in the rig for each windstrength. Armed with an understanding of the why's and wherefore's of tuning the rig, the rig tension chart should begin to make more sense and you can then go on to produce your own 'fine tuned' settings for, say, six levels of wind and wave strengths. Alterations in the class rules over the years have resulted in changes to the way in which we set up the boat.

I have been lucky enough to have raced Dragons for over 17 years, throughout Europe and with some of the top sailors on the class: Mike Patten, Andy Cassell, Poul Richard Hoj Jensen and Glen Foster (not to mention the IDA Secretary). Each sailed the boat in a slightly different way but most tuning details were common to all the boats. The guiding principle to tuning the Dragon is to balance the helm as far as possible in all conditions. We can start by looking at the importance of the correct mast rake.

Rake

Rake is the degree to which the mast tip is angled back, towards the transom, from vertical. On the Dragon a certain amount of rake is beneficial in light airs to create a degree of windward helm. As the forestay is lengthened and more rake added, so the centre of effort of the sailplan moves aft of the centre of resistance of the hull. This causes, in effect, the stern to be pushed to leeward and the bow, pivoting around the keel, to windward. The benefit of a slight amount of windward helm is that it gives the helmsperson more feel, helping them to keep the boat on the wind and the optimum amount of rudder angle, (around 4-5 degrees,) creates lift off the large surface area of the rudder. The easiest way to measure rake accurately on the Dragon is to hold the forestay tight against the mast and mark it at the same height as the

top edge of the black band on the mast at the gooseneck. When the forestay is re-connected at the bow it is then just a short distance to measure from this reference mark down to the deck (**photo 1 below**).



Current thinking is that 1.20 metres is a fast setting for light to medium airs on the sea, but shorten the length down to 1.185m once over powered. In very flat water you can afford to add another 2 cm to both settings as the boat will be able to point a little higher. The reason for adjusting the rake for increased windstrength is that once the draft moves back in the sails and the boat heels, the centre of effort moves further aft and the centre of resistance of the heeled hull moves forward; the result is the helm increases and feels heavy on the tiller. Thus there is no need to keep the mast raked back for 'feel', as you already have too much; so reduce the amount of rake.

Aft rake is fast upwind but slow downwind, which is why you must pull the mast forward with the ram on the run. It is vital to have the lower and upper shroud pass through the deck in line with the mast and as close together as possible so that the shrouds only act to support the mast

sideways and do not prevent the spar from moving forward. An added benefit is that the boom can be let out further on the downwind leg to let you run deeper.

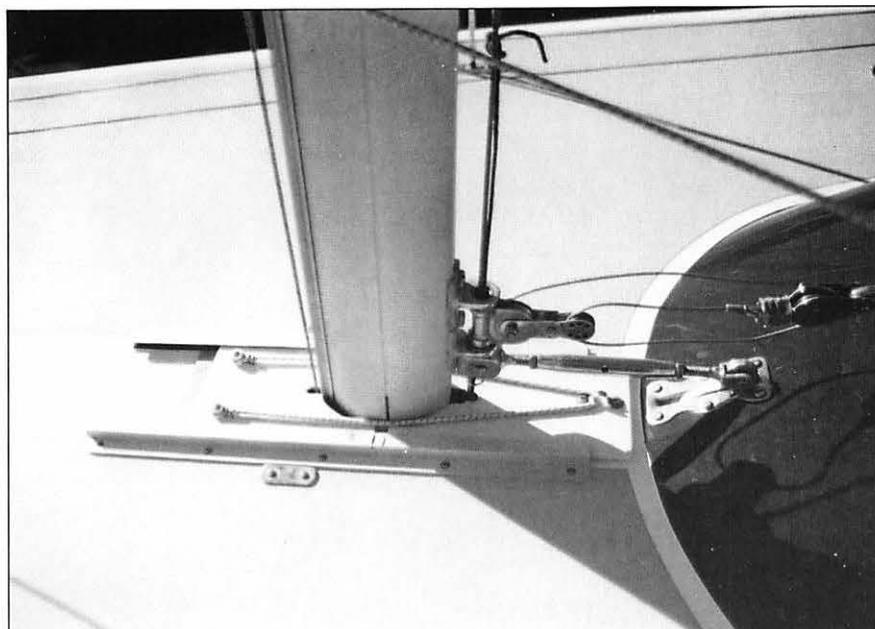
Using the mast ram

The mast ram is a good example of how a rule change has led to a change in the way we need to tune the boat. In the days when I used to make Dragon mainsails, they had considerably less depth and twist built in. Although the Dragon is basically under powered in less than 12-14 knots, building more power into the mainsails in those days meant that it was very hard to get rid of once the wind came up. The introduction of the mast ram made it possible to build firmer cloth sails with more depth, luff curve and twist built in, which could then be progressively removed by bending the spar with the ram. Although the rule states that the mast can only move 11mm at deck level, it can still produce a good degree of bend in the middle of the spar. So as you begin to get over powered, and once the runners are hard on, try pre-bending the mast just a few mm and then test your speed to see if you are faster and if the boat is more upright. Similarly, as soon as the breeze drops off or the waves begin to stop the boat, straighten the mast up to power up the rig. To make it clear at a glance where the mast ram is set, match mark the side wall of the spar with the deck (**see photo 2 opposite top**).

Warning: As the rules do not now require you to fill the rest of the mast hole with chocks; the ram is the only thing taking the load of the mast. Ensure it is strong enough, and that there is no slop in the system so that it cannot pump in a big sea.

Rig Tensions

The Dragon 'Twitcher' constantly worries about and plays with his or her rig tension. The coming of Dyform wire made more of a change than many sailors realised at the time, as it has dramatically less stretch which enables the amount of shroud tension to be reduced to achieve the same rig tension. This meant throwing away the old set of tension



hull with a 1994 Petticrow mast. Other sections such as the older Borresen, Nordic and Boyce masts were certainly stiffer fore and aft, and possibly sideways. Notice how the lower shroud tension increases from being considerably less than to equal to that of the upper shroud. This is because the only way to de-power the Dragon rig is to progressively tighten the lower shroud so that it becomes relatively tighter than the upper, and so the mast begins to fall off to leeward from the first spreader.

In my early years in Dragons we let the diamonds off in heavy air in an effort to de-power. However, all this did was to loosen the very top leech with a resultant loss of height but no reduction in heeling and leeway. What I later learnt was the mast fall-off to leeward has to come from much lower down to successfully de-power the boat. In fact you should keep the diamonds on hard in a blow to keep the top leech bladed out tight. Your own numbers would also be slightly dependent upon crew weight, the heavier teams being able to de-power a little later up the wind scale.

In light airs the lowers should be slack enough to allow the mast to sag to leeward a little at spreader height which has the effect of adding depth to the middle of the mainsail and so helping to power up the rig. In medium and full power conditions the aim is to keep the mast absolutely straight sideways (and fore and aft), in an effort to gain maximum power and pointing ability. The only way to check the straightness of the mast is to sight up the front of it while sailing upwind in least 8-10 knots. Check each side and then tack to make it easier to adjust the leeward lower while it is slack. Be aware that one turn on the upper shroud is equal to 1/2 units on the Loose gauge scale

meter settings and starting afresh. It is important to be sure that you are comparing like with like and that the method of measurement is accurate and reproducible.

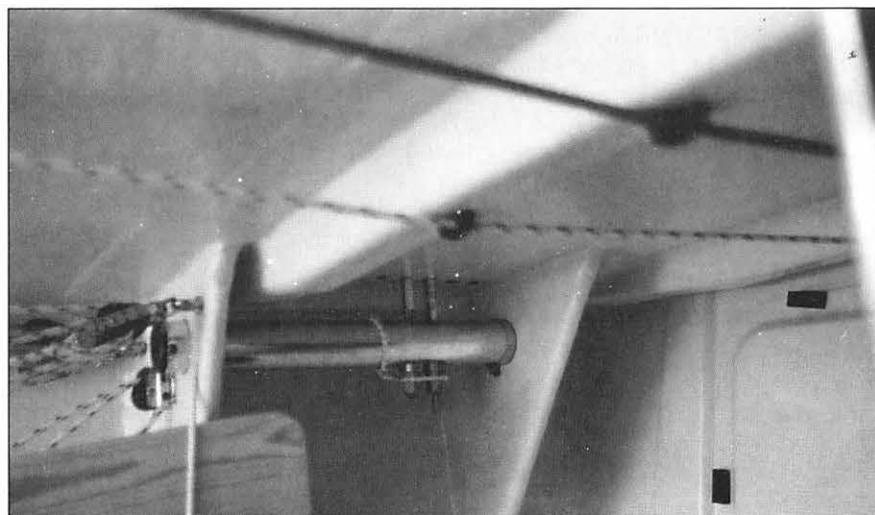
The difference between measuring tension directly onto a Dyform wire and through plastic coating is 10 units on a Loose Model B Tension Meter and this probably alters with temperature. On Glen Foster's boat the plastic coating is cut on the upper shroud at eye level and enough plastic is removed for it to be slid up the shroud and the tension meter clipped straight onto the wire. Get into the habit of only one person using the same gauge every time with no one else aboard, the runners slack and, ideally, with the boat head to wind. I have long wondered exactly how reproducible the readings are from a Loose Gauge, as presumably the aluminium body becomes work hardened or permanently bent with age. You should only use it as a measure of relative change and just use the numerical scale rather than trying to convert the reading into tension in kilos or pounds as we used to quote.

If you really want to know what settings the winner was using on a given day, jump on his boat as it hits the dock and check it out with your own gauge. If you leave it until later, the tension might well have been let off for the night or slightly altered to confuse the opposition! You will now see that the numbers quoted on the sailmaker's guide can, at best, be a starting point for your own tension settings, which should be constantly reviewed after each race and recorded carefully on days when you

feel the boat was fast. The best place to write down the numbers is on the inside of the hull next to the shroud adjustment, away from prying eyes and never likely to be lost from one regatta to the next (**photo 3 below**).

But what should these numbers be you ask? Well, in very light light airs you should have around 16 on the upper shrouds 8 on the lowers; when the crew is just beginning to sit on the deck take it up to about 22U / 18 L; in ideal Dragon conditions, comfortably hiking you want to have close to 26U / 23L; flat out hiking and well over-powered will see the tension go up to 28U / 28L and when you are wondering if you should be racing or not, you should wind up the tension to 30 U / 30L. (Figures refer to Loose Tension Meter, Model B scale read direct onto 4mm Dyform wire. U = Upper shroud, L = Lower Shroud.)

I should also say that these numbers were taken from a Petticrow



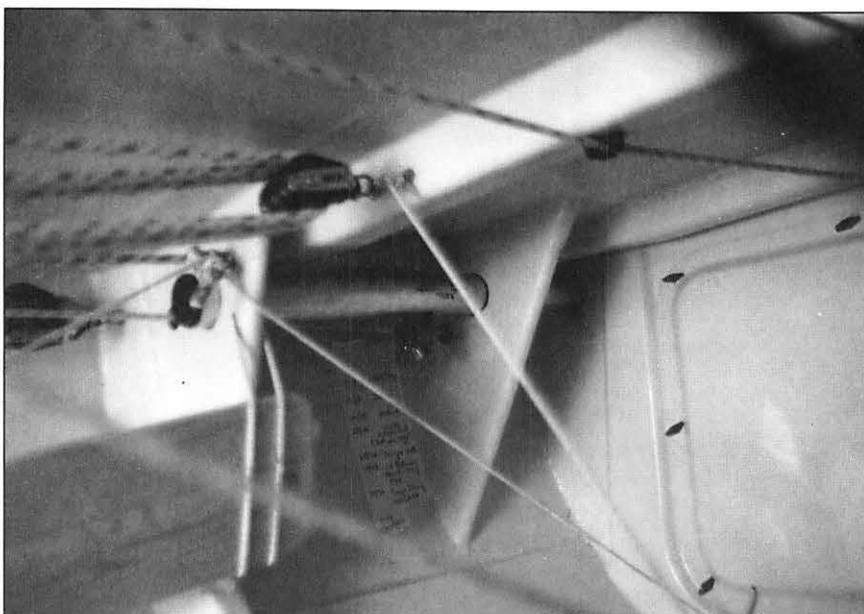
and one turn on the lowers can represent as much as 4/5 units. It is very easy to over-do the lower shroud tension and this is often the primary reason for going slow whenever the breeze drops off, or you hit choppy wave conditions.

Get into the habit of always sighting up the mast to fine tune the lower tension before every race, as using the tension gauge only on the dock is too coarse a guide.

Remember, the class rules do not allow you alter the rigging tension once the five-minute warning signal has been made. If in doubt, set up for the breeze on the first beat. Then, if you get round the first mark in the leading bunch, you should be able to hang onto a reasonable position even if the wind then goes down.

Get into the habit of always sighting up the mast to fine tune the lower tension before every race, as using the tension gauge only on the dock is too coarse a guide.

Remember, the class rules do not allow you alter the rigging tension once the five-minute warning signal has been made, so you have to make your best guess as to what the conditions are likely to be for most of the race. If in doubt, set up for the breeze on the first beat as if you get round the first mark in the leading bunch, you should be able to hang onto a reasonable position even if the wind then goes down. Once you have selected your fast setting, take care



the leeward side does not rattle loose by holding the rigging nut tight with either a wing nut or a quick release elastic loop (photo 4 above).

Once the principles of the ideal rig set up for a range of wind strengths are firmly etched in your mind, you

should be a long way down the path of de-mystifying some of the myths of Dragon tuning. The fast Dragon sailors are those who spend the time developing fast and reliable settings and are able to reproduce the same speed from one regatta to the next.

For more advice on tuning and sail setting see 'Winning Races' by John Heyes, published by Adlard Coles. Copies are available from the BDA Secretary with a contribution going towards class funds.

NEWS FROM THE FLEETS

THE MEDWAY

THREE DRAGONS from the Medway – *Erratic* (Philip Clarabut, ex-*White Rhino*, *Sagitta* (Len Baldwin), and *Tyr* (Peter Dann) – travelled to Burnham-on-Crouch for the Easter Regatta/ All three boats achieved results in the first three in at least one race, and *Erratic* came fourth overall.

Back on the Medway, we have completed our early season points series, the Proton Cup, won for the second year by Len Baldwin's *Sagitta*.

Six different boats have been in the top three places in these four races, but so far, none of the older wood boats have been in the frame. Philip Clarabut made a great effort to be here for race one (which he won), before going to Lowestoft and returning to the Medway to race the following weekend and pick up a third. So *Erratic* looks like being the Medway fleet boat to watch this year.

BURNHAM EASTER REGATTA

THE BURNHAM Dragons once again hosted a very successful regatta over the Easter weekend. Some may trail off to Spain for warmer weather but for those boats just emerging from hibernation in either Peticrows' or Dragon Marine's sheds, a quick trip to Burnham is enough.

A strong fleet of 17 boats turned out, in which it was good to see the new owners of various boats – Shaun Maclean in *Ariel* with Simon and Aileen Lucas departed to Australia, and Philip Clarabut in *White Rhino*, now renamed *Erratic*, and *Whizz II* now owned by Sarah Sullivan. Motty Rankin was unable to helm the smart, resprayed (but still yellow) *Barbary*, and between two helmsmen completely new to Dragons, she took the series. Second were Mike Holmes and Tony Allen in *Hat Trick*, with Frank van Beauninggen (visiting from Holland) third in *Hestia*.

The Paralympic Challenge Atlanta '96



Five very busy months seem to have flown by as Andy Cassell (photo above) – best known to Dragon sailors as helmsman of *Scarecrow* GBR 595 – and his crew Kevin Curtis and Tony Downes prepare for the Paralympic Games in Atlanta. The campaign as moved up several gears since Cowes Week last year when the CCYC and Dragon Cocktail Party set the fundraising ball rolling to send Andy to the World Championship in Spain. Andy brought the title home and ever since Dragon sailors have been popping out of the woodwork up and down the country speeding the campaign along its path.

As 1995 faded away and everyone else was panicking about the Boat Show, Andy, Mike and Sue O'Hagan, Rory Bowman and Dennis Taylor were closeted to produce the campaign brochure. From there the campaign was launched in earnest. John Thornton and Rory took up the baton, urging Dragon sailors to contribute to the cause, whereupon cheques totalling over £2,500 have landed on the doormat. One generous donor felt that any price might be worth paying if it got Cassell

off a Dragon for more than five minutes – his comment being "Great, he might concentrate less and be easier to beat!"

Generous support from the Dragon Class, and many yacht clubs on the South Coast, motored the campaign towards its target of £55,000. But if ever we needed a shot in the arm it came winging its way in mid-March from the East Coast. Two Sonars, the boats to be used for the Games, had been put on order and we were desperate to get enough money to meet the shipping dates. It looked as if we were going to get there, but three technical hitches remained. We couldn't transport them, we couldn't insure them, and we had to get them cleared into this country. To the rescue came the Dragons ...

We owe to Mike Hayles (*Basilisk*) and his colleagues an enormous thank you. Without him we would not have got off the ground, literally. Mike, in his usual unflappable manner, picked up the two boats from Bangor, Maine, USA and flew them into Stansted Airport. If only he could have been at Southampton when Andy, Kevin and Tony saw them for the first time: their faces said

it all. Tim Law (*Vanity VI*) piloted us through the maze of insurance paperwork and Dave Clarke organised his employer HM Customs and Excise to make a donation to the fund, resulting in speedy clearance in time to meet the television cameras at Cowes on 29th March.

The Sonars, the only two in Europe, are to be seen match racing in the Solent on Tuesday nights and weekends. Andy and the team, having practised in them, went off to Florida for their first major regatta in Sonars, the pre-Olympic Regatta. They were greeted with howls of surprise and anguish from the other teams when they learnt we had had two brand-new boats flown in from the States. The USA team were particularly miffed! Well, they came home winners, but only by a whisker. So it's down to dedicated practice from now on – not that that stopped Andy from joining the *Scarecrow* team at Lowestoft on the way home.

In the meantime the backroom boys and girls strive to collect yet more pennies ... And of the target, well, we were looking to raise £55,000 and to date we're up to £49,000, plus all the 'donations in kind'.

We've covered a lot of ground, none of which would have been possible without the kind and generous help from all of you in the Class. Thank you all.

Chris Pegna - Treasurer

Downwind at the Edinburgh Cup
– photo by Christel clear





OLYMPIC ROUND UP

ANDY CASSELL is by no means the only Dragon sailor involved with Olympic sailing in Atlanta '96.

Rory Bowman might prove indomitable when he turns out in *Loki* but we have his talented wife Aisling to thank for keeping him off the water much of the time. Much of Rory's time is spent supporting Aisling's campaign sailing the Europe for Ireland. Needless to say the Irish Dragons are at the forefront of support for her campaign.

Also sailing for Ireland and competing against Andy in the Paralympics will be John Twomey from the Kinsale Dragon fleet where he sails *Kin*.

The Olympic Sailing Regatta starts on August 4th and the Paralympics begins on August 18th. Fellow Dragon sailors will be following their progress with interest.



Smiles all round when the Paralympic Sonars arrived at Southampton

