

International Laser Class Association

Laser Standard
Laser Radial
Laser 4.7



Laser

2009 Handbook

Constitution and Class Rules



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www.laserinternational.org

For reports, results, news, photos, regatta information, events calendar and other helpful information

International Laser Class Association 2009 Handbook

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From our President



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The 3 Laser rigs, Laser 4.7, Laser Radial and Laser Standard, using the same hull, make up the most active youth and adult racing class in the world for 14 to 74 year olds. The class provides opportunities and fun for beginners on holiday, learn to sail programmes and racing at most sailing clubs to Olympic level. Boys and girls and men and women all using the same equipment.

The class is administered by volunteer Laser sailors in clubs, at national level and international level.

Next time you go free sailing off a beach or club racing or read about our Olympic sailors competing in some far away country take a few moments to think about how it all happens. You are part of something special.

If you have the opportunity please help others to enjoy their Laser sailing with a piece of helpful advice or a friendly chat.

Heini Wellmann ILCA President

This Handbook is published every year by the International Laser Class Association (ILCA) and distributed to class members throughout the world. Any changes to the information contained in this Handbook, including changes to the class rules and By-Laws are published on the ILCA web site www.laserinternational.org and in LaserWorld, the international magazine of the class that is also distributed to Laser class members.

If you are not an ILCA member consider joining us by contacting your national Laser Association through the contacts list on our website.

Jeff Martin ILCA World Executive Secretary



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Go Sailing, Go Racing

Sailing is great but Laser sailing is a little bit more special. You are totally in control and when you want a challenge you go out in stronger and stronger winds until you are flying across waves and through spray, experiencing the most exhilarating ride of your life. The joy of going Laser sailing is what keeps the class the most popular boat of its type in the world.

If you need a little help getting used to the boat there are books about Laser sailing and racing (see Laser Library) but for many the best way to get to know your boat better is to go racing. It also means you can meet like-minded people.

Contact the Laser Association in your country for details about how racing is organised and where the nearest group of Laser sailors are (see page 17) or check out the contact list on our website at www.laserinternational.org. Over 90% of Laser racing takes place over a couple of hours in an evening or at a weekend. Most racing takes place from sailing or water sports clubs and, like golf, you are guaranteed to see a full range of experience at the local club where beginners and experts are welcome. Your club may organise training weekends and visiting coaches and you will certainly benefit from talking to and watching others.

After a while you may wish to have a weekend or week away sailing at a different venue against other Laser sailors. This could be 50 or 500 kilometres away but for sure you will find other places to race. Your national Laser Association can help you.



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YOUTH AND MASTERS (over 35)

In many countries there are special extra events organised specifically for different Laser rigs (Laser Standard, Laser Radial and Laser 4.7) and for youth and master sailors. Some countries organise extra National Championships for these rigs and age groups.

For sailors who do not like to travel, the National Championship is often the highlight of the annual racing calendar. These events are open to all comers and all levels of skill. You will experience the excitement of racing in a large fleet of between 30 and 100+ Laser sailors. Best of all you need no qualifications, except being able to handle your boat in up to 20 knots and having enjoyed at least 10 club races in your Laser. You probably will not become national champion (at least not at the first attempt) but you will certainly have a great time.

With the exception of most World and European Championships, all Laser racing is open and there are many national and international regattas you can go to with only a limited amount of experience.

Contact your Laser Association for a chat about what is available (see page 17) or check out the contact list on our website at www.laserinternational.org

The Laser Formula

A choice of rigs for different weight sailors - 3 boats in one

- Are your children reaching the age when they want to go sailing in a Laser by themselves?
- Does your husband or wife fancy the occasional sail in your Laser?
- When you drive 2 hours to get to the water have you found it is too windy for you to go sailing?
- Maybe you are too light to sail the Laser with the Standard rig?

The **Laser Formula** is the answer to all these questions. By changing only the sail and lower mast the Laser can be sailed comfortably in all wind conditions and provide exciting but controlled sailing for any sailor weighing as little as 35 kg. The Laser Formula is a 3 rig option that has been adopted by a number of sailing schools as a simple and economical way to keep sailing in all winds and reduce the amount of 'down time'.

The **Laser 4.7** uses a short pre-bent lower mast to maintain a balanced helm and a sail area that is 35% smaller than the Laser Standard. It is ideal for learning to sail or for the lighter weight sailor graduating from Optimist.

The **Laser Radial** is the next step up. It uses a more flexible and slightly shorter lower mast together with a sail area 18% smaller than the Laser Standard. The Laser Radial has a large following with national and international regattas and World Men's, Women's & Youth Championships attracting as many countries and competitors as the Laser Standard Rig. As well as a strong following amongst lighter weight sailors, the Laser Radial is also used for youth, women and masters racing. Many countries now support a full Laser Radial Youth programme and in a survey of national yachting authorities conducted by the International Sailing Federation the majority replied that the Laser Radial was their preferred youth boat.

The **Laser Standard** can be sailed by any weight in light winds, but as the wind increases it is better suited to higher sailor weights.

Apart from the strong second hand market in Lasers with the Laser Standard rig, there is an even stronger second hand market for Laser Radial and Laser 4.7 lower mast and sails as a separate package from the hull.

Laser 4.7

Crew 35-55 kg
SAIL AREA
4.70m²



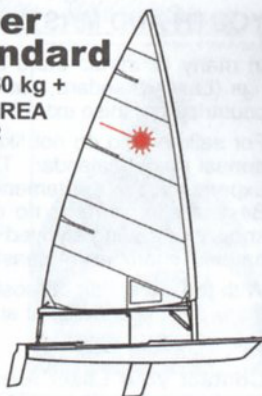
Laser Radial

Crew 55-70 kg
SAIL AREA
5.76m²



Laser Standard

Crew 60 kg +
SAIL AREA
7.06m²



ILCA Policy and Useful Information

The Laser is widely used as a youth training and racing boat. The chart below illustrates a typical progression and suggested age limits for prizes at youth events. The stepped progression maintains interest throughout youth years for different rates of growth.

Age*	12	13	14	15	16	17	18	19	20
Birth Year**	1997	1996	1995	1994	1993	1992	1991	1990	1989
Laser 4.7***	UNDER 16				UNDER 18				
	Laser Radial			UNDER 17	UNDER 19				
	Laser Standard					UNDER 19	UNDER 21		

* The age the competitor **becomes** in the year of the Championship

** The year during which the competitor must have been born **FOR A 2009 CHAMPIONSHIP** using this guide

*** Lower age group upper limit increased from under 15 to under 16 in October 2008.

Within these age limits there will be a wide variation in weight for a given age, therefore some overlap is necessary. The age bands for each rig show suggested main prize categories even when the total entry for a rig is starting together. In larger events, prizes for more age groups within the band limits should be awarded to generate even greater interest.

In general, ILCA recommends that youth events shall be held in Laser 4.7 and Laser Radial rigs. However, it is recognised that some older youth sailors may be heavy enough to sail a Laser with a Standard rig but may not be developed enough physically to be able to compete with older similar weight sailors.

WORLD CHAMPIONSHIPS - general

As a result of high demand for places at major Championships the majority of Laser World Championships and European Championships are allocated place events. For further information see www.laserinternational.org.

YOUTH CHAMPIONSHIPS

In 2009 ILCA will organise Youth World Championships in the Laser Radial and Laser 4.7, following the above age limits.

Competitors in Youth World Championships will normally be in the upper age limits and will be of a high standard. They should be experienced in big fleets and able to sail well in waves and wind speeds of up to 25 knots. Entering a World Championship without experience and ability in all racing conditions is not recommended, especially if a sailor is not heavy or strong enough to handle the rig.

WOMEN - policy

ILCA's recommended policy is that Women's championships should be held in the Laser Radial. ILCA runs "allocated place" Women's World and European Championships and other "open" Laser Radial events that include women.

For identification purposes, sails used at certain women's events shall carry a red rhombus above the top batten pocket on both sides, see class rule 4(g).

Red rhombi shall conform with ILCA Rules, Part Two, section 4(g)(i) RED RHOMBUS.

LASER 4.7

Although the Laser 4.7 is used primarily as a youth class, in some countries, it may be appropriate to run "open" Laser 4.7 regattas for lighter weight adults. At these events, separate category prizes for youth and women should also be considered, in a format similar to the Laser Radial.

Further information about events can be obtained from www.laserinternational.org

LASER RADIAL - policy

With the exception of World and some continental championships all Laser Radial regattas should be mixed gender and ages except if there are two or more categories with 35 or more competitors. In this case the fleets with 35 or more should be sailed separately. Each category should have separate prizes. Where there are separate prize categories, each category should be identified by either a masthead streamer or a colour band on the mast.

MASTERS - policy, age limits and identification

ILCA's recommended policy for Masters events is that the sailor must reach the ages given in Fig. 1 (below) by the day of the first race of the regatta. The age of the competitor on the first day of the regatta determines the group the sailor competes in for the whole regatta. The following colours are recommended for identification stickers on the mast below the gooseneck so that different category masters know who they are sailing with when they sail in mixed fleets. Overall prizes will be awarded in accordance with the ILCA Honour Award By-Law in each category.

Apprentice - GREEN, Master - RED, Grand Master - BLUE, Great Grand Master - YELLOW.



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Fig. 1

Age Group	Masters Category
35 to 44	Laser Standard Apprentice Master Laser Radial Apprentice Master
45 to 54	Laser Standard Master Laser Radial Master
55 and over	Laser Standard Grand Master
55 to 64	Laser Radial Grand Master
65 and over	Laser Radial Great Grand Master

HANDICAP NUMBERS

Sometimes we get asked: "What are the handicap numbers for Lasers in mixed class racing"? The numbers used by the Royal Yachting Association (GBR) in their Portsmouth Handicap system are:

Laser 1078 Laser Radial 1101 Laser 4.7 1175

The numbers can be used for handicapping different Laser rigs within a mixed fleet. To use the numbers, convert the elapsed time into seconds. Divide the elapsed time by the handicap number and multiply by 1000 to achieve a corrected time.

The handicap numbers work best on races around 100 minutes long. Further information on Portsmouth Numbers can be obtained on the internet at: www.rya.org.uk

Personal Handicaps

The handicap numbers take into account the difference in boat speed as a result of the different size rigs. The handicap numbers take no account of an individual's ability. If the finishes are timed, a personal factor can be applied to the handicap number so that each person has a Personal Handicap Number.

The handicap numbers are based on race times. In a theoretical race where a Laser finished in 60 minutes a Laser Radial should finish in 61 minutes 17 seconds if all the sailors were the same standard and made the same mistakes! A Personal Handicap can be introduced by adjusting the handicap numbers. For example

changing the Laser Radial handicap number from 1101 to a Personal Handicap of 1102 would mean that in the same race the Personal Handicap would give an extra 4 seconds advantage on someone sailing a Laser Radial without a Personal Handicap.

Personal Handicaps can be fixed for a set number of races or adjusted in any number of ways based on the performance of the last race. For example if you win a race you are handicapped by 30 seconds in the next race. Second could be handicapped by 15 seconds etc. Similarly, the last placed boat could be given a handicap advantage of 1 minute, second to last 30 seconds etc. A simple time or place penalty system like this can also be used instead of handicap numbers (see fleet handicaps on our website at: www.laserinternational.org)

It is best to keep race by race changes simple and restrict changes to a maximum of the first two and last two places.

If you decide on a Personal Handicap System don't forget someone has to manage it so KEEP IT SIMPLE.

COACHING AND COACHES

ILCA helps in the organisation of Training Weeks for racing sailors throughout the world. Demand for this type of help is increasing. We hold a register of Laser sailors who are experienced at International regattas and who are able and interested to give some time to run Race Training Courses in other countries (coaches). Laser coaches do not normally get paid for their work but they get their travel, meals and accommodation paid for plus a small expense allowance.

Coaching can be a rewarding experience and an opportunity to visit countries you might not normally get a chance to visit. If you are interested in being a Laser Coach please write to the International Office with FULL details of your sailing experience, race results, coaching experience in Lasers and other classes, age, languages, address, including business and home phone, fax and e-mail. Please also include references.

If you would like the services of a Laser Coach on the above basis please contact ILCA International Office with at least 6 months notice. Please also keep in mind that all the coaches will normally have their own busy sailing season and therefore courses should be planned at a 'quiet' time of the year to give ILCA the best possible chance of finding a coach.

INTERNATIONAL EVENTS CALENDAR

ILCA maintains an international events calendar of regattas that would normally attract international entries. The list is updated on a regular basis and usually holds details of approximately 200 regattas.

Event details are available on the ILCA website: www.laserinternational.org

Please advise the ILCA office of any international Laser regattas in your region at least 3 months in advance. Early notification of events will ensure maximum publicity and avoid clashes with other events.



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Protecting the One Design Principle

An overview of the tools we have to protect the One Design Principle and how each member of ILCA can influence changes to the Rules and the Laser Construction Manual.

The one design principle is the most important asset of the Laser Class. Its protection is therefore a prime concern for the Class. A number of legal instruments are in place to assure that protection. The most important ones are the Laser Construction Manual (LCM) and the Class Rules.

The LCM is a proprietary, protected document that specifies the manufacturing procedures, standard plugs and tools as well as the raw materials and parts supplied by third parties for the hull, sails and spars. Periodic factory inspections by the Class make sure that the manual is strictly adhered to by the builders. These factory inspections are the "measurements" in the traditional sense of sailing.

The Class Rules specify that nothing can be changed by a sailor on the hull, sail and spars except what is specifically and positively allowed in the Rules. At major Laser regattas, there is no measurement in the traditional sense. Instead, a simple inspection is made to make sure that only original parts are used and that the boat is rigged according to the Rules.

The one design principle means that all Lasers – that are produced by the licensed builders – are the same. There should be no differences in performance, quality and fittings used between the different manufacturers. The LCM is the instrument to assure this. It defines in detail the manufacturing procedures, the materials used and the quality assurance procedures mandatory for each builder.

Any change in the LCM requires the unanimous approval by all licensed builders, the International Laser Class Association and ISAF. During the last two years the builders together with the Technical Officer of the Class have undertaken a tremendous effort to revise the LCM. Wherever possible tolerances were reduced, more detailed descriptions were added and the whole manual was put into a properly secured electronic form. The LCM is continuously reviewed as part of an ongoing process to further tighten tolerances and specifications where possible. During the revision of the LCM much thought was given to the basic principles on how the Laser should evolve. The following principles were approved by all Builders and the Class and are now part of the LCM:

Evolution in quality and ease of use:

The Builders have made and will continue to make a sustained effort to improve the quality, durability and ease of use of the Laser – but without changing its basic performance. Where tolerances exist in the Quality Assurance procedures for incoming materials and for the manufacturing process, a continued effort will be made to reduce them, but avoiding significant cost increases.

The concept of a "lead builder":

For each project a "Lead Builder" will be nominated, who will report periodically to



the other Builders and ILCA. Changes can only be introduced – after the appropriate testing – with the approval of all of the parties concerned.

Availability of options in materials and fittings:

If the LCM or the Rules allow options in the fittings, boat parts and material used, then all options must be made available worldwide at the same time and at comparable prices.

Evolution of the Laser:

Allow only for changes that are not too expensive, do not affect the performance of the boat and can be easily fitted by a sailor without professional help.

Parts or fittings that have been produced in compliance with the LCM and are therefore Class Legal cannot be subsequently made illegal, but restrictions on the use of particular equipment (in the interest of minimising differences) may be made.

The control of the adherence to the LCM is governed by the Laser Construction Manual Agreement signed by the before mentioned parties. It defines the procedures for the periodic factory inspections by the Class and the measures necessary in case of deviations. This agreement is the most important legal document, which, alongside the Laser Class Rules, holds the whole "Laser one design system" together.

The Rules:

The basic principle is that nothing can be changed by a sailor on a Laser, which was built according to the tight specifications of the LCM. Only a few changes, which are positively described in the rules, are allowed. The Rules also describe how a boat must be rigged to be Class legal. The rules are sometimes difficult to understand. Therefore the Chief Measurer of the Class publishes from time to time interpretations to certain rules.

Nevertheless, over the years **changes have been made** to the Laser in the Construction Manual and the Rules have evolved. However, the Class and the builders were very careful that:

- The changes **do not affect the basic performance** of the boat, but
- Only the **ease of use, durability and safety** were improved and
- **Older parts, fittings and sails remain legal**

How can each member of ILCA influence these changes?

Firstly, be aware that only changes which improve the ease of use, durability and safety of the boat, have the chance to be passed.

Rule changes:

If you have a good idea for a rule change, talk first to some other sailors and also to class officials to see whether they share your opinion. If this is the case, then formulate the rule change **as precisely as possible and add a justification.**

Then **send your proposal to the Chief Measurer of the Class**, Jean-Luc Michon (e-mail: michonjl@hotmail.com). He will discuss it with the other members of the Technical and Measurement Committee (TMC) of the Class and then present the proposal to the World Council with a recommendation.

Finally, if the World Council and the Advisory Council agree with your proposal, **the rule change must be approved by two thirds of the membership.**

Changes in the Laser Construction Manual:

In view of the protection of the one design aspect there is much hesitancy by the builders, class and licence holder to change anything. Any change must have clear and important advantages in terms of usability, quality, durability or safety. The proposal must be duly justified.

The best way to get some attention is to **present it to the Chairman of the Technical and Measurement Committee** (Tracy Usher, e-mail: usher@slac.stanford.edu) and/or to the Technical Officer of the Class (Clive Humphris, e-mail: technical@laserinternational.org).

Be aware that **any change requires the unanimous approval by all licensed builders, the International Laser Class Association through its Technical and Measurement Committee and ISAF, but is not subject to a member vote.**

Despite the high hurdles a change must overcome before it can take effect, there are several examples in the last few years of important changes, which were initiated by ILCA members. **So do not be scared away, but contribute to the evolution of the Laser. It will last longer.**

Reprinted from original articles by Heini Wellmann, featured in LaserWorld October 2007 and January 2008.

ILCA guidance on the legal restrictions concerning the importation of Laser boats and spares.

The one design principle - through the Laser Construction Manual agreement and the Class Rules - makes sure that all Laser sailors have identical boats, spars, and sails at their disposal. There is no performance difference in the equipment to ensure that only the skill, tactics and physical preparation of the sailor make the difference in winning or losing a Laser race - and sometimes luck! This is the heart of the Laser's success.

Since the Laser became an Olympic class and later the Laser Radial, many of the top sailors are professionals - at least during the last two years before the Olympic Games. They travel all over the globe. For example during the northern hemisphere winter, many European sailors train and compete in Australia or New Zealand. The Australians and New Zealanders travel to Europe in May, June and July to participate in the big European regattas. The Class also organises the World Championships alternating around all six continents.

Therefore, it is important to know whether a sailor can buy a Laser, spars and sails in any country and import it to his home country. This is only possible under certain very strict conditions, as the **Laser boat is protected by trade marks.**

Some legal considerations are necessary to understand the sailor's rights and duties. The following is based on the advice of an international trade mark specialist at the request of the Class:

Most commercially used trade marks like Coca Cola®, Nokia® and Nescafé® are owned by the corporation, which uses them on a worldwide basis. For the Laser trade mark this is different: each builder owns the Laser trade mark for the territories they sell into. You can find these territories on the ILCA web site, <http://www.laserinternational.org>.

International trade mark agreements - supported by national and multinational legislation and regulations - consider the import of a trade mark protected product into a country where the trade mark is owned by another company an infringement of the intellectual property (IP) rights of that company. These regulations allow the owner of an IP right to request customs offices to detain or not release goods which the IP owner believes infringes its IP rights. It should also be noted that these restrictions apply for both new and second hand boats.

Therefore, by buying a new or second hand Laser in one country and importing it into a country which is in the territory of another builder, you risk that the other builder takes legal action against you. This has already happened in the past: Lasers have been seized and detained by customs offices and have been returned to the country of origin at considerable cost to the person trying to import the boats.

However, in the case of the Laser there is an additional agreement to be considered. Before being selected as Olympic Equipment, all builders, the class and ISAF have signed an agreement that defines the rights and duties of each party during the period the equipment is selected for the Games. In one part of the agreement it is specified that the trade mark, trade name or copyright holders and the manufacturers will allow any individual sailor and/or organisation to buy a boat ready to sail, spare parts and sails from any licensed builder/producer/dealer worldwide, provided that such purchase is for the exclusive use of the sailor or organisation and is not used in a business or trade or for any commercial activity.

In summary: independent of any trade mark rights you can buy where you want, but solely for your exclusive personal use. You need to organise the transport yourself and obviously pay the import duties and taxes in your home country. You are not allowed to buy several boats and then sell them to your friends. This is also valid for second hand boats.

Independent of the possibility to buy a Laser for your exclusive personal use where you like, you need to consider two other aspects:

There is a Laser dealer in almost every country of the World. This is an important service to current and future owners of a Laser boat. Spare parts are readily available in case of need. If you buy through your local dealer you are helping to preserve that service and you do not have to go to the trouble of worrying about import duties and transport, which can be tedious operations. If sailors, during short term currency variations, shop around and buy the boats wherever they are a little bit cheaper, then the local dealer cannot make a living anymore, will go out of business and all sailors of that country will have to import the spare parts from overseas.

Finally consider the warranty given for a new hull. If you buy your boat in a country that is not in the same trade mark area as your own, you cannot expect the trade mark owner for your country to support a warranty claim for such a boat.

Therefore support your local dealer and buy locally.

Reprinted from original article by Heini Wellmann, featured in LaserWorld September 2008.

Website: www.laserinternational.org

There is a large amount of information useful to Laser owners available on ILCA's website - far more than can ever be published in a book. A lot of the information online is updated regularly so the latest news is always available.

On the ILCA website you can find:

- Addresses - up-to-date list of Laser contacts in each country.
- Results of Laser World and Regional Championships since 1971
- Full results, daily results and reports from the Laser World Championships and links to other sites giving daily results of top Laser events.
- Events - Dates of over 200 Laser international events plus detailed information including Notice of Race for each regatta when information is received.
- Tips on Laser sailing.
- Olympics - regular updates on all Olympic news for Olympians and those just interested.
- Links to the ISAF World Ranking List for Laser Standard Men and Laser Radial Women.
- Links - to other continental and national Laser websites.

Laser Library

We have selected the following books which we recommend for Laser sailors. Some are aimed at specific levels of ability, while others are more general. Our guide suggests one or more of 3 levels for which the books are suitable: BEGINNER / INTERMEDIATE racer / ADVANCED racer.

Postage & packing prices per book or DVD are as follows:

UK (Royal Mail 1st Class) - £3.00

Europe (Airmail) - £4.00

Rest of World (Airmail) - £6.00

All books are paperback.

The Complete Book of Laser Sailing (2nd edition) - Dick Tillman

PRICE: £16.95

This edition of Laser Sailing tells you what you need to know about sailing and racing the Laser, and gives you the latest thinking on how to set it up and sail it. It includes latest information on upwind and downwind techniques, the Laser Radial, Masters racing, equipment, and rigging techniques; interviews with champion Laser racers; listings of major competition results since 1990, including the Olympics, and Radial and Masters classes.

BEGINNER/INTERMEDIATE

The Complete Introduction to Laser Racing - Edited by Ben Tan

PRICE: £19.95

Ben Tan, gold medallist at the 1994 Asian Games and competitor in the 1996 Olympics, gained his Masters degree in sports medicine in 1997 from the renowned Australian Institute of Sport, and now coaches at top level in Singapore.

This book provides a complete guide to Laser racing which should be mandatory for every Laser sailor who wants to improve their racing results at all levels. It covers every aspect of performance sailing including a programme for the next Olympics and Regional Games, rigging, control line settings, speed, wind patterns and strategy, currents, tactics in big fleets, practice exercises, fitness, nutrition, psychology, sports medicine and preparing a training programme.

BEGINNER/INTERMEDIATE/ADVANCED

The Laser Book - Tim Davison, 4th Edition**PRICE: £14.95**

Completely revised and expanded, this remains the book for all less experienced Laser sailors, covering the basics of Laser Sailing. Packed with up-to-date, practical advice on care of your Laser, rigging, launching and sailing in all conditions, with comprehensive sections on the Laser Radial and 4.7 rigs, and an introduction to racing skills and tactics.

BEGINNER

The Laser Campaign Manual - Ben Ainslie**PRICE: £19.95**

In this book and its accompanying CD, Ben takes you through an overview of what he feels is important. The video clips, with commentary by Ben, complement the chapters on starting, tacking, gybing, beating, reaching and running. The book is arranged in 4 main sections:

- Getting the boat right - showing how to set up lines on the Laser
- Speed around the course - covers different wind strengths and manoeuvres
- "Let's get personal" - diet, training, fitness and other aspects of personal preparation
- How to win a championship - preparation, psychology and other tips around the course

It provides an interesting insight into what it takes to do well in a Laser. Well laid out and easy to follow, it can be the handbook for all Olympic hopefuls, but anyone who enjoys racing will get something from it. The addition of the video footage makes it a must-buy for any serious Laser racing sailor.

INTERMEDIATE/ADVANCED

LaserCoach 2000 Interactive CD-ROM from SailCoach**PRICE: £20.95**

The first of its type to use new technology, including video footage of Olympic gold medallist Robert Scheidt, pictures from the 1996 Olympics and specialist shots of individual manoeuvres. It covers sailing and boat handling techniques around the course, tactics, fitness, mental preparation and a racing rules commentary.

BEGINNER/INTERMEDIATE/ADVANCED

Laser Racing - Ed Baird**PRICE: £9.95**

The author is a past Laser World Champion. His book gives advice on all aspects of Laser racing: preparing your boat, practising boat-handling skills and sailing the race itself.

BEGINNER/INTERMEDIATE

Mental & Physical Fitness for Sailing -**PRICE: £12.95****Alan Beggs, John Derbyshire & Sir John Whitmore**

Sailing has moved on from the days when flair was all you needed to win an international championship. Today it's really tough out there, and you need to reach the peak of your mental and physical potential to succeed. This book shows you how.

INTERMEDIATE/ADVANCED

Protests & Appeals - Bryan Willis**PRICE: £6.95**

Bryan Willis has been vice chairman of the ISAF Racing Rules Committee. This illustrated guide gives details on protesting and defending a protest after an incident in a race; a must for the serious racing sailor.

ADVANCED

Race Training - Rick White**PRICE: £14.95**

This book takes you through sets of exercises and drills which will improve your sailing techniques.

INTERMEDIATE/ADVANCED

RYA Tactics - Mark Rushall**PRICE: £13.99**

This book is a very comprehensive and accessible guide to sailboat tactics. Although not specifically written for the Laser, it gives an insightful view of race preparation, individual boat on boat tactics and overall race strategy to help all sailors better understand and perform in both fleet racing and club handicap racing.

BEGINNER/INTERMEDIATE/ADVANCED

RYA Laser Handbook - Paul Goodison**PRICE: £16.95**

The RYA Laser Handbook has a detailed and technical approach to all areas of Laser sailing. Written by Paul Goodison, this book has great tips and training exercises along with informative photos and diagrams. This book has got to be an essential read for all up and coming Laser sailors.

The Rules in Practice 2009-2012 - Bryan Willis**PRICE: £14.95**

It is a popular fallacy among racing sailors that you need to know the rules. You do need to know your rights and obligations on the water - but the rules can always be looked up afterwards. The Rules in Practice looks at the key situations that repeatedly occur on race courses, from the viewpoint of each helmsman in turn, and summarises what each may, must or cannot do. Armed with this information you will have the confidence to exploit your rights to the full, both on the water and in the protest room.

BEGINNER/INTERMEDIATE/ADVANCED

Tactics - Rodney Pattison**PRICE: £12.95**

Comprehensive guide to racing tactics by a double Olympic gold medallist. Its interesting approach gives illustrated evaluations of boat for boat tactics.

INTERMEDIATE/ADVANCED

Team Racing for Sailboats - Steve Tylecote**PRICE: £14.95**

Whether you race with 2, 3 or 4 boats per team, in dinghies or keelboats, this manual will help you. It contains information on the language of team racing, strategy and tactics, individual skills, positioning and umpiring.

BEGINNER/ INTERMEDIATE/ADVANCED

Tides and Currents - David Arnold**PRICE: £9.95**

This book explains clearly how to find out about predicted water flows, how local conditions will modify it, and how to plan your racing strategy on an Olympic triangle, inshore or offshore race.

INTERMEDIATE/ADVANCED

Wind Strategy (3rd edition) - David Houghton**PRICE: £14.95**

David Houghton has been the meteorologist for 4 British Olympic teams, 5 British Admirals Cup teams and 2 Americas Cup challenges. Here he presents his experience in local weather forecasting.

INTERMEDIATE/ADVANCED

The Boat Whisperer DVD - Steve Cockerill**PRICE: £19.95**

From hours of high quality video - taken from onboard and chase-boat cameras - Rooster Sailing now offers Steve Cockerill's Boat Whisperer concepts on DVD for everyone. Mast-head and transom-mounted cameras captured the exciting footage of three inexperienced and experienced sailors venturing out at Stokes Bay in 25 - 35 knots. This raw footage has been cooked up into two DVD's - Boat Whisperer Upwind and Boat Whisperer Downwind that will revolutionise your sailing.

We are also offering a discount for the Upwind and Downwind Boat Whisperer DVDs when bought together: £29.95 You will only have to pay postage once.

These books are available to order from our website at www.laserinternational.org

What is the International Laser Class Association (ILCA)

The International Laser Class Association (ILCA) is like a worldwide sailing club specifically for owners of Laser sailboats and people interested in the Laser. Like most sailing clubs it is run by volunteer Laser sailors who employ staff to run a dedicated Laser office.

For easier administration the Laser Association is divided into 4 main levels of activity, each with elected volunteers:

FLEETS - normally sailing clubs or small groups of Laser sailors sailing together on a local basis. Fleet activities are normally co-ordinated by a Fleet Captain who has been elected by the Laser sailors in that Fleet.

DISTRICTS - In North America and Australia these are single states or an amalgamation of states. For the rest of the world, District boundaries are normally the same as national boundaries, although occasionally small countries either amalgamate with other small countries or get looked after by larger countries. District activities are co-ordinated by a committee, elected by Laser sailors at the District's annual District general meeting.

REGIONS - these are a number of districts grouped together on a continental basis. Regional activities are co-ordinated by officers elected by the District representatives.

INTERNATIONAL (World Council) - this is rather like the board of directors of a company. It is responsible for directing the work of the Association and maintaining the objects of the Association as they are expressed in the Association's constitution. The World Council consists of the President and Vice Presidents; the Chairman and Vice Chairman of each region; the Chief Measurer, the Executive Secretary appointed by the Council and 2 representatives of the Laser manufacturers. Our World Council is truly international, currently consisting of officers from Argentina, Australia, Brazil, France, New Zealand, Switzerland, Turkey, UK and USA - all are active sailors and between them have a wealth of experience spread over all levels of sailing.

The contact details of all class officers from District to World Council level can be found in the Handbook. Please do not hesitate to contact any officer if you have any Laser problems or need help or information about the Laser or Laser Association.

ILCA

- A self-administered International Organisation
- Provides co-ordination, organisation and communication for the class worldwide
- Liaison with national and international authorities
- Maintains One Design Rules
- Protects the Design and ensures consistency
- Monitors building agreements
- Self-funding
- Positively promotes Laser sailing worldwide
- Publishes annual handbook and quarterly magazine LaserWorld
- Co-ordinates international racing calendar
- Organises World Championships at international level
- Organises District Championships
- Administers the class worldwide
- Has six employees
- Sets the standard that others aspire to achieve

ILCA Goals

The objects expressed in the Constitution of the Association are:

- To enhance the enjoyment of Laser sailboats.
- To provide a means of exchanging information among Laser sailors throughout the world.
- To promote and encourage Laser class racing in all countries under uniform rules.
- To promote and encourage the sporting and recreational aspects of sailing.

ILCA's Work

For the majority of members, the work done by class officers is not directly apparent, but it is vitally important for the continuation of our class and the very existence of the Laser sailboat as we know it. It is all too easy to go to a dealer, buy a Laser, and go sailing with lots of other identical Lasers without even thinking about how it all happened or if it will continue to happen!

The existence of a strong International Laser Association is important to all Laser owners, whether they are occasional weekend sailors or they are aiming for an Olympic gold medal. If you doubt this, think back to the reasons why you were originally attracted to the Laser:

A good design?

ILCA cannot take credit for that. However, ILCA plays an important part in protecting that design and making sure it isn't devalued by manufacturing changes. The construction of the Laser is controlled by an agreement between the manufacturers, the ILCA and the ISAF, and by the class rules. Monitoring this agreement is an important part of ILCA's work.

Strict one design?

When the Laser was first introduced a set of rules were drafted which, at the time, were very different to other existing classes. These other class rules listed a number of prohibitions which led to developers trying out new ideas if the idea was not specifically prohibited. The result of this is that quite often older boats became outdated with a subsequent loss in value. The Laser rules are different in that they prohibit ANY changes unless the rules specifically allow a change. This means that a 10 year old Laser is the same as a brand new one and as a result holds its resale value far better. ILCA plays an important part in keeping the Laser rules strictly one design by preventing changes and providing a measurement structure that maintains the one design.

Good racing?

The International Office of the ILCA is responsible for organising world and other major championships for the class. Of course these only directly interest a small group of sailors. However, the organisation of top quality championships has an effect on all sailors. The qualification and training for major championships can only take place at lower level regattas. This results in increased participation at lower levels, which in turn attracts more people to the class. Standards that are set in sailing, racing and organisation at international level filter down throughout our organisation.

Good magazines, website and communication?

The amount and quality of literature available to a Laser sailor is high compared with most other classes. ILCA's *LaserWorld* magazine is prepared by the International Office and distributed throughout the world to supplement the many and various publications produced by the Districts. A truly international magazine keeps everyone in touch with class activities and helps the class to develop evenly throughout the world. This is one of our greatest strengths. ILCA also has its own website (www.laserinternational.org) with regularly updated news items, information and links to other sites (see page 11). In many other classes a lack of international communication has caused groups of sailors in different countries to become isolated and the class in those countries to become extinct. This fall-off in activity eventually affects the class in established countries, leaving only the truly international classes well supported.

Low price?

Mass production keeps the price of the Laser relatively low. An active Class Association encourages more people into the class, therefore making mass production viable.

Activity

Whatever reasons made you become a Laser owner, they are all a result of ACTIVITY. The Laser Association plays an important part in promoting and maintaining this activity and keeping the Laser at the top of the sailing world for both Laser sailors and sailing authorities.

The International Office, together with the Regional and District officers, ensure a strong and healthy future for the Laser.

The International Office also deals with correspondence and communications from individuals, fleets, sailing clubs, district committee members, national yachting authorities, the World Council, the International Sailing Federation and the various manufacturing plants - in fact anything concerning Laser!

ILCA is working for each individual Laser sailor no matter where they are in the world.



FINANCES

Being a large class, there is a considerable amount of administration. At District level, membership numbers are often so big that part time secretarial help is needed to assist the volunteer officers, if only to send out the newsletters! Multiply the number of countries by 120 and add together all the memberships from each country, and it is easy to see why we need a full-time International Office.

Any club or association needs a small fee to cover costs. Your membership fee would normally include an amount for District and sometimes Regional administration, plus a contribution towards the international costs of the Association. The Laser builders also contribute towards the running costs.

The international accounts are audited each year, and a summary income and expenditure account together with a balance sheet is published in *LaserWorld*.

The Association's finances and administration are independent of the Laser manufacturers, although we work closely together on a number of things. The World Council believes that our continued strength is related to having sound finances, therefore it tries to maintain a small operating surplus each year, which is put in a reserve fund.

COUNTRY AND DISTRICT CONTACTS (In Alphabetical Order)

Correct as at 01.11.08 Updated regularly on the ILCA website: www.laserinternational.org

Key to Regions: (ap) Asian Pacific (csa) Central & South America (e) Europe (int) International (na) North America

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INTERNATIONAL LASER CLASS ASSOCIATION

Constitution

Amended 3 May 1974, 18 March 1993, article 12 amended 1 June 1995, articles 6 (1), 7 (4), 8 (3) and 9 (3) amended 1 January 2000.

NAME

1. The name of the Association shall be the INTERNATIONAL LASER CLASS ASSOCIATION, with Head Office at PO Box 26, Falmouth, Cornwall TR11 3TN, England.

INSIGNIA

2. The emblem of the Class shall be the recognised Laser symbol, and the insignia of the officers shall be those prescribed by By-Law.

OBJECTS

3. The objects of the Association are
- (1) to provide a medium of exchange of information among Laser sailors throughout the world and to enhance the enjoyment of these sailboats;
 - (2) to promote and develop Laser class racing in all countries, under uniform rules; and
 - (3) to encourage and foster the enjoyment of the sporting and recreational aspects of sailing.

POLICY

4. It shall be the policy of the Association to maintain the Laser as the epitome of a strict one-design class of sailboat.

JURISDICTION

5. The Association has authority over all activities of the Laser Class throughout the world, and its powers shall be vested in and carried out by the World Council, Regional Executive Committees, District Associations and Fleets as provided in this Constitution and any By-Laws passed pursuant to the provisions hereof; all subject to and in accordance with the General Rules and By-Laws of the International Sailing Federation.

ORGANISATION

World Council

6. (1) The Association shall be governed by the World Council comprised of the Chairman of each Regional Executive Committee from time to time holding office, the immediate Past President of the World Council, the Executive Secretary, the two appointed members of the Advisory Council, and such additional officers to be appointed by the Council for such term as it may from time to time determine. Each officer shall be a member of the Association.
- (2) The World Council shall meet not less frequently than once per year and the first meeting shall take place within two months of the election of the Regional Chairmen. The time and location of meetings shall, if possible, coincide with the holding of a world or a regional championship meet.
- (3) The World Council shall elect from amongst themselves, the President and Vice-President of the Association who shall hold office until their successors are elected to office; and the World Council may appoint Honorary Commodores from time to time as they shall see fit.
- (4) The Executive Secretary shall be appointed by the elected members of the World Council and shall hold office for such term and upon such conditions as the World Council shall decide. He shall be situated at the Head Office of the Association and shall be responsible for the management of all business of the Association, subject to and in accordance with the Constitution, By-Laws and the direction of the World Council, including
- (a) the co-ordination of all inter-regional activities,
 - (b) the organisation of all activities relating to World Championships,
 - (c) liaison between the Association, the ISAF and all other yachting authorities, and
 - (d) liaison between the membership and the Chief Measurer.
- (5) The World Council shall appoint, for such term as it shall decide, a Chief Measurer for the Association who shall rule on all questions and challenges relating to the Rules, and shall issue Interpretations thereof deemed necessary by him. All such Interpretations shall be binding until approved, rejected, or modified by decision of the World Council, duly published to the members of the Association.

Regions

7. (1) The World Council may, as and when it deems it convenient for the administration of the affairs of the association within a substantial area where several Districts are or may be established, constitute such area as a Region.

- (2) The World Council, upon establishing a Region, shall appoint a Regional Executive Committee comprised of a Regional Chairman, Vice Chairman, and Executive Secretary, to hold office until their successors are elected.
- (3) The Regional Executive Committee shall have those powers, vested in the World Council by this Constitution (other than the power to amend the Rules or this Constitution) as are specifically delegated to the Regional Executive by the Regional By-Law, including the power to appoint additional officers for such term as it may from time to time determine.
- (4) The Regional Executive officers, other than the Executive Secretary, shall be elected annually by vote of the Chairman (or other officer authorised by him if he is unable to attend) of each District at the annual Regional meeting to be held at the head office of the Region or such other place as the Regional Executive Committee shall determine, and shall hold office until their successors are elected, and nothing shall preclude one of the District Chairmen as also acting as the Regional Chairman. Each officer shall be a member of the Association.
- (5) The Regional Executive Secretary shall be appointed by the elected members of the Regional Executive Committee, and shall hold office for such term and upon such conditions as the Regional Executive Committee shall decide. He shall be responsible for the management of the business of the Region, subject to and in accordance with the Regional Executive By-Law and the direction of the Regional Executive Committee, including
 - (a) the co-ordination of inter-District activities and events,
 - (b) liaison with the Executive Secretary of the World Council,
 - (c) issuance of Fleet Charters,
 - (d) maintenance of all records of the Region, and
 - (e) maintenance of all membership records and information, unless such duties are delegated to the District Secretary.
- (6) The World Council may subdivide a Region into one or more Regions, may amalgamate two or more Regions or may add Districts to or delete Districts from any Region from time to time as may be required for the effective administration of the Association.
- (7) In the event that a Regional Chairman shall be unable to attend any meeting of the World Council, the Executive Secretary of the Region or such any other member of the Regional Executive Committee nominated for that purpose may attend and represent the Chairman and vote at such meeting of the World Council.
- (8) Nothing shall preclude the Executive Secretary of a Region also serving as Executive Secretary of the World Council.
- (9) The Regional Executive Committee may make By-Laws, subject to the provisions of this Constitution and the Regional Executive By-Laws of the World Council, for any purpose necessary to carry out the functions and responsibilities of such Region, and copies of all such By-Laws as are from time to time passed by any Regional Executive shall be filed with the Executive Secretary of the World Council.

Districts

8. (1) The World Council, on the recommendation of a Regional Executive Committee where applicable, shall by By-Law establish Districts in distinctive areas deemed appropriate and relevant, having regard to all considerations, including geography, language, distance, and population, for the development of the Laser Class and the fulfilment of the objects of the Association.
- (2) The World Council, upon establishing Districts, shall appoint District Associations comprised of a District Chairman, a Vice-Chairman, a Secretary, and a Treasurer, to hold office until their successors are elected.
- (3) The District Association shall consist of the foregoing officers, and may appoint such additional officers to hold office for such term as it may determine. Each officer shall be a member of the Association.
- (4) Each District shall be administered in accordance with and subject to the provisions of a Constitution of the District, approved by the World Council, or if the District has no Constitution, the District Association By-Law of the World Council; and the officers of each District Association shall be elected annually by the members of the Association within the District in accordance with the provisions of the District Constitution, or, in the absence thereof, the District Association By-Law.
- (5) The boundaries of Districts may be varied by the World Council on the application of any District concerned, and one or more Districts may be amalgamated or any District may be subdivided into one or more Districts with the approval of the District Associations concerned.
- (6) A District Association with the approval of the Chief Measurer may appoint a District Measurer for a District to assist the Chief Measurer in the conduct of his responsibilities and the enforcement of the Rules; and nothing precludes a District Measurer from acting as Measurer for more than one District. A District Measurer shall have the authority to rule on all questions and challenges relating to the Rules and Interpretations of the Chief Measurer, but he may not issue Interpretations except with the prior approval of the Chief Measurer.

- (7) A District Association may make By-Laws, subject to the provisions of this Constitution, the Regional Executive By-Laws, and the District Association By-Law or District Association Constitution (as the case may be), for any purpose necessary to carry out its functions and responsibilities in the management of such District.
- (8) If any District is within the jurisdiction of a National Authority, such District Association shall, in addition to any other requirements of this constitution, be subject to such rules, regulations and directions of such National Authority.

Fleets

9. (1) A Fleet may be granted a charter upon application to the Regional Executive Committee (or the World Council where the locality is outside a Region) by 6 or more members of the Association who are individual owners of Lasers within any area or club deemed appropriate, having regard to the locality where regular racing activity is easily accessible to members of that Fleet.
- (2) Notwithstanding paragraph (1), a special Fleet may be chartered in any locality for the purposes of accommodating specific members of the armed forces, an educational institution, a junior programme or any other non-profit organisation.
- (3) A Fleet Captain, and such other officers if any as the Fleet may deem necessary, shall be elected annually from among the members of the Fleet in such manner as is prescribed by the Fleet, unless otherwise provided by the By-Laws, and shall be responsible to the District Association for the organisation of the Fleet and the due compliance by the members of the Fleet with the provisions of the Constitution and By-Laws of the Association. Each officer shall be a member of the Association.

MEMBERSHIP AND DUES

10. (1) Any person may become a member of the Association by making application to the Executive Secretary, or the appropriate Regional Executive Secretary or District Secretary, as the case may be, and payment of the prescribed Association dues, provided that he has not been disqualified from membership for cause by decision of the World Council or under suspension from membership.
- (2) An application for membership implies that the applicant undertakes and agrees to be bound by the Constitution and By-Laws of the Association upon being accepted to membership.
- (3) A member of the Association ipso facto belongs to the District in which he normally sails, even though such place may not be his permanent residence; but such member, for valid reason and with the approval of both District Chairmen, may select instead the District in which he has permanent residence.
- (4) A member of the Association may become a member only of the Fleet in his District where he normally sails for the purpose of qualification, where required, for sanctioned events; and any dispute shall be settled by decision of the District Association which decision shall be final.
- (5) The World Council may grant honorary membership in the Association, for such period as it determines, to any person who, through special contribution to the Class or through special relationship to the Association, is considered meritorious.
- (6) The World Council may grant an honorary life membership to any member who has achieved, in the opinion of the World Council, international stature as a result of his yachting achievements.
- (7) An honorary and an honorary life member are entitled to full privileges of membership, but are not required to pay the annual dues of the Association.
- (8) Membership in the Association shall not be open to any company, partnership, group or other association unless specifically authorised in any case or class of cases by the World Council; and the World Council may impose such terms, conditions or qualifications to any such membership as it shall deem appropriate.
11. (1) Association dues shall be in the amount determined by and shall be payable within the time prescribed by By-Law of each Region or District, as determined by the World Council, and shall include all amounts required for World Council, Region and District purposes as determined by each authority.
- (2) The Association may ask for special contribution in addition to dues, provided any such contribution shall be for a specific purpose and shall not be mandatory.
- (3) Dues shall be collected by the Regional Executive Secretary, but the World Council may direct the District Secretary to collect such dues under such terms and conditions as to reporting and accounting as may be required.

SUSPENSION AND REMOVAL FROM OFFICE

12. A member may be suspended by the World Council, on the recommendation of a District Association, for gross violation of the Rules and By-Laws, for committing an unlawful act in relation to the Association or one of its members, or for any unsportsmanlike conduct contrary to the interests of the members of the Association. The duration of the suspension shall be fixed by the World Council and a suspended member shall during such period be precluded from racing or enjoying any other rights of membership.
13. A Regional or District officer may be removed from office by the World Council for a wilful and unjustifiable act of commission or omission detrimental to the Association or to its members.

APPEALS

14. Any dispute arising in relation to fleets, districts, regions, eligibility to race, the interpreting of this Constitution, the By-Laws or similar matter, other than any dispute as to the interpretation of the Rules or any protest within the jurisdiction of the applicable racing rules, may be made to the World Council whose decision shall be final and binding.

ADVISORY COUNCIL

15. The President and Vice President of the World Council and two persons nominated by those builders who are also Trademark owners shall constitute the Advisory Council and shall assist and co-operate with the World Council in the carrying out of their responsibilities, and shall have the responsibilities as set forth in paragraph 17 hereof and the paragraph entitled "Amendments" of the Rules.

BY-LAWS

16. The World Council may make By-Laws for the purpose of carrying out the objects of this Constitution and of the Association and, without restricting the generality of the foregoing, may make By-Laws
 - (a) amending the Rules of the Laser Class, hereby established as By-Law 1 of the Association, as provided in paragraph 29 thereof;
 - (b) respecting the establishment of Regions, and the powers of the Regional Executive Committees;
 - (c) delegating specific powers of the World Council to Regional Executive Committees;
 - (d) respecting the establishment of Districts and the powers of District Associations;
 - (e) respecting the Constitution and By-Laws of District Associations;
 - (f) respecting registration of members and collection of dues;
 - (g) respecting the measurement of boats and measurement fees;
 - (h) respecting the conduct of championship and other regattas, including the classification of regattas and the eligibility of members for major racing events;
 - (i) respecting the acceptance of deeds of gift of trophies;
 - (j) changing the Headquarters of the Association; and
 - (k) respecting the procedures for meetings of the World Council and Regional Executive Committees, including the conduct of business by mail or other means of communication.

AMENDMENTS

17. Amendments to this Constitution shall be approved by each of:
 - (a) the World Council
 - (b) the Advisory Council
 - (c) at least two thirds of the membership replying in writing to the International Office of the Class in response to a postal ballot published by the International Office. Only those postal votes returned to the International Office within 6 months from the date of publication of the proposed change shall be valid.

TRANSITION PROVISIONS

18. (1) This Constitution shall come into force on the date of the approval thereof by the Association in accordance with the provisions of Article XVIII of the Laser Association Constitution enacted September 30, 1972; and thereupon the said Constitution enacted September 30, 1972, shall be repealed and the officers of the Association elected and appointed under the provisions of the Constitution enacted September 30, 1972, shall be deemed to be the first officers of the World Council under the within Constitution, to hold office until their successors are appointed or elected, as the case may be.
- (2) On the coming into force of this Constitution each District and each Fleet established under the Constitution enacted September 30, 1972, shall be deemed to be Districts and Fleets within the meaning of this Constitution, and all officers and Fleet Captains of such Districts and Fleets shall be deemed to be the first officers and Fleet Captains of such Districts under this Constitution until their successors are appointed or elected, as the case may be.
- (3) All Actions of the Executive Committee or other officers of the Association, including any District officer, made or performed pursuant to the said Constitution enacted September 30, 1972, shall be deemed to be validly done for the purpose of the within Constitution to the same extent as though same were carried out in accordance with the provisions hereof.

Instructions for Applying Sail Numbers

Style and Colour

Only self-adhesive, stick on sail numbers and letters may be used. Each one shall be a single, solid colour, and easy to read. The last four numbers on both sides of the sail shall be the same dark colour, preferably black. The numbers in front of the last four shall all be another, obviously different colour, preferably red. National letters are only required at international events, and shall all be the same colour.

Preparation

If the sail is not new, it should be sponged clean with mild soapy water, rinsed and dried. Find a large, clean, flat, hard surface to work on, such as a table or clean wooden floor.

Template

Make a template that each number will just fit inside. See the **Positioning Diagrams** for the minimum sizes of numbers and letters, and template details. They are different for each of the Standard, Radial and 4.7 sails. The template is a rectangle for upright numbers, and a parallelogram for angled numbers.

Base Lines and Limit Lines

Use a pencil to lightly draw **Base Lines** and **Limit Lines** on the sail. The bottom of each number and letter must lie on a **Base Line**. The **Limit Line** is parallel to the leech of the sail, and 100mm from it. The closest letter or number to the leech is positioned to just touch the Limit Line. This is shown as the **Start Point** on the Positioning Diagrams. The number or letter should touch the Limit Line at the Base Line or at any other height, depending on its shape.

Starboard Side Numbers and National Letters

1. Spread the sail out flat on the working surface so that the starboard side of the sail is facing up. The leech (back edge of the sail) will be on the left hand side as shown in the positioning diagrams.
2. Make sure you are using the correct diagram for the design of sail you are applying the numbers to. Draw the **Base Line** and **Limit Line** for the starboard numbers as shown on the positioning diagram.
3. Before peeling off the backing, place the bottom of the first number on the Base Line, with the Start Point touching the Limit Line. Use the template with its bottom edge on the Base Line to make sure the number is at the correct angle. Pencil around the outline of the number.
4. Peel and fold back about 10mm of the backing from the bottom of the number. Place the number within the pencil outline and press down to stick the peeled back area. Lift the remainder of the number and slowly peel off the backing as you smooth the number onto the sail, taking care to remove air bubbles and creases as you go.
5. If the first number you applied was a 1 (one), measure from the bottom right corner of it and mark a point the space width away along the Base Line. The space width is 60mm for Standard and Radial rig sails, and 40mm for 4.7 sails - see the appropriate Positioning Diagram. Place your template on the base line with its lower left corner on the new mark and pencil round the outline of it. Before peeling off the backing of the second number, place it within the pencil outline of the template. Pencil around the outline of the number, and apply it as in point 4, above.
6. If the first number you applied was not a 1 (one), place your template over it and make a pencil mark at the bottom right hand corner. Measure the space width from this mark along the Base Line and make a second pencil mark. Place the template, with its lower left hand corner on the second mark, pencil around the outline and then apply the next number as in point 4, above.
7. When a 1 (one) is to be applied after another number, make sure the appropriate space width between numbers along the Base Line is maintained, as shown in the positioning diagram. Use the bottom right hand corner of the template, placed over the preceding number to find the start of the space width on the Base Line.
8. Continue marking number positions using the template, the appropriate space widths between template corners, and applying numbers to complete the full sail number. Use the same method to apply national letters if they are required.

Port Side Numbers and National Letters

1. Spread the sail out flat on the working surface so that the port side of the sail is facing up. The leech (back edge of the sail) will be on the right hand side.
2. Follow the same method as for the starboard side, starting with the number or letter closest to the leech (the last digit of the full sail number or the last national letter), and working along the Base Line away from the leech.

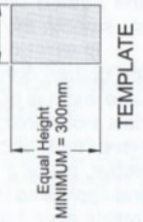
STANDARD RIG NUMBER & LETTER SIZES AND POSITIONING

UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



Equal Width
(Except 1, I, M & W)
MINIMUM = 200mm



Equal Height
MINIMUM = 300mm

SPACE = 60mm

TEMPLATE



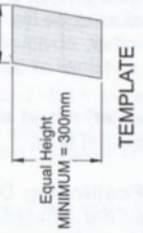
1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 50mm, SO USE 60mm TO ENSURE THAT ANY SMALL ERRORS IN POSITION ARE STILL LEGAL.
2. LAST FOUR DIGITS OF SAIL NUMBER TO BE ONE DARK, DISTINCTIVE COLOUR OR BLACK, PRECEDING DIGITS TO BE A DIFFERENT, CONTRASTING, DISTINCTIVE COLOUR, PREFERABLY RED. ALL NATIONAL LETTERS TO BE ONE COLOUR. THEY MAY BE ONE OF THE COLOURS OF THE SAIL NUMBER DIGITS OR ANOTHER DISTINCTIVE COLOUR.

ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



Equal Width
(Except 1, I, M & W)
MINIMUM = 200mm



Equal Height
MINIMUM = 300mm

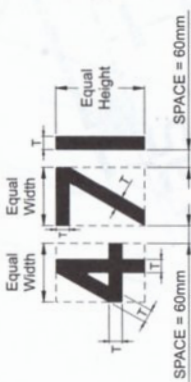
TEMPLATE



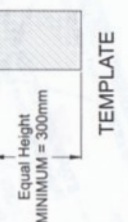
RADIAL RIG NUMBER & LETTER SIZES AND POSITIONING

UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



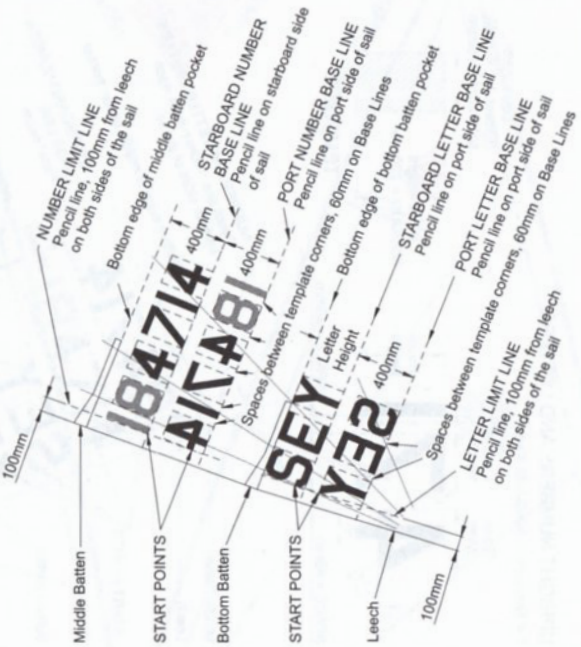
Equal Width
(Except 1, I, M & W)
MINIMUM = 200mm



Equal Height
MINIMUM = 300mm

TEMPLATE

SPACE = 60mm

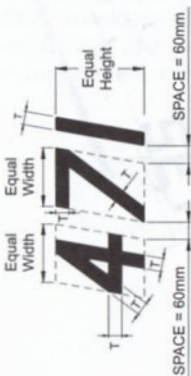


1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 50mm, SO USE 60mm TO ENSURE THAT ANY SMALL ERRORS IN POSITION ARE STILL LEGAL.
2. LAST FOUR DIGITS OF SAIL NUMBER TO BE ONE DARK, DISTINCTIVE COLOUR OR BLACK, PRECEDING DIGITS TO BE A DIFFERENT, CONTRASTING, DISTINCTIVE COLOUR, PREFERABLY RED. ALL NATIONAL LETTERS TO BE ONE COLOUR. THEY MAY BE ONE OF THE COLOURS OF THE SAIL NUMBER DIGITS OR ANOTHER DISTINCTIVE COLOUR.

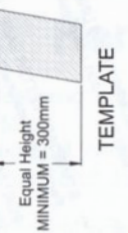
ANGLED NUMBERS AND LETTERS

ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



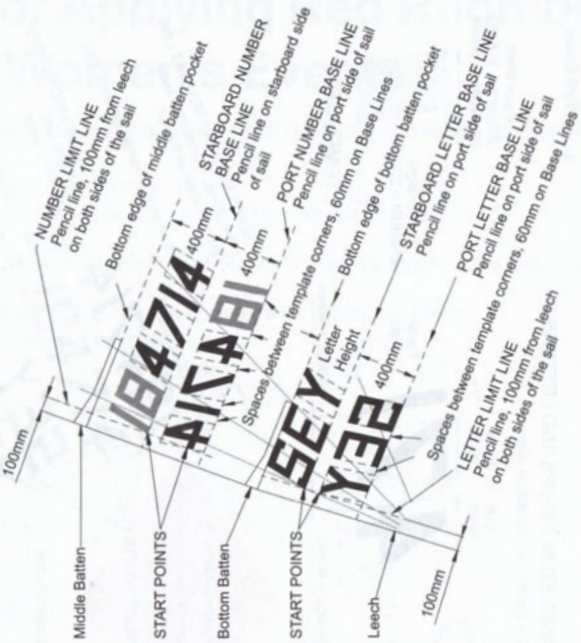
Equal Width
(Except 1, I, M & W)
MINIMUM = 200mm



Equal Height
MINIMUM = 300mm

TEMPLATE

SPACE = 60mm

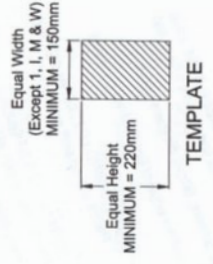


LASER 4.7 RIG NUMBER & LETTER SIZES AND POSITIONING

January 2009 Edition

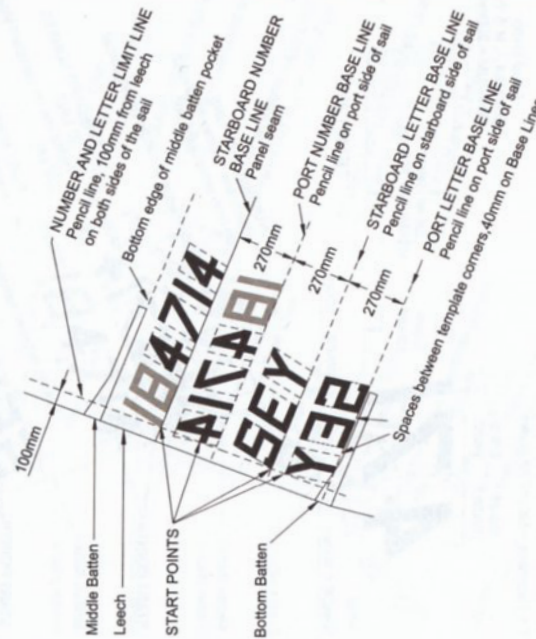
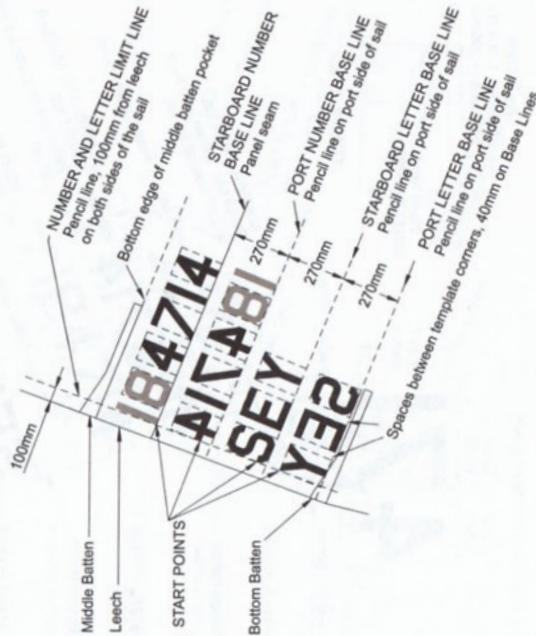
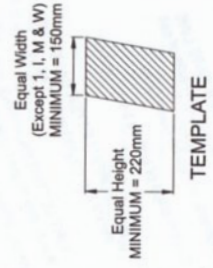
UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 30mm



ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 30mm



1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 30mm, SO USE 40mm TO ENSURE THAT ANY SMALL ERRORS IN POSITION ARE STILL LEGAL.
2. LAST FOUR DIGITS OF SAIL NUMBER TO BE ONE DARK, DISTINCTIVE COLOUR OR BLACK, PRECEDING DIGITS TO BE A DIFFERENT, CONTRASTING, DISTINCTIVE, COLOUR, PREFERABLY RED. ALL NATIONAL LETTERS TO BE ONE COLOUR. THEY MAY BE ONE OF THE COLOURS OF THE SAIL, NUMBER DIGITS OR ANOTHER DISTINCTIVE COLOUR.

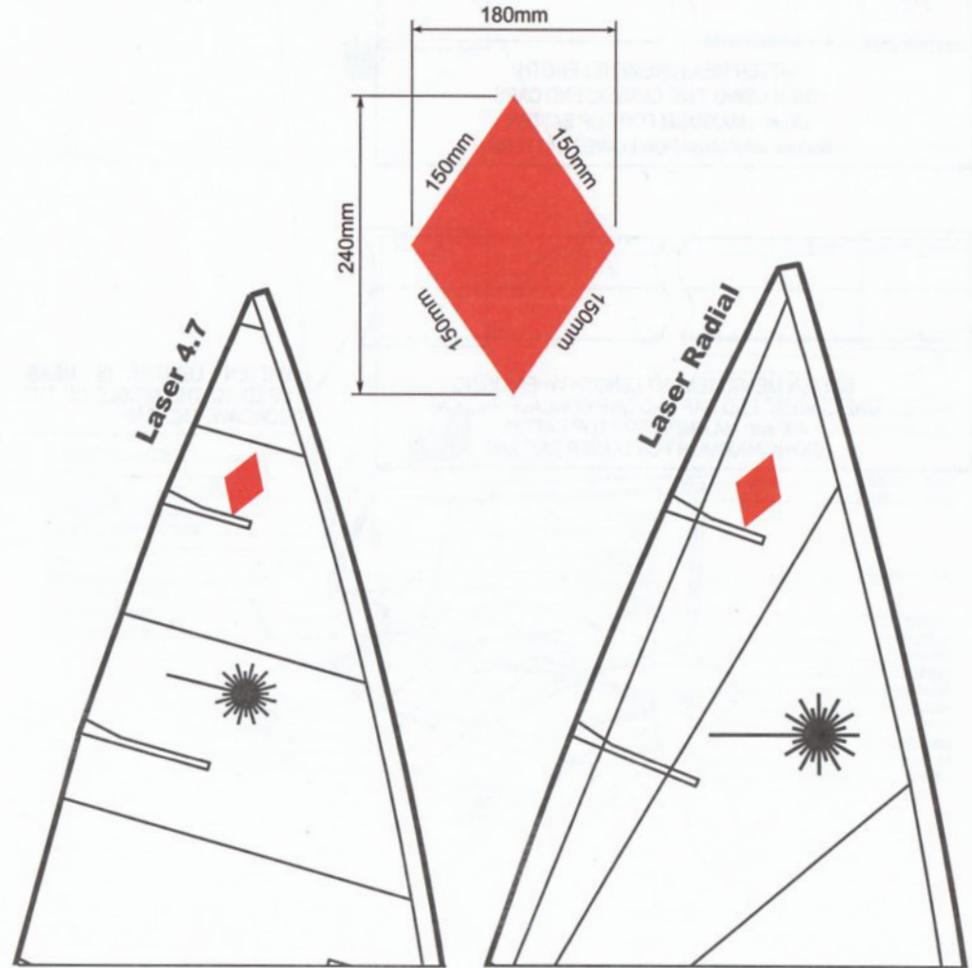
Instructions for Applying Red Rhombus For Women's Events

Sails used in the following women's events shall carry a red rhombus above the top batten pocket on both sides;

- World or regional (continental) championships.
- Events described as "international events" by the Notice of Race or Sailing Instructions.
- Other events that prescribe in the Notice of Race or Sailing Instructions that women competitors should be identified.

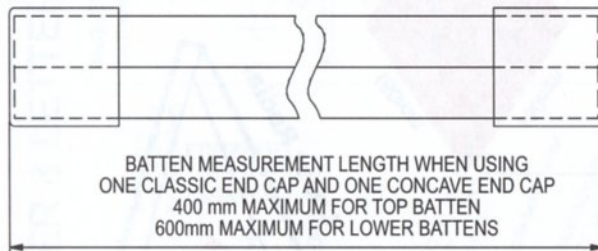
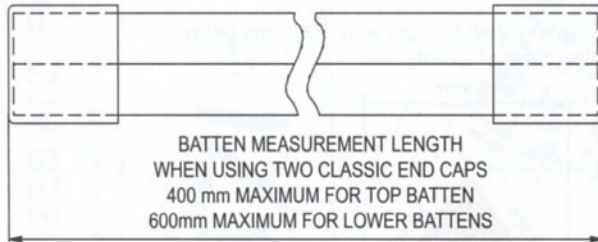
The minimum size and approximate position shall comply with diagrams below.

The rhombus may be retained for racing in other events.



Concave Batten Caps

The diagrams below illustrate the methods to be used for the measurement of battens using both classic and concave end caps. Please see pages 46-48 for full sail and bottom section diagrams.



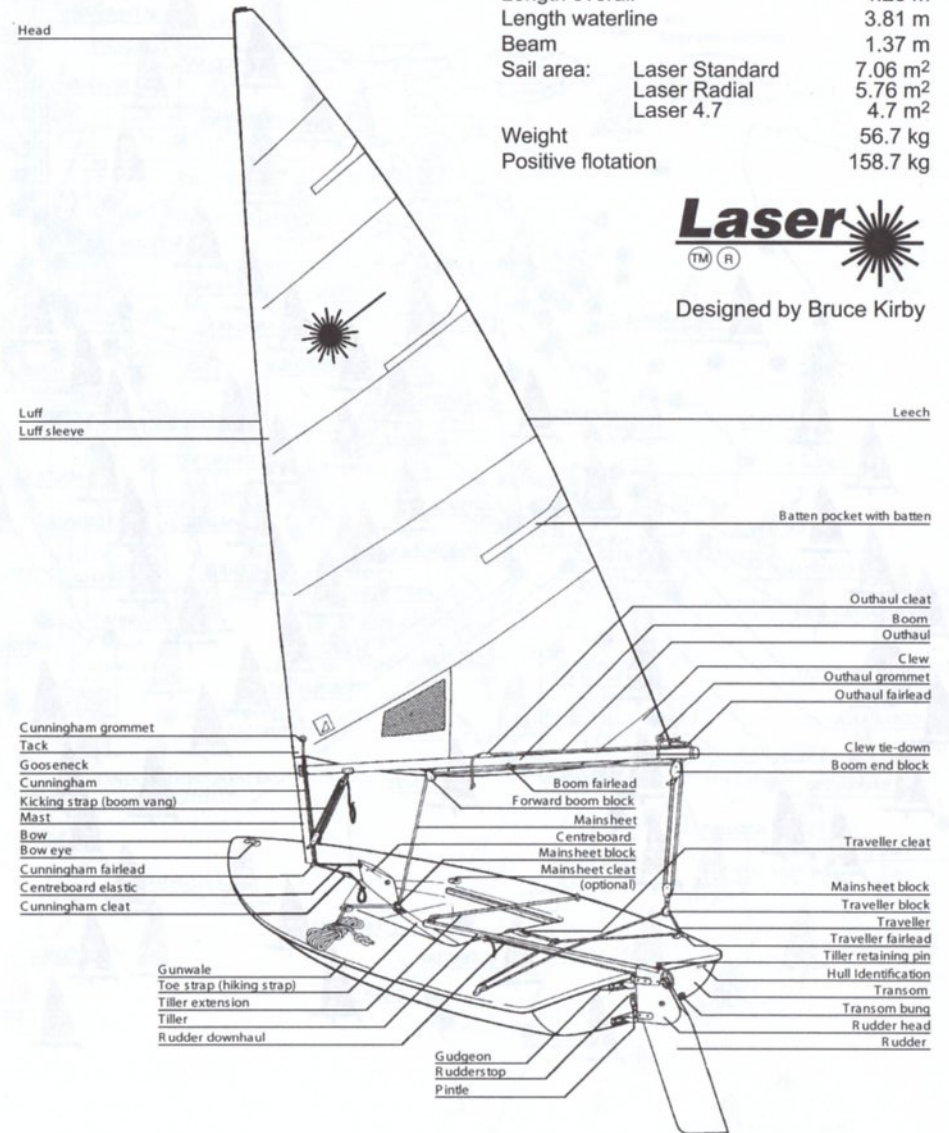
BATTEN LENGTH IS MEASURED TO THE MIDDLE OF THE CONCAVE END CAP

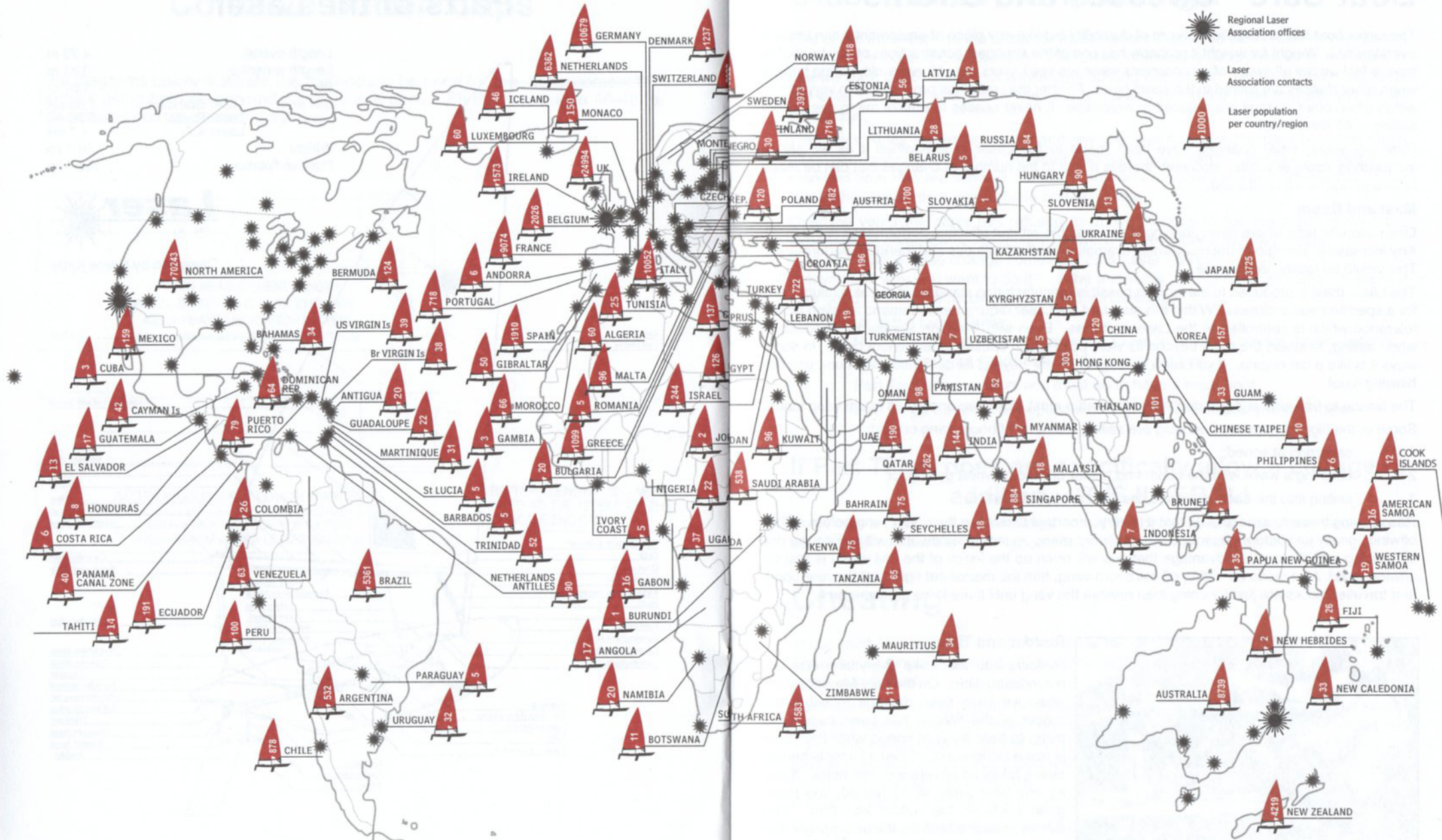
Parts of the Laser

Length overall	4.23 m
Length waterline	3.81 m
Beam	1.37 m
Sail area:	Laser Standard 7.06 m ²
	Laser Radial 5.76 m ²
	Laser 4.7 4.7 m ²
Weight	56.7 kg
Positive flotation	158.7 kg



Designed by Bruce Kirby





Boat Care - Stresses and Strains

The Laser boat has an excellent record of durability but like any piece of equipment it can break if overstressed. Weight for weight it probably has one of the strongest constructions of any boat of its type, a fact we are all aware of on occasions when we see Lasers over 10 years old, sailing happily when other classes are retired to the scrap heap. Further the Laser has proved itself in very strong winds when other classes are reduced to wreckage. It never ceases to amaze me to see Lasers sailing in 40 knots plus.

Over the years, small changes have been made to the Laser to strengthen it as we sail in increasingly stronger winds. However, there is a limit to the number of changes that can be made before performance is affected.

Mast and Boom

One particular area where strengthening is not possible without affecting performance is the mast. Any increase in strength of the mast would dramatically affect stiffness and therefore performance. This would be totally undesirable.

The Laser mast is produced to the highest possible manufacturing standard in the aluminium trade for a specified wall thickness. Within this standard the Laser requirements demand an even tighter tolerance which is controlled at the Laser factories. Even with this high standard it is possible, when sailing, to stress the mast beyond its yield point which causes a permanent bend. In some ways it is like a car engine. If you allow an engine to 'rev' beyond its designed maximum, you risk blowing it up!

The lesson to be learnt is if you don't want to bend a mast, don't use enormous boom vang loads.

Some of the biggest causes of bending are sailing with a lot of boom vang on and:

- 1 capsizing at speed;
- 2 catching a wave with the boom end, either offwind or whilst gybing; or
- 3 sailing into the back of a wave causing rapid deceleration.

Recognising these causes tells us that it is very important to release the boom vang before sailing offwind, ideally just before you round the windward mark. In strong winds, this will reduce the risk of bending with the added advantage that you will open up the leech of the sail which is fast for offwind work! As a guide for letting off the boom vang, trim the mainsheet tight until the rear boom and traveller blocks are just touching then release the vang until there is no pressure on it.



Rudder and Tiller

Rudders and tillers like everything else are not indestructible. On the very few occasions when we have seen damage to either the rudder or the tiller, it has been caused by trying to bear away at speed while the Laser is heeled to leeward. When a Laser is heeled over it takes on severe weather helm. If you try and bear away whilst heeled, you place great loads on the rudder and tiller. The simple answer is to bring the boat upright first before attempting to bear away. This can be done by either hiking more and/or releasing the mainsheet.

Class Rules - One Design

One of the attractions of the Laser for most owners is that the class rules are very strict and that the boat is one design. The Laser philosophy incorporated in the rules is that we want to go sailing, not waste time fiddling with boats. We want to win races on the water using our skill, not by trying to find a way round the rules that will give us an advantage.

The Class Rules are written to prevent any changes from the standard boat that might affect performance, so that on the water each boat is the same. The few changes to the standard boat that are allowed are minor and only to allow for a few options that make racing the Laser more comfortable and enjoyable.

Over the years the class has refused to make changes to the rules that allow more expensive or complicated equipment or which makes older boats redundant.

If you feel you want to change something on a Laser - STOP

Ask yourself why you want to do it? If the answer is "to make me go faster" there is a very good chance the modification or addition is illegal!

Take a look at the Laser Rules.

- Part One explains the Fundamental Class Rule which covers the philosophy and any item not specifically written into the rules.
- Part Two tells you what you must do to have a legal boat.
- Part Three details a few optional changes and additions you can make.

If Part Three does not specifically allow a change or addition - IT IS ILLEGAL!

If you race a Laser that has a change or addition not allowed by the class rules you will be disqualified from the race. Ignorance of the rules is no defence.

Cheating

In our sport in every club and class there is the odd person who needs to cheat to win. Cheating is doing something that you know is illegal. Whether you gain an advantage or not is irrelevant.

Our class is strong and popular because we believe in a strict one design and our sailors want to know that they are racing on equal terms. The ILCA takes a very strong line with Laser sailors who do not sail according to the rules. There have been cases in the past where sailors who have sailed with illegal boats have been banned from sailing a Laser. Such a ban can be for life.

If action is also taken under the racing rules, the ban can cover racing in any boat.

Our class is much bigger than the odd person who wants to gain advantage by illegally changing the Laser or its equipment. They can sail in other classes where the rules allow changes to a boat to get an advantage. We do not want them with us.

The latest edition of the Laser Class Rules and By-Laws are available at www.laserinternational.org.

The Class Rules and By-Laws may be amended after publication of the Handbook.

ILCA By-Law 1: Rules (Parts one to five inclusive)

Valid from 4 February 2008. Cancels all previous rules and interpretations.

HISTORY: The following rules have been amended from:

4 February 2008: New Rule 4(g): A red rhombus to be placed on the sail at certain women's events.

4 February 2008: New Rule 19 (d): Tape may be applied to the outside of the joint between the upper and lower mast (maximum 40mm above and below joint).

1 December 2006: Builder Supplied stainless steel boom slide with quick release system added to Rule 3(g). Removal of self bailer drain bung and taping of self bailer opening pin to cockpit floor allowed in Rule 13. Rule 14(f) re-worded to allow the centreboard retention tie line or shock cord to be looped around the bow. Components of centreboard stopper may be secured together, Rule 14(g). Rules 4(a), 4(f), 27 and 28 reworded to improve clarity and reflect previously published official class rule interpretations.

Latest changes are marked by margin lines.

INTRODUCTION

The principle of the Laser Class Rules is that no changes to the boat are allowed unless they are specifically permitted by the class rules.

The English text of the Laser Class Rules shall govern.

PART ONE

OBJECT

The Laser is a strict one-design dinghy where the true test, when raced, is between helmspersons and not boats and equipment.

FUNDAMENTAL RULE

The Laser shall be raced in accordance with these rules, with only the hull, equipment, fittings, spars, sail and battens manufactured by a licensed builder in accordance with the Laser design specification (known as the Construction Manual) which is registered with ISAF.

No addition or alteration may be made to the hull form, construction, equipment, type of equipment, placing of equipment, fittings, type of fittings, placing of fittings, spars, sail and battens as supplied by the builder except when such an alteration or change is specifically authorised by Parts 2 or 3 of these Rules.

HULL IDENTIFICATION

All Lasers shall have an identification number moulded into the deck under the bow eye or into the transom, which shall be either the sail number or a unique production number.

Lasers with sail numbers from 148200 shall display a unique ISAF Building Plaque that has been purchased by the builder from the International Laser Class Association. The plaque shall display the sail number of the boat issued by the International Laser Class Association and shall be permanently fixed in the rear of the cockpit by the builder.

DEFINITION OF BUILDER

A Builder is a manufacturer that has a building agreement from Bruce Kirby or Bruce Kirby Inc. to build

the Laser and has rights to use a Laser trademark and has been approved as a Laser Builder by each of the International Sailing Federation and the International Laser Class Association.

PART TWO

1. MEASUREMENT DIAGRAMS

The measurement Diagrams are part of these Rules.

The spars, sails, battens, centreboard, rudder, and the placing of fittings and equipment shall conform to the Measurement Diagrams. The measurement tolerances are intended to allow for necessary manufacturing tolerances and shall not be used to alter the design.

2. MEASUREMENT

In the case of a dispute alleging non-compliance with the Construction Manual, the matter, together with any relevant information, shall be referred to the Chief Measurer of the International Laser Class Association at the International Office who shall give a final ruling in consultation with an ISAF Technical Officer.

In the case of a measurement dispute on the hull, spars, sail, battens, centreboard and rudder, rigging, type of fittings and equipment and the placing of same not explicitly covered by these Rules, Measurement Diagrams and Measurement By-Laws the following procedure shall be adopted:-

A sample of 10 other boats shall be taken and measured using identical techniques. The dimensions of the disputed boat shall be equal to, or between the maximum and minimum dimensions obtained from these 10 boats. If the boat in question is outside these dimensions the matter, together with any relevant information, shall be referred to the Chief Measurer of the International Laser Class Association at the International Office, who shall give a final ruling. If any of the dimensions of the sample are considered to be unusual, all relevant information shall be referred by the Class Association to the ISAF.

3. CONTROL SYSTEMS, CONTROL LINES AND FITTINGS

(a) Control System Definitions

i The Cunningham, outhaul, vang, traveller and mainsheet are the **Control Line Systems**. The cunningham, outhaul and vang **Control Line Systems** may include more than one **Control Line** as allowed in Rules 3(d)i, 3(e)i and 3(f)i. Each **Control Line** shall be a single piece of uniform thickness and material. A line is a **Control Line** if any of the line moves along its axis during adjustment of the **Control Line System**. A line that exclusively attaches items together is a **Tie Line**.

ii For the purpose of these definitions, the **Standard Fittings** are the:-

- Plastic cunningham fairlead
- Plastic cunningham clam cleat
- Mainsheet block
- Plastic outhaul clam cleat
- Plastic outhaul fairlead
- Vang cleat block
- Vang key block
- Vang key
- Plastic traveller fairleads
- Plastic traveller clam cleat

iii An **"Optional"** fitting is a fitting or block that replaces, or is additional to, a **Standard Fitting** as allowed by these Rules.

iv A **"Builder Supplied"** fitting replaces a **Standard Fitting**, and is supplied only by the Builder, as allowed by these Rules.

v A **"Turning Point"** is a sheave (pulley) in a block, a rope loop, a rope loop reinforced with a thimble, the outhaul fairlead, a shackle, part of a fitting, sail cringle, mast or boom around which a moving **Control Line** passes, **except** that the cunningham fairlead, the **"Optional"** blocks attached to the **"Builder Supplied"** deck block fitting, the cunningham clam cleat, and the **"Optional"** cam cleats attached to the **"Builder Supplied"** deck cleat base will **not** be counted as **"Turning Points"** in Rules 3(e)i and 3(f)i.

vi When an **"Optional"** block, or shock cord is **attached** to a fitting, line, mast, boom or the sail, it may be attached either with or without a shackle, clips, balls, hooks and/or a tie line.

(b) Control Lines and Fittings

i. Control lines shall be natural or synthetic rope, except that aramid fibre (e.g. kevlar) is not permitted for the boom vang or cunningham control systems.

ii. Control lines shall be of uniform thickness and shall not be tapered except for the purpose of a splice at the load bearing attachment point.

iii. In a control line system where more than one control line is permitted, lines of different diameter shall not be joined together.

iv. "Optional" blocks allowed in cunningham, vang or outhaul control systems, shall have sheaves of diameter not less than 15 mm and not more than 30 mm.

Thimbles allowed to reinforce rope loops used as "Turning Points" in the cunningham, vang and outhaul control line systems shall not exceed 40mm in length.

v. Only single or double "Optional" blocks shall be used. A single block means a block with one sheave; a double block means a block with two sheaves. "Optional" blocks may include a becket, a swivel and/or a shackle.

vi. The plastic fairleads and plastic clam cleats may be replaced in the same position with an identical size and shape fitting made of metal.

vii. The plastic cunningham fairlead may be replaced with one of the same type which has a stainless steel insert, and has the same screw hole positions.

viii. "Builder Supplied" Deck Fittings (Deck Block Fitting and Deck Cleat Base)

(a) The cunningham fairlead may be replaced in the same position with a "Builder Supplied" deck block fitting which may have one or two single "Optional" blocks attached.



"Optional" blocks shall not be attached to the cunningham fairlead.

Either the cunningham fairlead alone, or the "Builder Supplied" deck block fitting with single "Optional" block(s) attached may be used to lead the cunningham and/or outhaul control lines to the deck cleat(s).

(b) The "Optional" deck blocks may be supported with a spring, ball, plastic tube or tape.

(c) The cunningham clam cleat may be replaced in the same position with a "Builder Supplied" deck

cleat base for attaching two "Optional" cam cleats (cunningham and outhaul) which have fixing hole centres of 27 mm. The two cam cleats may include a bridge and a fairlead with or without rollers on the aft exit.



(d) Control lines shall not be tied to any of the cunningham fairlead, the "Builder Supplied" deck block fitting and the "Optional" blocks attached to it, the cunningham clam cleat or the "Builder Supplied" deck cleat base and the "Optional" cam cleats, cleat bridge and fairleads attached to it.

ix. Rope loop handles covered with plastic/rubber tube and/or tape may be included anywhere on the free end of a control line.

x. The free ends of different control lines (except mainsheet) may be tied together and/or tied to any deck fitting or the centreboard, the centreboard handle or a rope loop used to attach a retaining line. Free ends of control lines shall not be tied to shock cord (except mainsheet).

xi. To secure the mast in the event of a capsize, a loose retention line or shock cord (that will allow 180 degree plus mast rotation) shall be tied/attached between the cunningham fairlead or the deck block fitting and the mast tang or gooseneck. Clips, hooks, shackles and balls may be used to attach the retention line.

(c) Mainsheet – also see Rules 3(a) & 3(b)

i. The mainsheet shall be a single line, and be attached to the becket of the aft boom block, and then passed through the traveller block, the aft boom block, boom eye strap, forward boom block and the mainsheet block. After the mainsheet block it shall be knotted. The mainsheet shall not be controlled aft of the forward boom block except to facilitate a tack or gybe.

ii. The tail of the mainsheet may also be knotted or tied to either the base of the mainsheet block, the hiking strap, the hiking strap support line, or the hiking strap shock cord.

iii. The mainsheet block may be replaced by any type of single block with or without an internal or attached jamming device, and mounted in the position shown on the measurement diagram. The block may be supported by a spring, ball, plastic tube or tape.

iv. One mainsheet clam or cam cleat of any type may be mounted on each side deck in the position shown on the measurement diagram.

(d) Vang – also see Rules 3(a) & 3(b)

i. The vang system shall be between the mast tang and the boom key fitting and shall be comprised of the vang cleat block, the vang key block, a maximum of two control lines, loops and/or "Optional" blocks for additional purchase with a maximum of 7 "Turning Points".

ii. The vang cleat block shall be attached directly to the mast tang, or to an "Optional" swivel that shall be attached to the mast tang.

iii. A shackle may be used to attach the vang cleat block or the swivel to the mast tang.

iv. The swivel, shackle or swivel/shackle combination shall not exceed 80 mm in length when measured under tension.

v. The vang key block may be fitted with a spare key.

- vi. The key may be straight or bent, and it may be held in the key way with either tape, elastic or velcro.
- vii. The vang key block may be replaced with an "Optional" vang key block which may have a spare key.
- viii. "Optional" single blocks may be attached to one or both sides of the vang cleat block, using a clevis pin or bolt through the attachment hole in the vang cleat block.
- ix. The mast tang hole may be drilled to take a larger pin.
- x. "Builder Supplied" Vang Cleating Fitting

(a) The vang cleat block may be replaced with a "Builder Supplied" vang cleating fitting which incorporates "Turning Points" and a cam cleat.

These photos show the 2 Class legal "Builder Supplied" vang cleating fittings:



(b) The fitting shall be attached directly to the mast tang.

(c) The fitting shall not be modified in any way.

(e) Cunningham – also see Rules 3(a) & 3(b)

- i. The cuningham system shall consist of a maximum three control lines, "Optional" blocks or loops for purchase with a maximum of 5 "Turning Points".
- ii. The cuningham control line shall be securely attached to any of the mast, gooseneck, mast tang, swivel or shackle that may be used to attach the vang cleat block to the mast tang, or the cuningham attachment point on the "Builder Supplied" vang cleating fitting.
The cuningham control line shall pass through the sail tack cringle as a moving line.
The sail tack cringle shall be at least one of the maximum of 5 "Turning Points" permitted by Rule 3(e).

- iii. Additional purchases may be obtained using rope loops, "Optional" blocks and using any of the boom, sail tack cringle, gooseneck fitting, mast tang, shackle attaching vang cleat block or swivel, the swivel, or the cuningham attachment point on a "Builder Supplied" vang cleating fitting.

(f) Outhaul – also see Rules 3(a) & 3(b)

- iv. Deck Block Fitting and Deck Cleat Base
The cuningham control line shall pass only once through the cuningham fairlead or "Optional" single block attached to the "Builder Supplied" deck block fitting and shall pass only once through the cuningham cam cleat or "Optional" cam cleat attached to the "Builder Supplied" deck cleat base.
- i. The outhaul system shall consist of a maximum of two control lines, "Optional" blocks or loops for purchase and a maximum of 6 "Turning Points".
- ii. The outhaul control line shall be attached to either the end of the boom, the outhaul fairlead, the sail,

or a quick release system, and shall pass through the boom outhaul fairlead as a moving line at least once. The outhaul fairlead shall be at least one of the maximum of 6 "Turning Points" permitted by Rule 3(f).

- iii. Additional purchases may be obtained by forming rope loops in the line or adding "Optional" blocks to the line, and/or using the outhaul fairlead, the outhaul clam cleat, the boom, the mast or gooseneck fitting.

An "Optional" block may be attached to the outhaul fairlead, provided Rule 3(f)ii is also satisfied.

An "Optional" block may be attached to the outhaul clam cleat.

- iv. An "Optional" block may be attached to the clew of the sail, or to a quick release system, or be part of a quick release system.

- v. One or two "Optional" blocks may be attached to the gooseneck fitting, or at the mast/gooseneck junction with their "Turning Points" not more than 100mm from the center of the gooseneck bolt. (The gooseneck may be inverted.)

- vi. A shock cord may be attached between the outhaul cleat and the clew of the sail, the clew tie down, the optional block at the clew, or the quick release system for use as an inhaul.

- vii. Shock cord and/or rope loops (rope loops may be part of the control line) can be tied around the boom and/or the outhaul control lines to retain the outhaul lines close to the boom.

viii. Deck Led Outhaul System

- a) When led to the deck, the outhaul control line shall pass only once through the cuningham fairlead or the outhaul "Optional" single block attached to the "Builder Supplied" deck block fitting and shall pass only once through the "Optional" cam cleat attached to the "Builder Supplied" deck cleat base.
- b) The boom outhaul clam cleat shall not be removed.

(g) Clew Tie Down – also see Rules 3(a) & 3(b)

- i. The clew of the sail shall be attached to the boom by either a tie line or a webbing strap with or without a fastening device wrapped around the boom and through the sail cringle, a quick release system attached to a tie line or soft strap wrapped around the boom, or a "Builder Supplied" stainless steel boom slide with quick release system.
- ii. If the clew tie down is a tie line, it may be passed through solid balls with holes and/or tubes to reduce friction.



(h) Traveller – also see Rules 3(a) & 3(b)

- i. The traveller shall be a single line. It shall be rigged as a simple closed loop through the traveller eyes and the free end passing through the traveller cleat.
- ii. A spring, ball or tape may be used between the traveller blocks.

4. SAIL REGISTRATION NUMBERS

(For Laser Radial and 4.7 sail number positions please see part 4 rule 27(e) and 28(e))

- (a) For Lasers up to sail number 148199, the sail number is a number moulded into the deck under

the bow eye or into the transom, or displayed on a plate attached to the rear of the cockpit.

For Lasers with sail numbers from 148200, the sail number is the number displayed on a unique ISAF Building Plaque attached to the rear of the cockpit.

- (b) All numbers shall be in accordance with the Racing Rules of Sailing except as amended by these rules in respect of type, positioning and minimum dimensions:

Height 300 mm.

Width 200 mm (excluding number 1).

Thickness 45 mm.

Space between adjoining numbers minimum 50 mm.

Sail numbers shall be regularly spaced.

Numbers on the starboard side shall be placed above those on the port side.

Each sail number digit shall be of one colour only.

The sail numbers shall be solid and easy to read.

After 1st March 1998 - sail numbers and national letters shall only be adhesive numbers. The use of permanent ink pens or similar to mark numbers and national letters on the sail is prohibited.

- (c) For sails with numbers above 153000 and sails purchased after 1st June 1993 the sail numbers shall be glued or sewn on each side of the sail, with the bottom of the numbers on the starboard side of the sail placed along a line parallel to and 400 mm (+ or - 12 mm) below the seam at the middle batten pocket. The bottom of the numbers on the port side of the sail shall be placed on a line 400 mm (+ or - 12 mm) below and parallel to the bottom of the numbers on the starboard side of the sail. The starboard sail numbers shall commence 100 mm (+ or - 12 mm) from the leech and the port side numbers shall end 100 mm (+ or - 12 mm) from the leech.

(Refer to sail number application diagram for procedure for applying sail numbers & letters)

- (d) Sail numbers from 131000, sails purchased after 1st June 1993 and new sails stamped "New Numbers" shall have numbers that are clearly visible with the last four digits of the number in one dark, distinctive colour or black and any preceding numbers in a different, contrasting, distinctive colour (red is recommended).
- (e) Exceptions to this Rule are permitted:

- i. when the hull and/or sail are provided by the organisers for an event and after approval of the International Laser Class Association, the numbers on the sail used for that event only may be single, double or triple digit numbers.
- ii. in the case of a Laser borrowed or chartered for a specific event, and after written approval from the Race Committee, a competitor may use a sail with numbers that are different to the sail number allocated to the hull. The sail number used shall be the sail number allocated to the competitor's own Laser. When the competitor does not own a Laser, the number used on the sail shall be the number of the Laser chartered.
- iii. when a sail is damaged during a series and Rule 7 (d) applies the sail number may contravene Rules 4 (a) and (e) ii only when written permission for a sail number change is given by the Race Committee.

- (f) National Letters, if required, shall conform to the

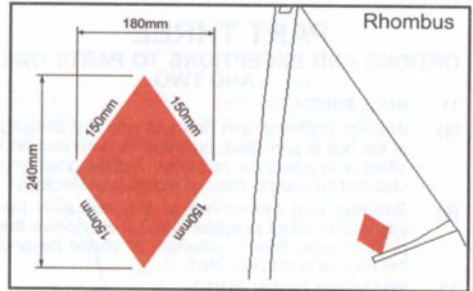
same type, size, spacing and requirements as sail numbers (refer rule 4(b), (c), (d) and (e)) and shall be positioned as follows (also see diagrams on pages 26-28):

The letters on the starboard side of the sail shall be placed along the top edge of the seam below the bottom batten pocket (+ or -12 mm) and on the port side of the sail along a line 400 mm (+ or - 12 mm) below and parallel to the letters on the starboard side. The starboard letters shall commence 100 mm (+ or - 12 mm) from the leech and the port letters shall finish 100 mm (+ or - 12 mm) from the leech. The letters shall all be the same colour, which may be one of the colours of the digits of the sail number, or another distinctive colour.

National Letters shall be required at all World Championships, Regional Championships and events described as international events in the notice of race or sailing instructions. National Letters may be required at any other regatta by the notice of race or sailing instructions.

(g) RED RHOMBUS

- i. Sails used in the following women's events shall carry a red rhombus above the top batten pocket on both sides;
 - a. World or regional (continental) championships.
 - b. Events described as "international events" by the Notice of Race or Sailing Instructions.
 - c. Other events that prescribe in the Notice of Race or Sailing Instructions that women competitors should be identified.
- ii. The minimum size and approximate position shall comply with diagram "Rhombus".
- iii. The rhombus may be retained for racing in other events.



5. MAST

No mast which has a permanent bend shall be used at any time.

6. CLOTHING AND EQUIPMENT

- (a) In alteration of RRS 43.1 (b) the maximum total weight of competitors' clothing and equipment shall be 9 kg (for Laser Radial and 4.7 rigs please see part 4).
- (b) Competitors shall not wear or carry non floating clothing or equipment which in total weight exceeds 500 grammes dead weight except protective sailing clothing.
- (c) For the purposes of weighing clothing and equipment as required by RRS Appendix H three coat hangers may be used instead of a rack.

7. SAILING REQUIREMENTS

- (a) The Laser shall be raced with either one or two

persons aboard.

When two persons race a Laser they shall race together throughout the entire race or series of races without alternating at the helm.

- (b) No part of the helmsman or crew may be placed forward of the mast while racing.

- (c) Sails

In a series of races a sail shall not be changed for another unless written permission for an individual change is obtained from the race committee. Written permission shall only be given in the event of a sail damaged beyond repair or damaged to the extent that it cannot be repaired before the start of the next race in a series. In the event of a change the damaged sail shall not be used again in that series even if it is subsequently repaired.

For the purpose of this rule, a series is deemed to be two or more individual races which count towards an overall points total.

8. HULL COATINGS

The use of slowly soluble applications which might alter the boundary layer characteristics of the hull are prohibited.

9. CLASS ASSOCIATION MEMBERSHIP

No person is permitted to race a Laser in any Fleet, InterFleet, District, or other sanctioned event unless at least one member of the crew is a current member of the International Laser Class Association (a member of a District Laser Association duly established in accordance with the Constitution is a member of the International Laser Class Association).

10. ADVERTISING

For the purposes of RRS 79 and ISAF Regulation 20.4.2 (a) Advertising Code Category C shall apply to the Laser, Laser Radial and Laser 4.7.

PART THREE

OPTIONS AND EXCEPTIONS TO PARTS ONE AND TWO

11. HULL FINISH

- (a) Waxing, polishing and fine wet and dry sanding of the hull is permitted, provided the intention and effect is to polish the hull only. Polishing/sanding shall not be used to remove mould imperfections.
- (b) Sanding and refinishing of the hull with the intention or effect to lighten the hull or improve the performance, finish, materials or shape beyond the original is not permitted.

12. TRANSOM DRAIN BUNG

A retaining line may be attached to the transom drain bung and the gudgeon.

13. SELF BAILER

A self-bailing device as supplied only by the builder may be added. The bailer may be sealed with tape, filler or glue along its edge where it joins the hull and at the screw hole. Filling the screw hole level with the flat surface of the bailer is permitted. Fairsing the flat surface of the bailer to the hull shape or changing the profile of the bailer is not permitted. The drain bung may be removed from the self-bailer, and the self bailer opening pin may be secured to the cockpit floor with self adhesive plastic tape.

14. CENTREBOARD

- (a) A rope handle passing through not more than two holes of maximum diameter 12.5 mm above a line drawn from the bottom of the centreboard stop,

parallel to the top of the centreboard is permitted. A plastic/rubber tube and/or tape are permitted on the handle of the centreboard.

- (b) The trailing edge of the centreboard may be sharpened by sanding the blade between the trailing edge and a line 100 mm parallel to the trailing edge, provided the distance between the leading edge and the trailing edge of the blade is not reduced.
- (c) Surface refinishing of the centreboard is permitted provided the original shape, thickness and characteristics are not altered.
- (d) One layer of general purpose self adhesive plastic tape (includes duct and gaffer tape) of maximum 2mm thickness and of a maximum size of 30mm x 30mm may be applied at the top front corner of the centreboard case.
- (e) A wood centreboard shall not be used on a hull that was originally supplied with a non wood centreboard.
- (f) A tie line or shock cord shall be attached to the small hole in the upper forward corner of the centreboard, and any of the bow eye, the cunningham fairlead, the "Builder Supplied" deck block fitting and the mast to prevent loss of the centreboard in event of a capsizing. The tie line or shock cord may be looped around the bow, but shall not be attached to the gunwale. Attachment can be by knots or loops in the shock cord, and/or tie lines, shackles, clips, hooks or eyes.
- (g) The components of the "Builder Supplied" centreboard stopper may be secured together by glue, screws, bolts, nuts and washers, provided the original shape and dimensions are not reduced.

15. RUDDER

- (a) The trailing edge of the rudder blade may be sharpened by sanding the blade between the trailing edge and a line 60 mm parallel to the trailing edge, provided the distance between the leading edge and the trailing edge of the blade is not reduced.
- (b) Surface refinishing of the rudder blade is permitted provided that the original shape, thickness and characteristics are not altered.
- (c) The rudder blade and/or rudder head holes may be enlarged up to a maximum diameter of 10mm. The rudder bolt and bush set may be replaced with a larger diameter bolt to fit this hole. The bolt head, nut and washers shall fall within a 20mm diameter circle.
- (d) To achieve the maximum 78 degree rudder angle relative to the bottom edge of the rudder head, the leading edge of the blade may be cut away where it touches the spacing pin.
- (e) To restrict the rudder angle to maximum 78 degrees relative to the bottom edge of the rudder head, the lower forward spacing pin shall be wound with flexible adhesive tape.
- (f) The rudder pintles may be fitted with spacers to lift the rudder head to allow the tiller to clear the deck at the transom.
- (g) The rudder downhaul line may have multiple purchases.
- (h) A hole may be drilled in the top rudder pintle and a pin or clip inserted in the hole to prevent loss of the rudder.

- (i) A wood rudder shall not be used on a hull that was originally supplied with a non wood rudder.
- (j) The rudder shall be maintained in the full down position except whilst racing in water less than 1.5m deep unless otherwise specified in the sailing instructions.
- #### 16. TILLER
- (a) The tiller and tiller extension are not restricted in any way except that the tiller:
- shall be capable of being removed from the rudder head.
 - shall be fitted with a cleat, hook, pin or eye to secure the downhaul.
 - shall, except for normal wear caused by the traveller rope, be straight along its topmost edge between a point 30 mm in front of the forward edge of the rudder head and the cockpit end of the tiller.
- (b) The tiller may be fitted with an "anti wear" strip or tube of not more than 200 mm in length placed above the level of the straight edge required by 16 (a) iii and only where the traveller crosses the tiller.
- (c) The use of a tiller retaining pin is optional.
- #### 17. HIKING STRAP
- (a) The hiking strap may be substituted with any type of non-stretch material and it may be padded.
- (b) The hiking strap may be fixed to the cockpit at the forward end by wrapping the strap around the mainsheet block plastic pressure plate and the mainsheet block plastic pressure plate.
- (c) The hiking strap supporting line between the aft end of the hiking strap and the eye straps on the aft face of the cockpit may be rigged in

any manner so that the hiking strap is fixed or adjustable.

- (d) A shock cord may be attached between the aft end of the hiking strap and to either the traveller cleat, or the hiking strap eye straps at the aft end of the cockpit.

18. BOOM

- (a) A metal sleeve supplied by the builder of maximum length 900 mm may be fixed inside the boom. The sleeve shall not extend aft of the point 1220 mm from the front end of the boom (including plug).
- (b) The stainless steel mainsheet eye strap between the two blocks on the boom may be replaced with a soft strap. The maximum width of the soft strap shall be 26mm. The soft strap shall only be fixed to the boom using the holes drilled by the builder as shown in the diagram below.

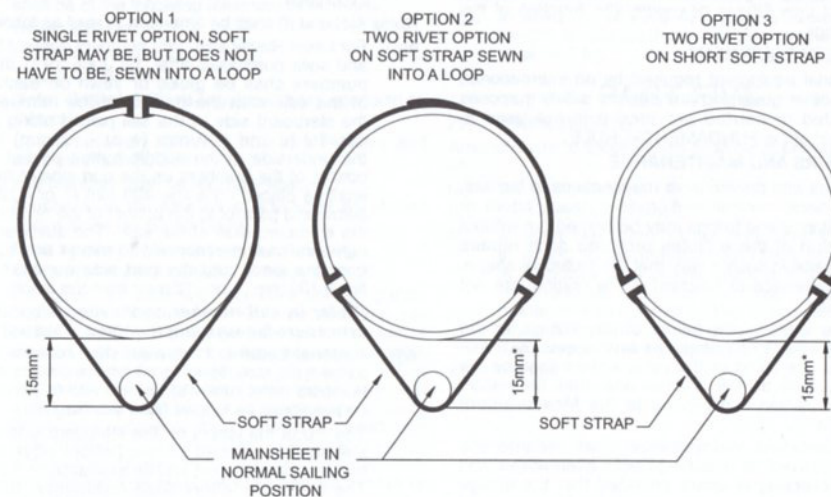
19. MAST

- (a) To prevent abrasion of the mast step, a tube or collar of uniform thickness not exceeding 1 mm may be placed around the entire circumference of the lower mast or the mast step cavity. The tube or collar shall not extend more than 10 mm above deck level.

In addition, a disc of uniform thickness not exceeding 1mm in thickness may be placed in the bottom of the mast step.

- (b) The mast or mast cavity may be lubricated.
- (c) Tape or other bushing material may be applied to both the plastic end cap, the collar of the upper mast and the upper mast to ensure a snug fit. The tape or bushing material may only be used on that portion of the plastic parts that actually

Diagram for Rule 18(b)



NOTES:

- 15mm DIMENSION MARKED * IS NOMINAL
- HOLES FOR OPTIONS 2 AND 3 ARE POSITIONED TO FIT THE ORIGINAL STAINLESS STEEL EYE STRAP
- NO BOOM SHALL BE DRILLED WITH THREE HOLES AT THE BOOM STRAP POSITION

slide into the lower section and/or between the upper mast and the collar and it shall be a uniform thickness around the circumference. Taping or bushing material above the collar to fair the collar into the mast is prohibited.

- (d) Flexible adhesive tape may be applied to the outside of the joint of the upper and lower mast sections to a limit of 40mm above and below the joint to prevent rotation of the mast sections at the joint.

20. INSPECTION PORTS

Inspection ports not exceeding 153 mm internal diameter may be installed on the deck or in the cockpit to provide access to the hull cavity, provided that any inspection port is fitted with watertight threaded covers (any bayonet mounted parts are deemed to be not threaded). Storage receptacles are permitted underneath hatch covers.

21. CLIPS AND STORAGE BAGS

Clips, ties or bags to stow or secure safety or other equipment may be used on the deck, in the cockpit, or around the mast.

22. COMPASS

One compass is permitted mounted on any part of the deck or the cockpit provided that the hull cavity is not pierced by anything other than the fasteners. Compasses shall not be fitted to inspection ports. Electronic and digital compasses are prohibited.

23. WIND INDICATORS

- (a) Wind indicators may be attached as desired provided the sail is not cut and the buoyancy qualities of the hull and mast are not impaired.
- (b) Ribbons, wool or similar wind indicators may be attached to the sail.

24. TAPE

The use of flexible adhesive tape or similar is permitted to secure shackle pins and clips, and to bind sheets, lines and rigging, except that tapes shall not be used to construct new fittings or modify the function of the existing fittings.

25. SAFETY EQUIPMENT

Any additional equipment required by an international, national or other governing authority for safety purposes may be fitted or carried provided it is not used in contravention of the FUNDAMENTAL RULE.

26. REPAIRS AND MAINTENANCE

- (a) Repairs and preventative maintenance to the sail, hull, deck, centreboard, rudder, mast, boom or any fittings and fixings may be carried out without violation of these Rules provided such repairs are made in such a way that the essential shape, characteristics or function of the original are not affected.
- (b) In the event of the failure of any fittings, or the replacement of fittings as authorised by these Rules, the fitting or the replacement shall be the same type as the original and shall be placed in a position conforming to the Measurement Diagrams.
- (c) Preventative maintenance shall include the replacement of fastenings with alternatives and the reversing of spars provided that the fittings are replaced in accordance with the Measurement Diagrams (tolerances shall not be used to alter the position of fittings) and that any holes in the top section of the mast are permanently sealed

with a rivet or similar to maintain the buoyancy of the mast.

- (d) Sail panels and luff sleeves shall not be replaced.
- (e) Any flotation equipment (flotation foam blocks or Cubitainer inserts) that is defective or has been removed shall be replaced by fully air filled, builder supplied, Cubitainer inserts which shall have an equal volume to the defective or removed flotation equipment.

PART FOUR LASER RADIAL RIG AND LASER 4.7 RIG OPTIONS

Part 4 of the Laser Class Rules shall be read in conjunction with the remainder of the Laser Class Rules.

When the Laser Radial or the Laser 4.7 rigs are used the Rules of Parts 1, 2, 3 and 5 of the Laser Class Rules apply except where specifically amended by Part 4.

27. LASER RADIAL

- (a) The Laser Radial sail and bottom mast as supplied by a licensed Builder shall conform to the measurement diagrams which form part of these Rules.
- (b) The Laser Radial rig may be used in any Laser regatta subject to the conditions in 27 (c) and any restrictions in the Notice of Race and Sailing Instructions.
- (c) The Laser Radial rig may only be used in District Championships and higher level regattas when prescribed in the Notice of Race and Sailing Instructions.
- (d) In a series of races a Laser Radial rig shall not be changed for a Laser or Laser 4.7 rig. A series is 2 or more races that count towards an overall points total.
- (e) SAIL REGISTRATION NUMBERS & NATIONAL LETTERS

Rules 4(c) and (f) shall be amended to read as follows:

- 4(c) For Laser Radial sails with numbers above 153000 and sails purchased after 1st June 1993 the sail numbers shall be glued or sewn on each side of the sail, with the bottom of the numbers on the starboard side of the sail placed along a line parallel to and 400 mm (+ or - 12 mm) below the underside of the middle batten pocket. The bottom of the numbers on the port side of the sail shall be placed on a line 400 mm (+ or - 12 mm) below and parallel to the bottom of the numbers on the starboard side of the sail. The starboard sail numbers shall commence 100 mm (+ or - 12 mm) from the leech and the port side numbers shall finish 100 mm (+ or - 12 mm) from the leech.

(Refer to sail number application diagram for procedure for applying numbers & letters)

- 4(f) National Letters, if required, shall conform to the same type, size, spacing and requirements as sail numbers (refer rule 4(b), (c), (d) and (e)) and shall be positioned as follows (also see diagram):

The top of the letters on the starboard side of the sail shall be placed on the bottom edge of the bottom batten pocket and its extension (+ 12 mm). The starboard letters shall commence 100 mm (+ or - 12 mm) from the leech. The bottom of the letters on the port side shall be placed on a line 400 mm (+ or - 12 mm) below and parallel to the

bottom of the letters on the starboard side of the sail. The port letters shall finish 100 mm (+ or - 12 mm) from the leech. The letters shall all be the same colour, which may be one of the colours of the digits of the sail number, or another distinctive colour.

National Letters shall be required at all World Championships, Regional Championships and events described as international events in the notice of race or sailing instructions. National Letters may be required at any other regatta by the notice of race or sailing instructions.

(f) CLOTHING AND EQUIPMENT

Rule 6(a) shall be amended to read as follows:

- 6(a) For the purposes of RRS 43.1 (b) the maximum total weight of competitors clothing and equipment shall be 8 kg.

28. LASER 4.7

- (a) The Laser 4.7 sail and bottom mast as supplied by a licensed Builder shall conform to the measurement diagrams which form part of these Rules.
- (b) The Laser 4.7 rig may be used in any Laser regatta subject to the conditions in 28 (c) and any restrictions in the Notice of Race and Sailing Instructions.
- (c) The Laser 4.7 rig may only be used in District Championships and higher level regattas when prescribed in the Notice of Race and Sailing Instructions.
- (d) In a series of races a Laser 4.7 rig shall not be changed for a Laser or Laser Radial rig. A series is 2 or more races that count towards an overall points total.
- (e) SAIL REGISTRATION NUMBERS

Rules 4(b), 4(c) and 4(f) shall be amended to read as follows:

- 4(b) On Laser 4.7 sails all numbers shall be in accordance with the Racing Rules of Sailing and shall be of the following minimum dimensions:
Height 220 mm.
Width 150 mm excluding No.1.
Thickness 30 mm.

Note: Optimist Class legal numbers conform to this rule

Space between adjoining numbers / letters and rows minimum 30 mm.

Sail numbers shall be regularly spaced.

Numbers on the starboard side shall be placed above those on the port side.

Each number digit shall be one colour only.

The numbers shall be solid and easy to read.

- 4(c) For Laser 4.7 sails with numbers above 153000 and sails purchased after 1st June 1993 the sail numbers shall be glued or sewn on each side of the sail, with the bottom of the starboard numbers placed along the top edge of the seam below the middle batten pocket (+ 12 mm). The port side numbers shall be placed along a line 270mm below and parallel to the bottom of the starboard side numbers. The starboard side numbers shall commence 100 mm (+ or - 12 mm) from the leech and the port side numbers shall end 100 mm (+ or - 12 mm) from the leech.

(Refer to sail number application diagram for procedure for applying numbers & letters)

- 4(f) National letters, if required, shall conform to the

same type, size, spacing and requirements as Laser 4.7 numbers (refer rule 28 (e) 4 (b)).

For all Laser 4.7 sails with numbers from 190000, and for sails purchased from 1 April 2006 onwards, The bottom of the starboard side letters shall be placed along a line 270mm below and parallel to the bottom of the numbers on the port side and start 100mm (+ or -12mm) from the leech. The bottom of the letters on the port side shall be placed along a line 270mm below and parallel to the bottom of the letters on the starboard side and finish 100mm (+ or -12mm) from the leech.

For Laser 4.7 sails with numbers under 190000 that were purchased before 1 April 2006, they may be placed as above or along the same line, 270mm below and parallel to the bottom of the numbers on the port side, on opposite sides of the sail. The letters on the port side shall be closer to the leech than those on the starboard side, with the port side letters finishing 100mm (+ or - 12mm) from the leech.

National Letters shall be required at all World Championships, Regional Championships and events described as international events in the notice of race or sailing instructions. National Letters may be required at any other regatta by the notice of race or sailing instructions.

The letters shall all be the same colour, which may be one of the colours of the digits of the sail number, or another distinctive colour.

(f) MAST

Rule 5 shall be amended to read as follows:

- 5 The Laser 4.7 bottom mast is supplied with a pre-bend aft of approximately 5 degrees. The pre-bend shall not be increased or decreased. No top mast that has permanent bend in it shall be used at any time.

(g) CLOTHING AND EQUIPMENT

Rule 6(a) shall be amended to read as follows:

- 6(a) In alteration of RRS 43.1 (b) the maximum total weight of competitors clothing and equipment shall be 7 kg.

PART FIVE

29. AMENDMENTS

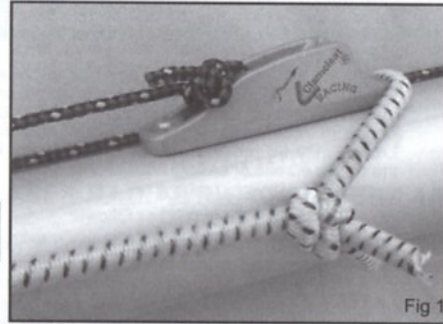
Amendments to these Rules shall be approved by each of:

- (a) the World Council
- (b) the Advisory Council
- (c) at least two thirds of the membership replying in writing to the International Office of the Class in response to a postal ballot published by the International Office of the Class. Only those postal votes returned to the International Office within 6 months from the date of publication of the rule change shall be valid, and
- (d) the ISAF.

Class Rule Interpretations

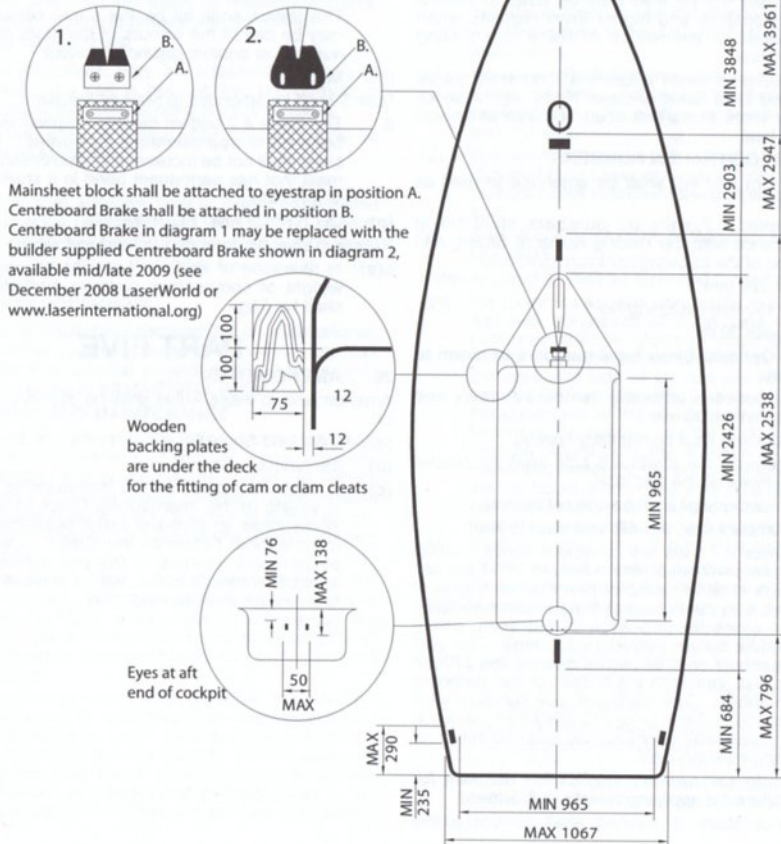
1. Fastenings (Rule 26(c)) shall include screws, bolts, nuts, washers and rivets.
2. Rudder blade head thickness: Interpretation to Rule 15 Rudder and rule 26.a Repairs: Padding of uniform thickness may be used to fill the gap between the rudder blade and the rudder head provided that the padding covers completely the part of the rudder blade that comes into contact with the rudder head and that the thickness of the rudder blade plus the padding does not exceed 20.3mm.
3. Shock cord (Rule 3(f)vi): Attached to the cleat may also be achieved by tying around the boom immediately forward of the cleat (see Fig 1).

The Class Rules have been clarified to include all previously published Class Rule Interpretations.



Measurement Diagrams

All dimensions shown in millimetres
Measurements are shown only as a guide to replacement in the event of failure

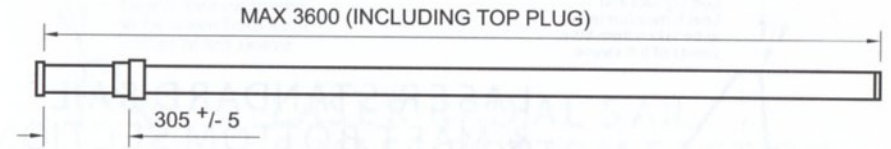


Mainsheet block shall be attached to eyestay in position A. Centreboard Brake shall be attached in position B. Centreboard Brake in diagram 1 may be replaced with the builder supplied Centreboard Brake shown in diagram 2, available mid/late 2009 (see December 2008 LaserWorld or www.laserinternational.org)

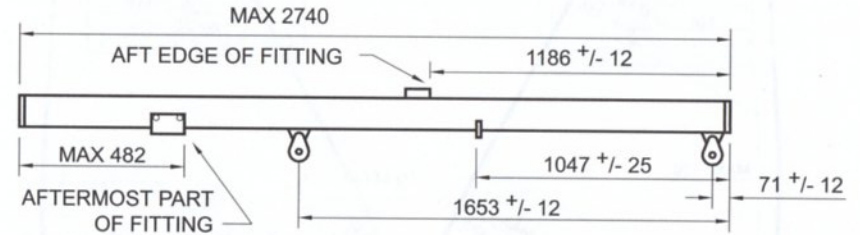
Wooden backing plates are under the deck for the fitting of cam or clam cleats

Eyes at aft end of cockpit

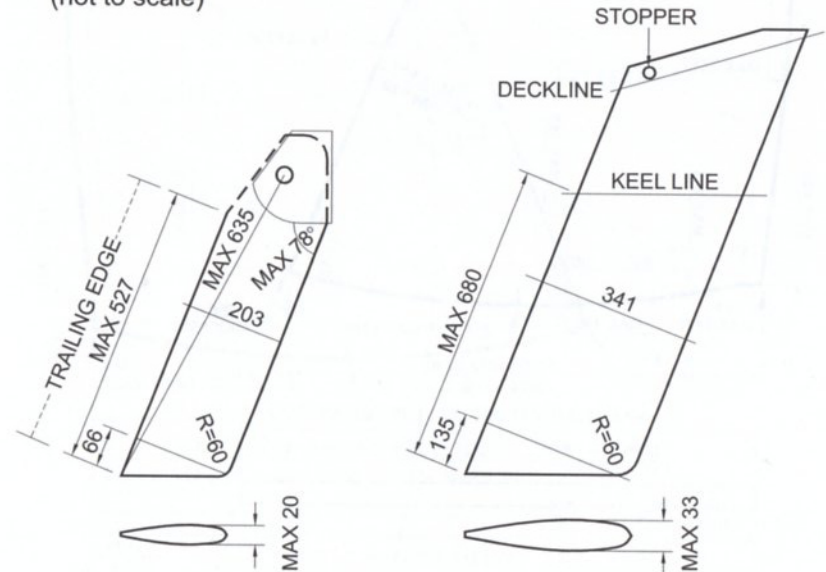
LASER, LASER RADIAL & LASER 4.7 MAST TOP SECTION

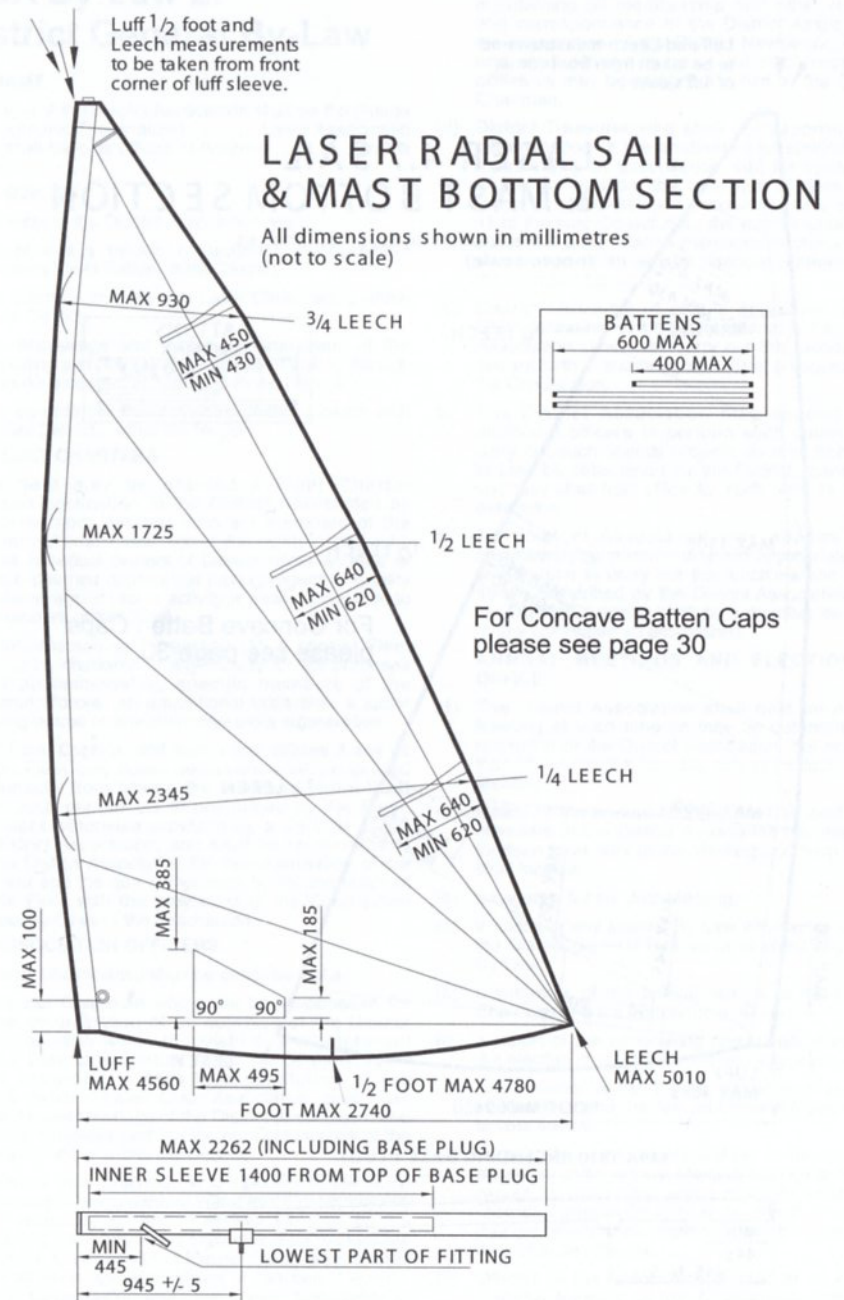
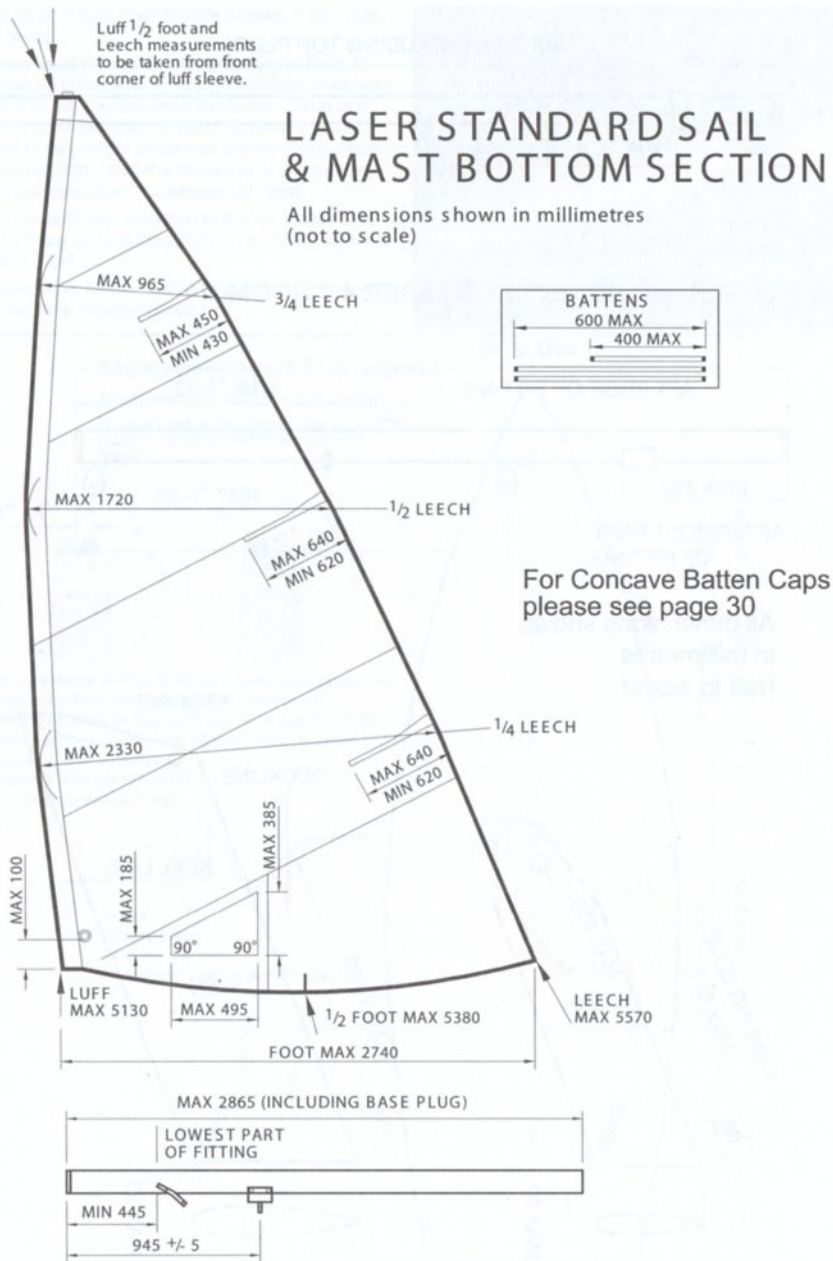


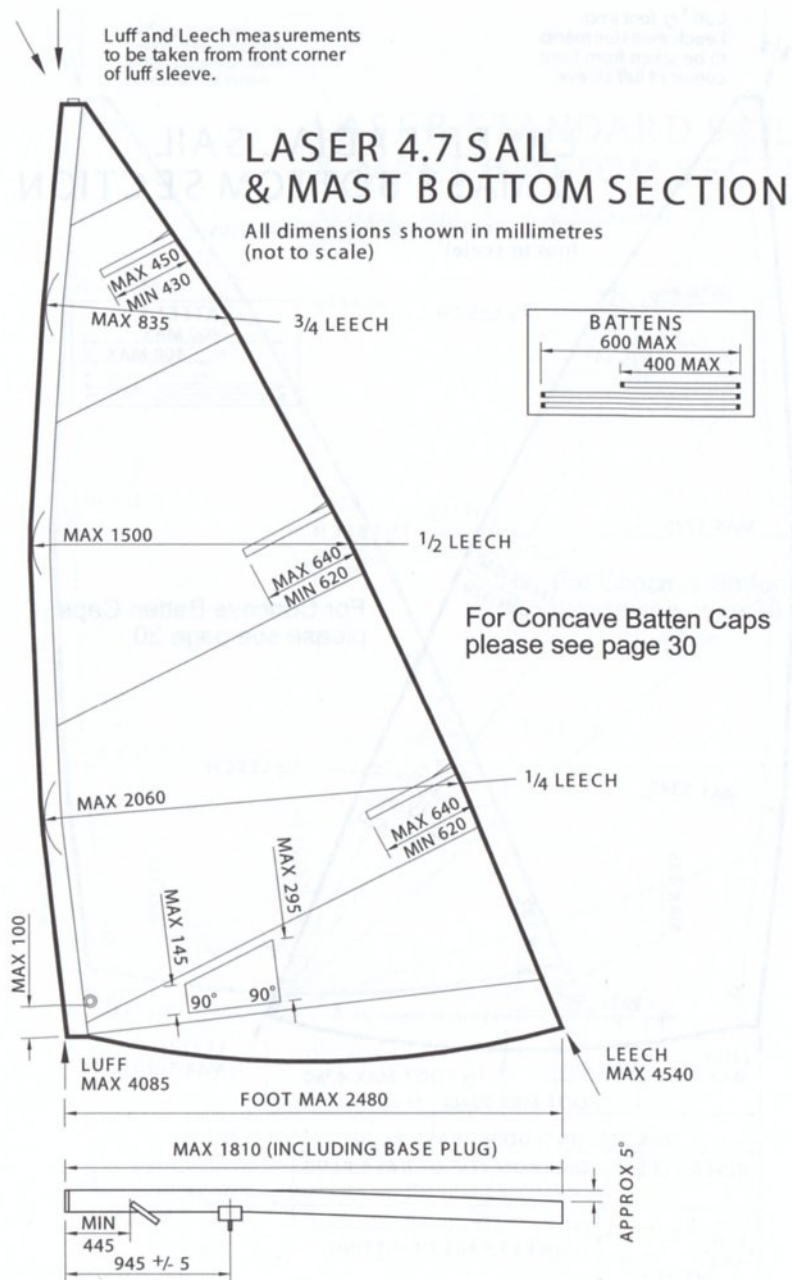
LASER, LASER RADIAL & LASER 4.7 BOOM



All dimensions shown in millimetres (not to scale)







ILCA By-Law 2: District General By-Law

1. NAME

The name of the District Association shall be the (Name or Geographic Designation) Laser Association and it shall have its offices at Address in the City of

2. OBJECTS

The objects of the District Association are

- to provide a medium of exchange of information among Laser Sailors in the District;
- to promote and develop Laser Class racing within this District;
- to encourage and foster the enjoyment of the sporting and recreational aspects of sailing through the development of fleets within the District; and
- to co-ordinate the activities of this District with other Districts within the Region.

3. FLEET CHARTERS

- A fleet may be granted a Fleet Charter upon application to the District Association by six or more persons who are members of the International Laser Class Association and who are individual owners of Lasers within an area or club deemed appropriate having regard to locality where regular racing activity is easily accessible to members of that Fleet.
- Notwithstanding Paragraph (1), a special Fleet may be chartered in any locality for the purposes of accommodating specific members of the armed forces, an educational institution, a junior programme or any other non-profit organisation.
- A Fleet Captain, and such other officers if any as the Fleet may deem necessary, shall be elected annually from among the members of the Fleet in such manner as is prescribed by the Fleet, unless otherwise provided by a By-Law of the District Association, and shall be responsible to the District Association for the organisation of the Fleet and the due compliance by the members of the Fleet with the provisions of the Constitution and By-Laws of the Association.

4. ASSOCIATION OFFICERS

The District Association shall be comprised of a

- District Chairman who shall be responsible for the co-ordination of all activities of the District Association within the District, shall represent the District at Annual Meetings of the Region in accordance with the Constitution of the International Laser Class Association, shall chair all Annual Meetings of the District Association, and shall otherwise perform the normal functions of the senior officer within the District;
- District Vice Chairman who shall act in the place instead of the Chairman in the event of his inability or refusal to act and in addition he shall be the Sailing Secretary of the District and be responsible for the development of District racing programmes of all kinds, the supervision of sanctioned events, and co-ordination with other Sailing Secretaries of all inter-District racing;

(c) District Secretary who shall be responsible for maintaining all membership and other records and correspondence of the District Association, the preparation of the District Newsletter, if any, and shall otherwise carry out such responsibilities as may be assigned to him by the District Chairman;

(d) District Treasurer who shall be responsible for determination of the entitlement of applicants to membership in accordance with Paragraph 10 of the Constitution, the collection of dues to be levied for membership in accordance with Section 11 of the said Constitution, the maintenance of all accounts to the District membership thereon and preparation of an annual financial statement for the membership; and

(e) District Measurer, if one is appointed by the Chief Measurer of the International Laser Class Association, who shall carry out the responsibilities set forth in subparagraph (6) of paragraph 8 of the Constitution.

5. The District Association may appoint such additional officers to perform such duties or to carry out such special projects as may from time to time be determined by the District Association and they shall hold office for such term as it may determine.

6. The District Association may appoint such committees, as may be deemed appropriate from time to time to carry out the functions and duties as are prescribed by the District Association; and the District Chairman shall be a member ex-officio of any committee so established.

7. ANNUAL MEETINGS AND ELECTION TO OFFICE

(1) The District Association shall hold an Annual Meeting at such time as may be determined by resolution of the District Association, but not later than fifteen months from the date of the last Annual Meeting.

(2) Notice of the Annual Meeting shall be sent to all members of the District Association not less than fourteen days prior to the Meeting and such notice shall include:

- an agenda for the said Meeting,
- a notice of any special By-Law whether to amend the District General By-Law or to enact any other By-Laws,
- a summary of the annual reports of the District Chairman and the Treasurer, and
- a report of the nominating committee, if any, for the election of officers for the ensuing year.

(3) Any member of the District Association shall be entitled to attend the Annual General Meeting and to vote thereat.

(4) A majority of members voting in favour of a resolution at the Annual Meeting shall be sufficient, except for resolutions which report to amend the District General By-Law or to enact any other By-Law which shall require a two-thirds majority thereof to be effective.

(5) Officers of the Association elected at an Annual General Meeting of the Association shall hold office until their successors are elected.

8. FEES

The annual fees of the District Association shall be payable to the Association not later than the first day of March in any year or such other day as the District Association shall by By-Law determine, provided that no person may race a Laser in any event after the last date for payment shall fall due unless the said dues have been fully paid and he shall be a member of the International Laser Class Association as required by the Class Rules.

9. DISTRICT CHAMPIONSHIPS

- (1) The District Association shall annually sponsor a District Championship sailing event which shall be open to any member of the District Association to be held at such place within the District as the District Association shall determine.
- (2) The District Championship event shall be conducted in accordance with the provisions of the Racing By-Law passed by the World Council.

10. BY-LAWS

The District Association may make By-Laws for the purpose of carrying out the objects of these General By-Laws and, without restricting the generality of the foregoing, may make By-Laws

- (1) determining the fiscal year of the District Association;
- (2) determining the period within which the Annual General Meeting must be held;
- (3) establishing nominating committees and methods of formation thereof;
- (4) subject to any By-Law of the International Laser Class Association, respecting the conduct of any regatta within the District and the eligibility of members for major racing events;
- (5) respecting the acceptance of deeds of gift of trophies;
- (6) changing the Head Office of the District;
- (7) respecting the conduct of the business of the District;
- (8) giving effect to the provisions of any local or general public law having application in the District enacted by any governmental body having jurisdiction;
- (9) respecting the organisation, constitution, and operation of fleets within the District; and
- (10) respecting the constitution and eligibility for committees including nominating committees.

11. COMING INTO FORCE

- (1) This By-Law comes into force
- (a) in respect of any District established by the World Council prior to the first day of November 1973, on the said date; and
- (b) in respect of any District established on or after the first day of November 1973, on the date of the By-Law of the World Council establishing such District pursuant to provisions of Section 8 of the Constitution.
- (c) The World Council upon establishing a District shall designate the name of the District and the location of the offices thereof and may, in addition, approve any addition to the said District General

By-Law as may be required to meet the laws of such District or any special circumstances, provided such additions are not inconsistent with the provisions of the Constitution or this By-Law.

ILCA By-Law 3: Measurement

1. If a protest is lodged against a yacht alleging that there has been an alteration or addition thereto not permitted by the Rules of the Class, and the Race Committee, on investigation, is in doubt as to whether a violation of the Rules has occurred, it shall measure the part of yacht subject to protest in accordance with paragraph 2.

2. (a) Hull

The part of the hull of the yacht subject to protest shall be measured in accordance with the measurement directions attached as Schedule A and the same part of not less than five (5) other Lasers, chosen by the Race Committee as random samples, shall be measured in the same manner. The Race Committee shall select, if possible, Lasers which show no evidence of having been repaired or altered and which do not have inspection ports.

The arithmetic mean of the measurements of the boats chosen as the sample shall be calculated, and the protested yacht shall be disqualified if the difference between the mean values so determined and the measurement on the yacht subject to protest shall exceed the following values for the measurements indicated:

any point along the keel line (rocker): 2 mm
any other area of the hull: 3 mm

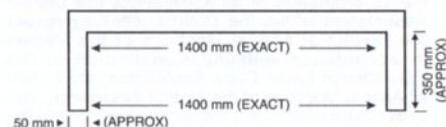
(b) Equipment

If any mast, boom, fitting, centreboard or rudder is the subject of a protest as to size, shape or location, measurement thereof shall be governed by the drawings and tolerances set forth in the Measurement Diagrams (Ref: By-Law 1 - Rules)

3. This By-Law shall be read and construed in conjunction with the Rules of the International Laser Class Association and the Interpretation of the Chief Measurer, and may be amended by the World Council with the approval of the International Sailing Federation.

Schedule A to By-Law 3

1. Measurement Template



2. Measurement of Hull

Turn boat upside down. Starting at the transom, measure out a distance along the keel line and establish point A, which will fall roughly athwartships of point X, the area under protest.

Lay a straight edge across the transom as shown in the sketch and measure out a distance along the vertical

surface of the gunwale and establish point B, which will fall approximately in line with the measured point on the keel line (A) and the area under protest (X). Distances shown are as an example only.

The centre line of the boat must then be established at point A. This will be easy in the front one third of the boat but, to find the centre line in the aft two thirds, stretch a string over the centre of the centreboard opening and the centre of the bailer depression and extend fore and aft, as necessary. Mark the centre line at point A. Now measure from point A to point X and retain this figure to establish an equal point of measurement on the five random sample boats.

Place the centre of the measurement template on point A (Diagram 2), line up the vertical arms with points B and equalise exactly the distance from the horizontal bar to the inside of the gunwale on each side of the boat.

Measure the shortest distance from point X up to the vertical bar and record this measurement (96 mm in example).

This procedure should now be repeated using all the distances established above and a similar reading obtained for the distances from the hull to the horizontal cross bar on the other five sample boats.

Example: Measurements on 5 sample boats:

93 + 94 + 94 + 97 + 96 = 474
Arithmetic mean = 474/5 = 94.8
Measurement on protested boat = 96
Difference = 1.2

Diagram 1

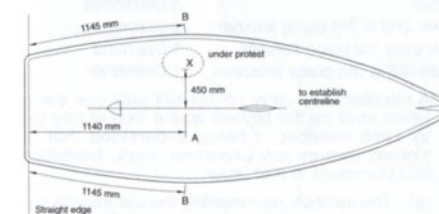


Diagram 2



This does not exceed mean value by more than 3 mm, therefore protest is disallowed.

Measurement of Rocker

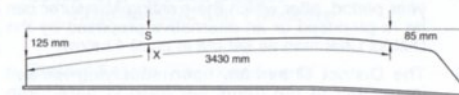
Turn boat upside down. Measure out a distance of 3430 mm along the keel line of the boat.

Set up a taut string over the centre line of the boat exactly 125 mm above the keel at the transom and 85 mm above the keel at 3430 mm from the transom.

Measure distance along keel to point under protest (point X) and retain this figure to establish an equal point of measurement on the five sample boats.

Measure the shortest point from point X to the string and then repeat procedure with five sample boats.

Calculate arithmetic mean of the measurements from the five sample boats. Point under protest should not



deviate by more than 2 mm.

ILCA By-Law 4: District Measurers

1. The responsibilities of the District Measurer and any assistant shall include:

- (a) generally, ensuring that throughout the District, the principles of the Rules are understood and complied with;
 - (b) National and District championships and other events designated by the District Chairman as requiring the attendance of the District Measurer:
 - (i) perform a pre-race inspection following ILCA standard procedures of boats to be sailed in such event and report to each owner and to the Race Committee Chairman the owner and number of any boat which, if sailed in such event, would violate the Rules and be subject to protest and submit a written summary report of each event to the ILCA Chief Measurer within 2 weeks of the championship ending;
 - (ii) assist the Race Committee at such event, upon request, with any protests to which the Measurement By-Law applies;
 - (iii) issue interim rulings respecting the Rules, not previously the subject of an Interpretation of the Chief Measurer, provided that such interpretation shall be committed to writing following such event and submitted to the Chief Measurer for confirmation or variation as he shall see fit. Any such interim interpretation shall be binding and valid for the event for which it shall have been issued.
 - (c) carry out such additional responsibilities (as a member of the Executive of the District Association) as may be assigned to him.
 - (d) to make an annual report to the ILCA Chief Measurer on the measurement and inspection that has taken place in the year.
2. No person shall be nominated for the position of District Measurer unless he has displayed, to the satisfaction of the District Chairman and Sailing Secretary:
 - (a) a thorough appreciation of the Constitution of the Laser Class;
 - (b) an appreciation of the principles as set forth in Part 1 of the Rules;
 - (c) a thorough knowledge of the Rules, the Interpretations issued thereunder and the Measurement By-Law of the Class, including the ability to carry out measurements in accordance with the Measurement By-Law; and
 - (d) that he is a person who maintains his Laser in a condition which does not violate any of the Rules

of the Class and whose attitude towards the enforcement of the Rules has been and is likely to be, beyond reproach.

- The position of District Measurer is limited to a two year period, after which the existing Measurer can be re-proposed or an alternative proposed by the District Chairman as set out in point 4 below.
- The District Chairman, upon satisfying himself in respect of the items set forth in paragraph 2 above, shall submit the recommendation for the appointment of the District Measurer to the Executive Secretary of the World Council or the Regional Council.
- The Executive Secretary shall forthwith communicate the recommendation to the Chief Measurer and shall confirm the appointment, following certification, if the same is approved.
- District Measurers, with the approval of the District Chairman, may appoint assistant District Measurers from time to time, who meet the requirements of paragraph 2, for the purpose of attending a sanctioned or other event designated as requiring the presence of the District Measurer. Such appointment shall be for one specific event.

ILCA By-Law 5: Sanctioned Events and Honour Awards

SANCTIONED EVENTS

- The following events shall be deemed to be Sanctioned Events for the purposes of the Constitution, the Rules and the By-Laws of the Association:
 - World Championship events;
 - Regional Championship events approved by the World Council, including the North American, European, Central & South American and the Asian Pacific Championship, whether or not a Region has been established;
 - Multi District events (other than district, regional or World Championship) including North American Midwinters, Canadian, US, Nordic, Australian and Middle East Championships;
 - District Championship events, including District Ladies' Championship, District Junior Championship;
 - Such other events as may be designated by the World Council or a Regional Executive Committee, as the case may be.
- Any Sanctioned Event shall be conducted in accordance with the provisions of the Racing By-Law.
- Honour Awards and Trophies shall only be given if sufficient entries take part in each category in a regatta according to the following table:

5-9	Entries	1 award/cube
10-19	Entries	2 awards/cubes
20-29	Entries	3 awards/cubes
30-39	Entries	4 awards/cubes
40+	Entries	5 awards/cubes

HONOUR AWARDS

Sail Awards

- Every member shall be entitled to apply to his sail the symbol earned by him racing in a Sanctioned Event, in accordance with the following schedule:

World Championships

Winner	3 Chevrons
Series 2nd & 3rd place finishers	2 Chevrons
Each daily 1st place finisher	1 Chevron
Series 4th & 5th place finishers	1 Chevron

Regional Championships

(which may be known as "Bar Events")

Winner	3 Bars
Series 2nd & 3rd place finishers	2 Bars
Each daily 1st place finisher	1 Bar
Series 4th & 5th place finishers	1 Bar

Multi District Events

(which may be known as "Medallion Events")

Winner	3 Medallions
Series 2nd & 3rd place finishers	2 Medallions
Each daily 1st place finisher	1 Medallion
Series 4th & 5th place finishers	1 Medallion

District Sanctioned Events

(which may be known as "Diamond Events")

Winner	3 Diamonds
Series 2nd & 3rd place finishers	2 Diamonds
Each daily 1st place finisher	1 Diamond
Series 4th & 5th place finishers	1 Diamond

- A member may carry on his sail only one award, which shall be the highest award won at any time by such member; it being understood that the highest awards are Chevrons, Bars, Medallions and Diamonds in that order.
- The symbols representing the sail awards shall be glued on or sewn to each side of the sail in the third panel from the top of the sail, with the first award being placed in the uppermost position as specified in Schedule A.
 - The symbols shall be in red for events which are not restricted, green for events restricted to women, blue for events restricted to juniors, and light blue for events restricted to Masters (35 years and over). A Masters event may be split into 4 categories: Great Grand Masters (aged 65 and over), Grand Masters (55-64 years), Masters (45-54 years) and Apprentices (35-44 years) in which case honour awards and cubes may be awarded for each category. The minimum number of entries at a Championship in the Great Grand Masters category shall be 5; if the entries are less than the minimum the Great Grand Masters shall be scored with the Great Masters. Determination of category for Masters shall be the age attained on the day before the first scheduled race of a regatta.

- Sail awards shall be retroactive to all North American, European and District Championships organised at any time and publicised and known as such; and any dispute as to whether any event heretofore qualifies as a Regional or District event herein shall be settled by the World Council on application for interpretation made to the Executive Secretary.

Cube inscribed with 3 Medallions
Series 2nd & 3rd place finishers
Cube inscribed with 2 Medallions
Series 4th & 5th place finishers
Cube inscribed with 1 Medallion

District Events ("Diamond Events")

Winner

Cube inscribed with 3 Diamonds
Series 2nd & 3rd place finishers
Cube inscribed with 2 Diamonds
Series 4th & 5th place finishers
Cube inscribed with 1 Diamond

- Any member who has earned a Laser cube in any event to which paragraph 3 applies shall be entitled, if available, to order such cube upon application to the Executive Secretary with particulars of the event, time and location; provided that such application shall be certified by the District Sailing Secretary or the Race Committee Chairman of such event. The insurance of the retroactive trophies shall be at the expense of the person applying therefore; the cost of the cube shall be determined from time to time by the World Council.
- In the event of the disposition of a sail, the person holding a sail award shall cause the same to be removed from the sail prior to such disposition.
- The cubes referred to in paragraphs 7 and 8 may be changed in style and design from time to time by the World Council.

Trophies

- Every member shall be entitled to receive a Laser cube, in accordance with the following schedule:

World Championship

Winner

Cube inscribed with 3 Chevrons
Series 2nd & 3rd place finishers
Cube inscribed with 2 Chevrons
Each daily 1st place finisher
Cube inscribed with 1 Chevron
Series 4th & 5th place finishers
Cube inscribed with 1 Chevron

Regional Events ("Bar Event")

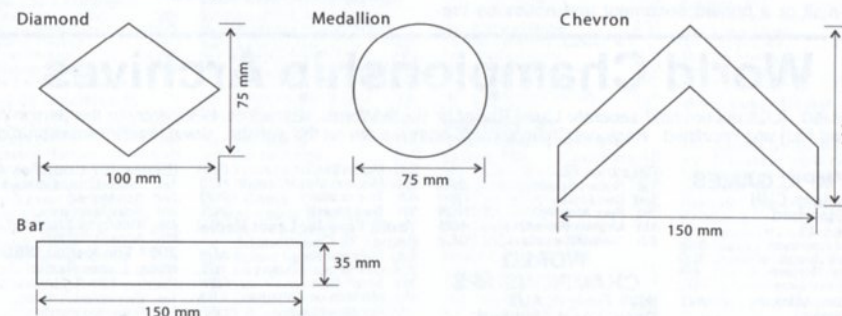
Winner

Cube inscribed with 3 Bars
Series 2nd & 3rd place finishers
Cube inscribed with 2 Bars
Series 4th & 5th place finishers
Cube inscribed with 1 Bar

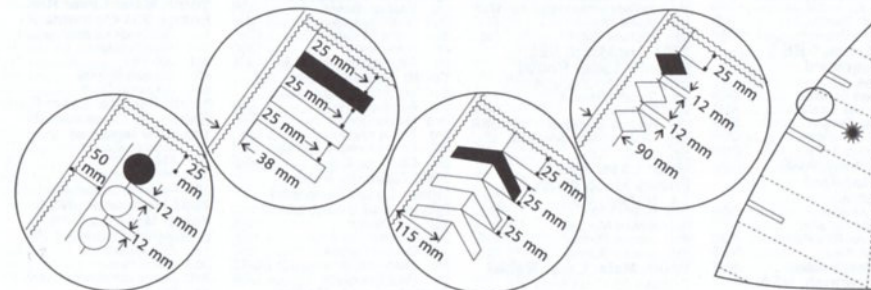
Multi District Events ("Medallion Events")

Winner

Size and Shape of Award Symbols



Schedule A: Position of Award Symbols



1st Mark Orams	NZL	2nd Nicholas Harrison	GBR	1st Friedhelm Lixenfeld	GER	5th Alf Johnson	RSA
2nd Alexandre Nikolae	RUS	3rd Nelson Horn Ilha	BRA	2nd Jack Swenson	USA	1982 Sardinia, ITA	
3rd Frank Imron	AUS	4th Koichiro Naito	JPN	3rd Heinz Gebauer	CAN	Entries 82	
4th Wilmar Groenendijk	NED	5th Doug Peckover	USA	4th Nick Paine	GBR	Apprentices	
5th Adam French	AUS	Masters		5th Robert Saltmarsh	USA	1st Paul Millsom	
Laser Radial Women		1st Keith Wilkins	GBR	1988 Falmouth, GBR		2nd Jack Nebrel	
1st Lyndall Patterson	AUS	2nd Hiroyuki Uehara	JPN	Entries 156	Countries 24	3rd Michael Wallace	
2nd Helen Cooksey	AUS	3rd Mark Bethwaite	AUS	Apprentices		4th Michael Heath	
3rd Sally Sharp	USA	4th Katsumi Hirano	JPN	1st Jeff Loosemore	AUS	5th Tony Manning	
4th Susan Fielding	AUS	5th Ian Flavell	GBR	2nd Philip Graves	CAN	Masters	
5th Lesley Hotchin	GBR	Grand Masters		3rd Had Brick	USA	1st Hans-Luther Striewe	
1997 Algarrobo, CHI		1st Colin Lovelady	AUS	4th John Rigg	GBR	2nd Geoff Myburgh	
Entries 128	Countries 21	2nd Peter Seidenberg	USA	5th Peter Heywood	AUS	3rd Nick Paine	
Laser Standard		3rd Denis O'Sullivan	IRL	Masters		4th Jack Swenson	
Apprentices		4th Barry Pownall	AUS	1st Peter Seidenberg	CAN	5th Hugo Kroth	
1st Herman Cristian	CHI	5th Tony Denham	AUS	2nd Colin Lovelady	AUS	Grand Masters	
2nd Alan Davis	GBR	1993 Takapuna, NZL		3rd John Maynard	GBR	1st Alan Clark	
3rd Marcelo Fuschs	BRA	Entries 186	Countries 22	4th John Rigg	AUS	2nd Alex McClure	
4th Terry Scutcher	GBR	Apprentices		5th Nils Andersson	USA	3rd Cecil Walker	
5th Bill O'Hara	IRL	1st Paul Page	NZL	Grand Masters		4th Bob Saltmarsh	
Masters		2nd Neville Wittey	AUS	1st Friedhelm Lixenfeld	GER	5th William Ter Weld	
1st Doug Peckover	USA	3rd Murray Thom	NZL	2nd Geoffrey Myburgh	RSA	1981 Bendor, FRA	
2nd Mark Bethwaite	AUS	4th Andrew York	AUS	3rd Peter Milnes	CAN	Entries 52	
3rd Keith Wilkins	AUS	5th Hans Burger	USA	4th John Rigg	GBR	Countries 11	
4th Jack Schlachter	AUS	Masters		5th Jan Nouwen	NED	Apprentices	
5th Barry Waller	AUS	1st Keith Wilkins	GBR	1987 Melbourne, AUS		1st Jacky Nebrel	
Grand Masters		2nd John Rigg	AUS	Entries 106	Countries 22	2nd Michael Teiken	
1st Colin Lovelady	AUS	3rd Mark Bethwaite	AUS	Apprentices		3rd Michael Nerbollier	
2nd Peter Seidenberg	USA	4th Barry Waller	AUS	1st Phil Peglar	AUS	4th Werner Winter	
3rd Wilhelm Gerlinger	GER	5th John Douglas	NZL	2nd Warwick Phillips	AUS	5th Wolf Peter Niesen	
4th Joe Van Rossem	CAN	Grand Masters		3rd John Sprague	AUS	Masters	
5th Jack Hansen	NZL	1st Colin Lovelady	AUS	4th Geoff Gale	AUS	1st Nick Paine	
Laser Radial		2nd Denis O'Sullivan	USA	5th Willi Gerlinger	GER	2nd Maudez de Cozannet	
Great Grand Masters		3rd Barry Pownall	AUS	Masters		3rd Lucien Bouche	
1st Heinz Gebauer	CAN	4th Ralph Ellis	AUS	1st John Rigg	AUS	4th Horst Kimm	
2nd Doug Bates	NZL	5th John Maynard	GBR	2nd Michael Heath	AUS	5th Michael Tuson	
3rd Graham Reed	AUS	Great Grand Masters		3rd Peter Seidenberg	CAN	Grand Masters	
4th Peter Raymer	GBR	1st Doug Bates	NZL	4th Colin Lovelady	AUS	1st Alan Clark	
5th Robert Saltmarsh	USA	2nd Robert Saltmarsh	NZL	5th Greg Marshall	AUS	2nd Cecil Walker	
Laser Radial Open		Women		Grand Masters		3rd Piero Marchetti	
1st Wilmar Groenendijk	NED	1st Jill Robertson	CAN	1st Alan Clark	AUS	4th Vittorio Baldoni	
2nd Aydin Yurdum	TUR	2nd Sally Sharp	USA	2nd Alec McClure	AUS	5th John Nouwen	
3rd Alexandre Nikolae	RUS	1991 Porto Carras, GRE		3rd Graham Gilbert	AUS	1980 Bendor, FRA	
4th Gary McCrohon	AUS	Entries 107	Countries 23	4th Doug Bates	NZL	Entries 67	
5th Heinz Gebauer	CAN	Laser Standard		5th Bob White	AUS	Countries 15	
1996 Cape Town, RSA		Apprentices		1985 World Masters Games		Apprentices	
Entries 155	Countries 21	1st Stephen Birbeck	GBR	Toronto, CAN	Entries 101	1st Michael Carlsen	
Laser Standard		2nd Mark Phillips	AUS	Apprentices		2nd Werner Winter	
Apprentices		3rd Mario Critch	ITA	1st David Olsen	USA	3rd Jacky Nebrel	
1st Peter Wilson	RSA	4th Geoffrey McGillivray	AUS	2nd Ben Lashaway	USA	Masters	
2nd Robert Douglass	AUS	5th Peter Wolfe	IRL	3rd Peter Forcham	GBR	1st Nick Paine	
3rd Regis Berranger	FRA	Masters		Grand Masters		2nd Alf Johnson	
4th Terry Scutcher	GBR	1st Keith Wilkins	GBR	1st Peter Seidenberg	CAN	3rd Peter Forcham	
5th Chris Rodowicz	AUS	2nd Peter Seidenberg	CAN	2nd Colin Lovelady	AUS	Grand Masters	
Masters		3rd Barry Waller	AUS	3rd Peter Lundt	USA	1st Sam Small	
1st Keith Wilkins	GBR	4th Willi Gerlinger	GER	Grand Masters		2nd Cecil Walker	
2nd Mark Bethwaite	AUS	5th Ilkka Schroderus	FIN	1st Alec McClure	AUS	3rd Vittorio Baldoni	
3rd Alan Keen	RSA	Grand Masters		2nd Alexander Nimick	USA		
4th Barry Waller	AUS	1st Colin Lovelady	AUS	3rd Alister Taig	USA		
5th Doug Peckover	USA	2nd Friedhelm Lixenfeld	GER	1984 Pattaya, THA			
Grand Masters		3rd Heinz Gebauer	CAN	Entries 62	Countries 22		
1st Ben Piefke	AUS	4th Nick Paine	GBR	Apprentices			
2nd Denis O'Sullivan	IRL	5th Tony Denham	AUS	1st Richard Verco	AUS		
3rd Colin Lovelady	AUS	1990 New Bedford, USA		2nd Paul Millsom	AUS		
4th Peter Seidenberg	USA	Entries 112	Countries 19	3rd Kim Weber	FIN		
5th Ken Holiday	RSA	Apprentices		4th Roger Williams	UAE		
Laser Radial		1st Kim Zetterberg	USA	5th Ilkka Schroderus	FIN		
Laser Radial Open		2nd Michael Stovin-Bradford	AUS	Masters			
1st Adam French	AUS	3rd Mark Phillips	AUS	1st John Rigg	AUS		
2nd Alexandre Nikolae	RUS	4th Geoffrey McGillivray	AUS	2nd Peter Seidenberg	CAN		
3rd Kevin Bloor	AUS	5th Had Brick	USA	3rd Colin Lovelady	AUS		
4th Rui Sancho	ANG	Masters		4th Michael Heath	AUS		
5th Gary McCrohon	AUS	1st Denis O'Sullivan	IRL	5th Denis O'Sullivan	IRL		
1995 Tenerife, ESP		2nd Peter Seidenberg	CAN	Grand Masters			
Entries 113	Countries 20	3rd Joe Van Rossem	CAN	1st Alex McClure	AUS		
Apprentices		4th Curt Bidner	SWE	2nd Doug Bates	NZL		
1st Nicholas Harrison	GBR	5th David Olson	USA	3rd Alan Clark	AUS		
2nd Lance Buler	RSA	Grand Masters		4th Robert Saltmarsh	USA		
3rd Tomas Franzer	SWE	1st Friedhelm Lixenfeld	GER	5th Alf Johnson	USA		
4th Peter Saxton	GBR	2nd Jim Christopher	USA	1983 Gulfport, USA			
5th Norio Akiyama	JPN	3rd Tony Denham	AUS	Entries 70			
Masters		4th Norman Freeman	USA	Apprentices			
1st Keith Wilkins	GBR	5th Nick Paine	GBR	1st Tucker Bragdon	USA		
2nd Barry Waller	AUS	1989 Aarhus, DEN		2nd Philo Peglar	AUS		
3rd Ted Moore	USA	Entries 114	Countries 25	3rd Peter Branning	USA		
4th Pieter Dekker	NED	Apprentices		4th Carolle Spooner	CAN		
5th Jacky Nebrel	FRA	1st Keith Wilkins	GBR	5th Roger Williams	QAT		
Grand Masters		2nd Phil Graves	CAN	Masters			
1st Colin Lovelady	AUS	3rd Jeff Loosemore	AUS	1st Norman Freeman	USA		
2nd Peter Seidenberg	USA	4th Had Brick	USA	2nd Randall Swan	USA		
3rd Jack Hansen	NZL	5th Peter Griffiths	NZL	3rd Dick Rose	USA		
4th Joe Van Rossem	CAN	Masters		4th Heinz Gebauer	CAN		
5th Michael Heath	AUS	1st John Rigg	AUS	5th Geoff Myburgh	RSA		
1994 Wakayama, JPN		2nd Curt Bidner	SWE	Grand Masters			
Entries 131	Countries 15	3rd Christer Baath	SWE	1st Alan Clark	AUS		
Apprentices		4th Denis O'Sullivan	IRL	2nd Alan Levinson	USA		
1st Norio Akiyama	JPN	5th Peter Seidenberg	CAN	3rd Bob Saltmarsh	USA		
		Grand Masters		4th Peter Milnes	USA		

International Laser Class Association



Register your Laser with your National Laser Association and keep up-to-date with News, Events and Class Rules updates...

By registering you will be immediately informed of any Laser events that are taking place in your district as well as updates on any information relevant to you.

You can register by completing this form and sending to your nearest District Contact. Details of your District Contact can be found on pages 17-20 of this ILCA Handbook or at www.laserinternational.org.

Name

Address

Date of Birth Male Female

Zip Code / Postcode

Country

Email

Tel Number: Home

Work

Laser Rig (tick box) Standard Radial Laser 4.7

Laser Sail Number

Dealer where Laser was purchased





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