

# International Laser Class Association



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## 2019 Handbook

Constitution and Class Rules



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# Laser 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. 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.

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# 레이저클래스 규칙-원디자인

레이저의 매력 중 하나는 원디자인 보트로서 클래스 규칙이 매우 엄격하게 적용된다는 것입니다. 본 규칙에는 쓸데없이 보트에 허비하는 시간없이 바로 세일링을 하게 하는 레이저의 철학이 녹아있습니다. 규칙집을 뒤져 경기에 이득을 주는 방법을 찾기 보다는 자신의 세일링 기술로만 승리할 수 있도록 하기를 원합니다.

물 위에서는 모든 보트가 같아야 하기 위해 표준 보트에 대해 성능에 영향을 미칠 수도 있는 어떤 변경도 허락하지 않는다는 개념으로 본 규칙이 만들어졌습니다. 표준 보트에 대한 변경은 아주 사소한 것이어야 하며 더 편안하고 즐거운 경기를 위한 약간의 변경에 대해서만 허락됩니다.

수년 동안 클래스는 더 비싸지거나 더 복잡한 장비가 되거나 오래된 보트를 불필요하게 만드는 규칙이 되는 것을 거부해왔습니다.

만일 당신이 레이저의 무엇인가를 변경해야 한다고 생각되시면 - 멈추세요. 그 변경이 왜 필요한지 스스로에게 물어 보시고, 그 대답이 만약 "보트를 더 빨리 갈 수 있게 만드는 것"이라면 그 변경이나 추가는 보나마나 규칙 위반이 될 겁니다!

레이저 규칙을 잘 살펴 보시기 바랍니다.

- 제 1 장은 철학과 규칙에 구체적으로 기술되지 않은 항목을 다루는 기본 클래스 규칙을 설명합니다.
- 제 2 장은 합법적인 보트를 갖기 위해 해야 할 일을 알려줍니다.
- 제 3 장에서는 몇 가지 선택적 변경 사항과 추가 사항에 대해 자세히 설명합니다.

## 만일 제 3 장에서 구체적으로 허용하지 않은 변경이나 추가가 있다면 - 위반입니다!

즉, 규칙이 허락하지 않은 변경이나 추가가 있는 레이저로 경기에 나간다면, 그 경기는 실격처리 될 것입니다. 규칙을 무시한 것에 대해서는 변명이 필요 없습니다.

## 속임수

스포츠에서 어떤 클럽이나 클래스든 이기기 위해 속임수로 규칙을 위반하려는 자가 있기 마련입니다. 속임수란 당신이 그것으로 이익을 얻었던 그렇지 않았던 규칙위반 임을 알면서도 그 행위를 하는 것입니다.

우리 클래스가 건설하고 대중적인 이유는 우리 세일러들이 동일한 조건에서 경기를 하고자 하는 마음과 엄격하게 적용된 원디자인에 대한 믿음 때문입니다. ILCA는 규칙을 따르지 않는 레이저 세일러들에게 매우 엄격한 제재를 가합니다. 과거에 규칙위반 보트를 탔던 세일러에게 레이저 타는 것을 금지한 경우도 있었으며, 평생 못 타도록 제재할 수 있습니다. 경기 규칙에 따라 제재가 필요하다면 어떤 보트 건 경기 출전에 제재를 가할 수 있습니다.

우리 클래스는 레이저 또는 장비의 불법개조에 의해 이익을 보려는 괴짜들보다 더 위대한 단체입니다. 그런 괴짜들은 보트 개조를 허락하는 다른 클래스에서 세일링하면 됩니다. 우리는 결코 그들과 함께하지 않습니다.

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The latest edition of the Laser Class Rules and By-Laws are available at [www.laserinternational.org](http://www.laserinternational.org).

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

Valid from 1st January 2019. Cancels all previous rules and interpretations.

## RECENT CHANGES:

### 1 January 2019

Part One modified to clarify that all sails used in competition shall have an ILCA supplied sail button to be class legal. (previous interpretation.)

Rule 3(b)i modified to remove the restriction on the use of aramid fibre rope for control lines. (previous interpretation)

Rule 3(b)ii modified to allow for local variation in thickness of control lines that is not specifically restricted to tapering. (previous interpretation)

Rule 3(b)vi modified to enable clam cleats to include a through hole attachment point. (previous interpretation)

Rule 19(a) modified to clarify that mast step abrasion tubes or collars may be in separate pieces. (previous interpretation)

Rule 31 modified to shorten the rule voting process from six months to one month and removing "votes to be sent by post".

### 1 January 2017

Rule 22 Compasses, Electronic Equipment and Timing Devices modified to allow use of digital compasses that are not GPS enabled.

New Rule 28 Added to allow boat or body mounted cameras.

Rule 3(f)vi modified to remove restriction on the attachment points of the shock cord inhaul.

Rule 17(c) modified to allow for the addition of one cleat and one turning point in the hiking strap support line that are not attached to the hull or hiking strap.

### 1 January 2016

4(f) National Letters: updated wording with instructions for positioning of letters on new *MKII* sail.

## 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 World Sailing and International Laser Class Association (ILCA) approved builder in strict adherence to the Laser design specification (known as the Construction Manual) which is registered with World Sailing.**

**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

World Sailing 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.

### SAIL IDENTIFICATION

Sails manufactured after 1 January 2001 shall have attached near the tack of the sail an ILCA authorized sailmaker button purchased from the International Laser Class Association. Standard MKII sails shall have orange buttons and Radial, 4.7 and Standard MKI (cross-cut) sails shall have red buttons.

### DEFINITION OF BUILDER

A Builder is a manufacturer that has the rights to use a Laser trademark, is manufacturing the hull, equipment, fittings, spars, sails and battens in strict adherence to the Construction Manual, and has been approved as a Laser Builder by each of World Sailing 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 a World Sailing 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 World Sailing.

### 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 cuningham, outhaul and vang **Control Line Systems** may include more than one **Control Line** as allowed in Rules 3(d), 3(e) 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 cuningham fairlead	Vang cleat block
Plastic cuningham clam cleat	Vang key block
Plastic outhaul clam cleat	Vang key
Plastic outhaul fairlead	Plastic traveller clam cleat
Plastic traveller fairleads	Mainsheet block

www.laserinternational.org 에서 가장 최신의 레이저 클래스 규칙과 조항들을 구할 수 있습니다.

## ILCA 조항 1: 규칙

### (제 1 장에서 5 장까지 포함)

2019년 01월 01일부터 유효하며 그 이전의 모든 규칙과 해석은 취소함.

#### 최근 변경들:

##### 2019/01/01

제 1 장에서 경기에 사용되는 모든 세일에는 클래스 규칙에 적합함을 명시하기 위해 ILCA 가 제정한 세일 버튼을 부착해야 한다고 수정

규칙 3(b)는 컨트롤라인에 대해 아라미드섬유로프 사용에 대한 제한을 삭제하는 것으로 수정

규칙 3(b)ii는 테이퍼에 대한 특별한 제한이 있지 않은 경우에는 컨트롤라인 두께의 국부적 변화를 허용하도록 수정

규칙 3(b)vi는 클램클리트를 관통식 구멍을 통한 부착이 가능하도록 수정

규칙 19(a)는 마스트 스템의 마모튜브 또는 칼라가 분리된 조각으로 되어 있음을 명확히하기 위해 수정

규칙 31은 규칙 투표 절차를 6개월에서 1개월로 단축하고 "우편으로 발송하는 투표"를 삭제하는 것으로 수정

##### 2017/01/01

규칙 22: 컴퍼스, 전자장비와 시간장비 관련하여 GPS 기능이 없는 디지털 컴퍼스로의 변경을 허가함  
새로운 규칙 28: 보트나 선체에 카메라 설치를 허가함

규칙 3(f)vi: 인홀스코드 부착점에 대한 제한을 없앴  
규칙 17(c): 선체 또는 하이킹스트랩에 부착되지 않는 조건의 하이킹스트랩 부착점에 하나의 클리트와 하나의 전한 고리를 추가하는 것을 허가함

##### 2016/01/01

4(f) 국가글자: MKII 세일의 글자위치 지침을 수정함

#### 서문

레이저 클래스 규칙의 원칙은 클래스 규칙에 의해 특별히 허용되지 않는 한 보트 변경이 허용되지 않는다는 것이다. 레이저 규칙은 영문이 우선한다.

## 제 1 장

### 목 적

레이저는 경기에서 보트와 장비가 아닌 선수의 실력을 겨루는 엄격한 윈디자인 디기이다.

### 기본 규칙

레이저는 이 규칙에 따라 월드세일링에 등록된 레이저 설계사(건조규정)의 엄격한 준수하에 월드세일링과 국제레이저클래스협회(ILCA)가 승인한 제조사가 만든 선체, 장비, 부품, 스파, 세일, 배튼 만을 사용해 경기에 출전해야 한다.

본 규칙 제 2 장 또는 제 3 장에서 구체적으로 허용된 것을 제외하고, 제조사가 공급한 선체(선형), 건조방법, 장비, 장비의 종류, 장비의 배치, 부품, 부품의 종류, 부품의 배치, 스파, 세일 그리고 배튼에 변경나 수정은 허용되지 않는다.

### 선체 식별

모든 레이저들은 바우아이 아래의 데크 또는 트랜섬에 식별번호(세일번호 또는 고유제조번호)가 새겨져 있어야 한다.

세일번호 148200 부터의 레이저는 제조사가 ILCA 로

부터 공급받은 고유의 월드세일링 명판이 부착되어야 한다. 명판에는 ILCA 에 의해 인정된 보트의 세일 번호가 표시되고 제조사에 의해 콕핏 뒷면에 영구적으로 부착되어야 한다.

### 세일 식별

2001년 1월 1일 이후 제조된 세일은 ILCA에서 공급한 ILCA 공인세일메이커버튼을 세일택에 부착해야 한다. 스탠다드 MKII 세일에는 주황색 버튼이 있어야 하고 레이디얼, 4.7 및 스탠다드 MKI(크로스컷) 세일에는 빨간색 버튼이 있어야 한다.

### 제조사의 정의

제조사란 월드세일링과 ILCA 에서 레이저 제조사로 승인되어지고, 건조규정의 엄격한 준수 하에 선체, 장비, 부품, 스파, 세일 그리고 배튼을 생산하는 레이저 상표 사용 권한을 가진 생산업자를 말한다.

## 제 2 장

### 1. 계측 다이어그램

계측 다이어그램도 클래스규칙의 한 부분이다. 스파, 세일, 배튼, 샌더보드, 러더, 부품의 배치와 장비는 계측다이어그램과 일치해야 한다. 계측공차는 제조공차를 허용하기위한 것이지 설계를 변경하는데 사용되어서는 안된다.

### 2. 계측

건조지침서에 적합하지 않다는 이의신청의 경우 그 문제와 관련된 모든 자료들을 첨부하여 월드세일링 기술위원회와의 협의하에 최종 규칙을 확정하는 ILCA 계측위원장에 보고 되어야 한다.

선체, 스파, 세일, 배튼, 샌더보드, 러더, 리깅, 부품이나 장비의 종류와 위치에 관한 계측적 문제가 클래스규칙, 계측다이어그램, 계측규정에 의해 명시적으로 확인되지 않을 경우에는 다음 절차로 확인한다.

문제의 배를 제외한 열척의 샘플을 추출하여 같은 방법으로 계측한다. 문제된 보트의 치수는 이 열척에서 얻은 치수와 같거나 또는 최대치 또는 최소치에 사이에 있어야 한다. 문제된 보트의 치수가 이 범위를 벗어나는 경우에는 모든 관련 자료를 첨부하여 최종 판정을 내리는 ILCA 계측위원장에게 보고하여야 한다. 샘플에 대해 계측된 치수가 정상적이지 않다면 클래스협회는 모든 관련 정보를 월드세일링에 보고하여야 한다.

### 3. 컨트롤 시스템, 컨트롤 라인 및 부품


#### (a) 컨트롤 시스템의 정의

- i 커닝햄, 아우트홀, 뱅, 트래블러, 메인시트는 컨트롤라인 시스템이다. 커닝햄, 아우트홀 그리고 뱅의 컨트롤 라인 시스템은 규칙 3(d), 3(e), 3(f)에서 허가된 대로 복수의 컨트롤라인으로 구성되어 있어야 좋다. 각각의 컨트롤 라인은 굵기와 재질이 균일한 한 가닥의 로프이어야 한다. 컨트롤라인 시스템 조절시, 그 축이 되는 방향으로 움직이면 그 라인이 컨트롤라인이다. 오로지 부착을 위한 라인은 타이 라인이다.
- ii 정의하기 위해, 표준 부품은 다음과 같다.


- 플라스틱 커닝햄 페어리드
- 플라스틱 커닝햄 클램클리트
- 플라스틱 아우트홀 클램클리트
- 플라스틱 아우트홀 페어리드
- 플라스틱 트래블러 페어리드
- 플라스틱 트래블러 클램 클리트
- 메인시트 블록
- 뱅크블록
- 뱅크블록
- 뱅크블록
- 메인시트 블록

- 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) and 3(f).
- 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.
- ii. Control lines shall be of uniform thickness, but may vary in thickness 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 fairleads and clam cleats may be replaced in the same position with an identical size and shape fitting. Clam cleats may include a through hole attachment point. 
- 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 end/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 capsiz, 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.
- xii Reference points (marks) may be placed on the deck, spars and ropes.

**(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, or tied, so that the end of the mainsheet cannot pull through the mainsheet block. 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. This option, if used, satisfies the knotting requirement in 3(c).
- 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.

- iii "선택적" 부품이란 클래스규칙에서 허가된 대로 표준부품과 교환 또는 추가되는 부품이나 블록을 말한다.
- iv "제조사공급" 부품이란 클래스규칙에서 허가된 대로 표준부품과 교환되고 오직 제조사만 공급하는 것을 말한다.
- v "터닝 포인트"란 블록의 시브(도르래바퀴), 그리모양 로프, 그리모양 로프로 보강한 덤블, 아웃홀 페어리드, 셔클, 부품의 일부, 세일의 크링글, 마스트 또는 붐을 두르는 컨트롤 라인이 통과되는 곳이나, 예외로 클래스규칙 3(e)와 3(f)에서는 컨닝햄 페어리드와 "제조사공급"의 데크 클리트 베이스에 부착된 "선택적" 캠클리트는 "터닝포인트"로 보지 않는다.
- vi "선택적" 블록이나 속코드를 부품, 라인, 마스트, 볼 또는 세일에 부착하는 경우, 셔클, 클립, 볼, 축, 타이 라인 유무에 관계없이 부착 되어 질 수 있다.

**(b) 컨트롤 라인과 부품**

- i 컨트롤 라인은 천연 또는 합성 소재의 로프이어야 한다.
- ii 컨트롤 라인은 하중이 걸리는 연결부에서의 스플라이스를 제외하고 일정한 굵기여야 한다.
- iii 두 가닥 이상의 컨트롤 라인이 허용되는 컨트롤 시스템에 지름이 서로 다른 라인을 이어서 사용해서는 안된다.
- iv 커닝햄, 뱅 또는 아웃홀 컨트롤 시스템에서 허용되는 "선택적" 블록은 그 시브의 지름이 15mm 미만이나 30mm 이상이면 안된다. 커닝햄, 뱅 그리고 아웃홀 컨트롤 라인 시스템에서 "터닝 포인트"로서의 그리모양 로프로 보강한 덤블은 그 길이가 40mm 를 넘으면 안된다.
- v 싱글 또는 더블 블록만을 "선택적" 블록으로 사용해야 한다. 싱글 블록은 시브가 한 개, 더블 블록은 시브가 두 개인 블록을 의미한다. "선택적" 블록들은 베킷, 스위블, 셔클이 각각 한 개씩만 포함되어 질 수 있다.
- vi 플라스틱 페어리드와 캠클리트는 같은 위치에 동일한 사이즈와 형상의 금속 제품으로 교체할 수 있다.
- vii 플라스틱 커닝햄 페어리드는 같은 나사구멍을 쓰는 위치에 스테인리스가 삽입된 같은 종류의 것으로 교체할 수 있다.
- viii "제조사 공급의" 데크 부품들 (데크 블록 부품과 데크 클리트 베이스)
  - a) 커닝햄 페어리드는 같은 위치에 한개 또는 두개의 "선택적" 싱글 블록이 부착된 "제조사 공급의" 데크 블록 부품으로 교체할 수 있다. "선택적" 블록을 커닝햄 페어리드에 부착해서는 안된다. 커닝햄이나 아웃홀 컨트롤 라인을 데크 클리트와 연결하기 위해 쓸 수 있는 것은 커닝햄 페어리드 단독이거나 "선택적" 싱글 블록이 부착된 "제조사 공급의" 데크 블록 부품 뿐이다.
  - b) "선택적" 데크 블록은 한 개의 스프링, 볼, 플라스틱 튜브 또는 테이프로 지지할 수도 있다.
  - c) 커닝햄 클램 클리트는 "선택적" 2개 클램 클리트 (커닝햄과 아웃홀)가 부착된 "제조사 공급의" 데크 클리트 베이스와 함께 같은 위치에 부착하고, 고정 구멍간 간격이 27mm 이어야 한다. 이 두개의 캠 클리트에는 출구 쪽으로 롤러 부착 여부에 상관없이 브리지나 페어리드를 부

- 착할 수도 있다.
- d) 컨트롤 라인은 커닝햄 페어리드, "제조사공급의" 데크 블록 부품과 그것에 부착된 "선택적" 블록, 커닝햄 클램 클리트 또는 "제조사 공급의" 데크클리트 베이스와 그것에 부착된 "선택적" 캠 클리트, 클리트 브리지나 페어리드 어느 것에 매어서 안 된다.
- ix 플라스틱이나 고무 튜브로 감싼 그리모양 로프 핸들은 그 핸들을 테이프로 말거나 컨트롤 라인 끝 부분에 만드는 것에는 어디라도 허용될 수 있다.
- x 컨트롤 라인(메인시트 제외)들의 끝 부분은 서로 매거나 어느 데크 부품, 센터보드, 센터보드 핸들 또는 센터보드를 잡아주는 역할의 그리모양 로프에 맴 수 있으나, 속코드에 매어서는 안된다.
- xi 전복시 마스트가 빠지지 않기 위한 속코드나 (마스트가 180 도 이상 회전 가능하게) 느슨하게 묶어놓은 라인은 커닝햄 페어리드나 데크 블록과 마스트 탱 또는 구노브 사이에 연결 되어야 한다. 그 라인은 클립, 후크, 셔클 그리고 볼 등을 부착하여 사용할 수 있다.
- xii 데크, 스파, 로프에 표시(마크)를 해도 좋다.

**(c) 메인시트 - 규칙 3(a), 3(b) 참조**

- i 메인 시트는 한 가닥 라인으로 붐 끝 블록의 베킷에 부착되어 트레블러 블록, 붐 끝 블록, 바이 스펙트럼, 앞쪽 붐 블록, 메인시트 블록을 차례로 통과 하여야 한다. 메인시트 블록을 통과 한 라인은 메인시트 블록을 벗어나지 않도록 자 단을 매거나 매듭을 하여야 한다. 택킹이나 라이빙을 돕기 위한 때가 아니면 메인시트를 앞쪽 붐 블록의 다음에서 조작하면 안된다.
- ii 메인시트의 끝은 매듭을 하거나 메인블록 지지부, 하이킹 스트랩, 하이킹 스트랩 지지 로프 또는 하이킹 스트랩 속코드에 맴 수 있다. 이 선택적 사용자, 규칙 3(c)에서의 매듭에 관한 요구에도 만족한다.
- iii 메인시트 블록은 내외장 재밍장치(움직임 방지장치)가 있는 어떤 타입의 싱글 블록이라도 계측 다이아그램에 나와 있는 위치에 부착할 수 있다. 그 블록은 한 개의 스프링, 볼, 블라스틱 튜브 또는 테이프로 지지할 수 있다.
- iv 메인시트용 클램 또는 캠 클리트는 어떤 타입이든 계측다이아그램에 나와 있는 위치인 양형에 설치할 수 있다.

**(d) 뱅 - 규칙 3(a), 3(b) 참조**

- i 뱅 시스템은 마스트탱과 붐 키 사이에, 뱅 클리트 블록, 뱅 키 블록, 최대 2 가닥의 컨트롤 라인, 그리 모양이거나 또는 추가로 "최대 7개의 터닝포인트"를 가진 "선택적" 블록들로 구성 되어야 한다.
- ii 뱅 클리트 블록은 마스트 탱에 직접 붙거나 또는 마스트 탱에 부착되어야 하는 한 개의 "선택적" 스위블에 부착 되어야 한다.
- iii 마스트 탱에 부착하기 위해 스위블 또는 뱅 클리트 블록에 한 개의 셔클을 사용할 수 있다.
- iv 스위블, 셔클 또는 스위블/셔클 결합은 텐션을 걸었을 때(뱅을 당겼을 때)에 80mm 를 넘어서는 안 된다.



- 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 cunningham system shall consist of a maximum three control lines. "Optional" blocks or loops for purchase with a **maximum of 5 "Turning Points"**.
- ii. The cunningham 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, the cunningham attachment point on the "Builder Supplied" vang cleating fitting or the becket of an optional becket block fixed on the cunningham attachment point on the "Builder-supplied" vang.

The cunningham 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 cunningham attachment point on a "Builder Supplied" vang cleating fitting.

**iv. Deck Block Fitting and Deck Cleat Base**

The cunningham control line shall pass only once through the cunningham fairlead or "Optional" single block attached to the "Builder Supplied" deck block fitting and shall pass only once through the cunningham clam cleat or "Optional" cam cleat attached to the "Builder Supplied" deck cleat base.

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

- 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 centre of the gooseneck bolt. (The gooseneck may be inverted.) The blocks in this rule may also be attached to the gooseneck with a bolt or a pin.
- vi. A shock cord may be used as an inhaul on the clew
- 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 cunningham 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. An additional outhaul extension tie line may be added between the clew of the sail and the outhaul or the 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. A splice that does not extend through the nearest traveller eye may be used at the non-free end.
- ii. A spring, ball or tape may be used between the traveller blocks.

**4. SAIL REGISTRATION NUMBERS, NATIONAL LETTERS AND NATIONAL FLAG**

**(For Laser Radial and 4.7 sail number positions please see part 4 rule 29(e) and 30(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

- v 뱅 키 블록은 예비의 한 개 키를 부착해도 된다.
- vi 그 키는 곧거나 휘어 질 수 있으며, 벨크로나 고무밴드, 테이프로 제자리에 고정할 수 있다.
- vii 뱅 키 블록은 "선택적" 한 개 키가 붙은 뱅 키 블록으로 교체해도 된다.
- viii "선택적" 싱글 블록들은 뱅 클리트 블록에 있는 구멍에 볼트나 크레비스 핀(U자형 고리)을 사용하여 뱅 클리트 블록 한쪽 또는 양쪽에 부착할 수 있다.
- ix 마스트 탱 구멍은 굵은 핀이 들어 갈 수 있도록 가공할 수 있다.
- x "제조사 공급의" 뱅 클리트 핏팅
  - a) 뱅 클리트 블록은 캠 클리트와 "터닝포인트"로 구성된 "제조사 공급의" 뱅 클리트 부품으로 교체할 수 있다. 아래 사진들은 클래스 규칙에 적합한 2가지 "제조사공급의" 뱅 클리트 부품을 보여 준다.
  - b) 본 부품은 마스트 탱에 바로 연결되어야 한다.
  - c) 본 부품은 어떤 방법이든 개조해서는 안 된다.

**(e) 컨닝햄 - 규칙 3(a), 3(b) 참조**

- i 컨닝햄 시스템은 최대 3개의 컨트롤 라인, "선택적" 블록 또는 로프의 루프를 위한 "터닝 포인트"는 최대 5개이어야 한다.
- ii 컨닝햄 컨트롤 라인은 마스트, 구즈넥, 마스트 탱, 마스트 탱에 뱅 클리트 블록 부착에 사용되는 셔클 또는 스위블, "제조사 공급의" 뱅 클리트 부품에 부착되는 컨닝햄 또는 "제조사 공급의" 뱅에 있는 컨닝햄 부착 지점위에 고정된 선택적 베킷이 붙은 블록의 베킷 어느 곳이든 확실하게 부착 되어야 한다. 컨닝햄 컨트롤 라인은 움직이는 라인으로서 세일 택의 크링글을 통과해야 한다. 세일 택의 크링글은 규칙 3(e)에 따라 최대 5개의 "터닝 포인트"중 적어도 하나이어야 한다.
- iii 추가 도르래를 위해 고리모양 로프, "선택적" 블록이나 붐, 세일 택 크링글, 구즈넥 부품, 마스트 탱, 뱅 클리트 블록 또는 스위블에 부착되는 셔클, 스위블, "제조사 공급의"의 뱅 클리트 부품에 컨닝햄 부착 지점을 이용할 수 있다.
- iv 데크 블록 부품 또는 데크 클리트 베이스 컨닝햄 컨트롤 라인은 컨닝햄 페어리드 또는 "제조사공급의" 데크 블록 부품에 부착된 "선택적" 싱글블록 그리고 컨닝햄 클램 클리트 또는 "제조사 공급의" 데크 클리트 베이스에 부착된 "선택적" 캠 클리트를 한번만 통과 하여야 한다.

**(f) 아웃홀 - 규칙 3(a), 3(b) 참조**

- i 아웃홀 시스템은 최대 2개의 컨트롤 라인, "선택적" 블록 또는 로프의 루프를 위한 "터닝 포인트"는 최대 6개이어야 한다.
- ii 아웃홀 컨트롤 라인은 붐 끝, 아웃홀 페어리드, 세일 또는 퀵 릴리즈 시스템의 어느 것인가에 부착되어, 적어도 한번은 붐 아웃홀 페어리드를 통과하여야 한다. 아웃홀 페어리드는 규칙 3(f)에 따라 최대 6개의 "터닝 포인트"중 적어도 하나 이어야 한다.
- iii 추가 도르래를 위해 라인상 고리모양 로프를 만들거나 또는 라인에 "선택적" 블록들을 부착하거나 아웃홀 페어리드, 아웃홀 클램 클리트, 붐, 마스트 또는 구즈넥 부품을 이용할 수 있다.

- "선택적" 블록은 규칙 3(f)ii 에 충족되는 아웃홀 페어리드에 부착되어 질 수 있다. "선택적" 블록은 아웃홀 클램 클리트에 부착되어 질 수 있다.
- iv "선택적" 블록은 세일의 크루나 퀵 릴리즈 시스템, 퀵 릴리즈 시스템의 한 부분으로 부착할 수 있다.
- v 한 개 또는 두개의 "선택적" 블록들은 구즈넥 부품, "터닝 포인트"가 구즈넥 볼트 중심에서 100mm 이내가 되도록 마스트/구즈넥 접합부에 부착할 수 있다(구즈넥은 위아래를 거꾸로 해도 됨) 이 규칙의 블록들은 구즈넥 볼트 또는 핀에 도 부착할 수 있다.
- vi 크루에 세일을 끌기 위해 하나의 속크드를 사용할 수도 있다.
- vii 속크드나 고리모양 로프(컨트롤 라인의 부분으로)를 아웃홀 라인이 붐에 가깝게 유지되기 위해 그 아웃홀 컨트롤 라인이나 붐 주위로 매달 수 있다.
- viii 데크로 이어진 아웃홀 시스템
  - a) 데크로 이어지게 하는 경우, 그 아웃홀 컨트롤 라인은 컨닝햄 페어리드 또는 "제조사 공급의" 데크 블록 부품에 부착된 "선택적" 아웃홀 싱글 블록을 통과하고 "제조사 공급의" 데크 클리트 베이스에 부착된 "선택적" 캠 클리트를 통과해야 한다.
  - b) 붐 아웃홀 클램클리트는 제거할 수 없다.

**(g) 클루 타이 다운(붐타이) - 규칙 3(a), 3(b) 참조**

- i 세일의 클루는 타이 라인이나 또는 세일 클링글을 통과하고 붐을 감싼 고정 장치 유무에 관계 없는 단단한 끈, 타이 라인이나 또는 붐을 감싸는 부드러운 스트랩이 부착된 퀵 릴리즈 시스템, 또는 퀵 릴리즈 시스템과 함께 "제조사 공급의" 스테인리스제 붐 슬라이드 중 어느 하나에 의하여 붐에 부착 되어야 한다. 세일 크루와 퀵 릴리즈 시스템 또는 아웃홀 과의 사이를 넓히는 한 가닥의 타이 라인을 추가할 수 있다.
- ii 클루 타이 다운(붐타이)이 타이 라인인 경우, 마찰을 줄이기 위한 튜브나 구멍 뚫린 붐을 통과 해도 된다.((h) 트래블러 - 규칙 3(a), 3(b)도 참조)
  - i 트래블러는 한가닥 라인이어야 한다. 트래블러 라인은 트래블러 아이를 거친 단일의 닫힌 루프로서 트래블러 클리트를 지나는 끝단으로 설치 되어야 한다.
  - ii 트래블러 블록 사이에 스프링, 볼이나 테이프를 사용할 수 있다.

**4. 세일번호, 국가글자, 국기**

(레이저 레이디얼과 레이저 4.7의 세일번호 부착 위치는 제 4 장의 규칙 29(e)와 30(e)를 참조할 것)

- (a) 세일번호 148199 까지의 레이저 세일번호는 바우 아이 아래 데크위 또는 양쪽 트랜섬 또는 코피트 뒷면에 부착된 명판에 각인되어져 있다. 세일번호 148200 이후의 레이저 세일번호는 코피트 뒷면에 부착된 일체세일링 견조 명판에 표시되어 있다.
- (b) 모든 세일번호는 최소 크기와 위치, 글자체에 관해서는 본 규칙에 의해 지정된 내용이 아니면 세

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 World Sailing 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 digit 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.

*(For additional guidance, see the Instructions for Applying Sail Numbers on p. 45 along with accompanying diagrams on pp. 46 - 49).*

- (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:
- 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.
  - 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.
  - when a sail is damaged during a series and Rule 7 (c) 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:

The letters on the starboard side of the *MK/I* sail shall

be placed along the top edge of the seam below the bottom batten pocket (+ or - 12mm), for the *MK/I* sail on a Base Line 400mm (+ or - 12mm) below the bottom batten pocket and on the port side of the sail along a line 400 mm (+ or - 12mm) 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 [also see diagrams on pages 52-55].

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**

- 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 diagram on page 36.
- The rhombus may be retained for racing in other events.

(h) **NATIONAL FLAG**

If required by the Notice of Race and the Sailing Instructions, a national flag with a nominal size of 567 x 337 mm shall be applied to both sides of the mainsail. For the Standard and Radial sails, flags shall be positioned such that the aft edge of the flag is within 100 and 150 mm of the leech and between the sail numbers and the batten pocket below the sail numbers. The flag shall be approximately parallel with the sail numbers and letters and shall not touch the numbers. For the 4.7 sail, the flag shall be positioned within 100 and 150 mm of the leech but below and within 50 mm of the bottom batten pocket. The flag shall be printed on separate material applied to the sail. The use of permanent ink pens or similar to make a national flag is forbidden. The national flag shall correspond to the national letters.

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 9kg (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.

일링경기규칙(RRS)을 따라야 한다:

- 높이 300mm
- 너비 200mm (숫자 1 을 제외하고)
- 굵기 45mm
- 인접한 숫자와의 간격 50mm
- 세일번호들은 일정한 간격을 유지해야 한다.
- 스타보드쪽 세일번호는 포트쪽보다 위에 위치해야 한다.
- 세일번호의 숫자는 각각 한가지 색깔이어야 한다.
- 세일번호는 읽기 쉽도록 명료해야 한다.
- 1998 년 3 월 1 일 이후 - 세일번호와 국적글자는 오직 붙이는 식이어야 한다. 세일 위에 국적 글자와 번호를 매직펜 따위로 영구적으로 표시하는 것은 금지된다.

(c) 153000 넘어가는 세일번호와 1993 년 6 월 1 일 이후 구입된 세일의 번호는 세일 양면에 붙이든가 재봉질되어 스타보드 쪽 세일번호의 아래쪽은 중간 배턴포켓의 솔기와 평행이거나 또는 400 (±12)mm 아래에 그은 직선을 따라 있어야 한다. 포트쪽 세일번호 아래쪽은 스타보드쪽 세일번호 아래쪽과 평행하거나 400(±12)mm 아래에 그은 직선위에 있어야 한다. 스타보드쪽 세일번호는 리치에서 100(±12)mm 위치에서 시작하고 포트쪽의 세일번호는 리치에서 100(±12)mm 위치에서 끝나 있어야 한다.

(추가 가이드는 46~49 쪽의 도면과 함께 45 쪽 세일번호 부착 지침서를 볼 것)

(d) 세일번호 131000 이후의 세일, 1993 년 6 월 1 일 이후 구입된 세일 및 "New Number"의 스탬프가 찍힌 세일은 명료하게 보이도록 세일번호의 마지막 4 행은 짙은 어두운 색 또는 검정으로 하고, 그 앞의 2 행은 대조되도록 짙은 다른 색(빨간색 추천됨) 이어야 한다.

(e) 이 클래스 규칙은 다음의 예외를 인정한다.

- i 주최자에 의해 선체나 세일을 공급하는 ILCA 인가된 대회인 경우, 그 대회에 한하여 1 행, 2 행 또는 3 행의 숫자로 세일번호로 사용할 수 있다.
- ii 대회에서 레이저를 빌리거나 차터한 특별한 경우에서 경기위원회로부터 서면 허가를 득한 후 선체의 세일번호와 다른 세일번호의 세일을 사용할 수 있다. 그 세일번호는 경기자 자신이 소유하는 레이저의 세일번호이어야 한다. 경기자 자신 소유의 레이저를 소유하지 않는다면, 차터한 레이저 세일번호를 사용해야 한다.
- iii 시합 기간동안 세일이 손상되어 규칙 7(c)가 적용되는 경우, 경기위원회로부터 서면으로 세일번호 변경 허가가 있으면 세일번호는 규칙 4(a) 및 4(e)ii 를 위반 할 수 있다.

(f) 국적글자가 요구되는 경우, 글자체, 굵기, 간격이 세일번호요구조건들과 같아야하고(규칙 4(b),(c),(d) 및 (e) 참조) 다음의 위치이어야 한다.

MKI 세일의 스타보드쪽 글자는 보텀배턴포켓(±12)

의 아래쪽 솔기의 윗 부분을 따라서 부착하고, MKII 세일은 보텀배턴포켓 아래로 400mm(±12) 위치인 베이스라인 위에, 그리고 스타보드쪽 글자 아래로 400mm(±12) 위치에 따라 평행하게 포트 쪽 글자를 부착해야 한다. 스타보드쪽 글자는 리치에서 100(±12)mm 위치에서 시작하고 포트쪽 글자는 리치에서 100(±12)mm 위치에서 끝나야 한다. 글자들은 모두 같은 색깔로 세일번호 색깔 중 하나이거나 대조가 되는 다른 색깔이어야 한다. (Page 52-55 도면 참조)

세계선수권, 대륙지역선수권 및 대회공고나 세일링세칙에 국제대회라는 것을 명시한 대회에서는 국적글자를 붙이는 것이 요구되어야 한다. 그 이외의 대회에서 대회공고나 세일링세칙에 따라국적글자가 요구되는 경우가 있다.

### (g) 빨간색 마름모 마크

- i 다음의 여자대회에 사용되는 세일은 양쪽 탭배턴포켓 위로 빨간색 마름모 마크를 달아야 한다.
  - a. 세계선수권 또는 지역(대륙)선수권
  - b. 대회공고나 세일링세칙에 "국제대회"라고 명시한 대회
  - c. 그 이외에서 대회공고 또는 세일링세칙에 여자 경기자를 구별하는 것을 명시한 대회
- ii 최소 사이즈와 대략적인 위치는 36 쪽 도면을 따라야 한다.
- iii 마름모 마크는 다른 대회에서도 사용할 수 있다.

### (h) 국기

대회공고나 세일링세칙에서 요구하는 경우 공식 규격 567x337mm 의 국기는 세일 양쪽에 부착해야 한다. 스탠다드와 레이디얼의 국기는 세일번호와 보텀배턴 사이, 리치로부터 100에서 150mm 이내에 국기홀이 위치해야한다. 국기는 세일번호와 글자에 평행하게하고 번호와 겹치면 안된다. 4.7은 리치로부터 100에서 150mm 이내에 위치하되 보텀배턴포켓 아래로 50mm 이내에 위치해야한다. 국기는 세일과 다른 재질에 인쇄되어 부착돼야 한다. 잉크펜 같은 걸로 국기를 그리는 것은 금지된다. 국기는 국적글자와 일치해야 한다.

### 5. 마스트

영구적으로 휘어진 마스트는 어떤 경우에도 사용해서는 안 된다.

### 6. 복장과 장비

- (a) RRS43.1(b) 변경하여 선수의 복장과 장비의 최대 중량은 9kg 이다. (레이디얼과 4.7의 리그에 관해서는 제 4 장을 참조할 것)
- (b) 선수는 신체보호를 위한 세일링복장을 제외하고 총중량 500g 이 넘는 부력없는 복장이나 장비를 착용하거나 소지해서는 안된다.
- (c) RRS 부착 H 에 따라 복장이나 장비의 계량을 위해 거치대 대신에 3 개의 옷걸이를 사용해도 된다.

### 7. 세일링 요구사항

(a) 레이저는 1 인승 또는 2 인승으로 경기에 출전할

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

Advertising, including competitor advertising, is permitted in accordance with World Sailing Regulation 20 - Advertising code; except that the sail window shall be kept free of advertising or other graphic material.

[Note: For information about World Sailing Regulation 20, see: <http://www.sailing.org/documents/regulations/regulations.php>]

# PART THREE

## OPTIONS & EXCEPTIONS

### TO PARTS ONE & 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. Fairing 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. The builder-supplied o-rings may be substituted with non builder-supplied alternatives provided the basic function of the bailer is unchanged.

## 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 any material 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. Vertical cuts are allowed in the material to allow the material to conform to the shape 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 capsizes. 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. When the shock cord is attached to the bow eye it may also pass through an attachment to the "Builder Supplied" deck block fitting or the cunningham fairlead.
- (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 may 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

수 있다. 2인승 경기는 스키퍼의 변경없이 전체 경기 또는 시리즈 경기의 전부를 치루어야 한다.

(b) 경기 중 스키퍼 또는 크루의 어느 부분도 마스트 보다 앞으로 위치해서는 안된다.

(c) 세일

경기위원회로부터 서면허가없이 시리즈 중에 세일을 교환해서는 안된다. 서면허가는 수리불능의 손상상태 또는 시리즈 경기에서 다음 경기 시작 전까지 수리가 불가한 손상이 발생된 경우에 한해 주어진다. 세일을 교환한 경우 손상된 세일이 수리되더라도 같은 시리즈에서는 사용할 수 없다. 이 규칙에서 시리즈란 특점으로 합산되는 2개 이상의 경기를 말한다.

### 8. 선체 코팅

선체표면 경계층의 성질을 바꿀 가능성이 있는 용해성 도료를 선체표면에 사용해서는 안된다.

### 9. 클래스협회 회원

선수 중 한사람이라도 ILCA의 회원이 아니면 플리트, 인터플리트, 지역, 기타 공인대회에 레이저 종목에 출전할 수 없다. (대한체육회 등록 요트선수, 한국레이저요트협회 회원은 ILCA 회원임)

### 10. 광고

광고는 선수를 포함하여 월드세일링 규정 20 광고 코드에 따라 허가된다. 광고는 세일윈도우를 제외하고 그래픽 재질에 대한 제한은 없다. [월드세일링 규정 20: <http://www.sailing.org/documents/regulations/regulations.php>]

## 제 3 장

### 제 1 장과 제 2 장의 선택적 사항 및 예외사항

#### 11. 선체 마감

(a) 선체 왁싱, 광택, 고운 습건식 샌딩은 의도와 효과와 선체의 광택만을 위한 것이면 허용한다. 형상 불량을 없애기 위한 광택/샌딩은 금지된다.

(b) 선체를 가볍게하거나 성능, 마감, 재질, 형상을 향상시키기 위한 의도 또는 효과로 선체를 샌딩 및 피닝하는 것은 허용되지 않는다.

#### 12. 트랜섬 드레인 마개

선미 드레인마개와 거전을 선으로 연결해도 된다.

#### 13. 셸프베일러

제조사 공급의 셸프베일러만 추가할 수 있다. 선체와 연결되는 모서리, 나사구멍에 테이프, 충진재 또는 접착재로 실링할 수 있다. 베일러면과 맞추기 위한 나사구멍 충진은 허용한다. 베일러의 면을 선체에 맞추거나 옆쪽 모양을 수정하는 것은 금지한다. 셸프베일러의 드레인마개는 제거할 수 있으며 셸프베일러 핀은 접착테이프로 선체바닥에 고정할 수 있다. 제조사공급 O링은 베일러의 기본기능이 바뀌지 않는다면 대체할 수 있다.

#### 14. 센터보드

(a) 센터보드 스톱의 아래로부터 센터보드의 상단과

평행하게 그 선 위로 최대 12.5mm 직경의 두께 이하의 홀을 연결하는 한 개의 로프들은 허용된다. 센터보드의 핸들로 플라스틱/고무튜브 또는 테이프를 사용할 수 있다.

(b) 센터보드의 뒷날은 뒷날끝에서 100mm 안쪽의 날개면을 샌딩하여 날카롭게 할 수 있다. 단, 앞날과 뒷날간의 거리가 줄면 안된다.

(c) 센터보드의 표면 재마감은 원래의 형상, 두께, 특성이 바뀌지 않는다면 허용된다.

(d) 두께 2mm 이하, 30X30mm 이하의 크기를 가진 한겹짜리 패드를 센터보드케이스의 상단앞쪽 코너에 붙일 수 있다. 패드를 센터보드케이스 형상에 맞추어 수직으로 자르는 것은 허용한다.

(e) 원래 목재 센터보드가 아닌 보트에는 목재 센터보드를 사용해서는 안된다.

(f) 타이라인 또는 속코드는 캡사이즈때 센터보드 유실을 막기위해 센터보드의 앞쪽상단 코너의 작은 구멍과 바우아이, 커닝햄 페어리더, 제조사에 의해 제공된 데크블록부품과 마스트 중 어떤 것이라도 연결해야 한다. 타이라인 또는 속코드는 선수주변을 둘러싸 연결할 수는 있으나 거닐에 부착해서는 안 된다. 속코드의 경우 매듭이나 루프, 타이라인, 셔클, 클립, 후크 또는 아이 등으로 부착할 수 있다. 바우아이에 속코드는 제조사의 데크블록 피팅이나 커닝엄페어리더를 통과하여 부착할 수 있다.

(g) 제조사의 센터보드 스톱퍼의 부품들은 원래의 형상과 규격이 작아지지 않는다면 접착제, 나사, 볼트/너트, 와셔로 부착할 수 있다.

#### 15. 러더

(a) 러더블레이드의 의 뒷날은 뒷날끝에서 60mm 안쪽의 날개면을 샌딩하여 날카롭게 할 수 있다. 단, 앞날과 뒷날간의 거리가 줄면 안된다.

(b) 러더블레이드의 표면 재마감은 원래의 형상, 두께, 특성이 바뀌지 않는다면 허용된다.

(c) 러더블레이드, 러더헤드의 구멍들은 직경 10mm 까지 키울 수 있다. 러더볼트와 부위세트는 이 구멍에 맞게 큰 볼트로 대체할 수 있다. 볼트헤드, 너트와 와셔의 직경은 20mm 이내이어야 한다.

(d) 러더헤드의 밑쪽 모서리에 대해 최대 78도의 러더 각도를 얻기 위해 블레이드의 앞날 간격핀이 닿는 곳을 절단할 수 있다.

(e) 러더헤드의 밑쪽 모서리에 대해 최대 78도까지만 러더 각도를 허용하기 위해 아래 앞쪽 간격핀을 테이프로 감을 수 있다.

(f) 러더헤드를 들어올려서 틸라가 트랜섬 데크에 닿지 않도록 러더핀들에 스페이서를 부착해도 된다.

(g) 러더 다운홀 라인은 여러번 지레돼도 된다.

(h) 러더의 분실을 방지하기 위해 러더 핀들 끝에 구멍을 뚫어 핀 또는 클립을 삽입할 수 있다.

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.
- (k) Padding of uniform thickness may be used in the gap between the rudder blade and rudder head. This padding must cover completely the part of the rudder blade that comes in contact with the rudder head. The thickness of the rudder blade plus the padding must not exceed 20.3mm.

**16. TILLER**

- (a) The tiller and tiller extension are not restricted in any way except that the tiller:
  - i. shall be capable of being removed from the rudder head.
  - ii. shall be fitted with a cleat, hook, pin or eye to secure the downhaul.
  - iii. 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 or by using both the centreboard friction attachment 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 and may include one cleat; one ring, thimble, or shackle; or both.

- (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**

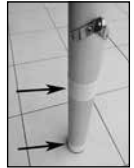
- (a) A metal sleeve supplied by the builder of maximum length 900 mm may be fixed inside the boom. The sleeve shall not extend aft of the point 1220 mm from the front end of the boom (including plug).
- (b) The stainless steel mainsheet eye strap between the two blocks on the boom may be replaced with 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.



- (c) Traveller and Boom mounted mainsheet blocks may be replaced with the "Builder Supplied" blocks shown in the photo.

**19. MAST**

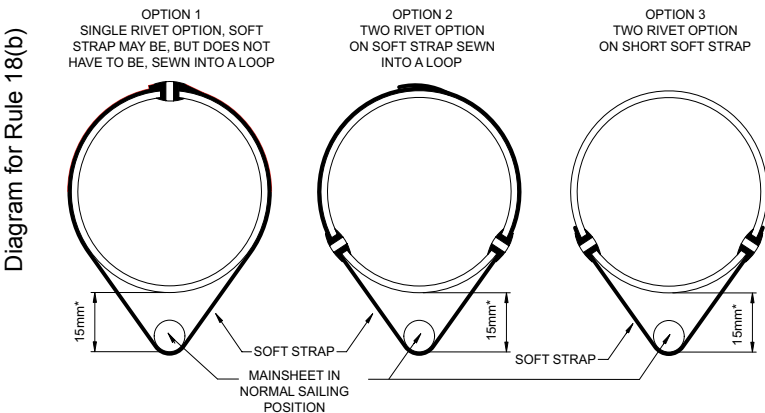
- (a) To prevent abrasion of the mast step, tubes or collars of uniform thickness not exceeding 1 mm in total may be placed around the entire circumference of the lower mast or the mast step cavity. A tube or collar shall not extend more than 10 mm above deck level.



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 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

**CROSS SECTIONS THROUGH BOOMS AND SOFT STRAPS SHOWING THE ONLY LEGAL FIXING OPTIONS**



NOTES:  
 1. 15mm DIMENSION MARKED \* IS NOMINAL  
 2. HOLES FOR OPTIONS 2 AND 3 ARE POSITIONED TO FIT THE ORIGINAL STAINLESS STEEL EYE STRAP  
 3. NO BOOM SHALL BE DRILLED WITH THREE HOLES AT THE BOOM STRAP POSITION

- (i) 원래 목재 러더가 아닌 보트에는 목재 러더를 사용해서는 안된다.
- (j) 세일링세척에 언급되지 않는 한 러더는 1.5m 이하 수심에서 레이싱할 때 말고는 완전히 내린 상태를 유지하여야 한다.
- (k) 러더블레이드와 헤드 사이의 틈에 균일한 두께의 패드를 붙일 수 있다. 패드는 러더헤드와 접촉하는 러더블레이드 부분을 완전히 덮어야 한다. 러더블레이드와 패드의 두께는 20.3mm를 넘어서는 안된다.

## 16. 킬러

- (a) 킬러와 킬러 익스텐션은 아래의 경우를 제외하고 어떠한 제한도 받지 않는다.
  - i. 킬러는 러더헤드로부터 분리되어질 수 있어야 한다.
  - ii. 킬러에는 다운홀을 묶기 위한 클리트, 후크, 핀 또는 아기가 설치되어야 한다.
  - iii. 킬러는 트래블러 로프에 의한 정상적인 마모를 제외하고는 러더헤드의 앞쪽으로서 30mm 지점과 킬러의 콕핏방향 끝 사이의 가장 윗쪽 가장자리를 따라 직선이어야 한다.
- (b) 킬러에는 16(a)iii 에 의해 요구되는 직선 모서리의 높이보다 위쪽에 200mm 이하의 길이를 가진 "내마모성" 스트립 또는 튜브를 트래블러와 킬러가 교차되는 지점에만 부착 할 수 있다.

(c) 킬러 고정핀 사용은 선택사항이다.

## 17. 하이킹스트랩

- (a) 하이킹스트랩은 비신축성 재질의 어떠한 타입으로도 대체되어질 수 있고 패딩 처리 될 수 있다.
- (b) 하이킹스트랩은 메인시트블록 플라스틱 누름판 주위로 감싸거나 메인보드 마찰 부착판과 메인시트블록 플라스틱 누름판을 사용하여 콕핏 전단에 고정시킬 수 있다.
- (c) 하이킹스트랩의 후미 끝과 콕핏의 후미면에 있는 아이스트랩 사이의 하이킹스트랩 지지라인은 하이킹스트랩이 고정되거나 조절 가능하도록 설치될 수 있으며, 하나의 클리트, 링, 심볼 또는 셔클

또는 두가지를 포함 할 수 있다.

- (d) 속코드는 하이킹스트랩의 후미 끝과 트래블러 클리트 또는 콕핏 후미의 하이킹스트랩 아이스트랩 사이에 부착 할 수 있다.

## 18. 볼

- (a) 최대 길이 900mm의 제조사가 공급하는 금속 슬리브가 볼 내부에 고정될 수 있다. 슬리브는 볼의 프론트엔드에서(플러그 포함) 1220mm 지점의 뒤쪽까지 연장되어서는 안된다.
- (b) 볼에 있는 두 블록 사이의 스테인레스스틸 메인시트아이스트랩은 부드러운 스트랩으로 교체 될 수 있다. 부드러운 스트랩의 최대 너비는 26mm이다. 부드러운 스트랩은 아래 그림과 같이 제조사가 뿜은 홀 등을 사용하여 볼에 고정해야 한다.
- (c) 트래블러와 볼에 설치된 메인시트블록은 제조사가 공급한 사진과 같은 블록들로 교체 할 수 있다.

## 19. 마스트

- (a) 마스트스텝의 마모를 방지하기위해 1mm를 넘지 않는 균일한 두께의 튜브나 칼라가 하부마스트 또는 마스트스텝 하단 전체 주위나 마스트 스텝 캐비티 전체 둘레에 설치될 수 있다. 튜브 또는 칼라는 데크레벨 위 10mm를 넘지 않아야 한다. 또한 1mm를 넘지않는 균일한 두께의 디스크가 마스트스텝 밑에 설치될 수 있다.
- (b) 마스트 또는 마스트캐비티는 유효할 수 있다.
- (c) 견고한 결합을 위해 플라스틱엔드캡, 상단마스트의 칼라 및 상단마스트에 테이프 또는 다른 부싱 소재를 사용할 수 있다. 테이프 또는 부싱소재는 실제로 하단섹션 안쪽, 상단마스트와 칼라 사이로 미끄러져 들어가게 플라스틱부분에만 사용될수 있으며, 둘레가 균일한 두께로 되어야 한다. 칼라를 마스트에 넣을 수 있도록 칼라 위의 테이프 또는 부싱소재는 금지된다.
- (d) 연결부에서의 마스트 섹션의 회전을 방지하기 위해 연결부의 바깥쪽에 연결부의 위, 아래로 40mm까지 테이프를 사용할 수 있다.



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, around the mast or boom.

## 22. COMPASS, ELECTRONIC EQUIPMENT AND TIMING DEVICES

(a) One compass mounted on any part of the deck or the cockpit is permitted if the hull cavity is not pierced by anything other than the fasteners. Compasses may not be fitted to inspection ports. An additional wrist mounted compass is permitted. Electronic, self-contained, digital compasses using only magnetic input are permitted.

(b) Timing devices are permitted.

(c) A timing device and electronic compass may be integrated in the same device.

(d) A compass or timing device must not be capable of displaying, delivering, transmitting, receiving, calculating, correlating or storing information about wind speed, wind direction, boat speed or boat position.

(e) Any use of electronic equipment not specifically allowed in the rules is prohibited unless the rules are modified by the sailing instructions.

## 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 AND LINE

The use of flexible adhesive tape or similar or line is permitted to secure shackle pins and clips, and to bind sheets, control lines and rigging, except that tape or line shall not be used to construct new fittings or modify the function of 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 includes the replacement of fasteners (screws, bolts, nuts, washers and rivets) provided the replacement does not alter the function of the fitting. The tolerances of the Measurement Diagrams shall not be used to alter the position of fittings. In addition the reversing of spars is permitted

if the fittings are replaced in accordance with the Measurement Diagrams. Any holes in the top section of the mast shall be 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.

(f) The use of lubricants is unrestricted except that they shall not be used on the hull (below the gunwales).

## 27. REEFING

The sail may be reefed by rolling the sail around the mast 1 or 2 times.

## 28. BOAT OR BODY MOUNTED CAMERA

One camera may be attached to the sailor or may be mounted on the boat if the hull cavity is not pierced by anything other than the fasteners.

# 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 Four.

## 29. LASER RADIAL

(a) The Laser Radial sail and bottom mast as supplied by an approved 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 29 (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.

*(For additional guidance, see the Instructions for Applying Sail Numbers on p. 45 along with accompanying diagrams on pp. 46 - 49).*

4(f) **National Letters**, if required, shall conform to the same type, size, spacing and requirements as sail

## 20. 검사용 포트

나사식 헤지커버로 닫아 물이 들어가지 않게 밀폐할 수 있다면 선체 내부로 접근하기 위한 내경 153mm 이하의 검사용 포트를 데크 또는 콕핏 안쪽에 설치할 수 있다. 헤지커버 안에 보관팩을 들 수 있다.

## 21. 클립과 수납백

데크, 콕핏 내부, 마스트 또는 붐 주위에 물품을 보관하거나 안전을 확보하기 위해 클립, 타이, 백을 사용할 수 있다.

## 22. 나침반, 전자장비 및 시계

(a) 데크 또는 콕핏에 한 개의 나침반 설치가 허용되나 선체에 구멍을 뚫어 설치해서는 안된다. 나침반을 검사용 포트에 설치해서는 안된다. 손목에 차는 나침반 추가는 된다. 자성만 사용하고 독립 전원을 가진 전자식 디지털 나침반은 허용된다.

(b) 타이밍 장치(시계)는 허용된다.

(c) 시계 및 전자식 나침반은 하나로 통합될 수 있다.

(d) 나침반 또는 타이밍 장치는 풍속, 풍향, 보트속도 또는 보트위치에 대한 정보를 표시, 전달, 전송, 수신, 계산, 비교 또는 저장할 수 없어야 한다.

(e) 규칙에 허용이 명시되지 않은 전자장비의 사용은 세일링세칙에 의해 변경되지 않는 한 금지된다.

## 23. 풍향계

(a) 풍향계는 세일을 자르지 않고 선체, 마스트의 부력에 영향을 없다면 부착할 수 있다.

(b) 리본, 울 또는 유사한 재질의 텔테일은 세일에 부착할 수 있다.

## 24. 테이프와 라인

접착테이프 또는 라인으로 셔클핀, 클립을 고정하고 시트, 컨트롤라인 및 리깅을 묶을 수 있다. 단, 테이프 또는 라인을 사용하여 새로운 부품을 만들거나 기존 부속품의 기능을 변경할 수는 없다.

## 25. 안전장비

안전을 목적으로 국제, 국가 또는 기타 운영기관이 요구하는 장비의 추가는 기본규칙을 위반하지 않는다면 장치되거나 배에 실을 수 있다.

## 26. 수선 및 유지보수

(a) 세일, 선체, 갑판, 센터보드, 러더, 마스트, 붐, 모든 부품 및 고정장치에 대한 수리 및 예방조치가 필수적인 형상, 특성 또는 원래기능에 영향을 주지 않는다면 본 규칙에 위배되지 않는다.

(b) 부품이 파손되거나 규칙에 따라 교체된 경우 부품이나 교체품은 원래와 같은 종류여야 하며 계속 다이어그램에 따라 배치되어야 한다.

(c) 예방조치에는 고정장치(나사, 볼트, 너트, 와셔 및 리벳)의 교체가 포함되나 부품의 기능이 변경되지 않아야 한다. 계속 다이어그램의 허용오차가 부품의 위치를 변경하는 데 적용되어서는 안된다. 또한 스파를 뒤집어 사용하는 것은 허용되나 계속 다이어그램에 맞추어 부품이 교체되어야 하며 마스트 상단의 구멍은 마스트부력을 유지하기 위해

리벳 또는 유사한 재료로 완전 수밀되어야 한다.

(d) 세일패널과 리프슬리브는 교체되지 않아야 한다.

(e) 손상되거나 제거된 부력체(발포블록, 공기통)는 원래의 부력체와 같은 부피이고 공기가 완충된 제조사 공급 공기통으로 교체해야 한다.

(f) 유훈체는 거닐 아래 선체를 제외하고는 사용에 제한이 없다.

## 27. 리핑

세일을 마스트에 한, 두번 감아 리핑할 수 있다.

## 28. 카메라 설치

카메라를 선수의 몸이나 보트에 부착할 수 있으나 선체에 구멍을 뚫어 설치해서는 안된다.

# 제 4 장

## 레이디얼과 4.7 리그의 선택사항

제 4 장은 본 규칙의 나머지 부분과 같이 보도록 한다. 레이디얼 또는 4.7 리그를 사용하는 경우 제 4 장에서 특별히 명시되지 않은 경우 제 1, 2, 3 및 5 장의 규칙이 적용된다.

## 29. 레이저 레이디얼

(a) 승인제조사가 공급한 레이디얼 세일 및 하단마스트는 이 규칙의 계속다이어그램과 일치해야 한다.

(b) 모든 리가타는 29(c)의 조건을 만족하거나, 대회공과 및 세일링세칙에서 명시하면 레이디얼리그를 사용할 수 있다.

(c) 지역대회 및 상위 레벨의 레가타에서는 대회공과 및 세일링세칙에 명시하여야 레이디얼 리그를 사용할 수 있다.

(d) 대회 시리즈 중에 레이디얼 리그를 스탠다드 또는 4.7 리그로 변경해서는 안된다. 시리즈란 득점으로 합산되는 2개 이상의 경기를 말한다.

## (e) 세일번호 및 국가글자

규칙 4(c)와 (f)는 아래와 같이 변경한다:

4(c) 번호가 153000 이상이고 1993년 6월 1일 이후에 구입한 레이디얼 세일의 세일번호는 세일의 각 측면에 적착되거나 바느질되어야 하며 세일의 스타보드 쪽 번호의 하단은 가운데 배튼포켓과 평행하게, 가운데 배튼포켓 하단 400mm(±12mm) 아래에 위치되어야 한다. 세일의 포트 쪽 숫자의 하단은 세일의 스타보드 쪽 숫자의 하단과 평행하여야 하며 400mm(±12mm) 아래의 선 위에 있어야 한다. 스타보드 쪽 세일번호는 리치에서 100mm(±12mm)에서 시작하고, 포트 쪽 번호는 리치에서 100mm(±12mm)에서 끝나야 한다. (추가적인 가이드는 세일번호 적용지침 p.45 및 다이어그램 pp.46~47을 참조)

4(f) 국가글자가 필요하면 세일번호와 종류, 크기, 간격과 요구사항들이 같아야 한다(규칙 4(b), (c), (d)와 (e)를 참조하여, 아래와 내용 같이 위치되어야 한다(다이어그램 참조):

세일의 스타보드 쪽에 있는 글자의 상단은 하단의 배튼포켓의 아래끝과 그 연장(+12mm)에 놓

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 9 kg.

**30. LASER 4.7**

**(a)** The Laser 4.7 sail and bottom mast as supplied by an approved 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 30 (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 digit 1.

Thickness 30 mm.

**Note: Optimist Class legal numbers conform to this rule.**

**The maximum height to conform is 240mm.**

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 a line placed 270mm (0 to +12mm) below and parallel to the seam below the bottom edge of the middle batten pocket.

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.

**(For additional guidance, see the Instructions for Applying Sail Numbers on p. 45 along with accompanying diagrams on pp. 46 - 49).**

**4(f)** National letters, if required, shall conform to the same type, size, spacing and requirements as Laser 4.7 numbers (refer rule 29 (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 (+12mm) 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 (+12mm) 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 8 kg.

## PART FIVE

### 31. 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 casting a vote in response to a ballot published by the International Office of the Class. Only those votes submitted within one month from the date of publication of the rule change ballot shall be valid, and
- (d)** World Sailing.

여야한다. 스타보드쪽 글자들은 리치에서 100mm(±12mm)에서 시작되어야 한다. 포트 쪽에 있는 글자의 하단은 400mm(±12mm) 아래의 선 위에, 세일의 스타보드 측에 있는 글자의 하단과 평행을 이루어야 한다. 포트 쪽 글자는 리치에서 100mm(±12mm)에서 끝나야 한다. 글자는 모두 같은 색이어야 하며 세일번호 중 하나와 색이거나 아예 다른 색이어야 한다. 국가글자는 세계선수권대회, 지역선수권대회 및 대회공지 또는 세일링세칙에 국제대회로 명시된 경우 필수이다. 국가글자는 어느 대회이던 대회공지 또는 세일링세칙으로 요구할 수 있다.

**(f) 복장 및 장비**

규칙 6(a)는 아래와 같이 변경한다:  
6(a) RRS43.1(b)의 목적에 따라 선수의 복장과 장비의 최대중량은 9kg 이다.

**30. 레이저 4.7**

- (a) 승인제조사가 공급한 4.7 세일 및 하단마스트는 이 규칙의 계측다이아그램과 일치해야 한다.
- (b) 모든 리가타는 29(c)의 조건을 만족하거나, 대회공지 및 세일링세칙에서 명시하면 4.7 리그를 사용할 수 있다.
- (c) 지역대회 및 상위 레벨의 레가타에서는 대회공지 및 세일링세칙에 명시하여야 4.7 리그를 사용할 수 있다.
- (d) 대회 시리즈 중에 4.7 리그를 스탠다드 또는 레이디얼 리그로 변경해서는 안된다. 시리즈란 득점으로 합산되는 2개 이상의 경기를 말한다.

(e) **세일번호:** 규칙 4(b), 4(c) 및 4(f)는 아래와 같이 변경한다.

4(b) 4.7 세일의 모든 숫자는 세일링경기규칙(RRS)을 따라야 하며 다음의 최소 치수를 가져야 한다:

- 높이 220mm
- 너비 150mm, 숫자 1 제외
- 굵기 30mm
- 참고: 옵티미스트규칙의 번호크기와 같음
- 최대 높이 240mm
- 인접한 숫자/글자 사이, 행간격은 최소 30mm
- 세일번호 간격은 균일하여야 함
- 스타보드 쪽의 번호는 포트 쪽보다 위에 위치
- 각 숫자는 한가지 색이어야 함
- 색이 채워져 있어야 하며, 읽기 쉬워야 한다.

4(c) 세일번호가 153000 을 넘고 1993 년 6 월 1 일 이후에 구입한 4.7 의 세일번호는 세일의 양쪽에 접착되거나 바느질되어야 한다. 스타보드 숫자의 하단은 중간 배튼포켓의 하단 아래의 슬기와 평행하게 270mm(±12mm) 아래에 배치된 선의 상단 끝을 따라 배치되어야 한다. 포트 쪽 번호는 스타보드 쪽 숫자의 하단에 평행해야 하고 270mm 아래의 선을 따라 배치 되어야 한다. 스타보드 쪽 번호는 리치에서 100mm(±12mm)

지점에서 시작해야 하며 포트 쪽 번호는 리치에서 100mm(±12mm)에서 끝나야 한다. (추가 가이드는 세일번호 적용지침 p.45와 다이어그램 pp.46~49 참조)

- 4(f) 국가글자가 필요하다면 4.7 세일번호와 종류, 크기, 간격과 요구사항들이 같아야 한다. (규칙 29(e) 4(b) 참조) 세일번호가 190000으로 시작되고 2006년 4월 1일 이후에 구입한 레이저 4.7 세일의 경우, 스타보드 쪽 글자 하단은 리치에서 100mm(±12mm)에서 시작하고 포트 쪽 숫자의 하단과 평행하게, 270mm(+12mm) 아래의 선을 따라 배치되어야 한다. 포트 쪽 글자의 하단은 스타보드 쪽 글자의 하단과 평행하게, 270mm(+12mm) 아래의 선을 따라 배치되고 리치에서 100mm(±12mm)에서 끝나야 한다. 2006년 4월 1일 이전에 구입한 190000 미만의 번호를 가진 4.7 세일의 경우 세일의 반대편에 있는 포트 쪽 번호의 하단과 평행하게, 270mm 아래에 있는 선을 따라 또는 위에 배치할 수 있다. 포트 쪽의 글자는 스타보드 쪽에 있는 것보다 더 리치에 가까워야 하며 포트 쪽 글자는 리치에서 100mm(±12mm)에서 끝나야 한다. 국가글자는 세계선수권대회, 지역선수권대회 및 대회공지 또는 세일링세칙에 국제대회로 명시된 경우 필수이다. 국가글자는 어느 대회이던 대회공지 또는 세일링세칙으로 요구할 수 있다. 글자는 모두 같은 색이어야 하며 세일번호 중 하나와 색이거나 아예 다른 색이어야 한다.

(f) 마스트: 규칙 5는 아래와 같이 변경한다.

5 레이저 4.7 하단마스트는 약 5도 정도의 후미방향으로 프리벤드된 상태로 공급된다. 프리벤드는 증가되거나 감소될 수 없다. 영구적으로 구부러진 상단 마스트는 어떤 경우에서든 사용되어서는 안된다.

(g) 복장 및 장비: 규칙 6(a)는 아래와 같이 변경한다.

6(a) RRS43.1(b) 변경하여 선수의 복장과 장비의 최대중량은 8kg 이다.

**제 5 장**

**31. 개정**

이 규칙의 개정은 다음의 승인을 각각 받아야 한다:

- (a) the World Council
- (b) the Advisory Council
- (c) 국제클래스사무국에 의해 게시된 우편 투표에 응하여 국제클래스사무국에 서면으로 회신하는 회원의 3분의 2 이상. 규칙 변경 게시일로부터 6개월 이내에 국제사무국에 우편투표가 회신된 경우에만 유효.
- (d) 월드세일링.

# Class Rule Interpretations

1. Approved compasses that meet the requirements of Rule 22. Compass, Electronic Equipment and Timing Devices. A list of approved compasses can be found on the ILCA website - please go to the "Interpretations" tab under "Laser Class Rules".
2. Repairs and Maintenance: Sailors may apply anti-abrasion material at the traveller fairleads to prevent wear of the deck as a form of preventative maintenance under rule 26(a).
3. Hiking Strap: A sheaveless block, such as the "shock block" or equivalent, will be considered a ring for the purpose of rule 17(c).



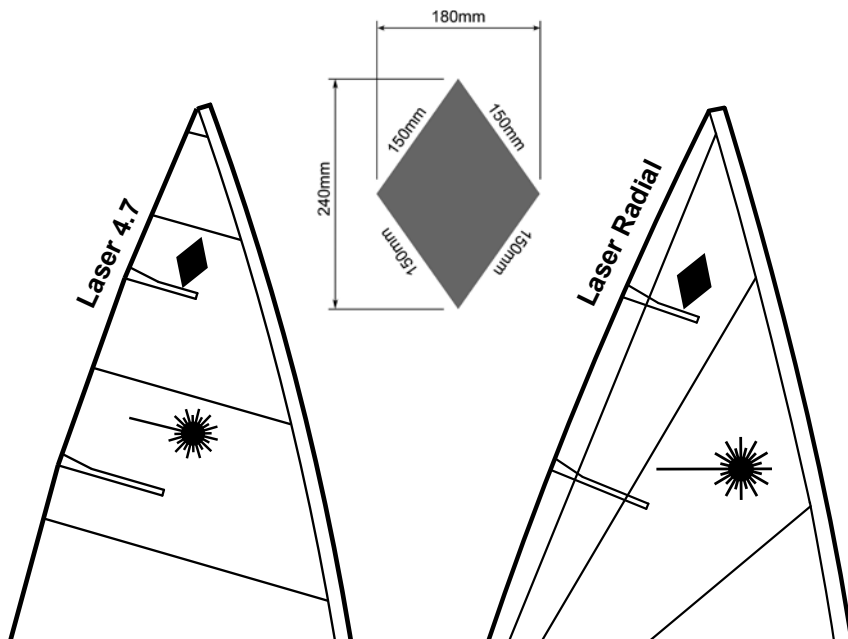
## Instructions for Applying Red Rhombus For Women's Events

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

- 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.

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

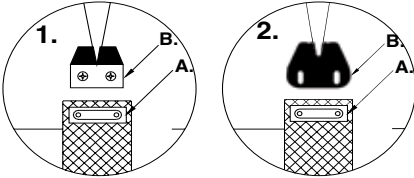
The rhombus may be retained for racing in other events.



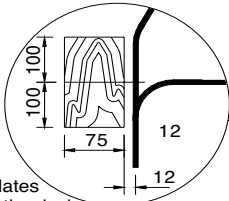
# Measurement Diagrams (pages 37 to 43 part of class rules)

All dimensions shown in millimetres

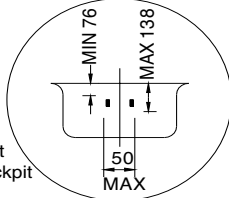
Measurements are shown only as a guide to replacement in the event of failure.



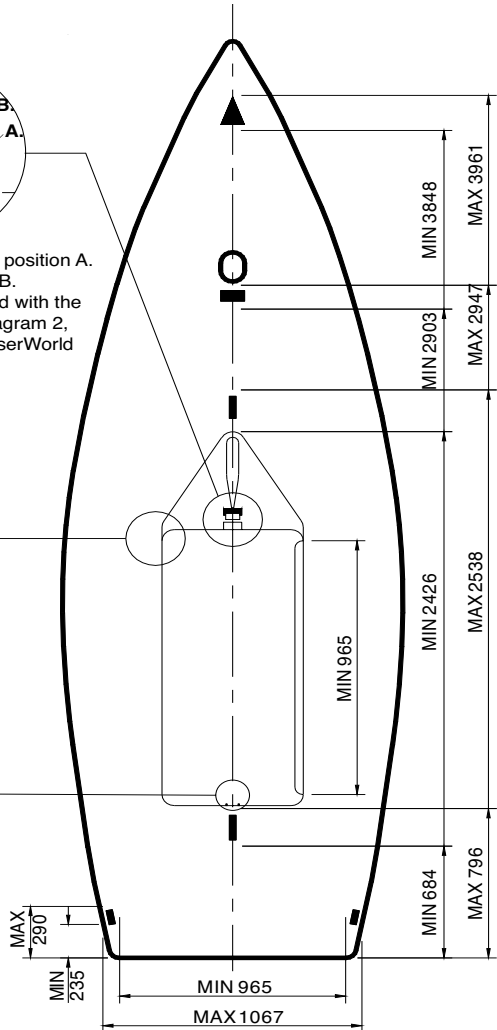
Mainsheet block shall be attached to eyestay in position A. Centreboard Brake shall be attached in position B. Centreboard Brake in diagram 1 may be replaced with the builder supplied Centreboard Brake shown in diagram 2, available mid/late 2009 (see December 2008 LaserWorld or [www.laserinternational.org](http://www.laserinternational.org))



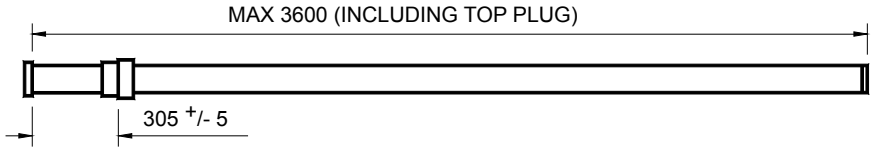
Wooden backing plates are under the deck for the fitting of cam or clam cleats



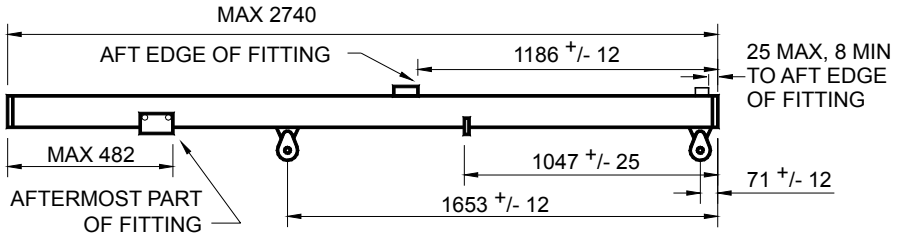
Eyes at aft end of cockpit



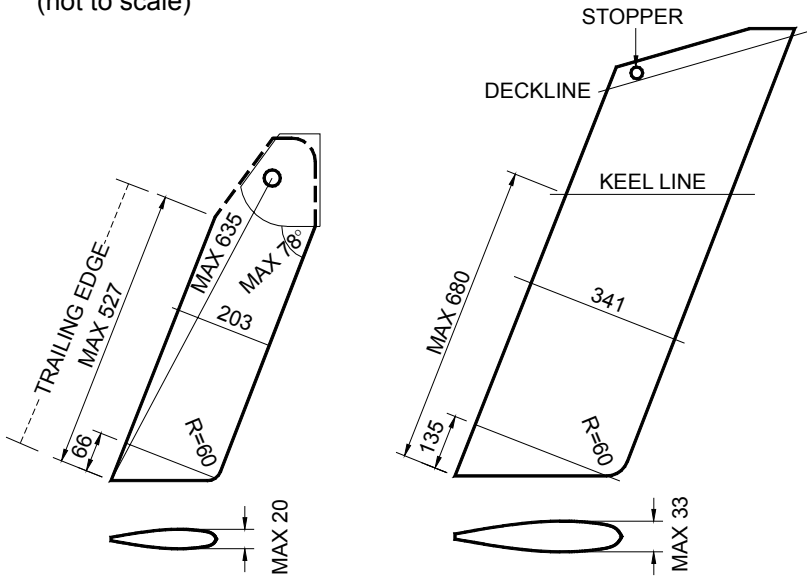
# LASER, LASER RADIAL & LASER 4.7 MAST TOP SECTION



# LASER, LASER RADIAL & LASER 4.7 BOOM

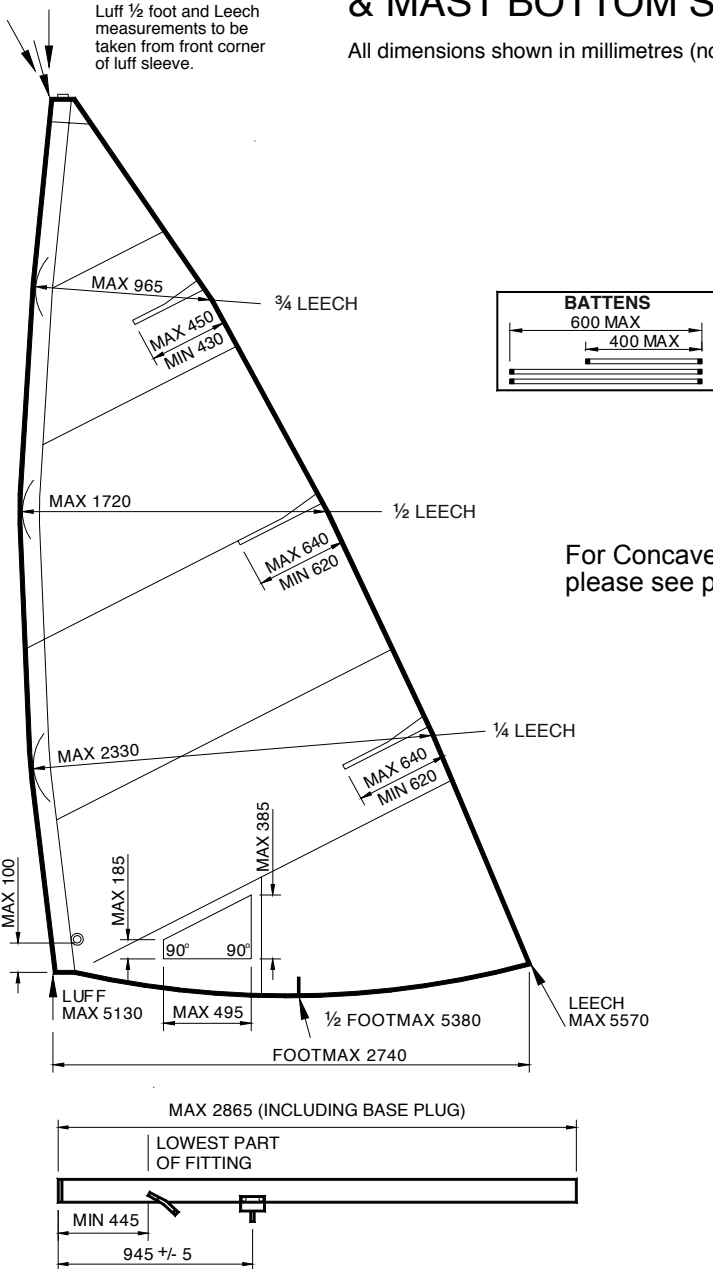


All dimensions shown in millimetres (not to scale)



# LASER STANDARD MKI SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)

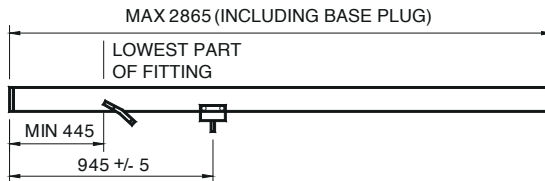
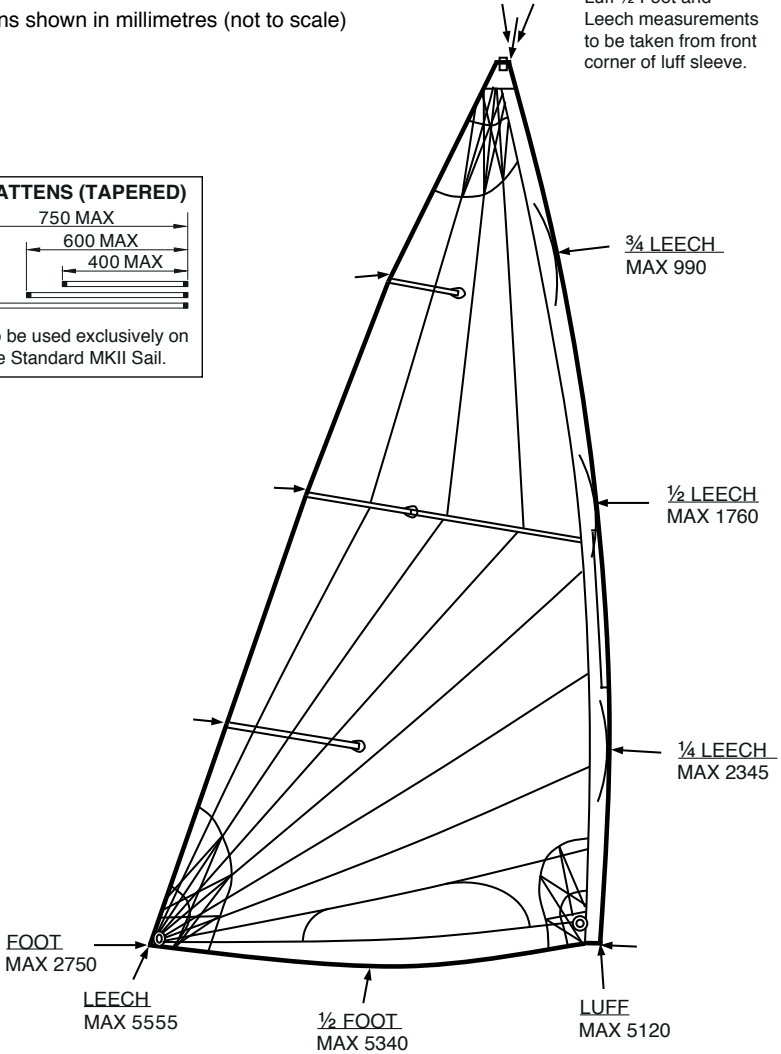
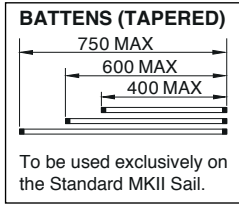




# LASER STANDARD MKII SAIL & MAST BOTTOM SECTION

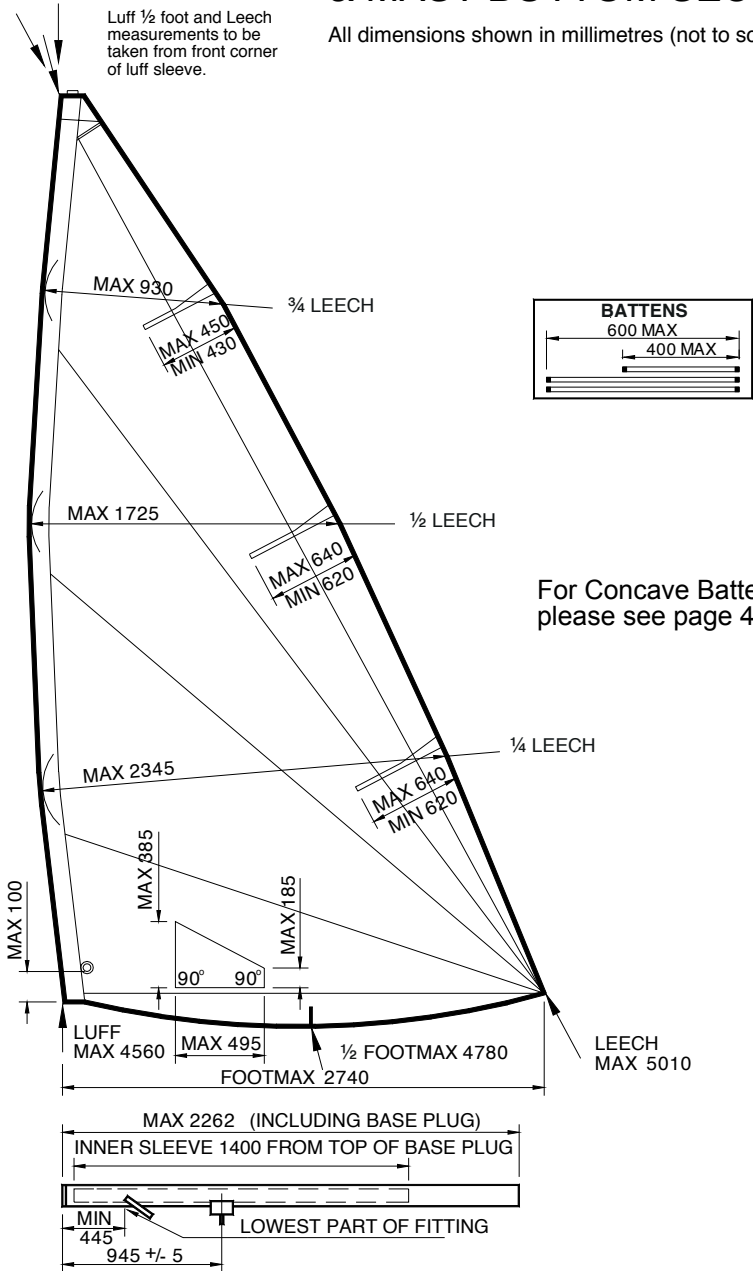
All dimensions shown in millimetres (not to scale)

Luff ½ Foot and  
Leech measurements  
to be taken from front  
corner of luff sleeve.



# LASER RADIAL SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)

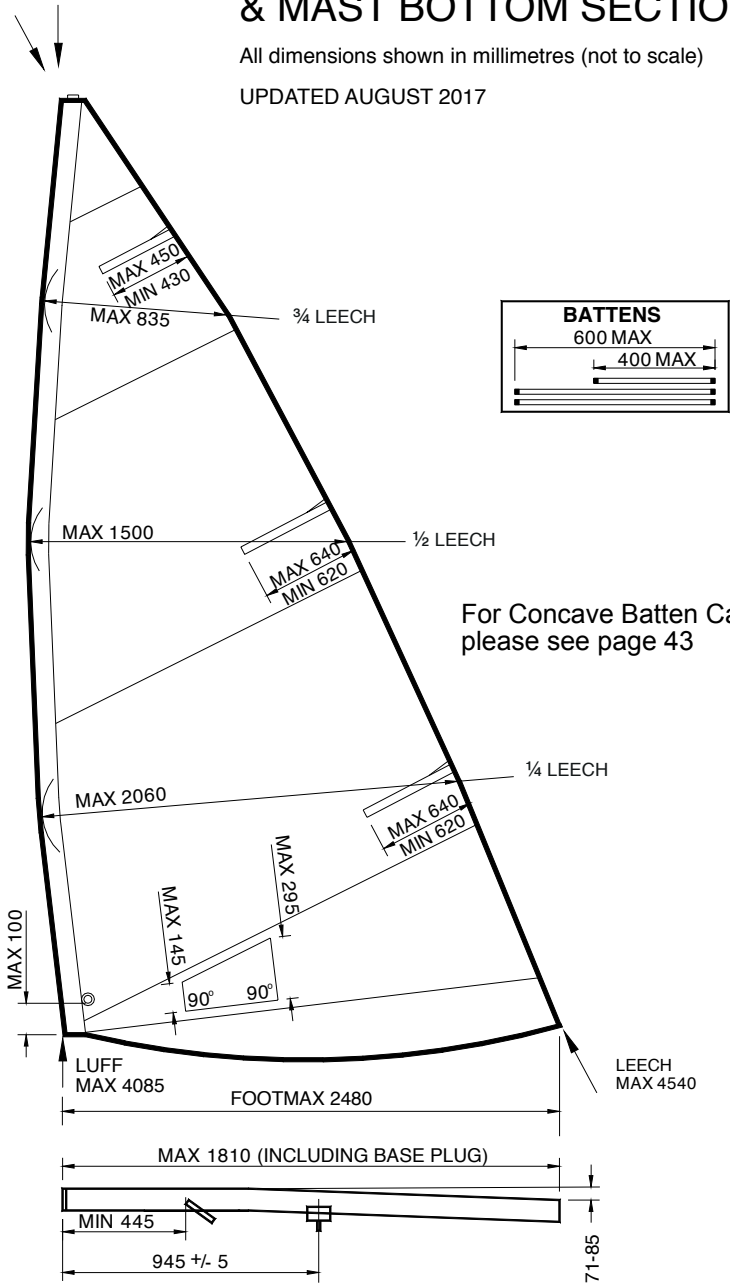


# LASER 4.7 SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)

UPDATED AUGUST 2017

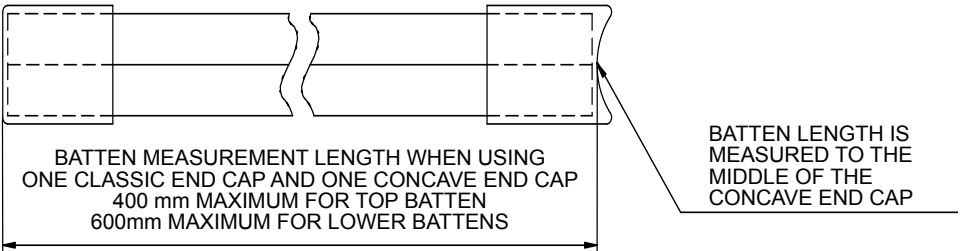
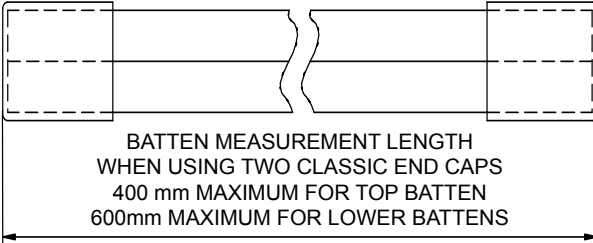
Luff and Leech measurements to be taken from front corner of luff sleeve.



# Concave Batten Caps

**For Laser 4.7, Radial and Standard MKI (Cross Cut) Sails  
Not applicable for Standard MKII (Bi-Radial Cut) Sails**

The diagrams below illustrate the methods to be used for the measurement of battens using both classic and concave end caps. Please see pages 39-42 for full sail and bottom section diagrams.



# 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

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

## 3. FLEET CHARTERS

- (1) 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.
- (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 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

- (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;
- (b) 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:
    - (a) an agenda for the said Meeting,
    - (b) a notice of any special By-Law whether to amend the District General By-Law or to enact any other By-Laws,
    - (c) a summary of the annual reports of the District Chairman and the Treasurer, and
    - (d) 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 boat 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 the boat subject to protest in accordance with paragraph 2.

### 2. (a) Hull

The part of the hull of the boat 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 boat shall be disqualified if the difference between the mean value so determined and the measurement on the boat 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

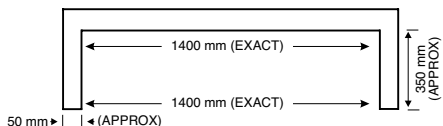
### (b) Equipment

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 World Sailing.

## 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 horizontal 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

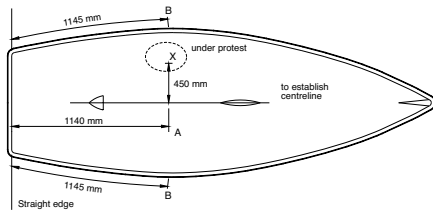
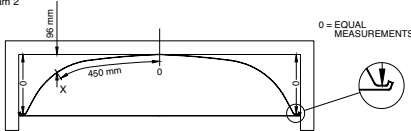


Diagram 2



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:

- generally, ensuring that throughout the District, the principles of the Rules are understood and complied with;
  - National and District championships and other events designated by the District Chairman as requiring the attendance of the District Measurer:
    - 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;
    - assist the Race Committee at such event, upon request, with any protests to which the Measurement By-Law applies;
    - 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.
  - carry out such additional responsibilities (as a member of the Executive of the District Association) as may be assigned to him.
  - 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 thorough appreciation of the Constitution of the Laser Class;
  - an appreciation of the principles as set forth in Part 1 of the Rules;
  - 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
  - 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.

3. 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.
4. 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.
5. The Executive Secretary shall forthwith communicate the recommendation to the Chief Measurer and shall confirm the appointment, following certification, if the same is approved.
6. 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

1. 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:
  - (a) World Championship events;
  - (b) Regional Championship events approved by the World Council, including the North American, European, Central & South American, Oceania and the Asian Championship, whether or not a Region has been established;
  - (c) Multi District events (other than district, regional or World Championship) including North American Midwinters, Canadian, US, Nordic, Australian and Middle East Championships;
  - (d) District Championship events, including District Womens' Championship, District Junior Championship;
  - (e) Such other events as may be designated by the World Council or a Regional Executive Committee, as the case may be.
2. Any Sanctioned Event shall be conducted in accordance with the provisions of the Racing By-Law.
3. 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

4. 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

5. 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.
6.
  - (a) 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.
  - (b) 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 5 categories: 75 and Over (aged 75+), Great Grand Masters (aged 65-74), Grand Masters (aged 55-64), Masters (aged 45-54) and Apprentices (aged 35-44) in which case honour awards and cubes may be awarded for each category. The minimum number of entries in each age category (except Apprentices) at a Masters championship shall be 5. If there are fewer than the minimum number then those Masters shall be scored and eligible to win awards in the next lower age category. Determination of category for Masters shall be the age attained on the day before the first scheduled race of a regatta.



7. 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.

**Trophies**

8. 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")**

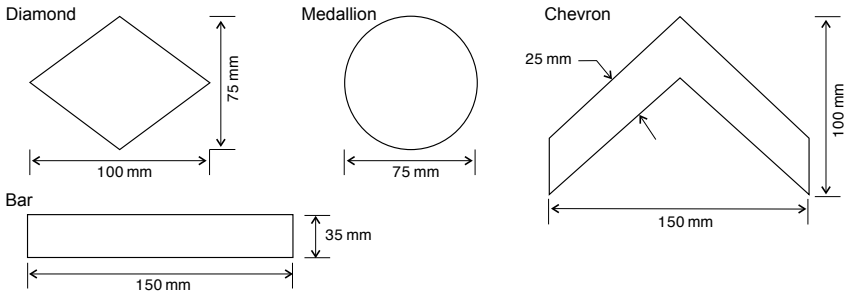
- Winner  
Cube inscribed with 3 Medallions  
Series 2nd & 3rd place finishers  
Cube inscribed with 2 Medallions  
Series 4th & 5th place finishers  
Cube inscribed with 1 Medallion

**District Events ("Diamond Events")**

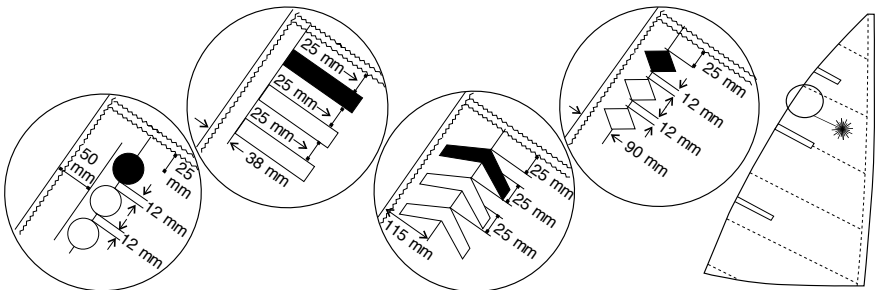
- Winner  
Cube inscribed with 3 Diamonds  
Series 2nd & 3rd place finishers  
Cube inscribed with 2 Diamonds  
Series 4th & 5th place finishers  
Cube inscribed with 1 Diamond

9. 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.
10. 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.
11. The cubes referred to in paragraphs 7 and 8 may be changed in style and design from time to time by the World Council.

**Size and Shape of Award Symbols**



**Schedule A: Position of Award Symbols**



## ILCA By-Law 6: Status and Dissolution

1. The Association is a non-profit organisation. All profit and surpluses shall be used to maintain or improve the Association's facilities and the objects of the Constitution.
2. No profit or surplus shall be distributed other than to another non-profit making body promoting international sailing on winding up or dissolution of the Association.
3. Dissolution 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 of the date of publication of the proposal to dissolve the Association shall be valid.

## ILCA By-Law 7: Postal Ballots

1. For the purposes of Constitution article 17 (c) and By-Law 1 (Rules) paragraph 31 (c) Postal Ballots may be published by any of:
  - (a) a printed document
  - (b) e-mail
  - (c) e-mail or a printed document and notice on the Association's website

2. Responses to a Postal Ballot shall be by returning the Postal Ballot Voting Form by letter, fax, e-mail or completing a designated web based Postal Ballot Voting Form.
3. When so designated by the World Council a Postal Ballot on a subject that relates only to members owning a specific rig shall be voted upon only by members owning the specified rig.

## ILCA By-Law 8: Regional Championships

### Organisation and Conduct of Regional (Continental) Championships

1. At least 18 months in advance of a Regional (Continental) Championship and before the dates, venue and notice of race of such a championship are published the venue and dates shall be submitted to the World Council for approval. Before giving such approval the World Council shall consider the requirements of this By-Law and any other aspect affecting the quality and fairness of the competition.
2. The sailing instructions shall be submitted to ILCA for approval 4 months before the date of the first race and shall follow the ILCA standard championship instructions.
3. A Laser District or International Measurer approved for the event by the ILCA Chief Measurer shall inspect boats at the championship prior to the start of racing using a check list and procedure prepared by the ILCA Chief Measurer.

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## Technical Tips

One of the great things about the Laser is it is instant sailing. It takes only a few minutes to rig a Laser and then you are out on the water. Here are some ideas to help make rigging and sailing a Laser even more simple.

### How to change the hiking strap

The hiking strap connection to the front end of the cockpit is one of the most critical screwed joints in the boat. After all there is nothing worse than jumping out onto the new tack, in the heat of a race, and ending up head first in the drink!

So when changing a hiking strap here are some tips on how to avoid potential failures through stripped threads, broken screws or leaks:-

1. Do not use a power drill or power screwdriver – it is too easy to strip threads or misalign the screws.
2. Use a normal hand screwdriver.
3. When undoing the screws walk them out a turn or two at a time, first one, then the other.
4. When replacing the screws seal the threads with a silicone or polyurethane sealer and walk them in, a turn at a time, first one then the other.
5. When finally seating the screws be careful not to over torque. It is important to firmly torque with a hand screwdriver but that is sufficient.



When chartering a boat at a regatta please refer to the charter boat operator's policy on changing hiking straps.

## Mast retention line (class rule 3(b) xi.)

The mast retention line is one of the most important lines on the boat. It must allow 180 degree rotation of the mast and at the same time keep the mast in the deck tube in the event of a capsize. It is important that the mast cannot move in and out of the tube by more than 50mm. A mast retention line with too much movement may result in the mast sliding most of the way out of the tube and then breaking through the side of the tube and the deck when the boat is righted after a capsize.

You will need 640mm of 5mm diameter line and a 15mm plastic stop ball. Core spectra line works well as it is low friction.

1. Tie a stop knot in one end of the line and thread the stop ball on to the line.
2. Pass the loop through the 2 eyes on the deck block plate (fig 1).
3. Tie a bowline in the other end of the line so that the overall length of the line from the end of the loop to ball is 570mm. The loop of the bowline should be just big enough to allow the stop ball to pass through the loop.
4. Take the loop end round the front of the mast and then behind the mast over the top of the mast boom vang attachment point and back to the front of the mast.
5. Take the ball end of the rope to the front of the mast and pass through the loop to secure (fig 2).



The retention line can be left on the boat through the deck block fitting so it does not get lost.

Reprinted from an article featured in LaserWorld January 2008.

## Is Your Rudder Angle Correct?

At championships, measurers are often asked what angle the rudder should be set at, how this is measured and, if it is wrong, how it can be fixed. This article is intended to answer these questions.

Using a measuring gauge (fig 3), the angle is measured between the bottom edge of the rudder box and the front edge of the rudder blade.

So, if the front edge of the rudder exceeds 78 degrees, it is more vertical than it should be.

The sanctioned method (Rule 15(e) of the Laser Class Rules) to correct this is to wind plastic tape around the front lower rudder box spacer pin (fig 4).

Note: you are **not** allowed to add material to the front of the rudder to achieve the same effect.

If the rudder angle is significantly less than 78 degrees, you may cut away the rudder where it touches the spacing pin (see Rule 15(d)).

Be careful though, as just 1mm of cut away will result in about 1 degree of rudder movement.

You are always safer to make it slightly less than 78 degrees to allow for wear on the pivot bolt hole and the contact area to the spacing pin (fig 5).

With the recent availability of new fibreglass skinned rudders, both Performance Sailcraft Australia and Laser Performance inform us that the incidence of rudders being significantly below 78 degrees (in conjunction with a modern rudder head) is extremely low.

If required, the gel coat can be wet sanded to fine tune the angle.

However, sanding into the laminate will weaken the blade and is not advised.

Reprinted from an article by Technical Officer Clive Humphris, featured in LaserWorld March 2009.



# Instructions for Applying Sail Numbers

**PLEASE NOTE THE FOLLOWING DIAGRAMS ARE FOR INFORMATION AND ARE NOT PART OF THE CLASS RULES**

## 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

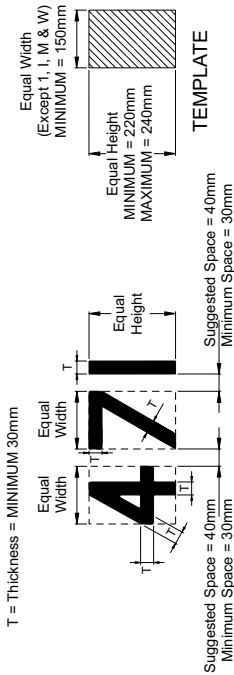
1. Spread the sail out flat on the working surface so that the starboard side of the sail is facing up. The leech (back edge of the sail) will be on the left hand side as shown in the positioning diagrams.
2. **Make sure you are using the correct diagram for the design of sail you are applying the numbers to.** Draw the **Base Line** and **Limit Line** for the starboard numbers (and letters) 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

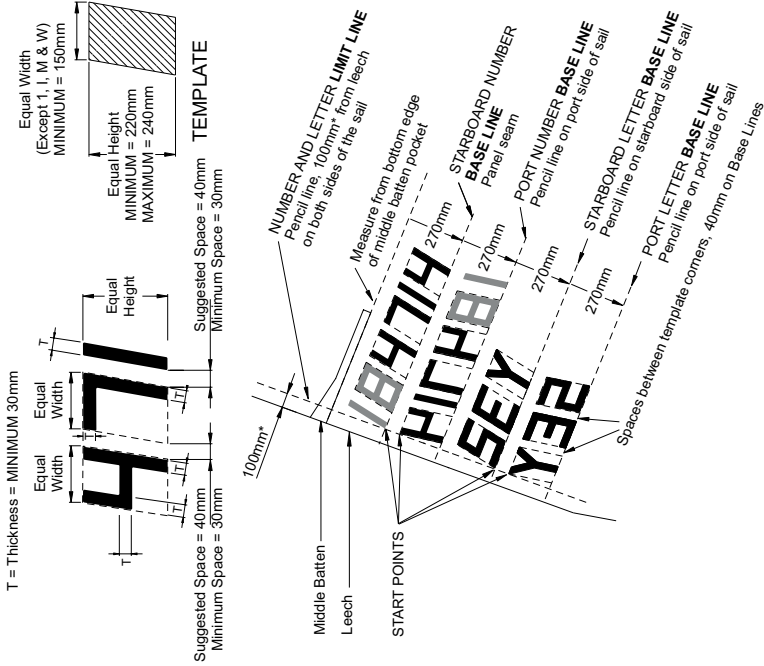
1. Spread the sail out flat on the working surface so that the port side of the sail is facing up. The leech (back edge of the sail) will be on the right hand side. Draw the **Base Line** for the port numbers (and letters).
2. Start with the letter or number closest to the leech making sure that no part of the number or letter crosses the 100mm **Limit Line** towards the leech. Follow the same method as for the starboard side of the sail, working along the **Base Line** away from the leech towards the luff.

# LASER 4.7 SAIL NUMBER & LETTER SIZES AND POSITIONING

## UPRIGHT NUMBERS AND LETTERS



## ANGLED NUMBERS AND LETTERS



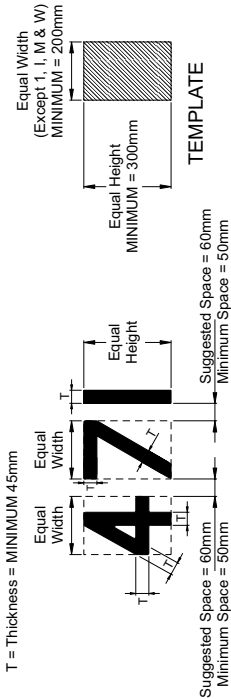
1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 30mm. SO USE 40mm TO ENSURE THAT ANY SMALL ERRORS IN POSITION ARE STILL LEGAL.
2. LAST FOUR DIGITS OF SAIL NUMBER TO BE ONE DARK, DISTINCTIVE COLOUR OR BLACK. PRECEDING DIGITS TO BE A DIFFERENT, CONTRASTING, DISTINCTIVE COLOUR, PREFERABLY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

\* CLOSEST POINT OF LETTER OR NUMBER SHOULD BE 100mm FROM LEECH, WITH TOLERANCE +/- 12 mm.

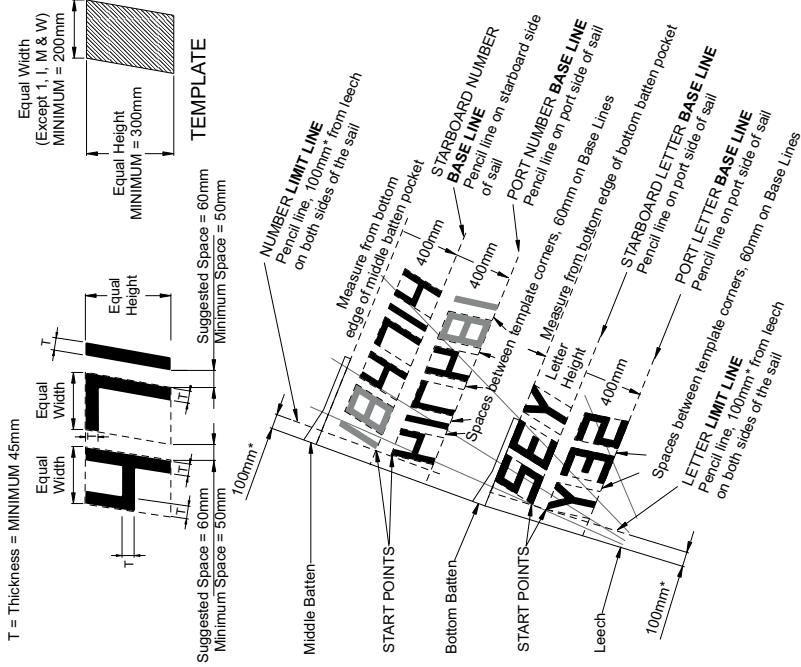
PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES

# RADIAL SAIL NUMBER & LETTER SIZES AND POSITIONING

## UPRIGHT NUMBERS AND LETTERS



## ANGLED NUMBERS AND LETTERS



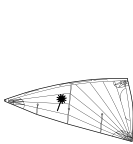
1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 50mm. SO USE 60mm TO ENSURE THAT ANY SMALL ERRORS IN POSITION ARE STILL LEGAL.
2. LAST FOUR DIGITS OF SAIL NUMBER TO BE ONE DARK, DISTINCTIVE COLOUR OR BLACK. PRECEDING DIGITS TO BE A DIFFERENT, CONTRASTING, DISTINCTIVE COLOUR, PREFERABLY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

\* CLOSEST POINT OF LETTER OR NUMBER SHOULD BE 100mm FROM LEECH, WITH TOLERANCE +/- 12 mm.

PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES

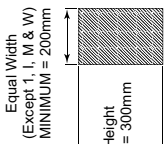
# STANDARD MKII (BI-RADIAL CUT) SAIL NUMBER & LETTER SIZES AND POSITIONING

November 2017 Edition



## UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



Suggested Space = 60mm  
Minimum Space = 50mm

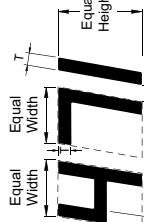
### TEMPLATE

**NUMBER LIMIT LINE**  
Pencil line, 100mm\* from leech  
on both sides of the sail



## ANGLED NUMBERS AND LETTERS

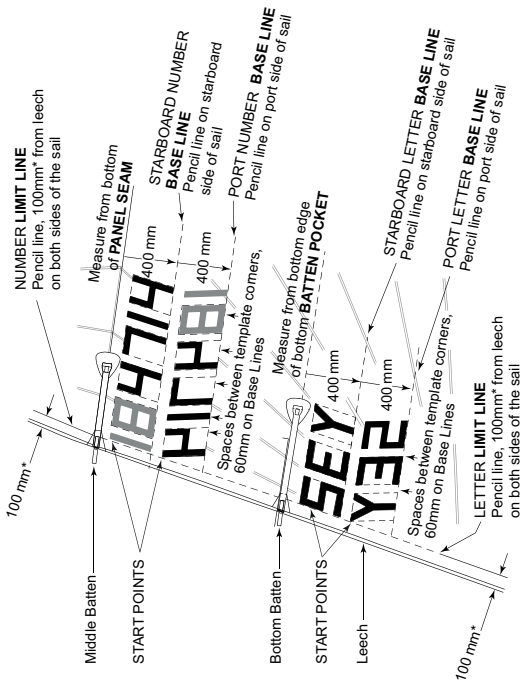
T = Thickness = MINIMUM 45mm



Suggested Space = 60mm  
Minimum Space = 50mm

### TEMPLATE

**NUMBER LIMIT LINE**  
Pencil line, 100mm\* from leech  
on both sides of the sail



1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 60mm. 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.
- \* CLOSEST POINT OF LETTER OR NUMBER SHOULD BE 100mm FROM LEECH, WITH TOLERANCE +/- 12 mm.

**PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES**

November 2017 Edition

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# STANDARD MKI (CROSS-CUT) 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

Suggested Space = 60mm  
Minimum Space = 50mm

100mm\*

Middle Batten

START POINTS

Bottom Batten

START POINTS

Leech

NUMBER LIMIT LINE  
Pencil line, 100mm\* from leech on both sides of the sail

STARBOARD NUMBER BASE LINE  
Pencil line on starboard side of sail

PORT NUMBER BASE LINE  
Pencil line on port side of sail

STARBOARD LETTER BASE LINE  
Top of panel seam

PORT LETTER BASE LINE  
Pencil line on port side of sail

LETTER LIMIT LINE  
Pencil line, 100mm\* from leech on both sides of the sail

ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm

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

Equal Height  
MINIMUM = 300mm

TEMPLATE

Suggested Space = 60mm  
Minimum Space = 50mm

100mm\*

Middle Batten

START POINTS

Bottom Batten

START POINTS

Leech

NUMBER LIMIT LINE  
Pencil line, 100mm\* from leech on both sides of the sail

STARBOARD NUMBER BASE LINE  
Pencil line on starboard side of sail

PORT NUMBER BASE LINE  
Pencil line on port side of sail

STARBOARD LETTER BASE LINE  
Top of panel seam

PORT LETTER BASE LINE  
Pencil line on port side of sail

LETTER LIMIT LINE  
Pencil line, 100mm\* from leech on both sides of the sail

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.

\* CLOSEST POINT OF LETTER OR NUMBER SHOULD BE 100mm FROM LEECH, WITH TOLERANCE +/- 12 mm.

PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES

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# World Championship Archives

Before 1997, ILCA did not hold separate Laser Radial or Youth Worlds. Except in 1980, entry to the Senior Worlds (Standard Rig) was restricted. Regional Championship archives are on the website: [www.laserinternational.org](http://www.laserinternational.org)

## OLYMPIC GAMES

**2016 Rio, Brazil**  
**Laser Standard**  
Countries 46

1st	Tom Burton	AUS
2nd	Tonci Stipanovic	CRO
3rd	Sam Meech	NZL
4th	Robert Scheidt	BRA
5th	Jean Baptiste Bernaz	FRA

**Laser Radial**  
Countries 37

1st	Marit Bouwmeester	NED
2nd	Annalise Murphy	IRL
3rd	Anne-Marie Rindom	DEN
4th	Evi Van Acker	BEL
5th	Tuula Tenkanen	FIN

**2012 London, UK**  
**Laser Standard**  
Countries 49

1st	Tom Slingsby	AUS
2nd	Pavlos Kontides	CYP
3rd	Rasmus Mygren	SWE
4th	Tonci Stipanovic	CRO
5th	Andrew Murdoch	NZL

**Laser Radial**  
Countries 41

1st	Lija Xu	CHN
2nd	Marit Bouwmeester	NED
3rd	Evi Van Acker	BEL
4th	Annalise Murphy	IRL
5th	Alison Young	GBR

**2008 Beijing, CHN**  
**Laser Standard**  
Countries 43

1st	Paul Goodison	GBR
2nd	Vasilij Zbogor	SLO
3rd	Diego Romero	ITA
4th	Gustavo Lima	POR
5th	Andrew Murdoch	NZL

**Laser Radial**  
Countries 28

1st	Anna Tunnicliffe	USA
2nd	Gintare Volungeviciute	LTU
3rd	Lija Xu	CHN
4th	Sarah Blanck	AUS
5th	Sarah Steyaert	FRA

**2004 Athens, GRE**  
**Laser Standard**  
Countries 42

1st	Robert Scheidt	BRA
2nd	Andreas Geritzer	AUT
3rd	Vasilij Zbogor	SLO
4th	Paul Goodison	GBR
5th	Gustavo Lima	POR

**2000 Sydney, AUS**  
**Laser Standard**  
Countries 43

1st	Ben Ainslie	GBR
2nd	Robert Scheidt	BRA
3rd	Michael Blackburn	AUS
4th	Serge Kats	NED
5th	Andreas Geritzer	AUT

**1996 Savannah, USA**  
**Laser Standard**  
Countries 56

1st	Robert Scheidt	BRA
2nd	Ben Ainslie	GBR
3rd	Peer Moberg	NOR
4th	Michael Blackburn	AUS
5th	Stefan Warkalla	GER

## WORLD CHAMPIONSHIPS

**2018 Aarhus, DEN**  
**Open: Laser Standard**  
Entries 165 Countries 66

1st	Pavlos Kontides	CYP
2nd	Matthew Wearn	AUS
3rd	Philipp Buhl	GER
4th	Sam Meech	NZL
5th	Elliott Hanson	GBR

**Women: Laser Radial**  
Entries 119 Countries 53

1st	Emma Plasschaert	NED
2nd	Marit Bouwmeester	NED
3rd	Anne-Marie Rindom	DEN
4th	Monika Mikkola	FIN
5th	Paige Railey	USA

**2018 Kiel, GER**  
**Men: Laser Radial**  
Entries 94 Countries 26

1st	Zac Littlewood	AUS
2nd	Aleksander Anian	POL
3rd	Caelin Winchcombe	AUS
4th	Uffe Tomsgaard	NOR
5th	Marcin Rudawski	POL

**Youth Men: Laser Radial**  
Entries 373 Countries 45

1st	Guido Gallinaro	ITA
2nd	Josh Armit	NZL
3rd	Francesco Viel	ITA
4th	Uffe Tomsgaard	NOR
5th	Rodolfo Silvestrini	ITA

**Youth Women: Laser Radial**  
Entries 101 Countries 29

1st	Matilda Talluri	ITA
2nd	Matilda Nicholls	GBR
3rd	Ana Moncada Sánchez	ESP
4th	Julia Büsseberg	GER
5th	Lillian Myers	USA

**2018 Gdynia, POL**  
**U21: Laser Standard**  
Entries 140 Countries 41

1st	Philipp Loewe	GER
2nd	Max Wilken	GER
3rd	Liam Glynn	IRL
4th	Jonatan Vadnai	HUN
5th	Henry Marshall	USA

**U21: Laser Radial Women**  
Entries 73 Countries 30

1st	Anna Munch	DEN
2nd	Carolina Albano	ITA
3rd	Elyse Ainsworth	AUS
4th	Dolores Moreira	URU
5th	Zoe Thompson	AUS

**U18 Men: Laser 4.7**  
Entries 280 Countries 42

1st	Daniel Hung	SGP
2nd	Michael Compton	AUS
3rd	Stefano Viale	PER
4th	Wonn Yee Lee	SGP
5th	Theo Peyre	FRA

**U18 Women: Laser 4.7**  
Entries 158 Countries 35

1st	Chiara Benini Floriani	ITA
2nd	Simone Chen	SGP
3rd	Giorgia Cingolani	ITA
4th	Eline Verstraelen	BEL
5th	Marissa Ijben	NED

**2017 Split, CRO**  
**Open: Laser Standard**  
Entries 148 Countries 52

1st	Pavlos Kontides	CYP
2nd	Tom Burton	AUS
3rd	Matthew Wearn	AUS
4th	Philipp Buhl	GER
5th	Jesper Stalheim	SWE

**2017 Medemblik, NED**  
**Women: Laser Radial**  
Entries 99 Countries 40

1st	Marit Bouwmeester	NED
2nd	Evi Van Acker	BEL
3rd	Manami Doi	JPN
4th	Mathilde De Kerangat	FRA
5th	Brenda Bowskill	CAN

**Men: Laser Radial**  
Entries 65 Countries 28

1st	Marcin Rudawski	POL
2nd	Eliot Mercier	SUI
3rd	Zac Littlewood	AUS
4th	Maxime Mazard	FRA
5th	Daniil Krutskikh	RUS

**Youth Men: Laser Radial**  
Entries 281 Countries 44

1st	Dimitris Papadimitriou	GRE
2nd	Matias Dietrich	ARG
3rd	Nicholas Bezy	HKG
4th	Josh Armit	NZL
5th	Alexandre Boite	FRA

**Youth Women: Laser Radial**  
Entries 110 Countries 32

1st	Hannah Anderssohn	GER
2nd	Dolores Moreira Frasinchi	URU
3rd	Charlotte Rose	USA
4th	Emma Savelon	NED
5th	Laura Schewe	GER

**2017 Newport, BEL**  
**U21: Laser Standard**  
Entries 125 Countries 41

1st	Joel Rodriguez Perez	ESP
2nd	Jonatan Vadnai	HUN
3rd	Daniel Whiteley	GBR
4th	Jack Cookson	GBR
5th	Sam Whalley	GBR

**U21: Laser Radial Women**  
Entries 66 Countries 27

1st	Mária Erdi	HUN
2nd	Hannah Anderssohn	GER
3rd	Magdalena Kwaska	POL
4th	Louise Cervera	FRA
5th	Dolores Moreira Frasinchi	URU

**U18 Men: Laser 4.7**  
Entries 235 Countries 43

1st	Ylikan Timursah	TUR
2nd	Sofiane Karim	FRA
3rd	Cesare Barabino	ITA
4th	Pere Ponseti Mesquida	ESP
5th	Finn O'Dea	AUS

**U18 Women: Laser 4.7**  
Entries 115 Countries 30

1st	Federica Cattarozzi	ITA
2nd	Giorgia Cingolani	ITA
3rd	Ana Moncada Sanchez	ESP
4th	Julia Büsseberg	GER
5th	Shai Kakon	ISR

**2016 Nuevo Vallarta, MEX**  
**Open: Laser Standard**  
Entries 113 Countries 44

1st	Nick Thompson	GBR
2nd	Jean-Baptiste Bernaz	FRA
3rd	Rutger Van Schaardenburg	NED
4th	Matthew Wearn	AUS
5th	Marco Gallo	ITA

**Women: Laser Radial**  
Entries 72 Countries 32

1st	Alison Young	GBR
2nd	Paige Railey	USA
3rd	Anne-Marie Rindom	DEN
4th	Marit Bouwmeester	NED
5th	Gintare Volungeviciute	-Scheidt LTU

**2016 Dun Laoghaire, IRL**  
**Men: Laser Radial**  
Entries 42 Countries 18

1st	Marcin Rudawski	POL
2nd	Nik Pletikos	SLO
3rd	Martin Manzoli Lowy	BRA
4th	Darragh O'Sullivan	IRL
5th	Jack Marshall	USA

**Youth Men: Laser Radial**  
Entries 231 Countries 42

1st	Henry Marshall	USA
2nd	Ewan McMahoon	IRL
3rd	Bernie Chin	SIN
4th	Daniel Whiteley	GBR
5th	Finnian Alexander	AUS

**Youth Women: Laser Radial**  
Entries 76 Countries 25

1st	Zoe Thomson	AUS
2nd	Carole Rosmo	NOR
3rd	Louise Cervera	FRA
4th	Sophia Reineke	USA

5th Carolina Albano ..... ITA

**2016 Kiel, GER**  
**U21: Laser Standard**  
Entries 147 Countries 38

1st	Jonatan Vadnai	HUN
2nd	Joel Rodriguez	ESP
3rd	Nik Aaron William	GER
4th	Saago Sampaio	POR
5th	Nicolò Villa	ITA

**U21: Laser Radial Women**  
Entries 59 Countries 39

1st	Monika Mikkola	FIN
2nd	Vasiliea Karachaliou	GRE
3rd	Maité Carlier	BEL
4th	Valentina Balbi	ITA
5th	Maud Jayet	SUI

**U18 Men: Laser 4.7**  
Entries 262 Countries 38

1st	Dimitrios Papadimitriou	GRE
2nd	Guido Gallinaro	ITA
3rd	Pere Ponseti	ESP
4th	Uffe Tomsgaard	NOR
5th	Andrey De Oliveira Godoy	BRA

**U18 Women: Laser 4.7**  
Entries 127 Countries 32

1st	Emma Savelon	NED
2nd	Monika Kistukhina	RUS
3rd	Eisa Navoni	ITA
4th	Federica Cattarozzi	ITA
5th	Juli Baruch	ISR

**2015 Kingston, CAN**  
**Open: Laser Standard**  
Entries 158 Countries 62

1st	Nick Thompson	GBR
2nd	Philipp Buhl	GER
3rd	Tom Burton	AUS
4th	Juan Ignacio Maegli	GUA
5th	Matthew Wearn	AUS

**Youth Men: Laser Radial**  
Entries 142 Countries 34

1st	Conor Nicholas	AUS
2nd	Gianmarco Planchestainer	ITA
3rd	Nic Baird	USA
4th	Paolo Giargia	ITA
5th	Umberto Jose Varbaro	ITA

**Youth Women: Laser Radial**  
Entries 53 Countries 20

1st	Maria Erdi	HUN
2nd	Dolores Moreira	URU
3rd	Magdalena Kwaska	POL
4th	Francesca Bergamo	ITA
5th	Carolina Albano	ITA

**2015 Al Munsanah City, OMA**  
**Women: Laser Radial**  
Entries 100 Countries 49

1st	Ann-Marie Rindom	DEN
2nd	Marit Bouwmeester	NED
3rd	Evi Van Acker	BEL
4th	Tuula Tenkanen	FIN
5th	Josefin Olsson	SWE

**2015 Aarhus, DEN**  
**Men: Laser Radial**  
Entries 75 Countries 21

1st	Marcin Rudawski	POL
2nd	Matthias Van De Loock	BEL
3rd	Zan Luka Zelko	SLO
4th	Patrick Dopping	DEN
5th	Mon Carrellas Salas	ESP

**2015 Medemblik, NED**  
**U21: Laser Standard**  
Entries 155 Countries 42

1st	Joel Rodriguez	ESP
2nd	Michael Beckett	GBR
3rd	Benjamin Vadnai	HUN
4th	Finn Lynch	IRL
5th	Jonatan Vadnai	HUN

**U21: Laser Radial Women**  
Entries 74 Countries 33

1st	Maxime Jonker	NED
2nd	Lise Fien Host	NOR
3rd	Monika Mikkola	FIN
4th	Dewi Couvert	NED
5th	Martina Reino Cacho	ESP

**U18 Men: Laser 4.7**  
Entries 257 Countries 36

1st	A. Bethencourt Fuentes	ESP
2nd	Rafael De La Hoz Tuells	ESP

- 3rd Guido Gallinaro ..... ITA
  - 4th Toygar Elmas ..... TUR
  - 5th Alberto Tezza ..... ITA
- U18 Women: Laser 4.7**
- Entries 127 Countries 29
- 1st Kateryna Gumenko ..... UKR
  - 2nd Julia Büßelberg ..... GER
  - 3rd Isaura Maenhout ..... BEL
  - 4th Lin Pleitkos ..... SLO
  - 5th Federica Cattarozzi ..... ITA

- 2013 AI Musannah, OMA**
- Open: Laser Standard**
- Entries 112 Countries 38
- 1st Robert Scheidt ..... BRA
  - 2nd Pavlos Kontides ..... CYP
  - 3rd Philipp Buhl ..... GER
  - 4th Rutger Schaardenburg ..... NED
  - 5th Jesper Staalherm ..... SWE

- 2013 Rizhao City, CHN**
- Women: Laser Radial**
- Entries 76 Countries 31
- 1st Tina Mihelc ..... CRO
  - 2nd Tuula Tenkanen ..... FIN
  - 3rd Paige Raley ..... USA
  - 4th Dongshuang Zhang ..... CHN
  - 5th Sarah Gunni ..... DEN

- 2013 Dun Laoghaire, IRL**
- Men: Laser Radial**
- Entries 95 Countries 25
- 1st Tristan Brown ..... AUS
  - 2nd Marcin Rudawski ..... POL
  - 3rd Finn Lynch ..... IRL
  - 4th Juan Cabrera Gonzales ..... ESP
  - 5th Sebastian Schneider ..... ESP

- 2013 AI Musannah, OMA**
- Youth Men: Laser Radial**
- Entries 51 Countries 22
- 1st Benjamin Vadnai ..... HUN
  - 2nd Gianmarco Planchestainer ..... ITA
  - 3rd Sebastian Schmeitner ..... SUI
  - 4th Ryan Lee ..... HUN
  - 5th Jonatan Vadnai ..... HUN

- Youth Women: Laser Radial**
- Entries 28 Countries 17
- 1st Monika Mikkola ..... FIN
  - 2nd Celine Therese Herud ..... NOR
  - 3rd Line Flem Host ..... NOR
  - 4th Jillian Lee ..... SIN
  - 5th Agata Barwinska ..... POL

- 2013 Balatonfured, HUN**
- U21: Laser Standard**
- Entries 138 Countries 34
- 1st Mitchell Kennedy ..... AUS
  - 2nd Hermann Tommasgaard ..... NOR
  - 3rd Francesco Marrai ..... ITA
  - 4th Lorenzo Chiavari ..... GBR
  - 5th Giovanni Coccoluto ..... ITA

- U21: Laser Radial Women**
- Entries 96 Countries 32
- 1st Svenja Weger ..... GER
  - 2nd Niki Blossar ..... FIN
  - 3rd Ciarella Tempesti ..... ITA
  - 4th Manami Doi ..... JPN
  - 5th Kim Pleitkos ..... SLO

- U18 Men: Laser 4.7**
- Entries 239 Countries 46
- 1st Anil Cetin ..... TUR
  - 2nd Jonatan Vadnai ..... HUN
  - 3rd Conor Nicholas ..... AUS
  - 4th Gianmarco Planchestainer ..... ITA
  - 5th Sergio Silva ..... PER

- U18 Women: Laser 4.7**
- Entries 130 Countries 33
- 1st Silvia Morales Gonzalez ..... ESP
  - 2nd Magdalena Kwasa ..... POL
  - 3rd Sofia Cappurucini ..... ITA
  - 4th Alba Etjebarrita ..... ESP
  - 5th Jose Maria Marichal ..... ESP

- 2012 Boltentagen, GER**
- Open: Laser Standard**
- Entries 169 Countries 62
- 1st Tom Slingsby ..... AUS
  - 2nd Tonci Stipanovic ..... CRO
  - 3rd Andrew Maloney ..... NZL
  - 4th Juan Maegi ..... GUA
  - 5th Tom Burton ..... AUS

- 2012 Boltentagen, GER**
- Women: Laser Radial**
- Entries 136 Countries 53
- 1st Gintare Schiedt ..... LTU
  - 2nd Lijia Xu ..... CHN
  - 3rd Sari Multala ..... FIN
  - 4th Allison Young ..... GBR
  - 5th Marit Bouwmeester ..... NED

- 2012 Buenos Aires, ARG**
- U21: Laser Standard**
- Entries 29 Countries 19
- 1st Giovanni Coccoluto ..... ITA
  - 2nd Stig Steinflur ..... DEN
  - 3rd Aleksander Arian ..... POL
  - 4th Juan Ignacio Biava ..... ARG
  - 5th Ignasi Lopez Carcer ..... ESP

- 2012 Brisbane, AUS**
- Men: Laser Radial**
- Entries 54 Countries 9
- 1st Tristan Brown ..... AUS
  - 2nd Matthew Wearn ..... AUS
  - 3rd Jeremy O'Connell ..... AUS
  - 4th Mahia Pepper ..... NZL
  - 5th Daniel Smith ..... AUS

- Youth Men: Laser Radial**
- Entries 71 Countries 11
- 1st Hermann Tommasgaard ..... NOR
  - 2nd Andrew Mckenzie ..... NZL
  - 3rd Mitchell Kiss ..... USA
  - 4th Maxim Nikolaev ..... RUS
  - 5th Juan Carlos Perdomo ..... PUR

- Youth Women: Laser Radial**
- Entries 35 Countries 19
- 1st Maxine Jonker ..... NED
  - 2nd Madison Kennedy ..... AUS
  - 3rd Georgina Powall ..... GBR
  - 4th Milly Bennett ..... AUS
  - 5th Anna Philip ..... AUS

- 2012 Buenos Aires, ARG**
- U18 Men: Laser 4.7**
- Entries 71 Countries 25
- 1st Benjamin Vadnai ..... HUN
  - 2nd Nahuel Rodriguez Pérez ..... ESP
  - 3rd Maximilian Kuester ..... ITA
  - 4th Jacopo Fanti ..... ITA
  - 5th Raul Sanchez Lago ..... ESP

- U16 Men: Laser 4.7**
- Entries 20 Countries 12
- 1st Joel Rodriguez Pérez ..... ESP
  - 2nd Malone Chao Jie Pun ..... SIN
  - 3rd Luka Tosic ..... SRB
  - 4th Liam McCarthy ..... USA
  - 5th Francisco Guaragna ..... ARG

- U18 Women: Laser 4.7**
- Entries 46 Countries 17
- 1st Celine Therese Herud ..... NOR
  - 2nd Yolanda Luque Gonzalez ..... ESP
  - 3rd Anja Hamerlitz ..... CRO
  - 4th Julia Silva ..... BRA
  - 5th Martina Reino Cacho ..... ESP

- U16 Women: Laser 4.7**
- Entries 12 Countries 7
- 1st Maria C. K. Boabaid ..... BRA
  - 2nd Natalia A. S. Barriga ..... ESP
  - 3rd Jacinta Ainsworth ..... AUS
  - 4th Daniela Cardozo ..... ARG
  - 5th Kana Hayashi ..... JPN

- 2011 Perth, AUS**
- Open: Laser Standard**
- Entries 145 Countries 66
- 1st Tom Slingsby ..... AUS
  - 2nd Simon Grotelueschen ..... GER
  - 3rd Nick Thompson ..... GBR
  - 4th Andreas Gertizer ..... AUT
  - 5th Paul Goodison ..... GBR

- Women: Laser Radial**
- Entries 102 Countries 51
- 1st Marit Bouwmeester ..... NED
  - 2nd Evi Van Acker ..... BEL
  - 3rd Paige Raley ..... USA
  - 4th Veronika Fenclova ..... CZE
  - 5th Gintare Volungeviciute ..... LTU

- 2011 La Rochelle, FRA**
- U21: Laser Standard**
- Entries 151 Countries 40
- 1st Sam Meesh ..... NZL
  - 2nd Alex Mills-Barton ..... GBR
  - 3rd Martin Evans ..... GBR
  - 4th Ki-Raphael Sulkowski ..... AUS
  - 5th Francesco Marrai ..... ITA

- 5th Tommaso Centonze ..... ITA
- Youth Women: Laser Radial**
- Entries 101 Countries 27
- 1st Erika Reineke ..... USA
  - 2nd Oren Jacob ..... ISR
  - 3rd Sandy Fauthoux ..... FRA
  - 4th Paulina Czubachowska ..... POL
  - 5th Manami Doi ..... JPN

- 2011 San Francisco, USA**
- U18 Men: Laser 4.7**
- Entries 112 Countries 28
- 1st Francisco Gonzalez S. ..... ESP
  - 2nd Carlos Rosello ..... ESP
  - 3rd William de Smet ..... BEL
  - 4th Keju Okada ..... JPN
  - 5th Mehmet Turkmen ..... TUR

- U16 Men: Laser 4.7**
- Entries 39 Countries 22
- 1st Nils Theuninc ..... SUI
  - 2nd Anthony Parke ..... GBR
  - 3rd Martin Connor ..... BRA
  - 4th Nicholas Connor ..... AUS
  - 5th Trent Rippey ..... NZL

- U18 Women: Laser 4.7**
- Entries 53 Countries 19
- 1st Cecilia Zorzi ..... ITA
  - 2nd Kim Pleitkos ..... SLO
  - 3rd Line Flem Host ..... NOR
  - 4th Celine Therese Herud ..... NOR
  - 5th Maud Jayet ..... SUI

- U16 Women: Laser 4.7**
- Entries 12 Countries 8
- 1st Maud Jayet ..... SUI
  - 2nd Athanasia Fakidi ..... GRE
  - 3rd Vasileia Karachaliou ..... GRE
  - 4th Savannah Siew K. Hui ..... SIN
  - 5th Marine V.Campenhoudt ..... SUI

- 2010 Hayling Island, GBR**
- Open: Laser Standard**
- Entries 160 Countries 53
- 1st Tom Slingsby ..... AUS
  - 2nd Nick Thompson ..... GBR
  - 3rd Andrew Murdoch ..... NZL
  - 4th Julio Alsogaray ..... ARG
  - 5th Pavlos Kontides ..... CYP

- U21: Laser Standard**
- Entries 137 Countries 37
- 1st Thorbjorn Schierup ..... DEN
  - 2nd Francesco Marrai ..... ITA
  - 3rd Alex Mills-Barton ..... GBR
  - 4th Kacper Zieminski ..... POL
  - 5th Filip Jurisic ..... CRO

- 2010 Largs, GBR**
- Women: Laser Radial**
- Entries 117 Countries 41
- 1st Sari Multala ..... FIN
  - 2nd Marit Bouwmeester ..... NED
  - 3rd Paige Raley ..... USA
  - 4th Sarah Steyaert ..... FRA
  - 5th Tatiana Drozdovskaya ..... BLR

- Men: Laser Radial**
- Entries 103 Countries 31
- 1st Marcin Rudawski ..... POL
  - 2nd Wojciech Zemke ..... POL
  - 3rd Mitchell Kiss ..... USA
  - 4th Ben Koppelaar ..... NED
  - 5th Insub Kim ..... KOR

- Youth Men: Laser Radial**
- Entries 228 Countries 41
- 1st Giovanni Coccoluto ..... ITA
  - 2nd Tadeusz Kubiak ..... POL
  - 3rd Luca Antognoli ..... ITA
  - 4th Stefano Mazzafiero ..... BRA
  - 5th Mitchell Kiss ..... USA

- Youth Women: Laser Radial**
- Entries 91 Countries 26
- 1st Erika Reineke ..... USA
  - 2nd Manami Doi ..... JPN
  - 3rd Michelle Broekhuizen ..... NED
  - 4th Chiara Steinmueller ..... GER
  - 5th Arjonilla Julia Vallio ..... ESP

- U16 Mixed: Laser 4.7**
- Entries 31 Countries 14
- 1st Ryan Amlehn ..... NZL
  - 2nd Mark Spearman ..... AUS
  - 3rd Filipos Florentin ..... GRE
  - 4th Panagiotis Stathis ..... GRE
  - 5th Benjamin Whiteside ..... NZL

- 2009 Halifax, CAN**
- Open: Laser Standard**
- Entries 168 Countries 51
- 1st Paul Goodison ..... GBR
  - 2nd Michael Bullot ..... NZL
  - 3rd Nick Thompson ..... GBR
  - 4th Julio Alsogaray ..... ARG
  - 5th Tonci Stipanovic ..... CRO

- 2009 Karatsu, JPN**
- Women: Laser Radial**
- Entries 88 Countries 30
- 1st Sari Multala ..... FIN
  - 2nd Sophie de Turckheim ..... FRA
  - 3rd Anna Tunnicliffe ..... USA
  - 4th Marit Bouwmeester ..... NED
  - 5th Lijia Xu ..... CHN

- Men: Laser Radial**
- Entries 61 Countries 16
- 1st Marcin Rudawski ..... POL
  - 2nd Ben Koppelaar ..... NED
  - 3rd Insub Kim ..... KOR
  - 4th Hisaki Nagai ..... JPN
  - 5th Mohd Romsy Muhamad MAS

- Youth Men: Laser Radial**
- Entries 100 Countries 25
- 1st Keerati Baualong ..... THA
  - 2nd Aleksander Arian ..... POL
  - 3rd Filip Kobieliski ..... POL
  - 4th Toma Visic ..... CRO
  - 5th Chris Barnard ..... USA

- Youth Women: Laser Radial**
- Entries 39 Countries 16
- 1st Mathilde de Kerangat ..... FRA
  - 2nd Ashley Stoddart ..... AUS
  - 3rd Michelle Broekhuizen ..... NED
  - 4th Anna Agrafioti ..... GRE
  - 5th Joanna Maksymuk ..... POL

- 2009 Buzios, BRA**
- Youth Men: Laser 4.7**
- Entries 109 Countries 24
- 1st Jonathan Martinetti ..... ECU
  - 2nd Hermann Tommasgaard ..... NOR
  - 3rd Jura Djivjakina ..... CRO
  - 4th Guillermo Arce ..... PER
  - 5th Tono Alcazar ..... ESP

- Youth Women: Laser 4.7**
- Entries 39 Countries 23
- 1st Ursko Kosir ..... SLO
  - 2nd Tomoyo Wakabayashi ..... JPN
  - 3rd Hitomi Murayama ..... JPN
  - 4th Kim Pleitkos ..... SLO
  - 5th Patricia Coro Leveque ..... ESP

- 2008 Terrigal, AUS**
- Open: Laser Standard**
- Entries 157 Countries 58
- 1st Tom Slingsby ..... AUS
  - 2nd Julio Alsogaray ..... ARG
  - 3rd Javier Hernandez ..... ESP
  - 4th Vasilij Zboogar ..... SLO
  - 5th Michael Bullot ..... NZL

- 2008 Auckland, NZL**
- Women: Laser Radial**
- Entries 116 Countries 41
- 1st Sarah Steyaert ..... FRA
  - 2nd Lijia Xu ..... CHN
  - 3rd Andrea Brewster ..... GBR
  - 4th Gintare Volungeviciute ..... LTU
  - 5th Sarah Blance ..... AUS

- Men: Laser Radial**
- Entries 71 Countries 17
- 1st Michael Leigh ..... CAN
  - 2nd Brad Funk ..... USA
  - 3rd Simon Morgan ..... AUS
  - 4th James Sandall ..... NZL
  - 5th James Burman ..... AUS

- Youth Men: Laser Radial**
- Entries 85 Countries 20
- 1st Andrew Maloney ..... NZL
  - 2nd Martin Evans ..... GBR
  - 3rd Maarten Max Moerman ..... NED
  - 4th Tom Burton ..... NZL
  - 5th Sam Meesh ..... NZL

- Youth Women: Laser Radial**
- Entries 38 Countries 14
- 1st Gabrielle King ..... AUS
  - 2nd Cushman Hume-Merry ..... NZL
  - 3rd Sarah Gunni ..... DEN
  - 4th Mathilde de Kerangat ..... FRA

5th Annalise Murphy	IRL
<b>2008 Trogir, CRO</b>	
<b>Youth Men: Laser 4.7</b>	
Entries 279	Countries 43
1st Shahar Jacob	ISR
2nd Scott Sydney	SIN
3rd Lovre Perhat	CRO
4th Toma Vasic	CRO
5th Alexandros Chochohis	GRE
<b>Youth Women: Laser 4.7</b>	
Entries 116	Countries 32
1st Elizabeth Yin	SIN
2nd Matea Senkic	CRO
3rd Antea Kordic	CRO
4th Coro Leveque Patricia	ESP
5th Charlotte Asselt	NED

<b>2007 Cascais, POR</b>	
<b>Open: Laser Standard</b>	
Entries 149	Countries 60
1st Tom Slingsby	AUS
2nd Andrew Murdoch	NZL
3rd Denis Karpach	EST
4th Mate Arapov	CRO
5th Paul Goodison	GBR
<b>Women: Laser Radial</b>	
Entries 107	Countries 48
1st Tatiana Drozdovskaya	BLR
2nd Sari Mutala	FIN
3rd Petra Niemann	GER
4th Katarzyna Szotylnska	POL
5th Anna Tunnicliffe	USA

<b>2007 The Hague, NED</b>	
<b>Men: Laser Radial</b>	
Entries 121	Countries 26
1st Ben Paton	GBR
2nd Eduardo Vianen	NED
3rd Steven Krol	NED
4th Jon Emmett	GBR
5th James Burman	AUS
<b>Youth Men: Laser Radial</b>	
Entries 204	Countries 29
1st Thorbjorn Schierup	DEN
2nd Ioannis Mikitis	GRE
3rd Gijs Pelt	NED
4th Joaquin Blanco	ESP
5th Barbaros Tuna	TUR
<b>Youth Women: Laser Radial</b>	
Entries 68	Countries 26
1st Tuula Tenkanen	FIN
2nd Susana Romero	ESP
3rd Sarah Gunn	DEN
4th Anne Haeger	USA
5th Mathilde de Kerangat	FRA

<b>2007 Hermanus, RSA</b>	
<b>Youth Men: Laser 4.7</b>	
Entries 95	Countries 27
1st Filip Matka	CRO
2nd Baepi Pinna	BRA
3rd Alexander Zimmermann	PER
4th Boris Bignoli	ITA
5th Jakob Bozic	SLO
<b>Youth Women: Laser 4.7</b>	
Entries 25	Countries 14
1st Tajana Ganic	CRO
2nd Ewa Makowska	POL
3rd Lina Stock	CRO
4th Tiffany Brien	IRL
5th Matea Senkic	CRO

<b>2006 Jeju Island, KOR</b>	
<b>Open: Laser Standard</b>	
Entries 128	Countries 43
1st Michael Blackburn	AUS
2nd Tom Slingsby	AUS
3rd Rasmus Myrgen	SWE
4th Michael Leigh	CAN
5th Gustavo Lima	POR
<b>Men: Laser Radial</b>	
Entries 71	Countries 22
1st Fabio Pillar	BRA
2nd Steven Le Fevre	NED
3rd Steven Krol	NED
4th Jon Emmett	GBR
5th Ryan Seaton	IRL
<b>Women: Laser Radial</b>	
Entries 89	Countries 31
1st Lijia Xu	CHN
2nd Petra Niemann	GER
3rd Tania Elias Callens Wolf	MEX
4th Anna Tunnicliffe	USA
5th Evi Van Ecker	BEL
<b>Youth Men: Laser Radial</b>	
Entries 140	Countries 21
1st Kyle Rogachenko	USA
2nd Guilherme Barbosa Lima	BRA

3rd Mathew Archibald	CAN
4th Joaquin Blanco	ESP
5th James Sandall	NZL
<b>Youth Women: Laser Radial</b>	
Entries 39	Countries 12
1st Claire Dennis	USA
2nd Susana Romero	ESP
3rd Allie Blecher	USA
4th Laura Maes	BEL
5th Stephanie Roble	USA
<b>2006 Hourtin, FRA</b>	
<b>Youth Men: Laser 4.7</b>	
Entries 237	Countries 27
1st Colin Xinn Cheng	SIN
2nd Victor Serezhkin	RUS
3rd Marko Peresa	CRO
4th Fran Perucic	CRO
5th Giuseppe Linares	ITA
<b>Youth Women: Laser 4.7</b>	
Entries 88	Countries 19
1st Victoria Chan	SIN
2nd Agnieszka Skrzypulec	POL
3rd Julie Chehab	FRA
4th Susana Romero	ESP
5th Tuula Tenkanen	FIN

<b>2005 Fortaleza, BRA</b>	
<b>Open: Laser Standard</b>	
Entries 136	Countries 36
1st Robert Scheidt	BRA
2nd Diego Emilio Romero	ARG
3rd Andrew Murdoch	NZL
4th Vasilij Zbogor	SLO
5th Mate Arapov	CRO
<b>Men: Laser Radial</b>	
Entries 90	Countries 24
1st Eduardo Magalhães	BRA
2nd Brad Funk	USA
3rd Blair McLay	NZL
4th Martin Jenkins	ARG
5th Andrew Perdicaris	BRA
<b>Women: Laser Radial</b>	
Entries 76	Countries 31
1st Paige Rahlle	USA
2nd Sophie de Turckheim	FRA
3rd Anna Tunnicliffe	GBR
4th Petra Niemann	GER
5th Krystal Weir	AUS
<b>Youth Men: Laser Radial</b>	
Entries 77	Countries 23
1st Blair McLay	NZL
2nd Frederico Melo	POR
3rd Ivan Taritas	CRO
4th Antonios Tzortzis	GRE
5th James Burman	AUS
<b>Youth Women: Laser Radial</b>	
Entries 26	Countries 13
1st Veronika Haid	AUT
2nd Bruna Cordeiro	BRA
3rd Viviana de Oliveira	BRA
4th Luiza de Sabota	BRA
5th Cecilia de Andrade	BRA

<b>2005 Barrington, USA</b>	
<b>Men: Laser 4.7</b>	
Entries 42	Countries 16
1st Joaquin Blanco	ESP
2nd Adam Sims	GBR
3rd Dany Stanisic	SLO
4th Guney Kaptan	TUR
5th Marco Teixidor	PUR
<b>Youth Women: Laser 4.7</b>	
Entries 14	Countries 5
1st Stephanie Roble	USA
2nd Anne Haeger	USA
3rd Cecilia Aragao	BRA
4th Matilde Fabri	ITA
5th Nilsu Orden	TUR

<b>2004 Bitez, TUR</b>	
<b>Open: Laser Standard</b>	
Entries 145	Countries 60
1st Robert Scheidt	BRA
2nd Mark Mendelblatt	USA
3rd Michael Blackburn	AUS
4th Hamish Pepper	NZL
5th Karl Suneson	SWE
<b>2004 Brisbane, AUS</b>	
<b>Men: Laser Radial</b>	
Entries 133	Countries 11
1st Michael Blackburn	AUS
2nd Aron Lolic	CRO
3rd Tom Slingsby	AUS
4th Blair McLay	NZL
5th Marc Orams	NZL
<b>Women: Laser Radial</b>	
Entries 37	Countries 12
1st Krystal Weir	AUS
2nd Christine Bridge	AUS

3rd Cecilia Carranza Saroli	ARG
4th Nufar Edelman	ISR
5th Gea Juijens	NED
<b>Youth: Laser Radial</b>	
Entries 108	Countries 18
1st Jean Baptiste Bernaz	FRA
2nd Nathan Outeridge	AUS
3rd Daniel Mihelcic	CRO
4th Daniel Jakobsson	BRA
5th Javier Padron	ESP
<b>2004 Riva del Garda, ITA</b>	
<b>Entries 276</b>	<b>Countries 23</b>
<b>Youth Men: Laser 4.7</b>	
1st Justin Onvlee	RSA
2nd Mathieu Frei	FRA
3rd Ivo Kalebic	CRO
4th Alexander Dolan	IRL
5th Pierre Angelo Collura	FIN
<b>Youth Women: Laser 4.7</b>	
1st Anita Di Iasio	ITA
2nd Tina Mihelic	CRO
3rd Cansin Karga	TUR
4th Vanessa le Bouiteiller	FRA
5th Clare Chapple	GBR

<b>2003 Cadiz, ESP</b>	
<b>Open: Laser Standard</b>	
Entries 174	Countries 61
1st Gustavo Lima	POR
2nd Robert Scheidt	BRA
3rd Michael Blackburn	AUS
4th Luis Martinez	ESP
5th Daniel Birgmark	SWE
<b>2003 Riva del Garda, ITA</b>	
<b>Men: Laser Radial</b>	
Entries 231	Countries 31
1st Aron Lolic	CRO
2nd Jake Bartram	NZL
3rd Karlo Krpeljic	CRO
4th Max Bulley	FRA
5th Marc Jux	CHI
<b>Women: Laser Radial</b>	
Entries 50	Countries 16
1st Katarzyna Szotylnska	POL
2nd Krystal Weir	AUS
3rd Jeanette Dagson	SWE
4th Corinne Meyer	SUI
5th Gea Juijens	NED
<b>Youth: Laser Radial</b>	
Entries 280	Countries 27
1st Tomci Stipanovic	CRO
2nd Tonko Kuzmanic	CRO
3rd Jonasz Stelmazsyzk	POL
4th Campbell Davidson	GBR
5th Javier Padron	ESP

<b>2003 Cesme, TUR</b>	
<b>Entries 98</b>	<b>Countries 18</b>
<b>Youth Men: Laser 4.7</b>	
1st Onur Derasabi	TUR
2nd Ates Cinar	TUR
3rd Mustafa Kahir	TUR
4th Philip White	GBR
5th Milosz Landowski	POL
<b>Youth Women: Laser 4.7</b>	
1st Ayda Unver	TUR
2nd Anita Di Iasio	ITA
3rd Didem Sarman	TUR
4th Cansin Karga	TUR
5th Istem Oguzbayir	TUR

<b>2002 Hyannis, USA</b>	
<b>Open: Laser Standard</b>	
Entries 131	Countries 44
1st Robert Scheidt	BRA
2nd Karl Suneson	SWE
3rd Paul Goodison	GBR
4th Diego Negri	ITA
5th Brendan Caley	AUS
<b>2002 Ontario, CAN</b>	
<b>Men: Laser Radial</b>	
Entries 101	Countries 19
1st Karlo Krpeljic	CRO
2nd Chris Ashley	USA
3rd Tiago Rodrigues	BRA
4th David Wright	CAN
5th Jake Bartram	NZL
<b>Women: Laser Radial</b>	
Entries 38	Countries 10
1st Katarzyna Szotylnska	POL
2nd Miranda Powrie	NZL
3rd Ciara Peelo	IRL
4th Nicky Souter	AUS
5th Alison Casey-Hall	AUS
<b>Youth: Laser Radial</b>	
Entries 174	Countries 20
1st Tonko Kuzmanic	CRO
2nd Conner Higgins	CAN

3rd Giles Scott	GBR
4th Nick Thompson	GBR
5th Max Bulley	FRA
<b>2002 Muiderzand, NED</b>	
<b>Entries 124</b>	<b>Countries 16</b>
<b>Youth Men: Laser 4.7</b>	
1st Tomci Stipanovic	CRO
2nd Daniel Mihelcic	CRO
3rd Colin Robard	NED
4th Stefano Meciani	ITA
5th Dennis Karpak	EST
<b>Youth Women: Laser 4.7</b>	
1st Tugce Subasi	TUR
2nd Celine Olivier	FRA
3rd Manxy Mulder	NED
4th Samantha Chidgey	AUS
5th Linda Noto	ITA

<b>2001 Cork, IRL</b>	
<b>Open: Laser Standard</b>	
Entries 159	Countries 48
1st Robert Scheidt	BRA
2nd Gustavo Lima	POR
3rd Peer Moberg	NOR
4th Paul Goodison	GBR
5th Gareth Blankenbegg	RSA
<b>2001 Vilanova, ESP</b>	
<b>Men: Laser Radial</b>	
Entries 230	Countries 35
1st Michael Bullot	NZL
2nd Andre Streppel	BRA
3rd Aron Lolic	CRO
4th Alp Alpagut	TUR
5th Karlo Krpeljic	CRO
<b>Women: Laser Radial</b>	
Entries 56	Countries 23
1st Katarzyna Szotylnska	POL
2nd Larissa Nevevor	ITA
3rd Sara Lane Wright	BER
4th Tatiana Drozdovskaya	BLR
5th Jayne Singleton	GBR
<b>Youth: Laser Radial</b>	
Entries 260	Countries 33
1st Michael Bullot	NZL
2nd Iason Georgis	GRE
3rd Alexandre Monteau	FRA
4th Mathieu Murati	FRA
5th Guray Zimbul	TUR

<b>2000 Cancun, MEX</b>	
<b>Open: Laser Standard</b>	
Entries 141	Countries 50
1st Robert Scheidt	BRA
2nd Michael Blackburn	AUS
3rd Ben Ainslie	GBR
4th Karl Suneson	SWE
5th Serge Kats	NED
<b>2000 Cesme, TUR</b>	
<b>Men: Laser Radial</b>	
Entries 124	Countries 25
1st Fredrik Lassenius	SWE
2nd Alexandros Logothetis	GRE
3rd Yung Chinnans	GRE
4th Petar Cupac	CRO
5th Kemal Muslubas	TUR
<b>Women: Laser Radial</b>	
Entries 33	Countries 16
1st Katarzyna Szotylnska	POL
2nd Nicola Muller	GBR
3rd Jayne Singleton	GBR
4th Jeanette Dagson	SWE
5th Dennis Karacagoğlu	TUR
<b>Youth: Laser Radial</b>	
Entries 137	Countries 31
1st Guray Zimbul	TUR
2nd Anders Nyholm	DEN
3rd Arne Nieuwenhuys	NED
4th Antonis Manolakis	GRE
5th Andrew Walsh	GBR

<b>1999 Melbourne, AUS</b>	
<b>Open: Laser Standard</b>	
Entries 141	Countries 46
1st Ben Ainslie	GBR
2nd Robert Scheidt	BRA
3rd Karl Suneson	SWE
4th Michael Blackburn	AUS
5th Andrew Simpson	GBR
<b>1999 La Rochelle, FRA</b>	
<b>Men: Laser Radial</b>	
Entries 167	Countries 27
1st Adonis Bougiouris	GRE
2nd Gustavo Lima	POR
3rd Teddy Qwestroy	FRA
4th Luka Radelic	CRO
5th Vagelis Chimonas	GRE

**Women: Laser Radial**  
Entries 42 Countries 20  
1st Kelly Hand ..... CAN  
2nd Jeanette Dagson ..... SWE  
3rd Helene Viazzo ..... FRA  
4th Clementine Destailleur ..... FRA  
5th Alison Casey ..... AUS

**Youth: Laser Radial**  
Entries 304 Countries 35  
1st Francisco Sanchez F ..... ESP  
2nd Luka Radelic ..... CRO  
3rd Jorge Lima ..... POR  
4th Andrew Walsh ..... GBR  
5th Anders Nyholm ..... DEN

**1998 Medemblik, NED**  
**Men: Laser Radial**  
Entries 209 Countries 25  
1st Gustavo Lima ..... PR  
2nd Andonis Bougouris ..... GRE  
3rd Alexandros Logothetis ..... GRE  
4th Raimondos Stugzdinis ..... LTU  
5th Luca Radelic ..... CRO

**Women: Laser Radial**  
Entries 87 Countries 19  
1st Larissa Nevierov ..... ITA  
2nd Carolijn Brouwer ..... NED  
3rd Jeanette Dagson ..... SWE  
4th Marcelien de Koning ..... NED  
5th Jo Dikkenberg ..... AUS

**Youth: Laser Radial**  
Entries 228 Countries 33  
1st Alastair Gair ..... NZL  
2nd Evagelos Himonas ..... GRE  
3rd Goncalo Lopes ..... POR  
4th Leigh McMillan ..... GBR  
5th David Hiver ..... GBR

**1997 Algarrobo, CHI**  
**Open: Laser Standard**  
Entries 128 Countries 34  
1st Robert Scheidt ..... BRA  
2nd Nik Burfoot ..... NZL  
3rd Ben Ainslie ..... GBR  
4th Hamish Pepper ..... NZL  
5th Hugh Styles ..... GBR

**1997 Mohamedia, MAR**  
**Men: Laser Radial**  
Entries 122 Countries 25  
1st Raimondos Stugzdinis ..... LTU  
2nd Romain Knipping ..... FRA  
3rd Selim Kakis ..... TUR  
4th Benoit Raphaelen ..... FRA  
5th Goncalo Lopes ..... POR

**Women: Laser Radial**  
Entries 40 Countries 17  
1st Sarah Blanck ..... AUS  
2nd Helen Waite ..... GBR  
3rd Anja Sahlberg ..... SWE  
4th Anje de Boer ..... NED  
5th Larissa Nevierov ..... ITA

**Youth: Laser Radial**  
Entries 122 Countries 31  
1st Teddy Quesstroy ..... FRA  
2nd Romain Knipping ..... FRA  
3rd Alastair Gair ..... NZL  
4th Justin Deal ..... GBR  
5th Joao Santos Silva ..... POR

**1996 Cape Town, RSA**  
**Open: Laser Standard**  
Entries 134 Countries 38  
1st Robert Scheidt ..... BRA  
2nd Karl Suneson ..... SWE  
3rd Ben Ainslie ..... GBR  
4th Stefan Warkalla ..... GER  
5th Iain Percy ..... GBR

**Men: Laser Radial**  
Entries 96 Countries 20  
1st Brendan Casey ..... AUS  
2nd Andrew Kiriljuk ..... RUS  
3rd Allan Coutts ..... NZL  
4th Tim Shuwalow ..... AUS  
5th Dimitris Theodorakis ..... GRE

**Women: Laser Radial**  
Entries 29 Countries 11  
1st Jacqueline Ellis ..... AUS  
2nd Larissa Nevierov ..... ITA  
3rd Kathryn McQueen ..... AUS  
4th Sarah Blanck ..... AUS  
5th Alison Casey ..... AUS

**1995 Tenerife, ESP**  
**Open: Laser Standard**  
Entries 137 Countries 39  
1st Robert Scheidt ..... BRA  
2nd Nik Burfoot ..... NZL

3rd Eivind Melleby ..... NOR  
4th Hamish Pepper ..... NZL  
5th Michael Blackburn ..... AUS

**Men: Laser Radial**  
Entries 66 Countries 18  
1st Brendan Casey ..... AUS  
2nd Tim Shuwalow ..... AUS  
3rd Gustavo Lima ..... POR  
4th Sean Kirjikan ..... AUS  
5th David Huet ..... FRA

**Women: Laser Radial**  
Entries 18 Countries 8  
1st Heidi Gordon ..... AUS  
2nd Larissa Nevierov ..... ITA  
3rd Roberta Hartley ..... GBR  
4th Alison Casey ..... AUS  
5th Roelien Huisman ..... NED

**1994 Wakayama, JPN**  
**Open: Laser Standard**  
Entries 120 Countries 36  
1st Nikolas Burfoot ..... NZL  
2nd Pascal Lacoste ..... FRA  
3rd Serge Kats ..... NED  
4th Hamish Pepper ..... NZL  
5th Peer Moberg ..... NOR

**Men: Laser Radial**  
Entries 82 Countries 14  
1st Rui Pedro Coelho ..... POR  
2nd Rodion Luka ..... UKR  
3rd Nathan Handley ..... NZL  
4th Yanghe Zhu ..... CHN  
5th Todd Hotzapfel ..... AUS

**Women: Laser Radial**  
Entries 33 Countries 8  
1st Melanie Dennison ..... AUS  
2nd Jacqueline Ellis ..... AUS  
3rd Tracey Tan ..... SIN  
4th Ma Bettina Marcone ..... ARG  
5th Elizabeth Roberts ..... AUS

**1993 Takapuna, NZL**  
**Open: Laser Standard**  
Entries 99 Countries 29  
1st Thomas Johanson ..... FIN  
2nd Peter Tanscheit ..... BRA  
3rd Robert Scheidt ..... BRA  
4th Nikolas Burfoot ..... NZL  
5th Michael Hestbaek ..... DEN

**Men: Laser Radial**  
Entries 102 Countries 15  
1st Ben Ainslie ..... GBR  
2nd Daniel Slater ..... NZL  
3rd Allan Coutts ..... NZL  
4th Michael Blackburn ..... AUS  
5th Peter Waring ..... NZL

**Women: Laser Radial**  
Entries 32 Countries 12  
1st Carolijn Brouwer ..... NED  
2nd Giselle Camet ..... USA  
3rd Alexandra Verbeek ..... NED  
4th Maria Vlachou ..... GRE  
5th Jacqueline Ellis ..... AUS

**1991 Porto Carras, GRE**  
**Open: Laser Standard**  
Entries 105 Countries 31  
1st Peter Tanscheit ..... BRA  
2nd Stefan Warkalla ..... GER  
3rd Mladen Makjanic ..... CRO  
4th Michael Hestbaek ..... DEN  
5th Dimitri Theodorakis ..... GRE

**Men: Laser Radial**  
Entries 73 Countries 15  
1st Stewart Casey ..... AUS  
2nd Maria Vlachou ..... GRE  
3rd John Karageorgis ..... GRE  
4th Alessandro Sartorelli ..... ITA  
5th Elias Katchorhis ..... GRE

**Women: Laser Radial**  
Entries 33 Countries 10  
1st Maria Vlachou ..... GRE  
2nd Carolijn Brouwer ..... NED  
3rd Ourania Flabouri ..... GRE  
4th Roberta Zucchinetti ..... ITA  
5th Marina Psychogiou ..... GRE

**1990 Newport, USA**  
**Open: Laser Standard**  
Entries 103 Countries 26  
1st Glenn Bourke ..... AUS  
2nd Steven Bourdow ..... USA  
3rd Peter Tanscheit ..... BRA  
4th Mark Brink ..... USA  
5th Steve Rich ..... GBR

**Men: Laser Radial**  
Entries 58 Countries 11  
1st Peter Katcha ..... USA  
2nd John Bonds ..... USA  
3rd Scott Cheney ..... USA  
4th Ardis Bollweg ..... NED  
5th Ulrika Antonsson ..... SWE

**Women: Laser Radial**  
Entries 30 Countries 11  
1st Ardis Bollweg ..... NED  
2nd Ulrika Antonsson ..... SWE  
3rd Jacqueline Ellis ..... AUS  
4th Shonna Moss ..... CAN  
5th Lotta Nilsson ..... SWE

**1989 Aarhus, DEN**  
**Open: Laser Standard**  
Entries 104 Countries 28  
1st Glenn Bourke ..... AUS  
2nd Wouter Deurck ..... NED  
3rd Scott Ellis ..... USA  
4th Francois Le Castrec ..... FRA  
5th Peter Tanscheit ..... BRA

**Men: Laser Radial**  
Entries 58 Countries 17  
1st James Johnstone ..... USA  
2nd Dimitrios Theodorakis ..... GRE  
3rd Jeff Loosemore ..... AUS  
4th Peter Katcha ..... USA  
5th Yuguang Xu ..... CHN

**Women: Laser Radial**  
Entries 33 Countries 15  
1st Ardis Bollweg ..... NED  
2nd Giselle Camet ..... USA  
3rd Ulrika Antonsson ..... SWE  
4th Grethe Halvorsen ..... NOR  
5th Marie Dahloff ..... SWE

**1988 Falmouth, GBR**  
**Open: Laser Standard**  
Entries 88 Countries 24  
1st Glenn Bourke ..... AUS  
2nd Benny Anderson ..... DEN  
3rd Peter Fox ..... NZL  
4th Mark Brink ..... USA  
5th Stefan Warkalla ..... GER

**Women: Laser Radial**  
Entries 31 Countries 14  
1st Jacqueline Ellis ..... AUS  
2nd Ardis Bollweg ..... NED  
3rd Ann Keates ..... GBR  
4th Ulrika Antonsson ..... SWE  
5th Johanna Harkonmaki ..... FIN

**Youth: Laser Standard**  
Entries 62 Countries 20  
1st Ville Aalto Setälä ..... FIN  
2nd Joakim Berg ..... SWE  
3rd Jeroen Harderwijk ..... NED  
4th Jon Lassenby ..... GBR  
5th Nikos Nikoltzoudis ..... GRE

**1987 Melbourne, AUS**  
**Open: Laser Standard**  
Entries 130 Countries 20  
1st Stuart Wallace ..... AUS  
2nd Gunni Pedersen ..... DEN  
3rd Peter Tanscheit ..... BRA  
4th Nelson Alencastro ..... BRA  
5th Simon Cole ..... GBR

**1985 Halmstad, SWE**  
**Open: Laser Standard**  
Entries 108 Countries 28  
1st Lawrence Crispin ..... GBR  
2nd Andreas John ..... DEN  
3rd Benny Andersen ..... GER  
4th Gustaf Svensson ..... SWE  
5th Stefan Warkalla ..... GER

**Women: Laser Standard**  
Entries 26 Countries 12  
1st Marit Soderstrom ..... SWE  
2nd Lynne Jewell ..... USA  
3rd Francesca Pavesi ..... ITA  
4th Susanne Madsen ..... DEN  
5th Claudine Tatibouet ..... FRA

**1983 Gulport, USA**  
**Open: Laser Standard**  
Entries 145 Countries 27  
1st Oscar Paulich ..... NED  
2nd Per Arne Nilson ..... NOR  
3rd Asbjorn Arnkvaern ..... SWE  
4th Roland Gaebler ..... GER  
5th John Irvine ..... NZL

**Women: Laser Standard**  
1st Betsy Gelenitis ..... USA  
2nd Lynne Jewell ..... USA

3rd Carole Spooner ..... CAN  
4th Virginia Perry ..... USA  
5th Susanne Madson ..... DEN

**1982 Sardinia, ITA**  
**Open: Laser Standard**  
Entries 231 Countries 28  
1st Terry Neilson ..... CAN  
2nd Andrew Roy ..... CAN  
3rd Mark Brink ..... USA  
4th Peter Vilby ..... DEN  
5th John Irvine ..... NZL

**Women: Laser Standard**  
Entries 23 Countries 12  
1st Marion Steenhuis ..... NED  
2nd Vittoria Masotto ..... ITA  
3rd Francesca Pavesi ..... ITA  
4th Susanne Schmidt ..... GER  
5th Barbara Champion ..... GBR

**1980 Kingston, CAN**  
**Open: Laser Standard**  
Entries 350 Countries 25  
1st Ed Baird ..... USA  
2nd Jose Barcel Dias ..... BRA  
3rd John Couriel ..... NZL  
4th Sjaak Haakman ..... NED  
5th Duncan Lewis ..... CAN

**Women: Laser Standard**  
Entries: 20 Countries 12  
1st Marit Soderstrom ..... SWE  
2nd Lynne Jewell ..... USA  
3rd Cheryl Smith ..... NZL  
4th Annette Henderson ..... CAN  
5th Kathy Karlson ..... USA

**1979 Perth, AUS**  
**Open: Laser Standard**  
Entries 93 Countries 25  
1st Lasse Hjortnaes ..... DEN  
2nd Peter Conde ..... AUS  
3rd Andrew Menkart ..... USA  
4th Cor Van Anholt ..... NED  
5th David Perry ..... USA

**1977 Cabo Frio, BRA**  
**Open: Laser Standard**  
Entries 104 Countries 23  
1st John Bertrand ..... USA  
2nd Peter Commette ..... USA  
3rd Mark Neeleman ..... NED  
4th Tim Alexander ..... AUS  
5th Gary Knapp ..... USA

**1976 Kiel, GER**  
**Open: Laser Standard**  
Entries 77 Countries 24  
1st John Bertrand ..... USA  
2nd Barry Thom ..... NZL  
3rd Edward Adams ..... USA  
4th Jeff Madrigali ..... USA  
5th Emile Pels ..... NED

**1974 Bermuda**  
**Open: Laser Standard**  
Entries 108 Countries 24  
1st Peter Commette ..... USA  
2nd Norm Freeman ..... USA  
3rd Chris Boome ..... USA  
4th Hugo Schmidt ..... USA  
5th Carl Buchan ..... USA

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# MASTERS WORLD CHAMPIONSHIPS

## 2018 Dún Laoghaire, IRL

Entries 302 Countries 25

### Laser Standard

**Apprentices**  
1st Leandro Rosado ESP  
2nd Gord Welsh CAN  
3rd Roger O'Gorman IRL  
4th David Quinn IRL  
5th Pete Smyth IRL

**Masters**  
1st Brett Beyer AUS  
2nd Niklas Edler SWE  
3rd David Whitt AUS  
4th Orlando Gedhill GBR  
5th Peter Hurley USA

**Grand Masters**  
1st Mark Lytle GBR  
2nd Carlos Martinez ESP  
3rd Arnold Hummel NED  
4th Gavin Dagle AUS  
5th Tomas Nordqvist SWE

### Laser Radial

**Apprentices**  
1st Ben Elvin GBR  
2nd Thomas Chaix IRL  
3rd Andrew Byrne GBR  
4th Niall Peelo GBR  
5th Darrell Reamsbottom IRL

**Women Apprentices**  
1st Alison Stevens GBR

### Masters

1st Scott Leith NZL  
2nd Ian Jones GBR  
3rd Robert Hallawell USA  
4th Andrew Holdsworth USA  
5th Fredrik Wallander SWE

### Women Masters

1st Caroline Muselet CAN  
2nd Giovanna Lenzi ITAL  
3rd Alexandra Wehrauch GER  
4th Dirma Eisenga NED  
5th Shirley Gilmore IRL

### Grand Masters

1st Stephen Cockerill GBR  
2nd Gustaf Svensson SWE  
3rd Timothy Woodford CAN  
4th James Mitchell AUS  
5th Robert Britten CAN

### Women Grand Masters

1st Lyndall Patterson AUS  
2nd Camilla Graves AUS  
3rd Claudine Tatibouet FRA  
4th Sue Ritchie GBR  
5th Lesley Reichenfeld CAN

### Great Grand Masters

1st Bill Symes USA  
2nd Lasse Westesson SWE  
3rd Christopher Boyd IRL  
4th Jean-Luc Dreyer SUI  
5th Lorenz Müller SUI

### Women Great Grand Masters

1st Hilary Thomas GBR  
**Legends (75+)**  
1st Peter Seidenberg USA  
2nd Lindsay Hewitt USA  
3rd David Wyllie AUS  
4th Steve Avery USA  
5th Jay Winberg USA  
**Women Legends (75+)**  
1st Deirdre Webster CAN

## 2017 Split, CRO

Entries 349 Countries 35

### Laser Standard

**Apprentices**  
1st Maciej Grabowski POL  
2nd Maxim Semerkh RUS  
3rd Adonis Bougiouris GRE  
4th Guilherme Roth BRA  
5th Girls Fishers-Blu LAT

### Masters

1st Brett Beyer AUS  
2nd Peter Hurley USA  
3rd Ernesto Rodrigo USA  
4th Niklas Edler SWE  
5th Chr. Gunn Pedersen DEN

### Grand Masters

1st Allan Clark CAN  
2nd Andy Roy CAN  
3rd Tomas Nordqvist SWE  
4th Tim Law GBR

4th Nick Harrison GBR  
4th Peter Vessella USA  
5th Wolfgang Gerz GER

### Great Grand Masters

1st Michael Nissen GER  
2nd Mark Bethwaite AUS  
3rd John Pitman NZL  
4th Alan Keen RSA  
5th Doug Peckover USA

### Laser Radial

**Apprentices**  
1st Jon Emmett GBR  
2nd Anastasia Chernova RUS  
3rd Noel Bayard FRA  
4th David Waiting RSA  
5th Georgia Chimona GRE

### Women Apprentices

1st Anastasia Chernova RUS  
2nd Georgia Chimona GRE  
3rd Paula Marino URU  
4th Alice Virginia Grassi ITA  
5th Pernilla Ekelund USA

### Masters

1st Alessio Marinelli ITA  
2nd Scott Leith NZL  
3rd Wilmar Groenendijk NED  
4th Ledyet Jean-Christophe FRA  
5th Edmund Tam NZL

### Women Masters

1st Giovanna Lenzi ITAL  
2nd Michelle Bain NZL  
3rd Monica Wilson USA  
4th Kimberly Couranz USA  
5th Alexandra Wehrauch GER

### Grand Masters

1st Martin White AUS  
2nd Pierantonio Masotto ITAL  
3rd Terry Scutcher GBR  
4th Rob Cage GBR  
5th Jeff Loosemore AUS

### Women Grand Masters

1st Lyndall Patterson AUS  
2nd Vanessa Dudley AUS  
3rd Ann Barst SWZ  
4th Lesley Hotchin GBR  
5th Ute Noack GER

### Great Grand Masters

1st Bill Symes USA  
2nd Robert Lowndes AUS  
3rd Kerry Waraker AUS  
4th Peter Seidenberg USA  
5th Peter Heywood AUS  
6th Michael Kinneer GBR

### Women Grand Masters

1st Hilary Thomas GBR  
2nd Gill Waiting NZL  
3rd Deirdre Webster CAN  
**Over 75 Masters**  
1st Kerry Waraker AUS  
2nd Peter Seidenberg USA  
3rd Steve Avery USA  
4th Roger Williams GBR  
5th Claude Tigier FRA

## 2016 Nuevo Vallarta, MEX

Entries 227 Countries 23

### Laser Standard

**Apprentices**  
1st Pablo Rabago MEX  
2nd Guillermo Roth BRA  
3rd Alejandro Rabago MEX  
4th Alfonso Aguilar MEX  
5th Fabian Gomez-Ibarra MEX

### Masters

1st Brett Beyer AUS  
2nd Ernesto Rodriguez USA  
3rd Andrew Dellabarca NZL  
4th Benoit Meesemaeker FRA  
5th Peter Hurley USA

### Grand Masters

1st Gavin Dagle AUS  
2nd Cristian Herman CHI  
3rd Allan Clark CAN  
4th Tim Law GBR  
5th Steve Sauerthorpe AUS

### Great Grand Masters

1st Mark Bethwaite AUS  
2nd Doug Peckover USA  
3rd James Temple AUS  
4th Alberto Larrea ARG  
5th John Roberson AUS

### Laser Radial

**Apprentices**  
1st Scott Leith NZL  
2nd Jon Emmett GBR  
3rd Ian Gregory GBR  
4th Alejandro Rabago MEX  
5th Fabiana Ramos BRA

### Women Apprentices

1st Natalya Gontcharova USA

### Masters

1st Carlos Eduardo Wanderley BRA  
2nd Richard Blakey NZL  
3rd Alessio Marinelli ITA  
4th Keith Davids USA  
5th Edmund Tam NZL

### Women Masters

1st Marcia Macdonald BRA  
2nd Agneta Johnson SWE  
3rd Dina Sissingh AUS  
4th Alexandra Wehrauch GER  
5th Julie Hughes CAN

### Grand Masters

1st Vanessa Dudley AUS  
2nd Jeff Loosemore AUS  
3rd Luis Castro BRA  
4th Terry Scutcher GBR  
5th Robert Britten CAN

### Women Grand Masters

1st Vanessa Dudley AUS  
2nd Lyndall Patterson AUS  
3rd Kathy Luciano USA  
**Great Grand Masters**  
1st Robert Lowndes AUS  
2nd William Symes USA  
3rd Michael Kinneer GBR  
4th Jon Andron USA  
5th Kevin Phillips AUS

### Women Great Grand Masters

1st Hilary Thomas GBR  
**Over 75 Masters**  
1st Peter Seidenberg USA  
2nd Kerry Waraker AUS  
3rd David Hartman USA  
4th Geoffrey Lucas AUS  
5th Denis O'Sullivan IRL

## 2015 Kingston, CAN

Entries 247 Countries 25

### Laser Standard

**Apprentices**  
1st Adonis Bougiouris GRE  
2nd Matt Blakey NZL  
3rd Paul Scullion GBR  
4th Deniz May GBR  
5th Ray Davies CAN

### Masters

1st Brett Beyer AUS  
2nd Peter Hurley DOM  
3rd Ari Barst SWZ  
4th Marc Jacobi USA  
5th Brad Taylor AUS

### Grand Masters

1st Peter Shope USA  
2nd Andy Roy CAN  
3rd Mark Bear USA  
4th Vann Wilson USA  
5th Gavin Dagle AUS

### Great Grand Masters

1st Mark Bethwaite AUS  
2nd Alan Kean RSA  
3rd Robert Blakey NZL  
4th David Frazer USA  
5th John Roberson AUS

### Laser Radial

**Apprentices**  
1st Scott Leith NZL  
2nd Zac Skulander AUS  
3rd Steven Smith GBR  
4th Pierre-Olivier Roy CAN  
5th Duncan Whitrow GBR

### Women Apprentices

1st Erika Vines CAN  
2nd Alexandra Wehrauch GER  
3rd Dorian Haldeman USA  
4th Jennifer Ruddy CAN

### Masters

1st Keith Davids USA  
2nd Ian Jones GBR  
3rd Joao Ramos BRA  
4th Michael Knowsley NZL  
5th Nigel Heath CAN

### Women Masters

1st Kimberly Couranz USA  
2nd Marieke Potlich USA  
3rd Monica Wilson USA  
4th Julie Stewart CAN  
5th Lisa Pelling CAN

### Grand Masters

1st Allan Clark CAN  
2nd Terry Scutcher GBR  
3rd Robert Britten CAN  
4th Jeff Loosemore AUS  
5th Tim Woodford CAN

### Women Grand Masters

1st Hilary Thomas GBR  
2nd Judith Krimski USA  
**Great Grand Masters**  
1st Robert Lowndes AUS  
2nd Bill Symes USA  
3rd Keith Wilkins GBR

4th Daniel Devos FRA

5th Michael Kinneer GBR

### Women Great Grand Masters

1st Hilary Thomas GBR  
**Over 75 Masters**  
1st Peter Seidenberg USA  
2nd Johan van Rossem CAN  
3rd Michael Shields NZL  
4th Heini Velmann SUI  
5th Geoffrey Lucas AUS  
**Women Over 75 Masters**  
1st Deidre Webster CAN

## 2014 Hyeres, FRA

Entries 499 Countries 36

### Laser Standard

**Apprentices**  
1st Adonis Bougiouris GRE  
2nd Marciel Grabowski POL  
3rd Matt Blakey NZL  
4th Angelo Taberner ESP  
5th Urban Nyhammar SWE

### Masters

1st Brett Beyer AUS  
2nd Arnold Hummel NED  
3rd Peter Shope USA  
4th Scott Ferguson USA  
5th Christian Gunn Pedersen DEN

### Grand Masters

1st Nick Harrison GBR  
2nd Andy Roy CAN  
3rd Peter Vessella USA  
4th Colin Dilb AUS  
5th Wolfgang Gerz GER

### Great Grand Masters

1st Mark Bethwaite AUS  
2nd Robert Blakey NZL  
3rd John Dawson Edwards CAN  
4th John Roberson AUS  
5th Christopher Fyans GBR

### Laser Radial

**Apprentices**  
1st Jon Emmett GBR  
2nd Scott Leith NZL  
3rd Alp Alpagut TUR  
4th Iago Whately BRA  
5th Edmund Tam NZL

### Women Apprentices

1st Monica Azon ESP  
2nd Marieke Potlich USA  
3rd Caroline Muselet CAN  
4th Alexandra Wehrauch GER

### Masters

1st Stephen Cockerill GBR  
2nd Mark Kennedy AUS  
3rd Joao Ramos BRA  
4th Richard Blakey NZL  
5th Ian Jones GBR

### Women Masters

1st Helene Viazzo FRA  
2nd Dina Sissingh SWE  
3rd Diane Sissingh FRA  
4th Claudine Tatibouet FRA  
5th Giovanna Lenzi ITAL

### Grand Masters

1st Michael Keeton NZL  
2nd Jeff Loosemore AUS  
3rd Terry Scutcher GBR  
4th Vanessa Dudley AUS  
5th Brett Wright BER

### Women Grand Masters

1st Cecilia Dudley AUS  
2nd Ann Kaetzel GBR  
3rd Lyndall Patterson AUS  
4th Isabelle Arnoux FRA  
5th Lesley Reichenfeld CAN

### Great Grand Masters

1st Keith Wilkins GBR  
2nd Robert Lowndes AUS  
3rd Peter Seidenberg USA  
4th Jacky Nebrel FRA  
5th Bill Symes USA

### Women Great Grand Masters

1st Hilary Thomas GBR  
**Over 75 Masters**  
1st Peter Seidenberg USA  
2nd Kerry Waraker AUS  
3rd Denis O'Sullivan IRL  
4th Ken Holliday RSA  
5th Peter Craig AUS

### Women Over 75 Masters

1st Deidre Webster CAN

### Laser 4.7

**Masters**  
1st Stephen Walsh AUS  
2nd Akemi Nagaka JPN  
3rd Waltraud Schmitt FRA  
4th Jean-Francois Farrugia FRA

### Women Masters

1st Akemi Nagaka JPN  
2nd Waltraud Schmitt FRA

<b>2013 Al Mussanah, OMA</b>	
Entries 186	Countries 31
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Scott Leith	NZL
2nd Niklas Edler	SWE
3rd Alastair Tacke	NZL
4th Kris Decker	NZL
5th Alan Coutts	OMA
<b>Masters</b>	
1st Al Clark	CAN
2nd Arnoud Hummel	NED
3rd Chris Dawson	AUS
4th Benoit Meemeacker	FRA
5th Torbjørn Jonsson	SWE
<b>Grand Masters</b>	
1st Greg Adams	AUS
2nd Terry Scutcher	GBR
3rd Wolfgang Gerz	GER
4th Tim Law	GBR
5th Robert Britten	CAN
<b>Great Grand Masters</b>	
1st Mark Bethwaite	AUS
2nd Robert Blakey	NZL
3rd John Robertson	AUS
4th Sandy Grigg	NZL
5th Stephen Wawn	AUS
<b>Laser Radial</b>	
<b>Apprentices</b>	
1st Jon Emmett	GBR
2nd Fabio Szyma Ramos	BRA
3rd Edmund Tam	NZL
4th Ian Gregory	GBR
5th Niall Peelo	GBR
<b>Women Apprentices</b>	
1st Kimberly Couranz	USA
2nd Alexandra Weirrauch	GER
<b>Masters</b>	
1st Ian Jones	GBR
2nd Joao Ramos	BRA
3rd Martin Van Olfen	NED
4th Matthias Bruhl	GER
5th Robert Cage	GBR
<b>Women Masters</b>	
1st Agneta Jonsson	SWE
2nd Diane Sissingh	AUS
3rd Martien Zeegers-Nouwen	NED
4th Lindsay Whitton	AUS
<b>Grand Masters</b>	
1st Vanessa Dudley	AUS
2nd Bruce Martinson	USA
3rd Michael Pridham	GBR
4th Doug Peckover	USA
5th Bo Johannisson	SWE
<b>Women Grand Masters</b>	
1st Vanessa Dudley	AUS
<b>Great Grand Masters</b>	
1st Peter Seidenberg	USA
2nd Keith Wilkins	GBR
3rd Henk Wittenberg	NED
4th Michael Kinnear	GBR
5th Steve Avery	USA
<b>Women Great Grand Masters</b>	
1st Hilary Thomas	GBR
2nd Elaine Capps	AUS

<b>2012 Brisbane, AUS</b>	
Entries 232	Countries 19
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Matias Del Solar	CHI
2nd Tony Baisden	AUS
3rd Brett Morris	AUS
4th Kent Coplestone	NZL
5th Rob Woodward	NZL
<b>Masters</b>	
1st Brett Beyer	AUS
2nd Bradley Taylor	AUS
3rd Sean Atherton-Feeney	AUS
4th Andrew Dellabarca	NZL
5th Mike Matan	GBR
<b>Grand Masters</b>	
1st Wolfgang Gerz	GER
2nd Tracy Usher	USA
3rd Andre Martinie	DOM
4th Malcolm Courts	GBR
5th Mark Bethwaite Am	AUS
<b>Laser Radial</b>	
<b>Apprentices</b>	
1st Scott Leith	NZL
2nd Richard Bott	AUS
3rd Danny Fuller	AUS
4th Matthias Bruhl	GER
5th Edmund Tam	NZL
<b>Women Apprentices</b>	
1st Myra Robertson	AUS
2nd Anita Smith	AUS
3rd Ruth Mccance	AUS
4th Jane Moffat	AUS

5th Christy Usher	USA
<b>Masters</b>	
1st Mark Orams	NZL
2nd Greg Adams	AUS
3rd Mark Kennedy	AUS
4th David Early	AUS
5th Grant Willmott	AUS
<b>Women Masters</b>	
1st Christine Bridge	AUS
2nd Vanessa Dudley	AUS
3rd Agneta Jonsson	SWE
4th Diane Sissingh	AUS
5th Kirsteen Reid	RSA
<b>Grand Masters</b>	
1st Michael Keeton	NZL
2nd Adam French	AUS
3rd Pete Thomas	NZL
4th Doug Peckover	USA
5th Jeff Loosemore	AUS
<b>Women Grand Masters</b>	
1st Lyndall Patterson	AUS
2nd Lesley Reichenfeld	CAN
<b>Great Grand Masters</b>	
1st Kerry Waraker	AUS
2nd Keith Wilkins	GBR
3rd Peter Seidenberg	USA
4th Kevin Phillips	AUS
5th Lew Verdon	AUS
<b>Women Great Grand Masters</b>	
1st Hilary Thomas	GBR
<b>Laser 4.7</b>	
<b>Masters</b>	
1st Claire Heenan	AUS
2nd Peter Charlton	AUS
3rd George Meikle	AUS
4th Martin Brady	AUS
5th Bronwyn Mitchell	AUS
<b>Women Masters</b>	
1st Claire Heenan	AUS
2nd Bronwyn Mitchell	AUS
3rd Michelle Lefevre	RSA
4th Janet Kemp	AUS
5th Jenny Walker	AUS

<b>2011 San Francisco, USA</b>	
Entries 236	Countries 27
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Benjamin Richardson	USA
2nd Orlando Gledhill	GBR
3rd Kevin Tauger	USA
4th Gaspare Silvestri	ITA
5th David Armitage	USA
<b>Masters</b>	
1st Arnoud Hummel	NED
2nd Brett Beyer	AUS
3rd Scott Ferguson	USA
4th Russ Silvestri	USA
5th Otto Strandvig	DEN
<b>Grand Masters</b>	
1st Scott Ferguson	AUS
2nd Peter Vessella	USA
3rd Malcolm Courts	GBR
4th Lard Hansen	USA
5th Wolfgang Gerz	GER
<b>Laser Radial</b>	
<b>Apprentices</b>	
1st Scott Leith	NZL
2nd Edmund Tam	NZL
3rd Ian Gregory	GBR
4th Joe Burcar	USA
5th Pablo Cervantes	MEX
<b>Women Apprentices</b>	
1st Buffy Arnold	USA
2nd Michelle Davis	USA
3rd Kate Easton	CAN
<b>Masters</b>	
1st Al Clark	CAN
2nd Carlos E. Wanderley	BRA
3rd Marcelo Fuchs	BRA
4th Gary Ratcliffe	AUS
5th Mark Page	NZL
<b>Women Masters</b>	
1st Diane Sissingh	AUS
2nd Isabelle Barbeau	TAH
<b>Grand Masters</b>	
1st William Symes	USA
2nd Bruce Martinson	USA
3rd Robert Lowndes	AUS
4th Peter Heywood	AUS
5th Walt Spevak	USA
<b>Women Grand Masters</b>	
1st Lesley Reichenfeld	CAN
2nd Irina Pasutin	ISR
3rd Kathy Luciano	USA
<b>Great Grand Masters</b>	
1st Keith Wilkins	GBR
2nd Peter Seidenberg	USA
3rd Jim Quinn	NZL
4th Lindsay Hewitt	USA
5th Michael Kinnear	GBR

<b>2010 Hayling Island, GBR</b>	
Entries 354	Countries 31
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Brett Beyer	AUS
2nd Adonis Bougiouris	GRE
3rd Jyrki Taiminen	FIN
4th Orlando Gledhill	GBR
5th Benjamin Richardson	USA
<b>Masters</b>	
1st Scott Ferguson	USA
2nd Arnoud Hummel	NED
3rd John Bertrand	USA
4th Christian Gunni Pedersen	DEN
5th Al Clark	CAN
<b>Grand Masters</b>	
1st Wolfgang Gerz	GER
2nd Peter Vessella	USA
3rd Peter Sherwin	GBR
4th Peter Sundelin	SWE
5th William Symes	USA
<b>Laser Radial</b>	
<b>Apprentices</b>	
1st Scott Leith	NZL
2nd Jean Christophe Leydet	FRA
3rd Matthias Bruhl	GER
4th Ian Jones	GBR
5th Edmund Tam	NZL
<b>Women Apprentices</b>	
1st Caroline Muelet	CAN
2nd Rosie Tribe	GBR
3rd Brenda Hoult	GBR
<b>Masters</b>	
1st Stephen Cockerill	GBR
2nd Joao Ramos	BRA
3rd Hamish Atkinson	NZL
4th Carlos E. Wanderley	BRA
5th Ian Escritt	GBR
<b>Women Masters</b>	
1st Christine Bridge	AUS
2nd Agneta Jonsson	SWE
3rd Vanessa Dudley	AUS
<b>Grand Masters</b>	
1st Lyndall Patterson	AUS
2nd Alden Shattuck	USA
3rd Bruce Martinson	USA
4th Mark Halman	USA
5th Kevin Pearson	NZL
<b>Women Grand Masters</b>	
1st Lyndall Patterson	AUS
2nd Janet Kemp	AUS
<b>Great Grand Masters</b>	
1st Keith Wilkins	GBR
2nd Peter Seidenberg	USA
3rd Johan Stam	NED
4th Jim Quinn	NZL
5th Kerry Waraker	AUS
<b>Women Great Grand Masters</b>	
1st Hilary Thomas	GBR
2nd Deirdre Webster	CAN

<b>2009 Halifax, CAN</b>	
Entries 295	Countries 26
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Adonis Bougiouris	GRE
2nd Brett Beyer	AUS
3rd Orlando Gledhill	GBR
4th Ray Davies	CAN
5th Stewart Casey	USA
<b>Masters</b>	
1st Scott Ferguson	USA
2nd Arnoud Hummel	NED
3rd Andrew Pimental	AUS
4th Mark Bear	AUS
5th Jan Scholten	USA
<b>Grand Masters</b>	
1st Wolfgang Gerz	GER
2nd Mark Bethwaite	AUS
3rd Alan Keen	RSA
4th Jack Schlachter	AUS
5th Bill Symes	USA
<b>Laser Radial</b>	
<b>Apprentices</b>	
1st Richard Bolt	AUS
2nd Scott Leith	NZL
3rd Grant Willmott	AUS
4th Edmund Tam	NZL
5th Matthias Bruhl	GER
<b>Women Apprentices</b>	
1st Alison Casey	AUS
2nd Yvonne Malmsten	SWE
3rd Kimberly Couranz	USA
<b>Masters</b>	
1st Carlos E. Wanderley	BRA
2nd Greg Adams	AUS
3rd Joao Ramos	BRA
4th Michael Knowsley	NZL
5th Nigel Heath	CAN

<b>Women Masters</b>	
1st Lyndall Patterson	AUS
2nd Vanessa Dudley	AUS
3rd Agneta Jonsson	SWE
<b>Grand Masters</b>	
1st Peter Heywood	AUS
2nd Michael Pridham	GBR
3rd Ian Rawet	GBR
4th Alden Shattuck	USA
5th Kevin Pearson	GBR
<b>Women Grand Masters</b>	
<b>Masters</b>	
1st Sally Sharp	USA
2nd Hilary Thomas	GBR
3rd Gill Waiting	NZL
<b>Great Grand Masters</b>	
1st Peter Seidenberg	USA
2nd Kerry Waraker	AUS
3rd Michael Kinnear	GBR
4th Jim Quinn	NZL
5th Lindsay Hewitt	USA
<b>Women Great Grand Masters</b>	
1st Deirdre Webster	CAN

<b>2008 Terrigal, AUS</b>	
Entries 370	Countries 22
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Brett Beyer	AUS
2nd Rohan Lord	NZL
3rd Jyrki Taiminen	FIN
4th Orlando Gledhill	GBR
5th Christopher Gowers	GBR
<b>Masters</b>	
1st Jan Scholten	AUS
2nd Bradley Taylor	AUS
3rd Peter Conde	AUS
4th Andy Roy	CAN
5th Colin Dibb	AUS
<b>Grand Masters</b>	
1st Mark Bethwaite	AUS
2nd Wolfgang Gerz	GER
3rd Jack Schlachter	AUS
4th Robert Lowndes	AUS
5th Michael Nissen	GER
<b>Laser Radial</b>	
<b>Apprentices</b>	
1st James Liebl	USA
2nd John Jagger	AUS
3rd Richard Bott	AUS
4th Scott Leith	NZL
5th David Early	AUS
<b>Women Apprentices</b>	
1st Alison Casey	AUS
2nd Justine Ella	AUS
3rd Yvonne Malmsten	SWE
<b>Masters</b>	
1st Mark Orams	NZL
2nd Stephen Cockerill	GBR
3rd Greg Adams	AUS
4th Al Clark	CAN
5th Chris Raab	USA
<b>Women Masters</b>	
1st Christine Bridge	AUS
2nd Lyndall Patterson	AUS
3rd Vanessa Dudley	AUS
<b>Grand Masters</b>	
1st Peter Heywood	AUS
2nd Brian Watson	AUS
3rd Peter Whipp	GBR
4th Lew Verdon	AUS
5th Ian Rawet	GBR
<b>Women Grand Masters</b>	
1st Gill Waiting	NZL
<b>Great Grand Masters</b>	
1st Peter Seidenberg	USA
2nd Kerry Waraker	AUS
3rd Tom Speed	NZL
4th Jim Quinn	NZL
5th Howard Taylor	AUS

<b>2007 Roses, ESP</b>	
Entries 419	Countries 33
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Brett Beyer	AUS
2nd Orlando Gledhill	GBR
3rd Stephen Cockerill	GBR
4th Xav Leclair	FRA
5th Erasun Echavari	ESP
<b>Masters</b>	
1st Arnoud Hummel	NED
2nd Al Clark	CAN
3rd César Sierhuis	NED
4th Scott Ferguson	USA
5th Peter Vessella	USA
<b>Grand Masters</b>	
1st Mark Bethwaite	AUS
2nd Michael Nissen	GER
3rd Anders Sørensen	SWE
4th Jack Schlachter	AUS
5th William Symes	USA

**Laser Radial****Apprentices**

1st Mark	NZL
2nd Freek Miranda	NED
3rd Wilmar Groenendijk	NED
4th Matthias Bruehl	GER
5th David Early	AUS

**Women Apprentices**

1st Agnetta Johnson	SWE
2nd Yvonne Malmlsten	SWE
3rd Christelle Marsault	FRA

**Masters**

1st Greg Adams	AUS
2nd Robert Cage	GBR
3rd Martin Baltischevsky	FIN
4th John Reay	GBR
5th Richard Major	GBR

**Women Masters**

1st Lyndall Patterson	AUS
2nd Janet Kemp	AUS
3rd Claudine Tatibout	FRA

**Grand Masters**

1st Peter Heywood	AUS
2nd Peter Whipp	GBR
3rd Alden Shattuck	USA
4th Ian Rawet	GBR
5th Serge Raphaelen	FRA

**Women Grand Masters**

1st Hilary Thomas	GBR
2nd Caroline Marriage	GBR

**Great Grand Masters**

1st Peter Seidenberg	USA
2nd Kerry Waraker	AUS
3rd Heini Wellmann	SUI
4th Greg Marshall	AUS
5th Bill Watson	GBR

**Women Great Grand Masters**

1st Deirdre Webster	CAN
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**2006 Jēju Island, KOR****Entries 72 Countries 14****Laser Standard****Apprentices**

1st Brett Beayer	AUS
2nd Orlando Gledhill	GBR
3rd Giles Grigg	NZL
4th Richard Blakey	NZL
5th Kevin Currier	IRL

**Masters**

1st Brodie Cobb	USA
2nd Tracy Usher	USA
3rd Mark Bear	USA
4th Andre Martinie	DOM
5th Malcolm Courts	GBR

**Grand Masters**

1st Doug Peckover	USA
2nd Robert Lowndes	AUS
3rd Derek Breitenstein	FIN
4th Bob Blakey	NZL
5th Ken Brown	CAN

**Laser Radial****Apprentices**

1st Steve Cockerill	GBR
2nd Mark Page	NZL
3rd David Early	AUS
4th Christine Bridge	AUS

**Masters**

1st Greg Adams	AUS
2nd Bruce Martinson	AUS
3rd Martin Baltischevsky	FIN
4th Lyndall Patterson	AUS
5th Gregory Kemp	AUS

**Grand Masters**

1st Alden Shattuck	AUS
2nd Peter Whipp	GBR
3rd Ian Rawet	GBR
4th Mark Miller	NZL
5th Hilary Thomas	GBR

**Great Grand Masters**

1st Peter Seidenberg	USA
2nd Kerry Waraker	AUS
3rd Sandy Grigg	NZL
4th Tom Speed	NZL
5th Gregg Marshall	AUS

**Women**

1st Christine Bridge	AUS
2nd Lyndall Patterson	AUS
3rd Janet Kemp	AUS
4th Hilary Thomas	GBR
5th Lesley Hotchin	GBR

**2005 Fortaleza, BRA****Entries 183 Countries 25****Laser Standard****Apprentices**

1st Brett Beayer	AUS
2nd Xavier Leclair	FRA
3rd Scott Ferguson	USA
4th Mark Page	NZL
5th Larry Kleist	AUS

**Masters**

1st Murray Thom	NZL
2nd Peter Conde	AUS
3rd Kurt Miller	USA
4th Gonzalo Campero	ARG
5th Vann Wilson	USA

**Grand Masters**

1st Mark Bethwaite	AUS
2nd Nicolas Livingstone	GBR
3rd Keith Wilkins	GBR
4th Ted Moore	USA
5th John Dawson Edwards	CAN

**Laser Radial****Apprentices**

1st Mark Orams	NZL
2nd Stephen Cockerill	GBR
3rd Carlos Eduardo Wanderley	BRA
4th David Early	HKG
5th Wilmar Groenendijk	NED

**Women Apprentices**

1st Kim Ferguson	USA
2nd Lisa Arago	AUS

**Masters**

1st Alexander Nikolaev	RUS
2nd Adam French	USA
3rd Chris Raab	USA
4th Aldo Ceazar Guimarães	BRA
5th Lyndall Patterson	AUS

**Women Masters**

1st Lyndall Patterson	AUS
2nd Janet Kemp	AUS
3rd Kathy Herrmann	AUS

**Grand Masters**

1st Peter Heywood	AUS
2nd Gary McCrohon	AUS
3rd Alden Shattuck	USA
4th Poopy Marcon	FRA
5th Peter Whipp	GBR

**Great Grand Masters**

1st Kerry Waraker	AUS
2nd Peter Seidenberg	USA
3rd Denis O'Sullivan	IRL
4th Heini Wellmann	SUI
5th Sandy Grigg	NZL

**2004 Bitez, TUR****Entries 153 Countries 30****Standard Rig****Apprentices**

1st Brett Beayer	AUS
2nd Stephen Cockerill	GBR
3rd Martin Lehner	AUT
4th Nick Walsh	IRL
5th Mati Sepp	EST

**Masters**

1st Colin Dibb	AUS
2nd Jack Schlachter	AUS
3rd Tracy Usher	USA
4th Brett Wright	BER
5th Mark Bear	USA

**Grand Masters**

1st Mark Bethwaite	AUS
2nd Magnus Olin	SWE
3rd David Edmiston	AUS
4th Robert Lowndes	AUS
5th Sandy Grigg	NZL

**Laser Radial****Apprentices**

1st David Early	HKG
2nd Aydin Yurdum	TUR
3rd Martin Baltischevsky	FIN
4th Bulent Baha Akin	TUR
5th Claudio Gallizioli	ITA

**Women Apprentices**

1st Yvonne Malmlsten	SWE
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**Masters**

1st Goran Bonacic	CRO
2nd Lyndall Patterson	AUS
3rd Bruce Martinson	USA
4th Olivier Falque	FRA
5th Laurent Vigo	FRA

**Women Masters**

1st Lyndall Patterson	AUS
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**Grand Masters**

1st Poopy Marcon	FRA
2nd Alden Shattuck	USA
3rd Peter Whipp	GBR
4th Heini Wellmann	SUI
5th Mark Miller	NZL

**Great Grand Masters**

1st Peter Seidenberg	USA
2nd Jack Hansen	NZL
3rd Kenneth Holiday	RSA
4th Denis O'Sullivan	IRL
5th David Flakelar	AUS

**2003 Cadiz, ESP****Entries 236 Countries 27****Laser Standard****Apprentices**

1st Mark Littlejohn	GBR
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2nd Stephen Cockerill	GBR
3rd Brett Beayer	AUS
4th Jyrki Taiminen	FIN
5th Huub Lambriex	NED

**Masters**

1st Anders Sorensson	SWE
2nd Chris Raab	USA
3rd Martin Courts	GBR
4th Nick Harrison	GBR
5th Alexander Nikolaev	RUS

**Grand Masters**

1st Mark Bethwaite	AUS
2nd Keith Wilkins	GBR
3rd Kevin Pearson	GBR
4th Kim Weber	FIN
5th William Symes	USA

**Laser Radial****Apprentices**

1st Wilmar Groenendijk	NED
2nd Thomas Demling	GER
3rd Roberto Hartley	ARG
4th Martin Baltischevsky	FIN
5th Luis Martin Propato	ARG

**Women Apprentices**

1st Roberta Hartley	ARG
2nd Yvonne Malmlsten	SWE
3rd Susan Brown	GBR

**Masters**

1st Alastair McMichael	AUS
2nd Bruce Martinson	USA
3rd Lyndall Patterson	AUS
4th Christian Borenius	FIN
5th Peter Whipp	GBR

**Women Masters**

1st Lyndall Patterson	AUS
2nd Jan Kemp	AUS
3rd Okumura Hiroko	JPN

**Grand Masters**

1st Alden Shattuck	USA
2nd Henk Wittenberg	NED
3rd Gary McCrohon	AUS
4th Roger Williams	BER
5th Gerard Jeanot	FRA

**Great Grand Masters**

1st Peter Seidenberg	USA
2nd Tom Speed	NZL
3rd Bill Watson	GBR
4th Heinz Gebauer	CAN
5th Denis O'Sullivan	IRL

**2002 Hyannis, USA****Entries 270 Countries 24****Laser Standard****Apprentices**

1st Andreas John	GER
2nd Brett Beayer	AUS
3rd Mark Littlejohn	GBR
4th Andy Pimental	USA
5th Jyrki Taiminen	FIN

**Masters**

1st Ed Adams	USA
2nd Mark Bear	USA
3rd Peter Vessella	USA
4th Charles Tripp	USA
5th Tracy Usher	USA

**Grand Masters**

1st Keith Wilkins	GBR
2nd Bill Symes	USA
3rd Peter Seidenberg	USA
4th Robert Lowndes	AUS
5th Jack Hansen	NZL

**Laser Radial****Apprentices**

1st Stephen Cockerill	GBR
2nd Mark Orams	NZL
3rd Wilmar Groenendijk	NED
4th Ryan Mirth	USA
5th Robert Falk	USA

**Masters**

1st Adam French	AUS
2nd Alden Shattuck	USA
3rd Bruce Martinson	USA
4th Diane Burton	USA
5th Richard Ineson	NZL

**Grand Masters**

1st Lindsay Hewitt	USA
2nd Colin Maddren	NZL
3rd Mark Miller	NZL
4th James Johnston	USA
5th Lew Verdon	AUS

**Great Grand Masters**

1st Dick Tillman	USA
2nd Henry de Wolf Jr.	USA
3rd Heinz Gebauer	CAN
4th Jim Christopher	GBR
5th Peter Raymer	GBR

**Women**

1st Diane Burton	USA
2nd Jane Codman	USA
3rd Sally Sharp	USA
4th Yvonne Malmlsten	SWE

5th Debbie Phillips	GBR
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**2001 Cork, IRL****Entries 314 Countries 25****Laser Standard****Apprentices**

1st Brett Beayer	AUS
2nd Mark Littlejohn	GBR
3rd Doug McGain	AUS
4th Mark Lyttle	IRL
5th Marc Jacobi	USA

**Masters**

1st Colin Dibb	AUS
2nd Ian Lineberger	USA
3rd Anders Sorensson	SWE
4th Mark Bethwaite	AUS
5th Malcolm Courts	GBR

**Grand Masters**

1st Keith Wilkins	GBR
2nd Philip Pegler	AUS
3rd Jacky Nebrel	FRA
4th Bob Blakey	NZL
5th Barry Waller	AUS

**Laser Radial****Great Grand Masters**

1st Henry de Wolf Jr.	USA
2nd Fradin Schoettle	USA
3rd Heinz Gebauer	CAN
4th Anthony Denham	AUS
5th James Christopher	USA

**Laser Radial Open**

1st Stephen Cockerill	GBR
2nd Wilmar Groenendijk	NED
3rd Thomas Urban	SWE
4th John Reay	GBR
5th Hugh J. Michon	FRA

**Laser Radial Women**

1st Roberta Hartley	GBR
2nd Lyndall Patterson	AUS
3rd Claire Davison	GBR
4th Yvonne Malmlsten	SWE
5th Jan Kemp	USA

**2000 Cancun, MEX****Entries 147 Countries 20****Laser Standard****Apprentices**

1st Alan Davis	GBR
2nd Alexandre Nikolaev	RUS
3rd Terry Soutcher	GBR
4th Bill O'Hara	IRL
5th Martin Halsten	SWE

**Masters**

1st Mark Bethwaite	AUS
2nd Rob Courts	NZL
3rd Doug Peckover	USA
4th Jack Schlachter	AUS
5th Alan Keen	RSA

**Grand Masters**

1st Keith Wilkins	GBR
2nd Dick Tillman	USA
3rd Joe van Rossem	CAN
4th Ian Rawet	GBR
5th Tom Speed	NZL

**Laser Radial****Great Grand Masters**

1st Henry de Wolf Jr.	USA
2nd Kurt Zueger	SUI
3rd Heinz Gebauer	CAN
4th Geoffrey Myburgh	RSA
5th Robert Saltmarsh	USA

**Laser Radial Open**

1st Adam French	AUS
2nd Wilmar Groenendijk	NED
3rd Glyn Purnell	GBR
4th Lew Verdon	AUS
5th Henry de Wolf Jr.	USA

**Laser Radial Women**

1st Sally Sharp	USA
2nd Jennie King	GBR
3rd Karyn Voos	USA
4th Alison Knight	IVB

**1999 Melbourne, AUS****Entries 237 Countries 22****Laser Standard****Apprentices**

1st Mark Littlejohn	GBR

2nd Jack Hansen	NZL
3rd Keith Vann	NZL
4th Ben Piefke	AUS
5th Kerry Waraker	AUS
<b>Laser Radial</b>	
<b>Great Grand Masters</b>	
1st Graham Read	AUS
2nd Haruyoshi Kimura	JPN
3rd Geoffrey Myburgh	RSA
4th Kurt Zueger	SUI
5th Peter O'Grady	AUS
<b>Laser Radial Open</b>	
1st Mark Orams	NZL
2nd Alexandre Nikolaev	RUS
3rd Frank Innon	AUS
4th Wilmar Groenendijk	NED
5th Adam French	AUS
<b>Laser Radial Women</b>	
1st Lyndall Patterson	AUS
2nd Helen Cooke	AUS
3rd Sally Sharp	USA
4th Susan Fielding	AUS
5th Lesley Hotchin	GBR

<b>1997 Algarrobo, CHI</b>	
Entries 128	Countries 21
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Herman Cristian	CHI
2nd Alan Davis	GBR
3rd Marcelo Fuschs	BRA
4th Terry Scutcher	GBR
5th Bill O'Hara	IRL
<b>Masters</b>	
1st Doug Peckover	AUS
2nd Mark Bethwaite	AUS
3rd Keith Wilkins	GBR
4th Jack Schlachter	AUS
5th Barry Waller	AUS
<b>Grand Masters</b>	
1st Colin Lovelady	AUS
2nd Peter Seidenberg	USA
3rd Wilhelm Gerlinger	GER
4th Joe Van Rossem	CAN
5th Jack Hansen	NZL

<b>Laser Radial</b>	
<b>Great Grand Masters</b>	
1st Heinz Gebauer	CAN
2nd Doug Bates	NZL
3rd Graham Reed	AUS
4th Peter Raymer	GBR
5th Robert Saltmarsh	USA
<b>Laser Radial Open</b>	
1st Wilmar Groenendijk	NED
2nd Aydin Yurdum	TUR
3rd Alexandre Nikolaev	RUS
4th Gary McCrohon	AUS
5th Heinz Gebauer	CAN

<b>1996 Cape Town, RSA</b>	
Entries 155	Countries 21
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Peter Wilson	RSA
2nd Robert Douglass	AUS
3rd Regis Berenguer	FRA
4th Terry Scutcher	GBR
5th Chris Rodowicz	AUS
<b>Masters</b>	
1st Keith Wilkins	GBR
2nd Mark Bethwaite	AUS
3rd Alan Keen	RSA
4th Barry Waller	AUS
5th Doug Peckover	AUS
<b>Grand Masters</b>	
1st Ben Piefke	AUS
2nd Denis O'Sullivan	IRL
3rd Colin Lovelady	AUS
4th Peter Seidenberg	USA
5th Ken Holiday	RSA

<b>Laser Radial</b>	
<b>Laser Radial Open</b>	
1st Adam French	AUS
2nd Alexandre Nikolaev	RUS
3rd Kevin Bloor	AUS
4th Rui Sancho	ANG
5th Gary McCrohon	AUS

<b>1995 Tenerife, ESP</b>	
Entries 113	Countries 20
<b>Apprentices</b>	
1st Nicholas Harrison	GBR
2nd Lance Burger	RSA
3rd Tomas Franzen	SWE
4th Peter Saxton	GBR
5th Norio Akiyama	JPN
<b>Masters</b>	
1st Keith Wilkins	GBR
2nd Barry Waller	AUS
3rd Ted Moore	USA

4th Pieter Dekker	NED
5th Jacky Nebrel	FRA
<b>Grand Masters</b>	
1st Colin Lovelady	AUS
2nd Peter Seidenberg	USA
3rd Jack Hansen	NZL
4th Joe Van Rossem	CAN
5th Michael Heath	AUS

<b>1994 Wakayama, JPN</b>	
Entries 131	Countries 15
<b>Apprentices</b>	
1st Norio Akiyama	JPN
2nd Nicholas Harrison	GBR
3rd Nelson Horn Ilha	BRA
4th Koichiro Naito	JPN
5th Doug Peckover	USA
<b>Masters</b>	
1st Keith Wilkins	GBR
2nd Hiroyuki Uehara	JPN
3rd Mark Bethwaite	AUS
4th Keiichi Hirano	JPN
5th Ian Rawley	GBR

<b>Grand Masters</b>	
1st Colin Lovelady	AUS
2nd Peter Seidenberg	USA
3rd Denis O'Sullivan	IRL
4th Barry Pownall	AUS
5th Tony Denham	AUS

<b>1993 Takapuna, NZL</b>	
Entries 186	Countries 22
<b>Apprentices</b>	
1st Paul Page	NZL
2nd Neville Vittey	AUS
3rd Murray Thom	NZL
4th Andrew York	AUS
5th Lance Burger	USA
<b>Masters</b>	
1st Keith Wilkins	GBR
2nd John Rigg	AUS
3rd Mark Bethwaite	AUS
4th Barry Waller	AUS
5th John Douglas	NZL

<b>Grand Masters</b>	
1st Colin Lovelady	AUS
2nd Denis O'Sullivan	USA
3rd Barry Pownall	AUS
4th Ralph Ellis	AUS
5th John Maynard	GBR
<b>Great Grand Masters</b>	
1st Doug Bates	NZL
2nd Robert Saltmarsh	USA
<b>Women</b>	
1st Jill Robertson	CAN
2nd Sally Sharp	USA

<b>1991 Porto Carras, GRE</b>	
Entries 107	Countries 23
<b>Laser Standard</b>	
<b>Apprentices</b>	
1st Stephen Birbeck	GBR
2nd Mark Phillips	AUS
3rd Mario Orlich	ITA
4th Geoffrey McGillivray	AUS
5th Peter Wolfe	IRL
<b>Masters</b>	
1st Keith Wilkins	GBR
2nd Peter Seidenberg	CAN
3rd Barry Waller	AUS
4th Willi Gerlinger	GER
5th Ilkka Schroderus	FIN
<b>Grand Masters</b>	
1st Colin Lovelady	AUS
2nd Friedhelm Lixenfeld	GER
3rd Heinz Gebauer	CAN
4th Nick Paine	GBR
5th Tony Denham	AUS

<b>1990 New Bedford, USA</b>	
Entries 112	Countries 19
<b>Apprentices</b>	
1st Kim Zetterberg	USA
2nd Michael Stovin-Bradford	AUS
3rd Mark Phillips	AUS
4th Geoffrey McGillivray	AUS
5th Had Brick	USA
<b>Masters</b>	
1st Denis O'Sullivan	IRL
2nd Peter Seidenberg	CAN
3rd Joe Van Rossem	CAN
4th Curt Bildner	SWE
5th David Olson	USA

<b>Grand Masters</b>	
1st Friedhelm Lixenfeld	GER
2nd Jim Christopher	AUS
3rd Tony Denham	AUS
4th Norman Freeman	USA
5th Nick Paine	GBR

<b>1989 Aarhus, DEN</b>	
Entries 114	Countries 25
<b>Apprentices</b>	
1st Keith Wilkins	GBR
2nd Phil Graves	CAN
3rd Jeff Loosemore	AUS
4th Had Brick	USA
5th Peter Griffiths	NZL
<b>Masters</b>	
1st John Rigg	AUS
2nd Curt Bildner	SWE
3rd Christian Baath	SWE
4th Denis O'Sullivan	IRL
5th Peter Seidenberg	CAN
<b>Grand Masters</b>	
1st Friedhelm Lixenfeld	GER
2nd Jack Swenson	CAN
3rd Heinz Gebauer	CAN
4th Nick Paine	GBR
5th Robert Saltmarsh	USA

<b>1988 Falmouth, GBR</b>	
Entries 156	Countries 24
<b>Apprentices</b>	
1st Jeff Loosemore	AUS
2nd Philip Graves	CAN
3rd Had Brick	CAN
4th Keith Wilkins	GBR
5th Peter Heywood	AUS
<b>Masters</b>	
1st Peter Seidenberg	CAN
2nd Colin Lovelady	GBR
3rd John Maynard	AUS
4th John Rigg	AUS
5th Nils Anderson	USA
<b>Grand Masters</b>	
1st Friedhelm Lixenfeld	GER
2nd Geoffrey Myburgh	RSA
3rd Heinz Gebauer	CAN
4th Peter Milnes	USA
5th Jan Nouwen	NED

<b>1987 Melbourne, AUS</b>	
Entries 106	Countries 22
<b>Apprentices</b>	
1st Phil Peglar	AUS
2nd Warwick Phillips	AUS
3rd John Sprague	AUS
4th Geoff Gale	AUS
5th Willi Gerlinger	GER
<b>Masters</b>	
1st John Rigg	AUS
2nd Michael Heath	AUS
3rd Peter Seidenberg	CAN
4th Colin Lovelady	AUS
5th Greg Marshall	AUS
<b>Grand Masters</b>	
1st Alan Clark	AUS
2nd Alec McClure	AUS
3rd Graham Gilbert	AUS
4th Doug Bates	NZL
5th Bob White	AUS

<b>1985 World Masters Games</b>	
<b>Toronto, CAN</b>	
Entries 101	
<b>Apprentices</b>	
1st David Olsen	USA
2nd Ben Lashaway	USA
3rd Richard Gronblom	FIN
<b>Masters</b>	
1st Peter Seidenberg	CAN
2nd Colin Lovelady	AUS
3rd Peter Lundt	USA
<b>Grand Masters</b>	
1st Alec McClure	AUS
2nd Alexander Nimick	GBR
3rd Alister Taig	USA

<b>1984 Pattaya, THA</b>	
Entries 62	Countries 22
<b>Apprentices</b>	
1st Richard Verco	AUS
2nd Paul Millsom	AUS
3rd Kim Weber	FIN
4th Roger Williams	UAE
5th Ilkka Schroderus	FIN
<b>Masters</b>	
1st John Rigg	AUS
2nd Peter Seidenberg	CAN
3rd Colin Lovelady	AUS
4th Michael Heath	AUS
5th Denis O'Sullivan	IRL
<b>Grand Masters</b>	
1st Alex McClure	AUS
2nd Doug Bates	NZL
3rd Alan Clark	AUS
4th Robert Saltmarsh	USA
5th Alf Johnson	USA

<b>1983 Gulfport, USA</b>	
Entries 70	
<b>Apprentices</b>	
1st Tucker Bragdon	USA
2nd Phillip Peglar	AUS
3rd Peter Branning	USA
4th Carole Spooner	CAN
5th Roger Williams	QAT
<b>Masters</b>	
1st Norman Freeman	USA
2nd Randall Swan	USA
3rd Dick Rose	USA
4th Heinz Gebauer	CAN
5th Geoff Myburgh	RSA
<b>Grand Masters</b>	
1st Alan Clark	AUS
2nd Alan Levinson	USA
3rd Bob Saltmarsh	USA
4th Peter Milnes	USA
5th Alf Johnson	RSA

<b>1982 Sardinia, ITA</b>	
Entries 82	
<b>Apprentices</b>	
1st Paul Millsom	AUS
2nd Jacky Nebrel	FRA
3rd Michael Wallace	IRL
4th Michael Heath	AUS
5th Tony Manning	AUS
<b>Masters</b>	
1st Hans-Luther Striewe	GER
2nd Geoff Myburgh	RSA
3rd Nick Paine	GBR
4th Jack Swenson	USA
5th Hugo Kroth	GER
<b>Grand Masters</b>	
1st Alan Clark	AUS
2nd Alex McClure	AUS
3rd Cecil Walker	GBR
4th Bob Saltmarsh	USA
5th William ter Weld	NED

<b>1981 Bendor, FRA</b>	
Entries 52	Countries 11
<b>Apprentices</b>	
1st Jacky Nebrel	FRA
2nd Michael Teikken	GER
3rd Michael Nerbollier	SUI
4th Werner Winter	GER
5th Wolf Peter Nielsen	GER
<b>Masters</b>	
1st Nick Paine	GBR
2nd Maudez de Cozannet	FRA
3rd Lucien Bouche	FRA
4th Horst Kimm	GER
5th Michael Tuson	QAT
<b>Grand Masters</b>	
1st Alan Clark	AUS
2nd Cecil Walker	GBR
3rd Pietro Marchetti	ITA
4th Vittorio Baldoni	ITA
5th John Nouwen	NED

<b>1980 Bendor, FRA</b>	
Entries 67	Countries 15
<b>Apprentices</b>	
1st Svend Carlsen	DEN
2nd Werner Winter	GER
3rd Jacky Nebrel	FRA
<b>Masters</b>	
1st Nick Paine	GBR
2nd Alf Johnson	RSA
3rd Peter Fordham	GBR
<b>Grand Masters</b>	
1st Sam Small	USA
2nd Cecil Walker	GBR
3rd Vittorio Baldoni	ITA



# 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 22-25 of this ILCA Handbook or at [www.laserinternational.org](http://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 .....





**Laser 4.7**



**Laser Radial**



**Laser Standard**