

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 만들어 졌습니다. 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. ILCA 는 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 단체 입니다. 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.

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 cunningham, 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 cunningham fairlead	Vang cleat block
Plastic cunningham 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)

2019 년 01 월 01 일부터 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 제공한 세일 버튼을 부착해야 한다고 수정

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

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

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

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

규칙 31 은 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 원디자인 당기이다.

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, 배트 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 배턴에 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

2001 년 1 월 1 일 이후 제조된 세일은 ILCA 에서 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 배턴을 생산하는 레이저 상표 사용 권한을 가진 생산업자를 말한다.

제 2 장

1. 계측 다이어그램

계측 다이어그램도 클래스규칙의 한 부분이다. 스파, 세일, 배트, 센터보드, 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 계속위원장에게 보고 되어야 한다.

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

문제의 배를 제외한 열척의 샘플을 추출하여 같은 방법으로 계속한다. 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 계속위원장에게 보고하여야 한다. 샘플에 대해 계속된 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 조절시에, 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	뱅크리트 블록
플라스틱 아우트홀 페어리드	뱅크 블록
플라스틱 트래블러 페어리드	뱅크
플라스틱 트래블러 클램 클리트	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 and/or tape may be included anywhere on the free end of a control line.
- x. The free ends of different control lines (except mainsheet) may be tied together and/or tied to any deck fitting or the centreboard, the centreboard handle or a rope loop used to attach a retaining line. Free ends of control lines shall not be tied to shock cord (except mainsheet).
- xi. To secure the mast in the event of a capsizing, 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)i.
- 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), 고리모양 로프, 고리모양 로프로 보강한 덤불, 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 덱 클리트 베이스에 부착된 “선택적” 캠클리트는 “터닝포인트”로 보지 않는다.
- vi “선택적” 블록이나 속코드를 부품, 라인, 마스트, 붐 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 스플 라이스를 제외하고 일정한 굵기이어야 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 고리모양 로프로 보강한 덤불은 그 길이가 40mm를 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” 덱 부품들 (덱 블록 부품과 덱 클리트 베이스)
 - a) 커닝햄 페어리드는 같은 위치에 한개 또는 두개의 “선택적” 싱글 블록이 부착된 “제조사 공급의” 덱 블록 부품으로 교체할 수 있다. “선택적” 블록을 커닝햄 페어리드에 부착해서는 안된다. 커닝햄이나 아웃홀 컨트롤 라인을 덱 클리트와 연결하기 위해 쓸 수 있는 것은 커닝햄 페어리드 단독이거나 “선택적” 싱글 블록이 부착된 “제조사 공급의” 덱 블록 부품 뿐이다.
 - b) “선택적” 덱 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” 덱 클리트 베이스와 함께 같은 위치에 부착하고, 고정 구멍간 간격이 27mm이어야 한다. 이 두개의 캠 클리트에는 출구 쪽으로 볼러 부착 여부에 상관없이 브리지나 페어리드를 부

착할 수도 있다.

- d) 컨트롤 라인은 커닝햄 페어리드, “제조사공급의” 덱 블록 부품과 그것에 부착된 “선택적” 블록, 커닝햄 클램 클리트 또는 “제조사 공급의” 덱 클리트 베이스와 그것에 부착된 “선택적” 캠 클리트, 클리트 브리지나 페어리드 어느 것에 매서는 안 된다.
- ix 플라스틱이나 고무 튜브로 감싼 고리모양 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 덱 부품, 센터보드, 센터보드 핸들 또는 센터보드를 잡아주는 역할의 고리모양 로프에 맬 수 있으나, 속코드에 매어서는 안된다.
- xi 전복시 마스트가 빠지지 않기 위한 속코드나 (마스트가 180 도 이상 회전 가능하게) 느슨하게 묶어놓은 라인은 커닝햄 페어리드나 덱 블록과 마스트 탱 또는 구즈넥 사이에 연결 되어야 한다. 그 라인은 클립, 축, 셔클 그리고 볼 등을 부착하여 사용할 수 있다.
- xii 덱, 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 스트랩, 약쪽 붐 블록, 메인시트 블록을 차례로 통과 하여야 한다. 메인시트 블록을 통과 한 라인은 메인시트 블록을 벗어나지 않도록 단을 매거나 매듭을 하여야 한다. 택킹이나 자이빙을 돕기 위한 때가 아니면 메인시트를 약쪽 붐 블록의 다음에서 조작하면 안된다.
- ii 메인시트의 끝은 매듭을 하거나 메인블록 지지부, 하이킹 스트랩, 하이킹 스트랩 지지 로프 또는 하이킹 스트랩 속코드에 맬 수 있다. 이 선택적 사용시, 규칙 3(c)에서의 매듭에 관한 요구에 만족한다.
- iii 메인시트 블록은 내외장 재밍장치(움직임 방지장치)가 있는 어떤 타입의 싱글 블록이라도 계측 다이어그램에 나와 있는 위치에 부착할 수 있다. 그 블록은 한 개의 스프링, 볼, 플라스틱 튜브 또는 테이프로 지지할 수 있다.
- iv 메인시트용 클램 또는 캠 클리트는 어떤 타입이든 계측 다이어그램에 나와 있는 위치인 양현에 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, 고리 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 80mm를 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(U 자형 고리)을 사용하여 뱅 클리트 블록 한쪽 또는 양쪽에 부착할 수 있다.
- ix 마스트 탭 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 클라스 규칙에 적합한 2가지 "제조사공급의" 뱅 클리트 부품을 보여 준다.
 - b) 본 부품은 마스트 탭에 바로 연결되어야 한다.
 - c) 본 부품은 어떤 방법이든 개조 해서는 안 된다.

(e) 컨닝햄 - 규칙 3(a), 3(b) 참조

- i 컨닝햄 시스템은 최대 3 가닥의 컨트롤 라인, "선택적" 블록 또는 로프의 루프를 위한 "터닝 포인트"는 최대 5 개이어야 한다.
- ii 컨닝햄 컨트롤 라인은 마스트, 구즈넥, 마스트 탭, 마스트 탭에 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 5 개의 "터닝 포인트"중 적어도 하나이어야 한다.
- iii 추가 도르래를 위해 고리모양 로프, "선택적" 블록이나 붐, 세일 택 크링글, 구즈넥 부품, 마스트 탭, 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 클리드 또는 "제조사 공급의" 데크 클리트 베이스에 부착된 "선택적" 캠 클리트를 한번만 통과 하여야 한다.

(f) 아우트 홀 - 규칙 3(a), 3(b) 참조

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

"선택적" 블록은 규칙 3(f)ii 에 충족되는 아우트홀 페어리드에 부착되어 질 수 있다. "선택적" 블록은 아우트홀 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 속코드를 사용할 수도 있다.
- vii 속코드나 고리모양 로프(컨트롤 라인의 부분으로)를 아우트홀 라인이 붐에 가깝게 유지되기 위해 그 아우트홀 컨트롤 라인이나 붐 주위로 매달 수 있다.
- viii 데크로 이어진 아우트홀 시스템
 - a) 데크로 이어지게 하는 경우, 그 아우트홀 컨트롤 라인은 컨닝햄 페어리드 또는 "제조사 공급의" 데크 블록 부품에 부착된 "선택적" 아우트홀 싱글 블록을 통과하고 "제조사 공급의" 데크 클리트 베이스에 부착된 "선택적" 캠 클리트를 통과해야 한다.
 - b) 붐 아우트홀 클램클리드는 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 볼 슬라이드 중 어느 하나에 의하여 붐에 부착 되어야 한다. 세일 크루와 퀵 릴리즈 시스템 또는 아우트홀 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 4.7 의 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 안쪽 트랜섬 또는 코피트 뒷면에 부착된 명판에 각인되어져 있다. 세일번호 148200 이후의 레이저 세일번호는 코피트 뒷면에 부착된 월드세일링 건조 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:

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

be placed along the top edge of the seam below the bottom batten pocket (+ or - 12mm), for the *M/KI* 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

- i. Sails used in the following women's events shall carry a red rhombus above the top batten pocket on both sides;
 - a. World or regional (continental) championships.
 - b. Events described as "international events" by the Notice of Race or Sailing Instructions.
 - c. Other events that prescribe in the Notice of Race or Sailing Instructions that women competitors should be identified.
- ii. The minimum size and approximate position shall comply with diagram on page 36.
- iii. 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 술기와 평행하거나 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 술기의 윗 부분을 따라서 부착하고, MKII 세일은 보텀배턴포켓 아래로 400mm(± 12) 위치인 베이스라인 위에, 그리고 스타보드쪽 글자 아래로 400mm(± 12) 위치에 따라 평행하게 포트쪽 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 국기끝이 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 capsized. 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 마스트보다 앞으로 위치해서는 안된다.
- (c) 세일
경기위원회로부터 서면허가없이 시리즈 중에 세일을 교환해서는 안된다. 서면허가는 수리능력의 손상상태 또는 시리즈 경기에서 다음 경기 시작 전까지 수리가 불가한 손상이 발생한 경우에 한해 주어진다. 세일을 교환한 경우 손상된 세일이 수리되더라도 같은 시리즈에서는 사용할 수 없다. 이 규칙에서 시리즈란 득점으로 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 현회원이 아니면 플리트, 인터플리트, 지역, 기타 공인대회의 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 세일원도우를 제외하고 그래픽 재질에 대한 제한은 없다. [월드세일링 규정 20: <http://www.sailing.org/documents/regulations/regulations.php>]

제 3 장

제 1장과 제 2장의 선택적 사항 및 예외사항

- 11. 선체 마감**
- (a) 선체 왁싱, 광택, 고온 습건식 샌딩은 의도와 효과로 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 피니싱하는 것은 허용되지 않는다.
- 12. 트랜섬 드레인 마개**
선미 드레인마개와 거전을 선으로 연결해도 된다.
- 13. 셸베일러**
제조사 공급의 셸베일러만 추가할 수 있다. 선체와 연결되는 모서리, 나사구멍에 테이프, 충진재 또는 접착재로 씌워할 수 있다. 베일러면과 맞추기 위한 나사구멍 충진은 허용한다. 베일러의 면을 선체에 맞추거나 옆쪽 모양을 수정하는 것은 금지한다. 셸베일러의 드레인마개는 제거할 수 있으며 셸베일러 핀은 접착테이프로 선체바닥에 고정할 수 있다. 제조사공급 O링은 베일러의 기본기능이 바뀌지 않는다면 대체할 수 있다.
- 14. 센터보드**
- (a) 센터보드 스톱의 아래로부터 센터보드의 상단과

평행하게 그른 선 위로 최대 12.5mm 직경의 두개 이하의 홀을 연결하는 한 개의 로프핸들은 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 둘러서 연결할 수는 있으나 거널에 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 부쉬세트는 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

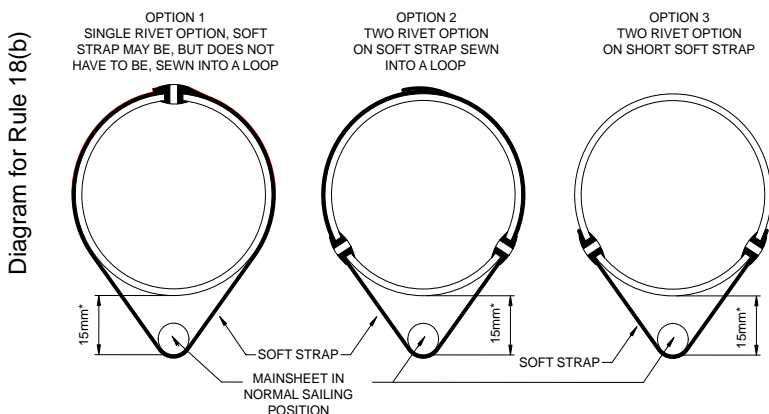
- (a) To prevent abrasion of the mast step, tubes or collars of uniform thickness not exceeding 1 mm in total may be placed around the entire circumference of the lower mast or the mast step cavity. A tube or collar shall not extend more than 10 mm above deck level.



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 아이가 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. 붐

- (a) 최대 길이 900mm의 제조사가 공급하는 금속 슬리브가 붐 내부에 고정될 수 있다. 슬리브는 붐의 프론트엔드에서(플러그 포함) 1220mm 지점의 뒤쪽까지 연장되어서는 안된다.
- (b) 붐에 있는 두 블록 사이의 스테인레스스틸 메인시트아이스트랩은 부드러운 스트랩으로 교체될 수 있다. 부드러운 스트랩의 최대 너비는 26mm이다. 부드러운 스트랩은 아래 그림과 같이 제조사가 뿜은 홀 둘을 사용하여 붐에 고정해야 한다.
- (c) 트래블러와 붐에 설치된 메인시트블록은 제조사가 공급한 사진과 같은 블록들로 교체할 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 윤회할 수 있다.
- (c) 견고한 결함을 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 해지커버로 닫아 물이 들어가지 않게 밀폐할 수 있다면 선체 내부로 접근하기 위한 내경 153mm 이하의 검사용 포트를 데크 또는 콕핏 안쪽에 설치할 수 있다. 해지커버 안에 보관백을 둘 수 있다.

21. 클립과 수납백

데크, 콕핏 내부, 마스트 또는 돛 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 있어야 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 텔데일은 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

안전은 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, 돛, 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 계측 다이어그램을 따라 배치되어야 한다.

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

리벳 또는 유사한 재료로 완전 수밀되어야 한다.

(d) 세일패널과 러프슬리브는 교체되지 않아야 한다.

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

(f) 윤활제는 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 계측다이어그램과 일치해야 한다.

(b) 모든 리가타는 29(c)의 조건을 만족하거나, 대회 공고 및 세일링세칙에서 명시하면 레이디얼 리그를 사용할 수 있다.

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

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

(e) 세일번호 및 국가글자

규칙 4(c)와 (f)는 아래와 같이 변경한다:

4(c) 번호가 153000 이상이고 1993 년 6 월 1 일 이후에 구입한 레이디얼 세일의 세일번호는 세일의 각 측면에 접착되거나 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.46~47 을 참조)

4(f) 국가글자가 필요하다면 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 than 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 계속다이어그램과 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 153000을 넘고 1993년 6월 1일 이후에 구입한 4.7의 세일번호는 세일의 양쪽에 접착되거나 바느질되어야 한다. 스타보드 숫자의 하단은 중간 배튼포켓의 하단 아래의 술기와 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 제시된 우편 투표에 응하여 국제클래스사무국에 서면으로 회신하는 회원의 3분의 2 이상. 규칙 변경 제시일로부터 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).



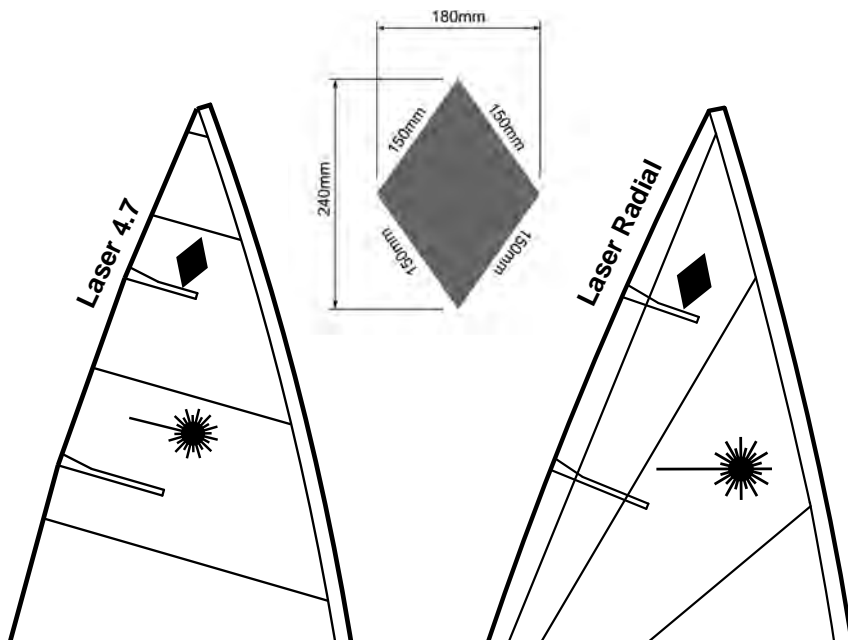
Instructions for Applying Red Rhombus For Women's Events

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.

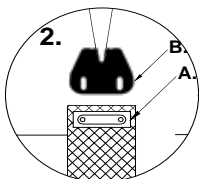
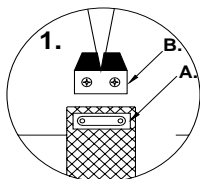
The rhombus may be retained for racing in other events.



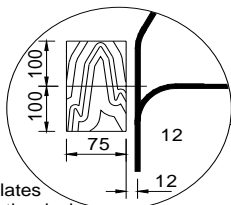
Measurement Diagrams (pages 37 to 43 part of class rules)

All dimensions shown in millimetres

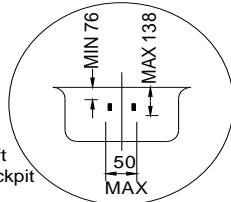
Measurements are shown only as a guide to replacement in the event of failure.



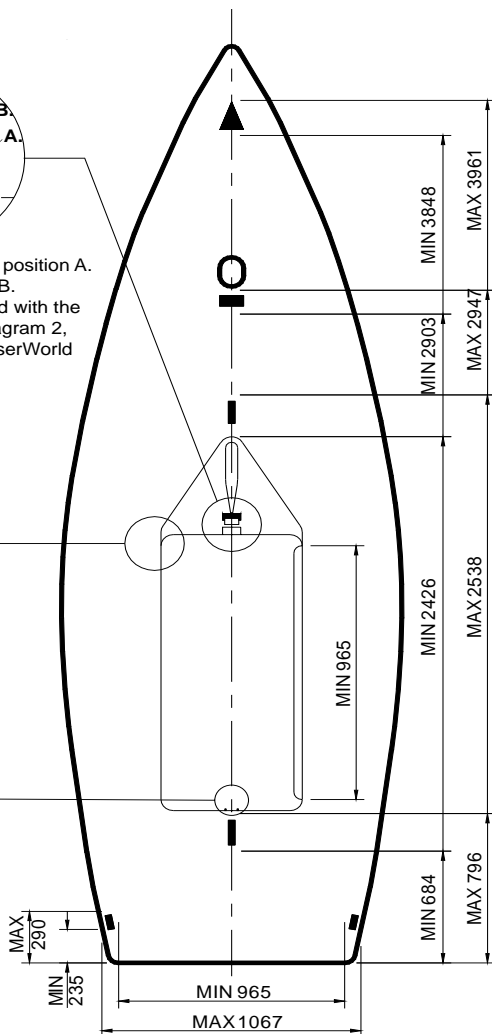
Mainsheet block shall be attached to eyestay in position A. Centreboard Brake shall be attached in position B. Centreboard Brake in diagram 1 may be replaced with the builder supplied Centreboard Brake shown in diagram 2, available mid/late 2009 (see December 2008 LaserWorld or www.laserinternational.org)



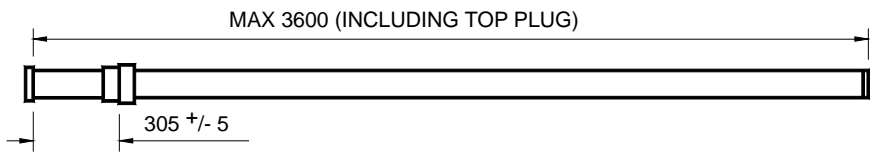
Wooden backing plates are under the deck for the fitting of cam or clam cleats



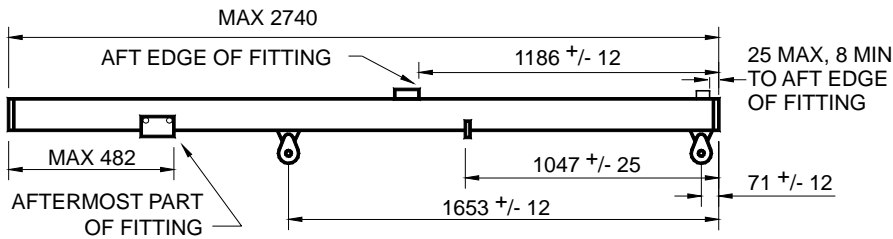
Eyes at aft end of cockpit



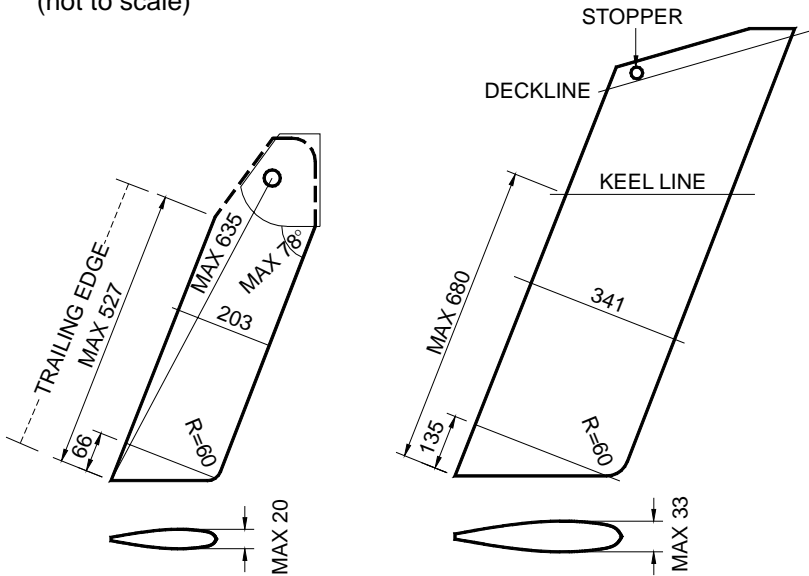
LASER, LASER RADIAL & LASER 4.7 MAST TOP SECTION



LASER, LASER RADIAL & LASER 4.7 BOOM

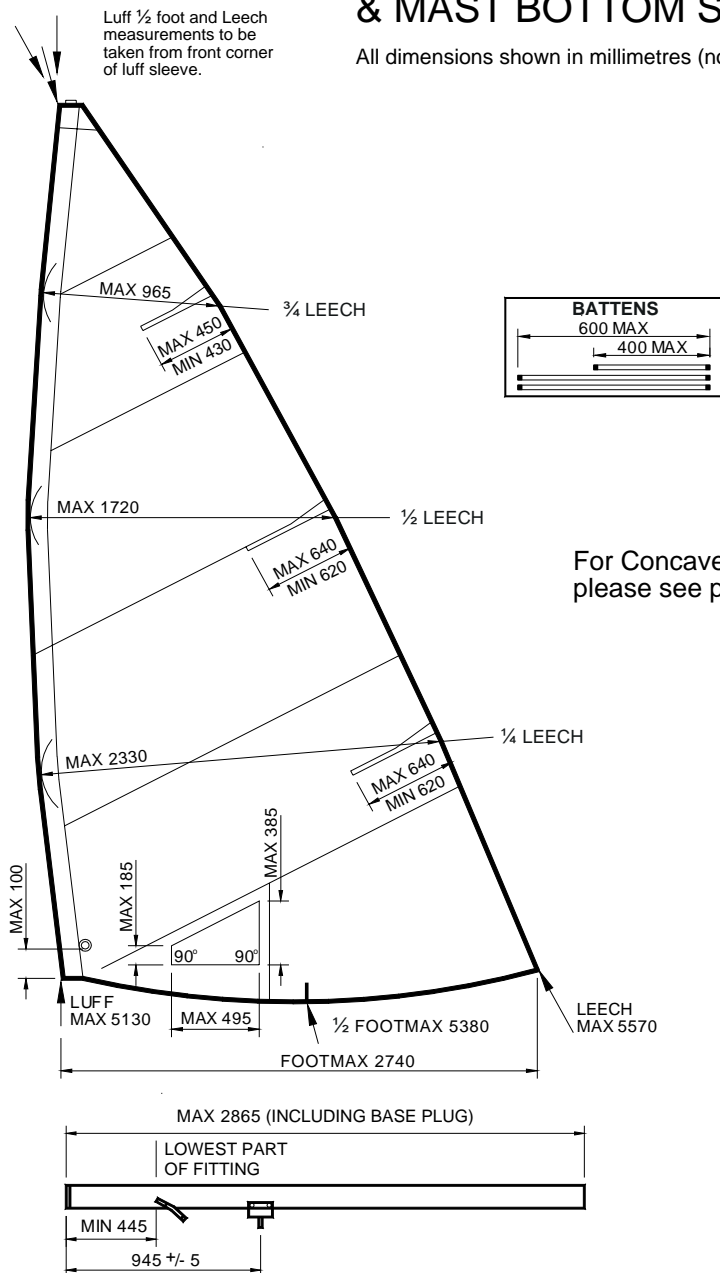


All dimensions shown
in millimetres
(not to scale)



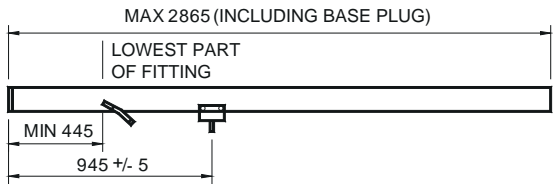
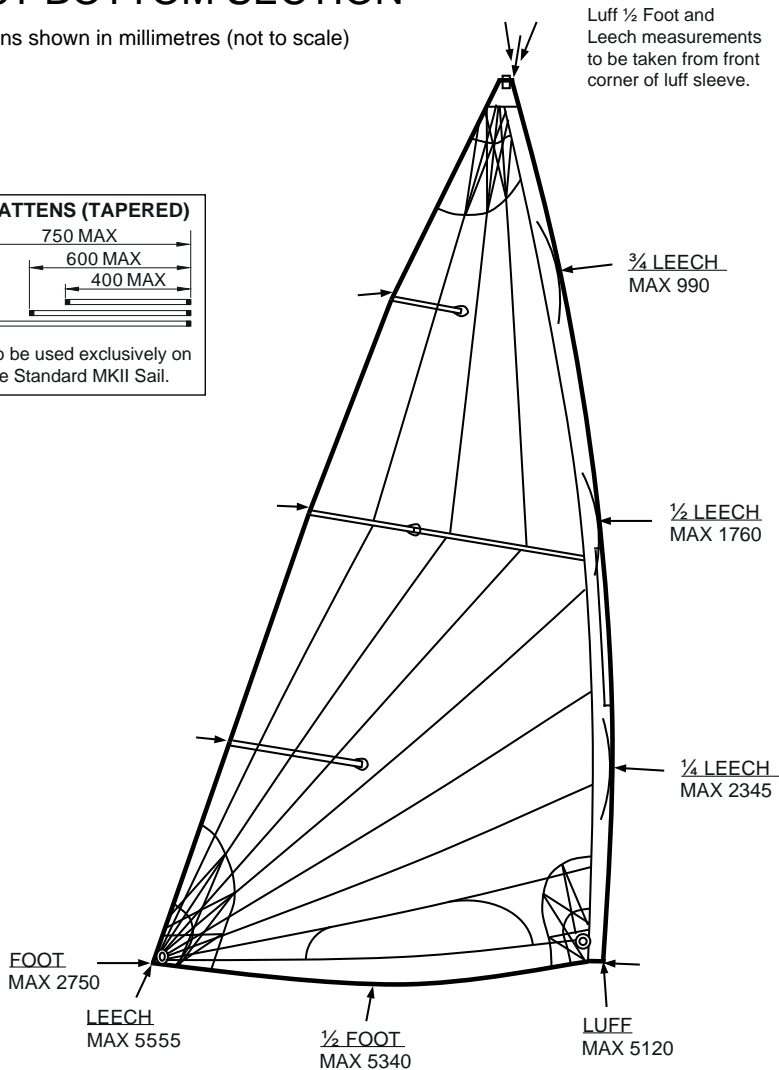
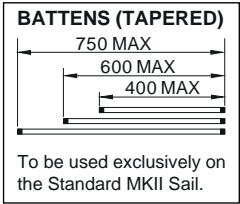
LASER STANDARD MKI SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)



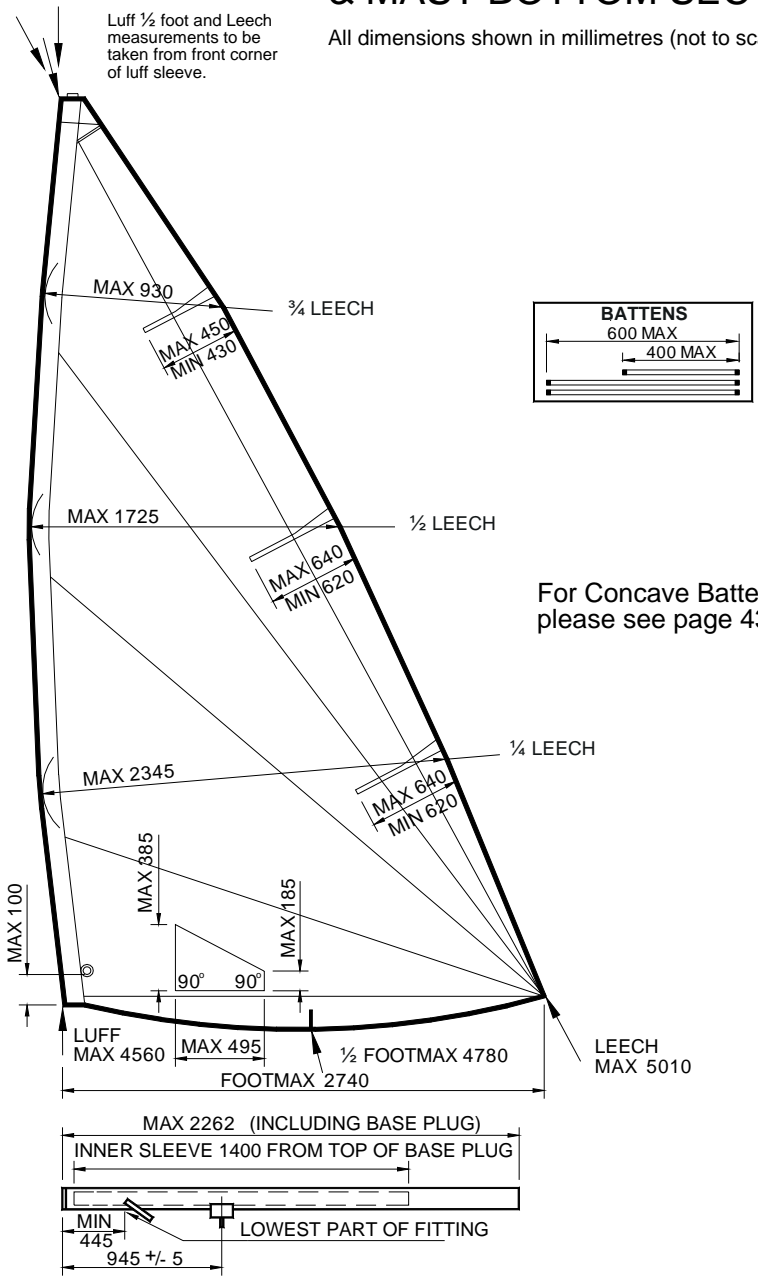
LASER STANDARD MKII SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)



LASER RADIAL SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)

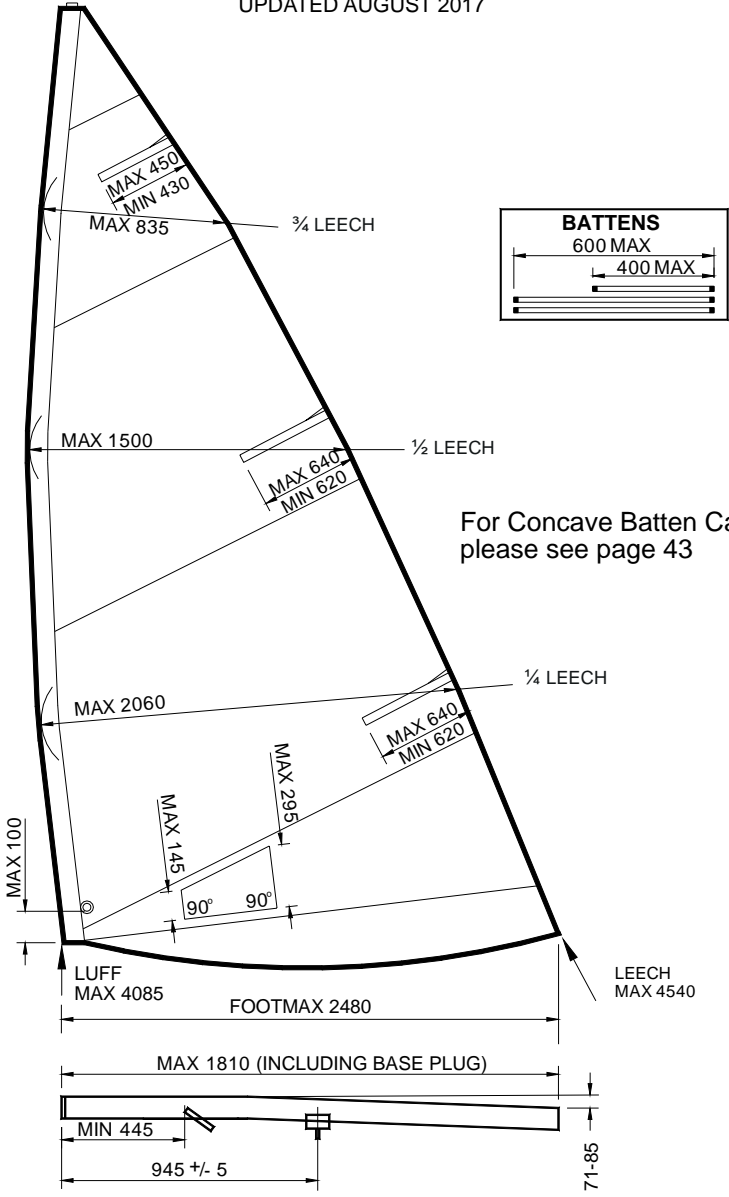


LASER 4.7 SAIL & MAST BOTTOM SECTION

All dimensions shown in millimetres (not to scale)

UPDATED AUGUST 2017

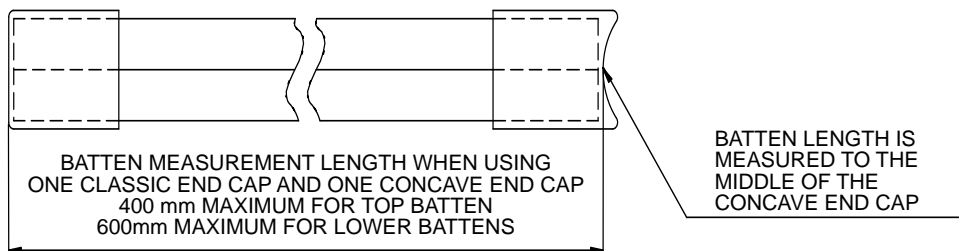
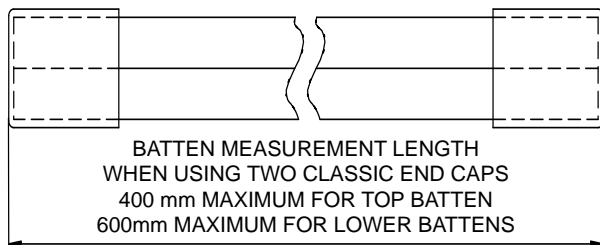
Luff and Leech measurements to be taken from front corner of luff sleeve.



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

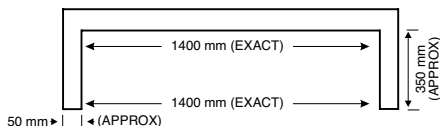
(b) Equipment

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

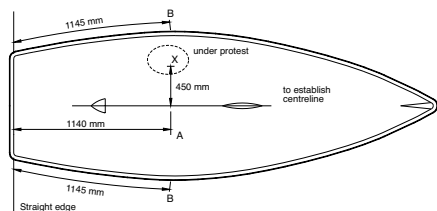
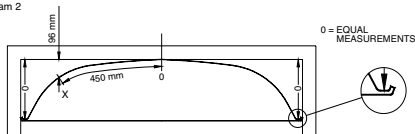


Diagram 2



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

Measurement of Rocker

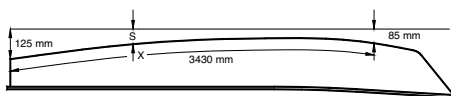
Turn boat upside down. Measure out a distance of 3430 mm along the keel line of the boat.

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

- 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.
- 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

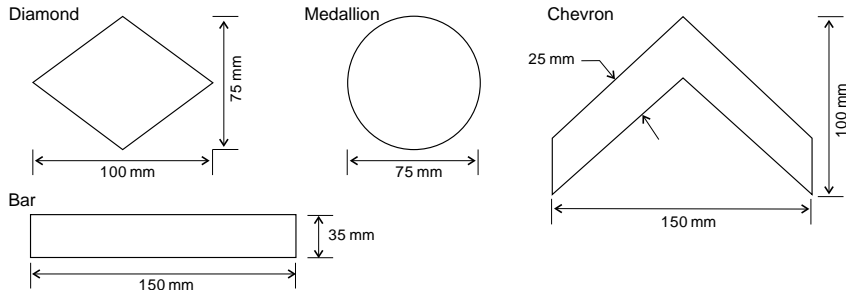
Cube inscribed with 2 Diamonds

Series 4th & 5th place finishers

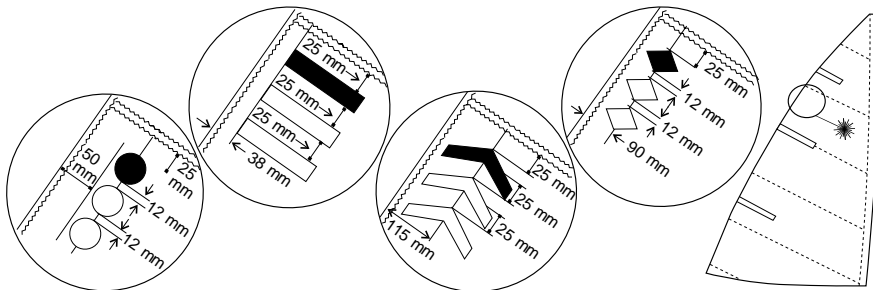
Cube inscribed with 1 Diamond

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.

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.



fig 1



fig 2

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.



fig 3



fig 4



fig 5

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.

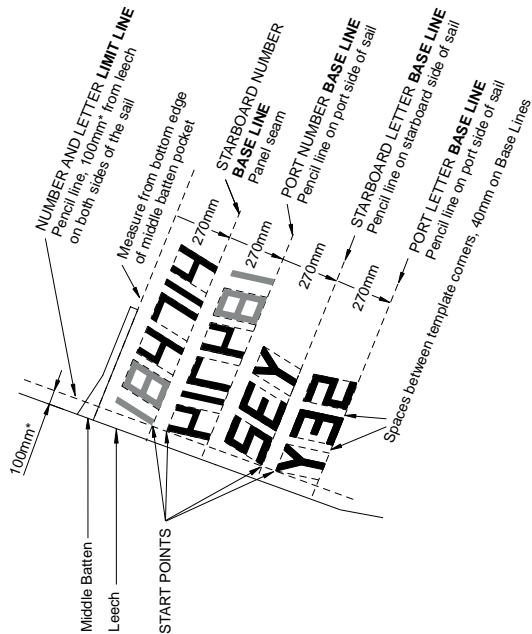
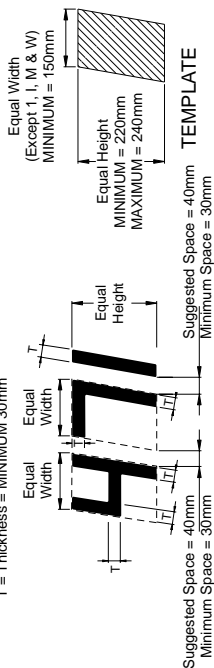
Port Side Numbers and National Letters

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

ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 30mm



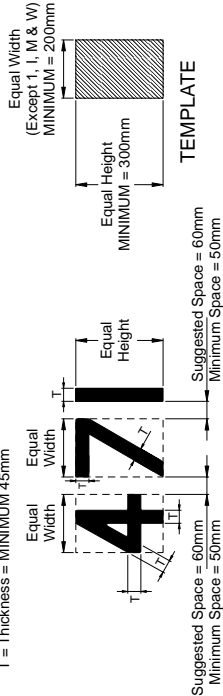
1. MINIMUM SPACE BETWEEN NUMBERS AND LETTERS IN THE CLASS RULES IS 30mm, SO USE 40mm TO ENSURE THAT ANY SMALL ERRORS IN POSITION ARE STILL LEGAL.
2. LAST FOUR DIGITS OF SAIL NUMBER TO BE ONE DARK, DISTINCTIVE COLOUR OR BLACK, PRECEDING DIGITS TO BE A DIFFERENT, CONTRASTING, DISTINCTIVE, COLOUR, PREFERABLY RED, ALL NATIONAL LETTERS TO BE ONE COLOUR, THEY MAY BE ONE OF THE COLOURS OF THE SAIL NUMBER DIGITS OR ANOTHER DISTINCTIVE COLOUR.
* CLOSEST POINT OF LETTER OR NUMBER SHOULD BE 100mm FROM LEECH, WITH TOLERANCE \pm 12 mm.

PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES

RADIAL SAIL NUMBER & LETTER SIZES AND POSITIONING

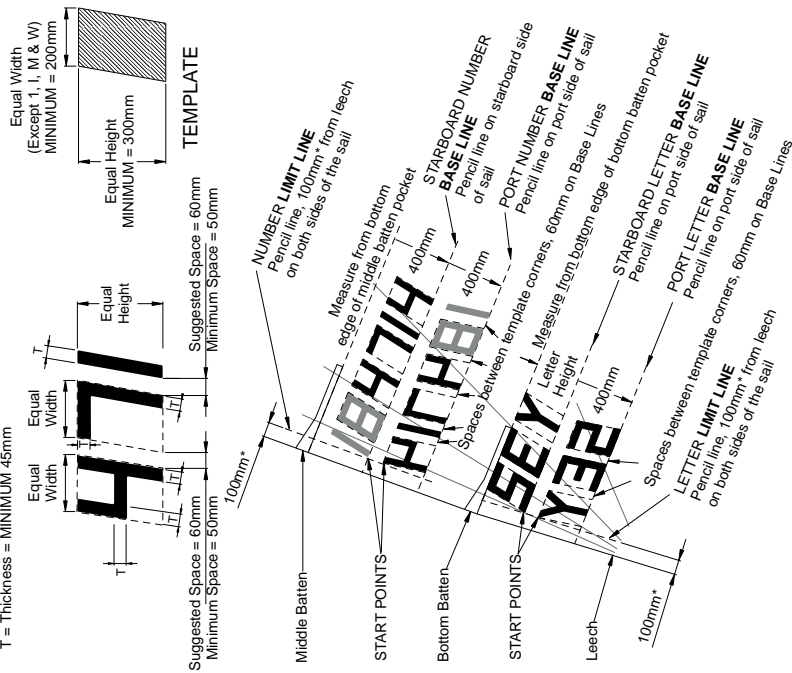
UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



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.

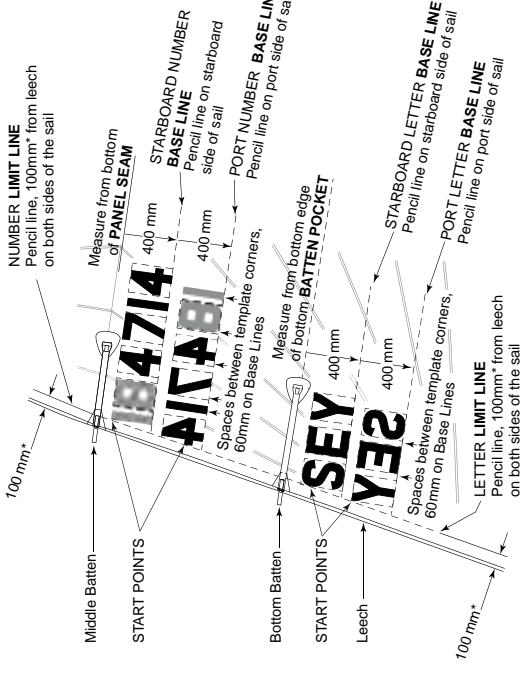
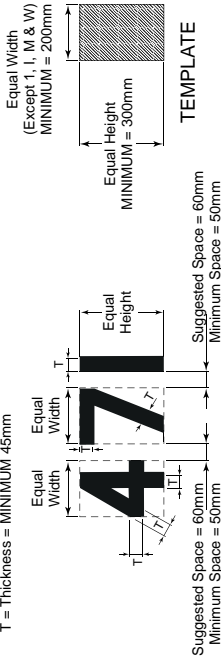
PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES

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

November 2017 Edition

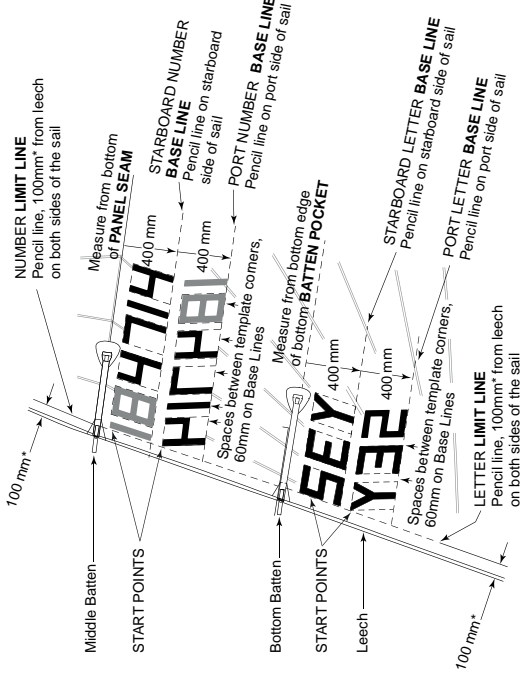
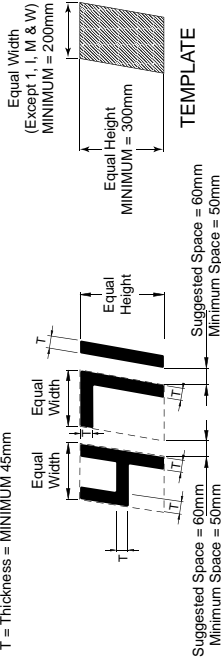
UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



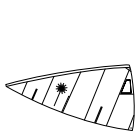
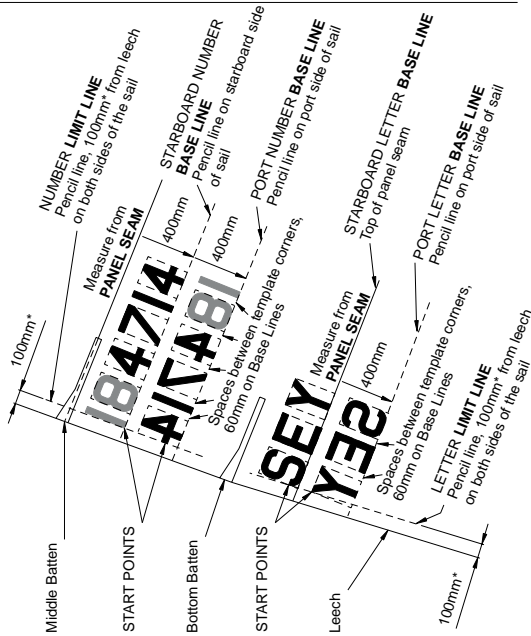
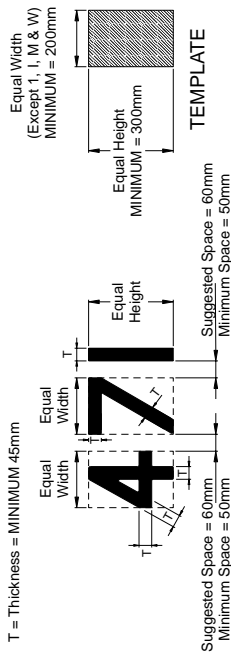
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- * CLOSEST POINT OF LETTER OR NUMBER SHOULD BE 100mm FROM LEECH, WITH TOLERANCE +/- 12 mm.

PLEASE NOTE DIAGRAMS ARE NOT PART OF THE CLASS RULES

STANDARD MKI (CROSS-CUT) NUMBER & LETTER SIZES AND POSITIONING

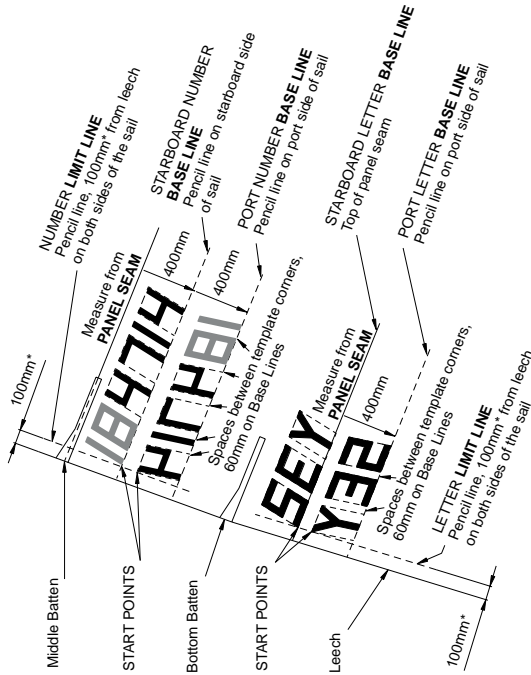
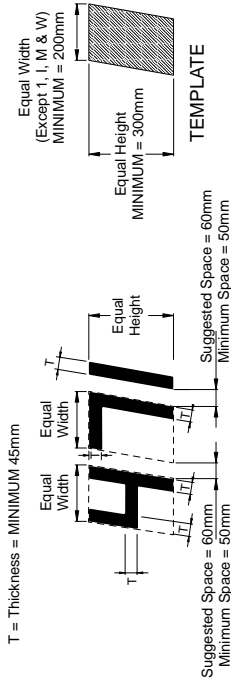
UPRIGHT NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



ANGLED NUMBERS AND LETTERS

T = Thickness = MINIMUM 45mm



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- 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

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

OLYMPIC GAMES

2016 Rio, Brazil

Laser Standard

Countries 46	
1st Tom Burton	AUS
2nd Tonić Stipanović	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 Tonić Stipanović	CRO
5th Andrew Murdoch	NZL

Laser Radial

Countries 41	
1st Lijia 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 Lijia 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 Elliot Hanson	GBR

Women: Laser Radial

Entries 119	Countries 53
1st Emma Plasschaert	NED
2nd Marit Bouwmeester	BEL
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 Arian	POL
3rd Caelin Winchcombe	AUS
4th Uffe Tomsgaard	NOR
5th Marcin Rudawski	POL

Youth Men: Laser Radial

Entries 373	Countries 45
1st Guido Gallinara	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 Sanchez	ESP
4th Julia Büßelberg	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	JUM
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 Ky 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 Elaine Verstraelen	NED
5th Marissa Jibson	BEL

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 Namami Doi	JPN
4th Mathilde De Kerangat	FRA
5th Brenda Bowskill	CAN

Men: Laser Radial

Entries 65	Countries 28
1st Marcin Rudawski	POL
2nd Eliot Merceron	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 Whaley	GBR

U21: Laser Radial Women

Entries 66	Countries 27
1st Maria Erdi	HUN
2nd Hannah Anderssohn	GER
3rd Magdalena Kwasna	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 Büßelberg	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 Ruger Van Schaerdenburg	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 Ann-Marie Rindom	DEN
4th Marit Bouwmeester	NED
5th Gintare Volungeviciute	LTU

2016 Dun Laoghaire, IRL

Men: Laser Radial

Entries 42	Countries 18
1st Marcin Rudawski	POL
2nd Nik Pletikos	SLO
3rd Martin Manzioli 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 McMahon	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 Carolee Rosmo	NOR
3rd Louise Cervera	FRA
4th Sophia Reineke	USA

5th Carolina Albano

2016 Kiel, GER

U21: Laser Standard

Entries 147	Countries 38
1st Jonatan Vadnai	HUN
2nd Joel Rodriguez	ESP
3rd Nik Aaron William	GER
4th Santiago Sampaio	POR
5th Nicolò Villi	ITA

U21: Laser Radial Women

Entries 59	Countries 39
1st Monika Mikkola	FIN
2nd Vasileia Karachaliou	GRE
3rd Maïté 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 Gallinara	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 Maria Kislukhina	RUS
3rd Elise 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 Conon 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 Kwasna	POL
4th Francesca Bergamo	ITA
5th Carolina Albano	ITA

2015 Al Mussanah 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 Josefijn Olsson	SWE

2015 Aarhus, DEN

Men: Laser Radial

Entries 75	Countries 21
1st Marcin Rudawski	POL
2nd Matthias Van De Look	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 Line Fien Hestl	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 Maenhaut BEL
 4th Lin Pletikos 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 Staalheim SWE

2013 Rizhao City, CHN
Women: Laser Radial
 Entries 76 Countries 31
 1st Tina Mihelic 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 Vadni HUN
 2nd Gianmarco Planchestainer ITA
 3rd Sebastian Schneider SUI
 4th Ryan Lee SIN
 5th Jonathan Vadni 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 Chiavarini GBR
 5th Giovanni Coccoluto ITA

U21: Laser Radial Women
 Entries 96 Countries 32
 1st Svenja Weger GER
 2nd Niki Blassar FIN
 3rd Cigarette Tempesti ITA
 4th Manami Doi JPN
 5th Kim Pletikos SLO

U18 Men: Laser 4.7
 Entries 239 Countries 46
 1st Anil Cetin TUR
 2nd Jonathan Vadni 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 Elejabetia ESP
 5th Jose Maria Marichal ESP

2012 Boltentzen, 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 Boltentzen, GER
Women: Laser Radial
 Entries 136 Countries 53
 1st Gintare Scheidt 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 Steinfurth DEN
 3rd Aleksander Arian POL
 4th Juan Ignacio Biava ARG
 5th Ignasi López Carcaré 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 Madison Kennedy AUS
 2nd Georgia Powell GBR
 4th Milly Bennett AUS
 5th Anna Philip AUS

2012 Buenos Aires, ARG
U18 Men: Laser 4.7
 Entries 71 Countries 25
 1st Benjamin Vadni HUN
 2nd Nahuel Rodríguez PérezESP
 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 48 Countries 17
 1st Celine Therese Herud NOR
 2nd Yolanda Luque GonzalezESP
 3rd Anja Hamerlitz CRO
 4th Lijia 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 Groteluschen GER
 3rd Nick Thompson GBR
 4th Andreas Gertzer 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 Meech NZL
 2nd Alex Mills-Barton GBR
 3rd Martin Evans GBR
 4th Ki-Raphael Sulkowski AUS
 5th Francesco Marrai ITA

2011 La Rochelle, FRA
Men: Laser Radial
 Entries 135 Countries 35
 1st Marcin Rudawski POL
 2nd James Burman AUS
 3rd Yrli Hummel NED
 4th Tristan Brown AUS
 5th Juan Carlos Perdomo PUR

Youth Men: Laser Radial
 Entries 27 Countries 42
 1st Giovanni Coccoluto ITA
 2nd Elliot Hanson GBR
 3rd Eliot Merceron FRA
 4th Mitchell Kiss USA

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 Keiju Okada JPN
 5th Mehmet Turken TUR

U16 Men: Laser 4.7
 Entries 39 Countries 22
 1st Nils Theuninck SUI
 2nd Anthony Parke NOR
 3rd Martin Linn BRA
 4th Nicholas Connor AUS
 5th Trent Rippey NZL

U18 Women: Laser 4.7
 Entries 53 Countries 19
 1st Cecilia Zorzi ITA
 2nd Kim Pletikos 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 Karacholiou 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 Thorbjørn 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 Zermke 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 Luka Antognoni ITA
 4th Stefano Mazzafarro 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 Vaillo ESP

2010 Pattaya, THA
U18 Men: Laser 4.7
 Entries 45 Countries 22
 1st Ettore Le Pen FRA
 2nd Supakorn Pongwichan THA
 3rd Jobert Van Dijk NED
 4th Luca Malusa ITA
 5th Juan Carlos Perdomo PUR

U18 Women: Laser 4.7
 Entries 40 Countries 20
 1st Caitlin Elks AUS
 2nd Nur Amirah Hamid MAS
 3rd Oren Jacob ISR
 4th Ashlie Lane AUS
 5th Ella Evans AUS

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 Keerat Bualong THA
 2nd Aleksander Arian POL
 3rd Filip Kobieski 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 100 Countries 24
 1st Jonathan Martinetti ECU
 2nd Hermann Tommasgaard NOR
 3rd Jura Divjakina CRO
 4th Guillermo Arce PER
 5th Tono Alcazar ESP

Youth Women: Laser 4.7
 Entries 39 Countries 23
 1st Urska Kosir SLO
 2nd Tomoyo Wakabayashi JPN
 3rd Hitomi Murayama JPN
 4th Kim Pletikos 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 Zoogar 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 Blanck 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 AUS
 5th Sam Meech NZL

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

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

2007 Cascais, POR

Open: Laser Standard

Entries 149 Countries 60			
1st	Tom Slingsby	.....	AUS
2nd	Andrew Murdoch	.....	NZL
3rd	Deniss Karpak	.....	EST
4th	Mate Arapov	.....	CRO
5th	Paul Goodison	.....	GBR

Women: Laser Radial

Entries 107 Countries 48			
1st	Tatiana Drozdovskaya	.....	BLR
2nd	Sari Mutala	.....	FIN
3rd	Petra Niemann	.....	GER
4th	Katarzyna Szotynska	.....	POL
5th	Anna Tunnicliffe	.....	USA

2007 The Hague, NED

Men: Laser Radial

Entries 121 Countries 26			
1st	Ben Paton	.....	GBR
2nd	Eduardo Vianen	.....	NED
3rd	Steven Krol	.....	NED
4th	Jon Emmett	.....	GBR
5th	James Burman	.....	AUS

Youth Men: Laser Radial

Entries 204 Countries 29			
1st	Thorbjørn Schierup	.....	DEN
2nd	Ioannis Mitakis	.....	GRE
3rd	Gijs Pelt	.....	NED
4th	Joaquin Blanco	.....	ESP
5th	Barbaros Tuna	.....	TUR

Youth Women: Laser Radial

Entries 68 Countries 26			
1st	Tuula Tenkanen	.....	FIN
2nd	Susana Romero	.....	ESP
3rd	Sarah Gunni	.....	DEN
4th	Anne Haeger	.....	USA
5th	Mathilde de Kerangat	.....	FRA

2007 Hermanus, RSA

Youth Men: Laser 4.7

Entries 95 Countries 27			
1st	Filip Matika	.....	CRO
2nd	Baepi Pinna	.....	BRA
3rd	Alexander Zimmermann	.....	PER
4th	Boris Bignoli	.....	ITA
5th	Jakob Bozic	.....	SLO

Youth Women: Laser 4.7

Entries 25 Countries 14			
1st	Tajana Ganic	.....	CRO
2nd	Ewa Makowska	.....	POL
3rd	Lina Stock	.....	CRO
4th	Tiffany Brien	.....	IRL
5th	Matea Senkic	.....	CRO

2006 Jeju Island, KOR

Open: Laser Standard

Entries 128 Countries 43			
1st	Michael Blackburn	.....	AUS
2nd	Tom Slingsby	.....	AUS
3rd	Rasmus Myrgen	.....	SWE
4th	Michael Leigh	.....	CAN
5th	Gustavo Lima	.....	POR

2006 Los Angeles, USA

Men: Laser Radial

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

Women: Laser Radial

Entries 89 Countries 31			
1st	Lijia Xu	.....	CHN
2nd	Petra Niemann	.....	GER
3rd	Tania Elias Calles Wolf	.....	MEX
4th	Anna Tunnicliffe	.....	USA
5th	Evi Van Ecker	.....	BEL

Youth Men: Laser Radial

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
Youth Women: Laser Radial			
Entries 39 Countries 12			
1st	Claire Dennis	.....	USA
2nd	Susana Romero	.....	ESP
3rd	Allie Blecher	.....	USA
4th	Laura Maes	.....	BEL
5th	Stephanie Roble	.....	USA

2006 Hourtin, FRA

Youth Men: Laser 4.7

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

Youth Women: Laser 4.7

Entries 88 Countries 19			
1st	Victoria Chan	.....	SIN
2nd	Agneszka Skrzypulec	.....	POL
3rd	Julia Chehab	.....	FRA
4th	Susana Romero	.....	ESP
5th	Tuula Tenkanen	.....	FIN

2005 Fortaleza, BRA

Open: Laser Standard

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

Men: Laser Radial

Entries 90 Countries 24			
1st	Eduardo Magalhães	.....	BRA
2nd	Brad Funk	.....	USA
3rd	Blair McLay	.....	NZL
4th	Martin Jenkins	.....	ARG
5th	Andreas Perdicaris	.....	BRA

Women: Laser Radial

Entries 76 Countries 31			
1st	Paige Raleigh	.....	USA
2nd	Sophie de Turckheim	.....	FRA
3rd	Anna Tunnicliffe	.....	USA
4th	Petra Niemann	.....	GER
5th	Krystal Weir	.....	AUS

Youth Men: Laser Radial

Entries 77 Countries 23			
1st	Blair McLay	.....	NZL
2nd	Frederico Melo	.....	POR
3rd	Ann Taritas	.....	CRO
4th	Antonios Tzortzis	.....	GRE
5th	James Burman	.....	AUS

Youth Women: Laser Radial

Entries 26 Countries 13			
1st	Veronika Haid	.....	AUT
2nd	Bruna Cordeiro	.....	BRA
3rd	Viviane de Oliveira	.....	BRA
4th	Luiza de Sabeira	.....	BRA
5th	Cecilia de Andrade	.....	BRA

2005 Barrington, USA

Entries 92 Countries 16

Youth Men: Laser 4.7

Entries 77 Countries 23			
1st	Joaquin Blanco	.....	ESP
2nd	Adam Sims	.....	GBR
3rd	Dany Stanisic	.....	SLO
4th	Guney Kaptan	.....	TUR
5th	Marco Teixidor	.....	PUR

Youth Women: Laser 4.7

Entries 77 Countries 23			
1st	Stephanie Roble	.....	USA
2nd	Anne Haeger	.....	USA
3rd	Cecilia Aragao	.....	BRA
4th	Martide Fabbrì	.....	ITA
5th	Nilsu Origen	.....	TUR

2004 Bitez, TUR

Open: Laser Standard

Entries 145 Countries 60			
1st	Robert Scheidt	.....	BRA
2nd	Mark Mendelblatt	.....	USA
3rd	Michael Blackburn	.....	AUS
4th	Hamish Pepper	.....	NZL
5th	Karl Suneson	.....	SWE

2004 Brisbane, AUS

Men: Laser Radial

Entries 133 Countries 11			
1st	Michael Blackburn	.....	AUS
2nd	Aron Lolic	.....	CRO
3rd	Tom Slingsby	.....	AUS
4th	Blair McLay	.....	NZL
5th	Mark Orams	.....	NZL

Women: Laser Radial

Entries 37 Countries 12			
1st	Krystal Weir	.....	AUS
2nd	Christine Bridge	.....	AUS

3rd	Cecilia Carranza Saroli	.....	ARG
4th	Nufar Edelman	.....	ISR
5th	Gae Jutiens	.....	NED

Youth: Laser Radial

Entries 108 Countries 18			
1st	Jean Baptiste Bernaz	.....	FRA
2nd	Nathan Outteridge	.....	AUS
3rd	Daniel Mihelcic	.....	CRO
4th	Daniel Jakobsbom	.....	BRA
5th	Javier Padron	.....	ESP

2004 Riva del Garda, ITA

Entries 276 Countries 23

Youth Men: Laser 4.7

Entries 276 Countries 23			
1st	Justin Onvlee	.....	RSA
2nd	Mathieu Frei	.....	FRA
3rd	Ivo Kalebic	.....	CRO
4th	Alexander Dolan	.....	IRL
5th	Pierre Angelo Collura	.....	FIN

Youth Women: Laser 4.7

Entries 108 Countries 18			
1st	Anita Di Iasio	.....	ITA
2nd	Tina Mihelcic	.....	CRO
3rd	Cansin Karga	.....	TUR
4th	Vanessa le Bouetteiller	.....	FRA
5th	Clare Chapple	.....	GBR

2003 Cadiz, ESP

Open: Laser Standard

Entries 174 Countries 61			
1st	Gustavo Lima	.....	POR
2nd	Robert Scheidt	.....	BRA
3rd	Michael Blackburn	.....	AUS
4th	Luis Martinez	.....	ESP
5th	Daniel Birgmark	.....	SWE

2003 Riva del Garda, ITA

Men: Laser Radial

Entries 231 Countries 31			
1st	Aron Lolic	.....	CRO
2nd	Jake Bartrom	.....	NZL
3rd	Karlo Krpeljovic	.....	CRO
4th	Max Bulley	.....	FRA
5th	Marx Juc	.....	CHI

Women: Laser Radial

Entries 50 Countries 16			
1st	Katarzyna Szotynski	.....	POL
2nd	Krystal Weir	.....	AUS
3rd	Jeanette Dagson	.....	SWE
4th	Corinne Meyer	.....	SUI
5th	Gae Jutiens	.....	NED

Youth: Laser Radial

Entries 280 Countries 27			
1st	Tonci Stipanovic	.....	CRO
2nd	Tonko Kuzmanic	.....	POL
3rd	Jonasz Stelmazyk	.....	CRO
4th	Campbell Davidson	.....	GBR
5th	Javier Padron	.....	ESP

2003 Cesme, TUR

Entries 98 Countries 18

Youth Men: Laser 4.7

Entries 98 Countries 18			
1st	Onur Derabasi	.....	TUR
2nd	Ates Cinar	.....	TUR
3rd	Mustafa Kahir	.....	TUR
4th	Philp White	.....	GBR
5th	Milosz Landowski	.....	POL

Youth Women: Laser 4.7

Entries 98 Countries 18			
1st	Ayda Unver	.....	TUR
2nd	Anita Di Iasio	.....	ITA
3rd	Didem Sarman	.....	TUR
4th	Cansin Karga	.....	TUR
5th	Istem Oguzbayir	.....	TUR

2002 Hyannis, USA

Open: Laser Standard

Entries 131 Countries 44			
1st	Robert Scheidt	.....	BRA
2nd	Karl Suneson	.....	SWE
3rd	Paul Goodison	.....	GBR
4th	Diego Negri	.....	ITA
5th	Brendan Casey	AUS

2002 Ontario, CAN

Men: Laser Radial

Entries 101 Countries 19	
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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	PER
2nd Andonis Bougouris	GRE
3rd Alexandros Logothetis	GRE
4th Raimondas 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 Evangelos 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 Nik Scheidt	BRA
2nd Rob 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 Raimondas 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 Sahlborg	SWE
4th Anje de Boer	NED
5th Larissa Nevierov	ITA

Youth: Laser Radial

Entries 122	Countries 31
1st Teddy Questroy	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	GBR
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 Luca	UKR
3rd Nathan Handley	NZL
4th Yanghe Zhu	CHN
5th Todd Holzapfel	AUS

Women: Laser Radial

Entries 33	Countries 8
1st Melanie Dennison	AUS
2nd Jacqueline Ellis	AUS
3rd Tracey Tan	SIN
4th M. 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 Zuchinetti	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 Rink	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 Shona Moss	CAN
5th Lotta Nilsson	SWE

1989 Aarhus, DEN**Open: Laser Standard**

Entries 104	Countries 28
1st Glenn Bourke	AUS
2nd Wouter Deutz	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 Lasenby	GBR
5th Nikos Nikolsoudis	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	GER
3rd Benny Andersen	DEN
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 Madbouet	DEN
5th Claudine Tatibouet	FRA

1983 Gulpoft, 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

Entries 14	Countries 5
1st Betsy Gelenitis	USA
2nd Lynne Jewell	USA

3rd Carole Spooner	CAN
4th Virginia Perry	USA
5th Susanne Madsen	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 10
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 Curlew	NZL
4th Sjaak Haakman	NED
5th Duncan Lewis	CAN

Women: Laser Standard

Entries: 20	Countries 10
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 Aanholt	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 Neelmann	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 Whit	AUS
4th	Orlando Gedhill	GBR
5th	Peter Hurley	USA

Grand Masters

1st	Mark Lyttle	GBR
2nd	Carlos Martinez	ESP
3rd	Arnoud Hummel	NED
4th	Gavin Dagley	AUS
5th	Tomas Nordqvist	SWE

Great Grand Masters

1st	Wolfgang Gerz	GER
2nd	Michael Hicks	GBR
3rd	Charles Campion	GBR
4th	Alan Keen	RSA
5th	Mark Bethwaite	AUS

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
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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 Lenci	ITA
3rd	Alexandra Weihrach	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	Claudia Taitbouet	FRA
4th	Sue Ritchie	GBR
5th	Lesley Reichenfeld	CAN

Great Grand Masters

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

Women Great Grand Masters

1st	Hilary Thomas	GBR
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Legends (75+)

1st	Peter Seidenberg	AUS
2nd	Lindsay Hewitt	USA
3rd	David Wyllie	AUS
4th	Steve Avery	USA
5th	Jay Winberg	USA

Women Legends (75+)

1st	Deirdre Webster	CAN
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2017 Split, CRO

Entries 349 Countries 35

Laser Standard

Apprentices

1st	Maciej Grabows	POL
2nd	Maxim Semerh	RUS
3rd	Adonis Bougiouris	GRE
4th	Guilherme Roth	BRA
5th	Girts Fisers-Blu	LAT

Masters

1st	Brett Beyer	AUS
2nd	Peter Hurley	USA
3rd	Ernesto Rodrigu	USA
4th	Niklas Edler	SWE
5th	Chr. Gunn Ped	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 Pittman	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 Chimonya	GRE

Women Apprentices

1st	Anastasia Chernova	RUS
2nd	Georgia Chimonya	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	Leydet Jean-Christophe	FRA
5th	Edmund Tamm	NZL

Women Masters

1st	Giovanna Lenci	ITA
2nd	Michele Ball	NZL
3rd	Monica Wilson	USA
4th	Kimberly Couranz	USA
5th	Alexandra Weihrach	GER

Grand Masters

1st	Martin White	AUS
2nd	Pierantonio Masotto	ITA
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	SWE
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

Women Great Grand Masters

1st	Hilary Thomas	GBR
2nd	Gil Vaiting	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	Guilherme Roth	BRA
3rd	Alejandro Rabago	MEX
4th	Alfonso Aguilar	MEX
5th	Fabian Gomez-Ibarra	MEX

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

Grand Masters

1st	Gavin Dagley	AUS
2nd	Cristian Herman	CHI
3rd	Allan Clark	CAN
4th	Tim Law	GBR
5th	Fabio Sunjara	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	Fabio Sunjara Ramos	BRA

Women Apprentices

1st	Natalya Gontcharova	USA
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Masters

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

Women Masters

1st	Marcia Macdonald	BRA
2nd	Agnetta Jonsson	SWE
3rd	Diane Sissingh	GBR
4th	Alexandra Weihrach	GER
5th	Julie Hughes	CAN

Grand Masters

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

Women Grand Masters

1st	Vanessa Dudley	AUS
2nd	Lyndall Patterson	AUS
3rd	Kimhy Luciano	USA

Great Grand Masters

1st	Robert Lowndes	AUS
2nd	William Symes	USA
3rd	Michael Kinnear	GBR
4th	Jon Andron	USA
5th	Kevin Phillips	AUS

Women Great Grand Masters

1st	Hilary Thomas	GBR
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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	Denzil May	GBR
5th	Ray Davies	CAN

Masters

1st	Brett Beyer	AUS
2nd	Peter Hurley	USA
3rd	Ar Barst	DOM
4th	Mano 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 Dagley	AUS

Great Grand Masters

1st	Mark Bethwaite	AUS
2nd	Paula Kan	RSA
3rd	Robert Blakey	NZL
4th	David Frazier	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	Erica Vires	CAN
2nd	Alexandra Weihrach	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	Margaret Podich	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	Paula Kan	CAN
2nd	Judith Krimski	CAN

Great Grand Masters

1st	Robert Lowndes	AUS
2nd	Bill Symes	USA
3rd	Keith Wilkins	GBR

4th	Daniel Devos	FRA
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5th	Michael Kinnear	GBR
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Women Great Grand Masters

1st	Hilary Thomas	GBR
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Over 75 Masters

1st	Peter Seidenberg	USA
2nd	Johan van Rossem	CAN
3rd	Michael Shields	NZL
4th	Heini Wehmann	SUI
5th	Geoffrey Lucas	AUS

Women Over 75 Masters

1st	Deidre Webster	CAN
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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	Arnoud 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 Dlib	AUS
5th	Wolfgang Gerz	GER

Great Grand Masters

1st

2013 Al Mussanah, OMA

Entries 186 Countries 31

Laser Standard

Apprentices

1st	Scott Leith	NZL
2nd	Niklas Edler	SWE
3rd	Alastair Tate	NZL
4th	Kris Decker	NZL
5th	Alan Coutts	OMA

Masters

1st	Al Clark	CAN
2nd	Arnoud Hummel	NED
3rd	Chris Dawson	AUS
4th	Benoit Meemeaemacker	FRA
5th	Torbjorn Jonsson	SWE

Grand Masters

1st	Greg Adams	AUS
2nd	Terry Scutcher	GBR
3rd	Wolfgang Gerz	GER
4th	Tim Law	GBR
5th	Robert Britten	CAN

Great Grand Masters

1st	Mark Bethwaite	AUS
2nd	Robert Blakey	NZL
3rd	John Robertson	AUS
4th	Sandy Grigg	NZL
5th	Stephen Wawn	AUS

Laser Radial

Apprentices

1st	Jon Emmett	GBR
2nd	Fabio Syama Ramos	BRA
3rd	Edmund Tam	NZL
4th	Ian Gregory	GBR
5th	Niall Peelo	GBR

Women Apprentices

1st	Kimberly Couranz	USA
2nd	Alexandra Weihrach	GER

Masters

1st	Ian Jones	GBR
2nd	Joao Ramos	BRA
3rd	Martin Van Olfen	NED
4th	Matthias Bruhl	GER
5th	Robert Cage	GBR

Women Masters

1st	Agneta Jonsson	SWE
2nd	Diane Sissingh	AUS
3rd	Martien Zeegers-Nouwen	NED
4th	Lindsay Whitten	AUS

Grand Masters

1st	Vanessa Dudley	AUS
2nd	Bruce Martinson	USA
3rd	Michael Pridham	GBR
4th	Doug Peckover	USA
5th	Bo Johannesson	SWE

Women Grand Masters

1st	Vanessa Dudley	AUS
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Great Grand Masters

1st	Peter Seidenberg	USA
2nd	Keith Wilkins	GBR
3rd	Henk Wittenberg	NED
4th	Michael Kinneer	GBR

Women Great Grand Masters

1st	Hilary Thomas	GBR
2nd	Elaine Capps	AUS

2012 Brisbane, AUS

Entries 232 Countries 19

Laser Standard

Apprentices

1st	Matias Del Solar	CHI
2nd	Tony Baisden	AUS
3rd	Brett Morris	AUS
4th	Kent Coplestone	NZL
5th	Rob Woodward	NZL

Masters

1st	Brett Beyer	AUS
2nd	Bradley Taylor	AUS
3rd	Sean Atherton-Feeney	AUS
4th	Andrew Dellabarca	NZL
5th	Mike Matan	GBR

Grand Masters

1st	Wolfgang Gerz	GER
2nd	Tracy Usher	AUS
3rd	Andre Martinie	DOM
4th	Malcolm Courts	GBR
5th	Mark Bethwaite Am	AUS

Laser Radial

Apprentices

1st	Scott Leith	NZL
2nd	Richard Bott	AUS
3rd	Danny Fuller	AUS
4th	Matthias Bruhl	GER
5th	Edmund Tam	NZL

Women Apprentices

1st	Myra Robertson	AUS
2nd	Anita Smith	AUS
3rd	Ruth Mccance	AUS
4th	Jane Moffat	AUS

5th Christy Usher. USA

Masters

1st	Mark Orams	NZL
2nd	Greg Adams	AUS
3rd	Mark Kennedy	AUS
4th	David Early	AUS
5th	Grant Willmott	AUS

Women Masters

1st	Christine Bridge	AUS
2nd	Vanessa Dudley	AUS
3rd	Agneta Jonsson	SWE
4th	Diane Sissingh	AUS
5th	Kirsteen Reid	RSA

Grand Masters

1st	Michael Keeton	NZL
2nd	Adam French	AUS
3rd	Pete Thomas	NZL
4th	Doug Peckover	USA
5th	Jeff Loosemore	AUS

Women Grand Masters

1st	Lyndall Patterson	AUS
2nd	Lesley Reichenfeld	CAN

Great Grand Masters

1st	Kerry Waraker	AUS
2nd	Keith Wilkins	GBR
3rd	Peter Seidenberg	USA
4th	Kevin Phillips	AUS
5th	Lew Verdon	AUS

Women Great Grand Masters

1st	Hilary Thomas	GBR
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Laser 4.7

Masters

1st	Claire Heenan	AUS
2nd	Peter Charlton	AUS
3rd	George Meikle	AUS
4th	Martin Brady	AUS
5th	Bronwyn Mitchell	AUS

Women Masters

1st	Claire Heenan	AUS
2nd	Bronwyn Mitchell	AUS
3rd	Michelle Lefevre	RSA
4th	Janet Kemp	AUS
5th	Jenny Walker	AUS

2011 San Francisco, USA

Entries 236 Countries 27

Laser Standard

Apprentices

1st	Benjamin Richardson	USA
2nd	Orlando Gledhill	GBR
3rd	Kevin Taugher	USA
4th	Gaspard Silvestri	ITA
5th	David Armitage	ITA

Masters

1st	Arnoud Hummel	NED
2nd	Brett Beyer	AUS
3rd	Scott Ferguson	USA
4th	Russ Silvestri	USA
5th	Otto Strandvig	DEN

Grand Masters

1st	Colin Dibb	AUS
2nd	Peter Vessella	USA
3rd	Malcolm Courts	GBR
4th	Lard Hansen	USA
5th	Wolfgang Gerz	GER

Laser Radial

Apprentices

1st	Scott Leith	NZL
2nd	Edmund Tam	NZL
3rd	Ian Gregory	GBR
4th	Joe Burcar	AUS
5th	Pablo Cervantes	MEX

Women Apprentices

1st	Buff Wondt	USA
2nd	Michelle Davis	USA
3rd	Kate Easton	CAN

Masters

1st	Al Clark	CAN
2nd	Carlos E. Wanderley	BRA
3rd	Marcelo Fuchs	BRA
4th	Gary Ratcliffe	AUS
5th	Mark Page	NZL

Women Masters

1st	Diane Sissingh	AUS
2nd	Isabelle Barbeau	TAH
1st	William Symes	USA
2nd	Bruce Martinson	USA
3rd	Robert Lowndes	AUS
4th	Peter Heywood	AUS
5th	Walt Spevak	USA

Women Grand Masters

1st	Lesley Reichenfeld	CAN
2nd	Inira Pasutin	ISR
3rd	Kathy Luciano	USA

Great Grand Masters

1st	Keith Wilkins	GBR
2nd	Peter Seidenberg	USA
3rd	Jim Quinn	NZL
4th	Lindsay Hewitt	USA
5th	Michael Kinneer	GBR

2010 Hayling Island, GBR

Entries 354 Countries 31

Laser Standard

Apprentices

1st	Brett Beyer	AUS
2nd	Adonis Bougiouris	GRE
3rd	Jyrki Taiminen	FIN
4th	Orlando Gledhill	GBR
5th	Benjamin Richardson	USA

Masters

1st	Scott Ferguson	USA
2nd	Arnoud Hummel	NED
3rd	John Bertrand	USA
4th	Christian Gunni Pedersen	DEN
5th	Al Clark	CAN

Grand Masters

1st	Wolfgang Gerz	GER
2nd	Peter Vessella	USA
3rd	Peter Sherwin	GBR
4th	Peter Sundelin	SWE
5th	William Symes	USA

Laser Radial

Apprentices

1st	Scott Leith	NZL
2nd	Jean Christophe Leydet	FRA
3rd	Matthias Bruhl	GER
4th	Ian Jones	GBR
5th	Edmund Tam	NZL

Women Apprentices

1st	Caroline Muelet	CAN
2nd	Rosie Tribe	GBR
3rd	Brenda Hoult	GBR

Masters

1st	Stephen Cockerill	GBR
2nd	Joao Ramos	BRA
3rd	Hamish Atkinson	NZL
4th	Carlos E. Wanderley	BRA
5th	Ian Escritt	GBR

Women Masters

1st	Christine Bridge	AUS
2nd	Agneta Jonsson	SWE
3rd	Vanessa Dudley	AUS

Grand Masters

1st	Lyndall Patterson	AUS
2nd	Alden Shattuck	USA
3rd	Bruce Martinson	USA
4th	Mark Halman	USA
5th	Kevin Pearson	GBR

Women Grand Masters

1st	Lyndall Patterson	AUS
2nd	Janet Kemp	AUS

Great Grand Masters

1st	Keith Wilkins	GBR
2nd	Peter Seidenberg	USA
3rd	Johan Stam	NED
4th	Jim Quinn	NZL
5th	Kerry Waraker	AUS

Women Great Grand Masters

1st	Hilary Thomas	GBR
2nd	Deirdre Webster	CAN

2009 Halifax, CAN

Entries 295 Countries 26

Laser Standard

Apprentices

1st	Adonis Bougiouris	GRE
2nd	Brett Beyer	AUS
3rd	Orlando Gledhill	GBR
4th	Ray Davies	CAN
5th	Stewart Casey	USA

Masters

1st	Scott Ferguson	USA
2nd	Arnoud Hummel	NED
3rd	Andrew Pimental	USA
4th	Mark Bear	AUS
5th	Jan Scholten	AUS

Grand Masters

1st	Wolfgang Gerz	GER
2nd	Mark Bethwaite	AUS
3rd	Alan Keen	RSA
4th	Jack Schlachter	AUS
5th	Bill Symes	USA

Laser Radial

Apprentices

1st	Richard Bott	AUS
2nd	Scott Leith	NZL
3rd	Grant Willmott	AUS
4th	Edmund Tam	NZL
5th	Matthias Bruhl	GER

Women Apprentices

1st	Alison Casey	AUS
2nd	Yvonne Malmsten	SWE
3rd	Kimberly Couranz	USA

Masters

1st	Carlos E. Wanderley	BRA
2nd	Greg Adams	AUS
3rd	Joao Ramos	BRA
4th	Michael Knowsley	NZL
5th	Nigel Heath	CAN

Women Masters

1st	Lyndall Patterson	AUS
2nd	Vanessa Dudley	AUS
3rd	Agneta Jonsson	SWE

Grand Masters

1st	Peter Heywood	AUS
2nd	Michael Pridham	GBR
3rd	Ian Rawet	GBR
4th	Alden Shattuck	USA
5th	Kevin Pearson	GBR

Women Grand Masters

1st	Sally Sharp	USA
2nd	Hilary Thomas	GBR
3rd	Gill Waiting	NZL

Great Grand Masters

1st	Peter Seidenberg	USA
2nd	Kerry Waraker	AUS
3rd	Michael Kinneer	GBR
4th	Jim Quinn	NZL
5th	Lindsay Hewitt	USA

Women Great Grand Masters

1st	Deirdre Webster	CAN
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2008 Terrigal, AUS

Entries 370 Countries 22

Laser Standard

Apprentices

1st	Brett Beyer	AUS
2nd	Rohan Lord	NZL
3rd	Jyrki Taiminen	FIN
4th	Orlando Gledhill	GBR
5th	Christopher Gowers	GBR

Masters

1st	Jan Scholten	AUS
2nd	Bradley Taylor	AUS
3rd	Peter Conde	AUS
4th	Andy Roy	CAN

Laser Radial**Apprentices**

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

Women Apprentices

1st	Agnetta Jonsson	SWE
2nd	Yvonne Malmsten	SWE
3rd	Christelle Marsault	FRA

Masters

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

Women Masters

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

Grand Masters

1st	Peter Heywood	AUS
2nd	Peter Whipp	GBR
3rd	Alden Shattuck	USA
4th	Ian Rawett	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 Jeju Island, KOR

Entries 72 Countries 14

Laser Standard**Apprentices**

1st	Brett Beyer	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	USA
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 Baltcheffsky	FIN
4th	Lyndall Patterson	AUS
5th	Gregory Kemp	AUS

Grand Masters

1st	Alden Shattuck	AUS
2nd	Peter Whipp	GBR
3rd	Ian Rawett	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 Beyer	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 Garity	AUS

Masters

1st	Alexander Nikolaev	RUS
2nd	Adam French	AUS
3rd	Chris Raab	USA
4th	Aldo Cezar Guimaraes	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 Beyer	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

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

Women Apprentices

1st	Yvonne Malmsten	SWE
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Masters

1st	Goran Bonacic	CRO
2nd	Lyndall Patterson	AUS
3rd	Tracy Usher	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

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 Beyer	AUS
4th	Jyrki Taiminen	FIN
5th	Huub Lambriex	NED

Masters

1st	Anders Sorensson	SWE
2nd	Chris Raab	USA
3rd	Malcolm 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 Deimling	GBR
3rd	Roberta Hartley	GBR
4th	Martin Baltcheffsky	FIN
5th	Luis Martin Propato	ARG

Women Apprentices

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

Masters

1st	Alastair McMichael	AUS
2nd	Bruce Martinson	USA
3rd	Lyndall Patterson	AUS
4th	Christina Borenus	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 Lejeune	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 Beyer	AUS
3rd	Mark Littlejohn	GBR
4th	Amy W 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 Minth	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 Malmsten	SWE

5th	Debbie Phillips	GBR
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2001 Cork, IRL

Entries 314 Countries 25

Laser Standard**Apprentices**

1st	Brett Beyer	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	John Michon	FRA

Laser Radial Women

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

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 Coutts	NZL
3rd	Doug Peckover	USA
4th	Jack Schlachter	AUS
5th	Alan Keen	RSA

Grand Masters

1st	Keith Wilkins	GBR
2nd	Dick Tillmann	USA
3rd	Joe van Rossem	CAN
4th	Ian Rawett	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

2nd	Jack Hansen	NZL
3rd	Keith Vann	NZL
4th	Ben Piefke	AUS
5th	Kerry Waraker	AUS

Laser Radial

Great Grand Masters

1st	Graham Read	AUS
2nd	Haruyoshi Kimura	JPN
3rd	Geoffrey Myburgh	RSA
4th	Kurt Zueger	SUI
5th	Peter O'Grady	AUS

Laser Radial Open

1st	Mark Orams	NZL
2nd	Alexandre Nikolaev	RUS
3rd	Frank Inmon	AUS
4th	Wilmar Groenendijk	NED
5th	Adam French	AUS

Laser Radial Women

1st	Lyndall Patterson	AUS
2nd	Helen Cooksey	AUS
3rd	Sally Sharp	USA
4th	Susan Fielding	AUS
5th	Lesley Hotchin	GBR

1997 Algarrobo, CHI

Entries 128 Countries 21

Laser Standard

Apprentices

1st	Herman Cristian	CHI
2nd	Alan Davis	GBR
3rd	Marcelo Fuschs	BRA
4th	Terry Scutcher	GBR
5th	Bill O'Hara	IRL

Masters

1st	Doug Peckover	USA
2nd	Mark Bethwaite	AUS
3rd	Keith Wilkins	GBR
4th	Jack Schlachter	AUS
5th	Barry Waller	AUS

Grand Masters

1st	Colin Lovelady	AUS
2nd	Peter Seidenberg	USA
3rd	Wilhelm Gerlinger	GER
4th	Joe Van Rossem	CAN
5th	Jack Hansen	NZL

Laser Radial

Great Grand Masters

1st	Heinz Gebauer	CAN
2nd	Doug Bates	NZL
3rd	Graham Reed	AUS
4th	Peter Raymer	GBR
5th	Robert Saltmarsh	USA

Laser Radial Open

1st	Wilmar Groenendijk	NED
2nd	Aydin Yurdum	TUR
3rd	Alexandre Nikolaev	RUS
4th	Gary McCrohon	AUS
5th	Heinz Gebauer	CAN

1996 Cape Town, RSA

Entries 155 Countries 21

Laser Standard

Apprentices

1st	Peter Wilson	RSA
2nd	Robert Douglass	AUS
3rd	Regis Berenguier	FRA
4th	Terry Scutcher	GBR
5th	Chris Rodowicz	AUS

Masters

1st	Keith Wilkins	GBR
2nd	Mark Bethwaite	AUS
3rd	Alan Keen	RSA
4th	Barry Waller	AUS
5th	Doug Peckover	USA

Grand Masters

1st	Ben Piefke	AUS
2nd	Denis O'Sullivan	IRL
3rd	Colin Lovelady	AUS
4th	Peter Seidenberg	USA
5th	Ken Holiday	RSA

Laser Radial

Laser Radial Open

1st	Adam French	AUS
2nd	Alexandre Nikolaev	RUS
3rd	Kevin Bloor	AUS
4th	Rui Sancho	ANG
5th	Gary McCrohon	AUS

1995 Tenerife, ESP

Entries 113 Countries 20

Apprentices

1st	Nicholas Harrison	GBR
2nd	Lance Burger	RSA
3rd	Tomas Franzen	SWE
4th	Peter Saxton	GBR
5th	Norio Akiyama	JPN

Masters

1st	Keith Wilkins	GBR
2nd	Barry Waller	AUS
3rd	Ted Moore	USA

4th	Pieter Dekker	NED
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5th	Jacky Nebrel	FRA
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Grand Masters

1st	Colin Lovelady	AUS
2nd	Peter Seidenberg	USA
3rd	Jack Hansen	NZL
4th	Joe Van Rossem	CAN
5th	Michael Heath	AUS

1994 Wakayama, JPN

Entries 131 Countries 15

Apprentices

1st	Norio Akiyama	JPN
2nd	Nicholas Harrison	GBR
3rd	Nelson Horn Ilha	BRA
4th	Koichiro Naito	JPN
5th	Doug Peckover	USA

Masters

1st	Keith Wilkins	GBR
2nd	Hiroyuki Uehara	JPN
3rd	Mark Bethwaite	AUS
4th	Katsuy Hiranano	JPN
5th	Ian Rawet	GBR

Grand Masters

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

1993 Takapuna, NZL

Entries 186 Countries 22

Apprentices

1st	Paul Page	NZL
2nd	Neville Vittey	AUS
3rd	Murray Thom	NZL
4th	Andrew York	AUS
5th	Lance Burger	USA

Masters

1st	Keith Wilkins	GBR
2nd	John Rigg	AUS
3rd	Mark Bethwaite	AUS
4th	Barry Waller	AUS
5th	John Douglas	NZL

Grand Masters

1st	Colin Lovelady	AUS
2nd	Denis O'Sullivan	USA
3rd	Barry Pownall	AUS
4th	Ralph Ellis	AUS
5th	John Maynard	GBR

Great Grand Masters

1st	Doug Bates	NZL
2nd	Robert Saltmarsh	USA
1st	Jill Robertson	CAN
2nd	Sally Sharp	USA

1991 Porto Carras, GRE

Entries 107 Countries 23

Laser Standard

Apprentices

1st	Stephen Birbeck	GBR
2nd	Mark Phillips	AUS
3rd	Mario Orlich	ITA
4th	Geoffrey McGillivray	AUS
5th	Peter Wolfe	IRL

Masters

1st	Keith Wilkins	GBR
2nd	Peter Seidenberg	CAN
3rd	Barry Waller	AUS
4th	Willi Gerlinger	GER
5th	Ilkka Schroderus	FIN

Grand Masters

1st	Colin Lovelady	AUS
2nd	Friedhelm Lixenfeld	GER
3rd	Heinz Gebauer	CAN
4th	Nick Paine	GBR
5th	Tony Denham	AUS

1990 New Bedford, USA

Entries 112 Countries 19

Apprentices

1st	Kim Zetterberg	USA
2nd	Michael Stovin-Bradford	AUS
3rd	Mark Phillips	AUS
4th	Geoffrey McGillivray	AUS
5th	Had Brick	USA

Masters

1st	Denis O'Sullivan	IRL
2nd	Peter Seidenberg	CAN
3rd	Joe Van Rossem	CAN
4th	Curt Bidner	SWE
5th	David Olson	USA

Grand Masters

1st	Friedhelm Lixenfeld	GER
2nd	Jim Christopher	USA
3rd	Tony Denham	AUS
4th	Norman Freeman	USA
5th	Nick Paine	GBR

1989 Aarhus, DEN

Entries 114 Countries 25

Apprentices

1st	Keith Wilkins	GBR
2nd	Phil Graves	CAN
3rd	Jeff Loosemore	AUS
4th	Had Brick	USA
5th	Peter Griffiths	NZL

Masters

1st	John Rigg	AUS
2nd	Curt Bidner	SWE
3rd	Christur Baath	SWE
4th	Denis O'Sullivan	IRL
5th	Peter Seidenberg	CAN

Grand Masters

1st	Friedhelm Lixenfeld	GER
2nd	Jack Swenson	USA
3rd	Heinz Gebauer	CAN
4th	Nick Paine	GBR
5th	Robert Saltmarsh	USA

1988 Falmouth, GBR

Entries 156 Countries 24

Apprentices

1st	Jeff Loosemore	AUS
2nd	Phil Graves	CAN
3rd	Had Brick	USA
4th	Keith Wilkins	GBR
5th	Peter Heywood	GBR

Masters

1st	Peter Seidenberg	CAN
2nd	Colin Lovelady	AUS
3rd	John Maynard	GBR
4th	John Rigg	AUS
5th	Nic Andersson	USA

Grand Masters

1st	Friedhelm Lixenfeld	GER
2nd	Geffrey Myburgh	RSA
3rd	Heinz Gebauer	CAN
4th	Peter Milnes	USA
5th	Jan Nouwen	NED

1987 Melbourne, AUS

Entries 106 Countries 22

Apprentices

1st	Phil Peglar	AUS
2nd	Warwick Phillips	AUS
3rd	John Sprague	AUS
4th	Geoff Gale	AUS
5th	Will Gerlinger	GER

Masters

1st	John Rigg	AUS
2nd	Michael Heath	AUS
3rd	Peter Seidenberg	CAN
4th	Colin Lovelady	AUS
5th	Greg Marshall	AUS

Grand Masters

1st	Alan Clark	AUS
2nd	Alec McClure	AUS
3rd	Graham Gilbert	AUS
4th	Doug Bates	NZL
5th	Bob White	AUS

1985 World Masters Games

Toronto, CAN

Entries 101

Apprentices

1st	David Olsen	USA
2nd	Ben Lashaway	USA
3rd	Richard Gronblom	FIN

Masters

1st	Peter Seidenberg	CAN
2nd	Colin Lovelady	AUS
3rd	Peter Seidndt	USA

Grand Masters

1st	Alec McClure	AUS
2nd	Alexander Nimick	USA
3rd	Alister Taig	USA

1984 Pattaya, THA

Entries 62 Countries 22

Apprentices

1st	Richard Verco	AUS
2nd	Paul Millsom	AUS
3rd	Kim Weber	FIN
4th	Roger Williams	UAE
5th	Ilkka Schroderus	FIN

Masters

1st	John Rigg	AUS
2nd	Peter Seidenberg	CAN
3rd	Colin Lovelady	AUS
4th	Michael Heath	AUS
5th	Denis O'Sullivan	IRL

Grand Masters

1st	Alec McClure	AUS
2nd	Doug Bates	NZL
3rd	Alan Clark	AUS
4th	Robert Saltmarsh	USA
5th	Alf Johnson	USA

1983 Gulfport, USA

Entries 70

Apprentices

1st	Tucker Bragdon	USA
2nd	Philip Peglar	AUS
3rd	Peter Branning	USA
4th	Carolee Spooner	CAN
5th	Roger Williams	QAT

Masters

1st	Norman Freeman	USA
2nd	Randall Swan	USA
3rd	Dick Rose	USA
4th	Heinz Gebauer	CAN
5th	Geoff Myburgh	RSA

Grand Masters

1st	Alan Clark	AUS
2nd	Alan Levinson	USA
3rd	Bob Saltmarsh	USA
4th	Peter Milnes	USA
5th	Alf Johnson	RSA

1982 Sardinia, ITA

Entries 52

Apprentices

1st	Paul Millsom	AUS
2nd	Jacky Nebrel	FRA
3rd	Michael Wallace	IRL
4th	Michael Heath	AUS
5th	Tony Manning	AUS

Masters

1st	Hans-Luther Striewe	GER
2nd	Geoff Myburgh	RSA
3rd	Nick Paine	GBR
4th	Jack Swenson	USA
5th	Hugo Kroth	GER

Grand Masters

1st	Alan Clark	AUS
2nd	Alec McClure	AUS
3rd	Cecil Walker	GBR
4th	Bob Saltmarsh	USA
5th	William ter Weld	NED

1981 Bendor, FRA

Entries 52 Countries 11

Apprentices

1st	Jacky Nebrel	FRA
2nd	Michael Teilken	GER
3rd	Michael Nerbollier	SUI
4th	Werner Winter	GER
5th	Wolf Peter Niesen	GER

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.

Name

Address

.....

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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