



# TOPPER OWNERS MANUAL



[www.toppersailboats.com](http://www.toppersailboats.com)



# TOPPER OWNERS MANUAL

# OWNERS MANUAL INDEX

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# P4. INTRODUCTION

This document contains important safety information which should be read and understood before moving on to the Rigging Manual.

This manual has been compiled to help you to operate your craft with safety and pleasure. It contains details of the craft; the equipment supplied or fitted, its systems and information on its operation and maintenance. Please read it carefully, and familiarise yourself with the craft before using it.

If this is your first sailboat, or you are changing to a new type of sailboat you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before assuming control of the sailboat. The Topper Class Association will be pleased to advise you of local sailing schools, or competent instructors.

PLEASE KEEP THIS MANUAL IN A SECURE PLACE AND HAND IT OVER TO THE NEW OWNER WHEN YOU SELL THE CRAFT.

# CONTACT DETAILS

For further information, spares and accessories.

Please contact:

Topper International Ltd  
Kingsnorth Technology Park  
Wotton Rd  
Ashford

Kent TN23 6LN

Tel: 01233 629186

Fax: 01233 645897

email: [info@toppersailboats.com](mailto:info@toppersailboats.com)

website: [www.toppersailboats.com](http://www.toppersailboats.com)

# HIN NUMBER AND CE BUILDERS PLATE

The HIN number is engraved on the hull at the starboard side of the transom.

The Sail number is detailed on the CE Builders Plate which is located in the deck cockpit of the boat. The CE plate also contains information on the Design Category, the Builder, the Maximum number of crew, the Maximum load and the CE number of the Notified Body assessing the boat.



# P5

# DECLARATION OF CONFORMITY



Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 94/25/EC as amended by Directive 2003/44/EC

Name of craft manufacturer: Topper International Ltd  
Address: Kingsnorth Technology Park, Wotton Rd.  
Town: Ashford  
County: Kent  
Postcode: TN23 6LN  
Country: United Kingdom

Name of Notified Body: Royal Yachting Association  
Address: RYA House Ensign Way Hamble  
Town: Southampton  
County: Hampshire  
Postcode: SO31 4YA  
Country: United Kingdom  
Number: CE1681  
Date: 29/06/06

The Recreational Craft Regulations 2004 Schedule 6 - Module Aa & Schedule 1- Parts of Sections 3.2 & 3.3  
The EU Recreational Craft Directive 2003/44/EC Annex VI - Module Aa & Annex 1 - Parts of Sections 3.2 & 3.3

Module: Aa

## DESCRIPTION OF CRAFT:

CIN NO: G B - T W F B - - - - -  
Brand Name of Craft: TOPPER  
Type of Craft: SAILBOAT  
Type of Hull: MONOHULL  
Deck: DECKED  
Type of Propulsion: SAILS  
Construction Material: Injection moulded POLYETHYLENE  
Maximum Design Category: C

# PRINCIPAL DIMENSIONS

Dimension	Length Hull	Beam Hull	Max Load	Unladen Weight	Max Number of Persons
TOPPER	3.40m	1.20m	160kg	50kg	2

This declaration of conformity is issued under the sole responsibility of the manufacturer. I declare on behalf of the craft manufacturer that the craft mentioned above comply with all applicable essential requirements in the way specified

Name and function: MARTIN J FRY (Managing Director)

Signature: *Martin Fry*

Date and place of issue: 29/06/06 Ashford Kent UK

ISO APPLICABLE STANDARDS:  
BS EN ISO 8666, 10087, 10240, 12213, 12215, 12217, 14946, 15084, 15085

# P6. DESIGN CATEGORY

This sailboat is certified and its stability assessed by the RYA under DESIGN CATEGORY C. CE0609.

CATEGORY C – inshore: Craft designed for voyages in coastal waters, large bays, estuaries, lakes and rivers, where conditions up to and including wind force 6 and significant wave heights up to and including 2m may be experienced.

The TOPPER sailboat complies with this design category, subject to:

- The crew having suitable skill and experience.
- Satisfactory maintenance of the boat and equipment.

Users of the boat are advised that:

- All crew should receive suitable training.
- The boat shall not carry more than the maximum load.
- Any water in the hull should be kept to a minimum.
- Stability is reduced by any weight added high up.

## IMPORTANT SAFETY INFORMATION

Please read the important safety information and read the manual before sailing the boat.

### BEFORE YOU GO SAILING

#### DANGER!

*Check for overhead cables when rigging, launching and recovering. The mast sticks up a long way and shock or death could result if it comes in contact with overhead wires. So look up when moving the boat around or even stepping the mast and give any wires a wide berth.*

Check you are wearing suitable clothing and safety equipment for the conditions and time of year.

Always wear an approved buoyancy aid or lifejacket.

A sailor's safety knife should be carried on board.

Make sure a third party knows where you are sailing and how many there are of you. If possible when sailing at a club, ensure there is at least one other boat on the water in the vicinity.

Check the weather forecast.

Check the time of high and low tides if applicable.

Seek advice of local conditions if sailing in a new area.

Always check the condition of your craft before setting off. Ensure that the hull is free of water and the drain plug is properly sealed.

The Topper is equipped with a sealed buoyancy compartment. The buoyancy compartment is formed by the hull and deck mouldings and consequently the following points should be noted: Do not puncture the buoyancy compartment. Should the buoyancy compartment become punctured, do not use the boat until the compartment is repaired.

You may have to replace fittings from time to time. Ensure that all fastenings are resealed properly using an appropriate sealant.

### Car Topping

The Topper is designed to be car topped on a two bar roof rack. Load the boat upside down, bow forwards and ensure that the front bar supports the boat immediately behind the aft end of the foredeck.

Always secure the straps or ropes around the bars.

Ensure that both the bow and the stern are tied down tightly to the car's bumpers. The spars can be neatly carried alongside the boat. If you have a launching trolley, this can also be carried on the upside down hull of the Topper or packed down in the boot.

### Trailing

When trailing your Topper you should only use an approved trolley and road trailer. Tying down the boat to its trailer is important because too much or too little tension could result in damage. Follow the instructions below for safe trailing:

Ensure the boat is located correctly on the trolley, with the gunwale supports up under the gunwales and the bow located in the bow snubber of the trolley.

Ensure the trolley is properly located on the road base and the retaining pin is fitted.

Tie the boat down to the trailer at the bow and across the middle. You only need to apply sufficient tension to hold the boat in contact with the trolley supports. Use padded material where any straps touch the deck.

It is also a good idea to tie the boat down when it is left in the dinghy park to prevent any damage to your boat in the event of strong winds.

# IMPORTANT SAFETY INFORMATION

## ON THE WATER

Conform to the sailing rules of the road.

Look out for changing weather conditions.

Never sail beyond your ability or that of your crew. Ensure that you and your crew can cope with any changes in the wind conditions.

Understand and be competent in the sailing skills and righting techniques.

### Stability and buoyancy

The Topper has been independently assessed for stability and buoyancy by an EU RCD Notified Body, in this case the Royal Yachting Association CE1681.

The RYA certificates for the Topper have assessed that the boats can be righted by the crew and will subsequently float.

The Topper has been certified as conforming with the requirements of the UK Statutory Instrument 2004 No 1464 Consumer Protection; the Recreational Craft Regulations 2004 Schedule 1 – Parts of Sections 3.2 & 3.3; and the EU Recreational Craft Directive 2003/44/EC Annex VI – Module Aa & Annex 1 – Parts of sections 3.2 & 3.3.

The Topper is stable, but even if used with care a capsize is always a possibility, even in light conditions.

It is therefore essential that you should familiarise yourself and practice capsize recovery when you first sail the boat, ideally in an area where there is some kind of safety patrol to assist you should you get into difficulty.

Minimum crew weight required for righting Topper 30 kgs

### Capsize recovery technique

The mainsheet should be uncleated and made sure that it will run freely when the boat is righted.

The vang/kicker should be eased to depower the top of the mainsail.

If the boat inverts it should be pulled onto its side so that the rig is horizontal to the water. It sometimes helps to pull it up with the aid of the wind blowing over the deck and rig.

Then there are two basic situations to recover from:

- When the rig is lying in the water, pointing downwind.
- When the rig is lying in the water, pointing upwind.

### Rig pointing downwind

Climb onto the daggerboard and pull the boat slowly upright using the mainsheet. As the boat gets to 45 degrees one of the crew should climb in. As the boat continues to right take the tiller so that as the boat returns to its normal orientation you are under control of the boat as soon as possible. Once you are in control, you can sort yourself out, tidy the boat and get sailing again.

### Rig pointing upwind

This is quite often the position the boat ends up in.

Climb onto the daggerboard. As you begin to right the boat, the wind will blow under the mainsail and help you right it. Depending on the wind strength the boat will right at different rates. If the wind is strong the faster you will have to move. As the mast leaves the water, one of you should climb aboard and get to the windward side to prevent the boat capsizing again. Should the boat capsize again to the other side, simply climb over on to the daggerboard and follow the procedure for the rig pointing downwind.

### Man Overboard Prevention and Recovery

#### Working Deck

The working deck of the Topper, which is intended only to be occupied when the boat is afloat, are the areas covered with non slip coating. These are over the cockpit floor, the top surface and outer edge of the side deck, and the forward part of the cockpit.

It is advisable to reboard the boat from the windward side when climbing aboard via the gunwale.

#### Towing afloat

Should it become necessary to tow the Topper you should secure the towing line around the base of the mast. Raise the daggerboard and stay at the tiller. In the event of the loss of the rudder sit well aft.

#### Anchoring & Mooring

The Topper is not normally required to anchor/moor, as they are day boats for racing or cruising in inshore or inland waters.

#### Outboard Engine

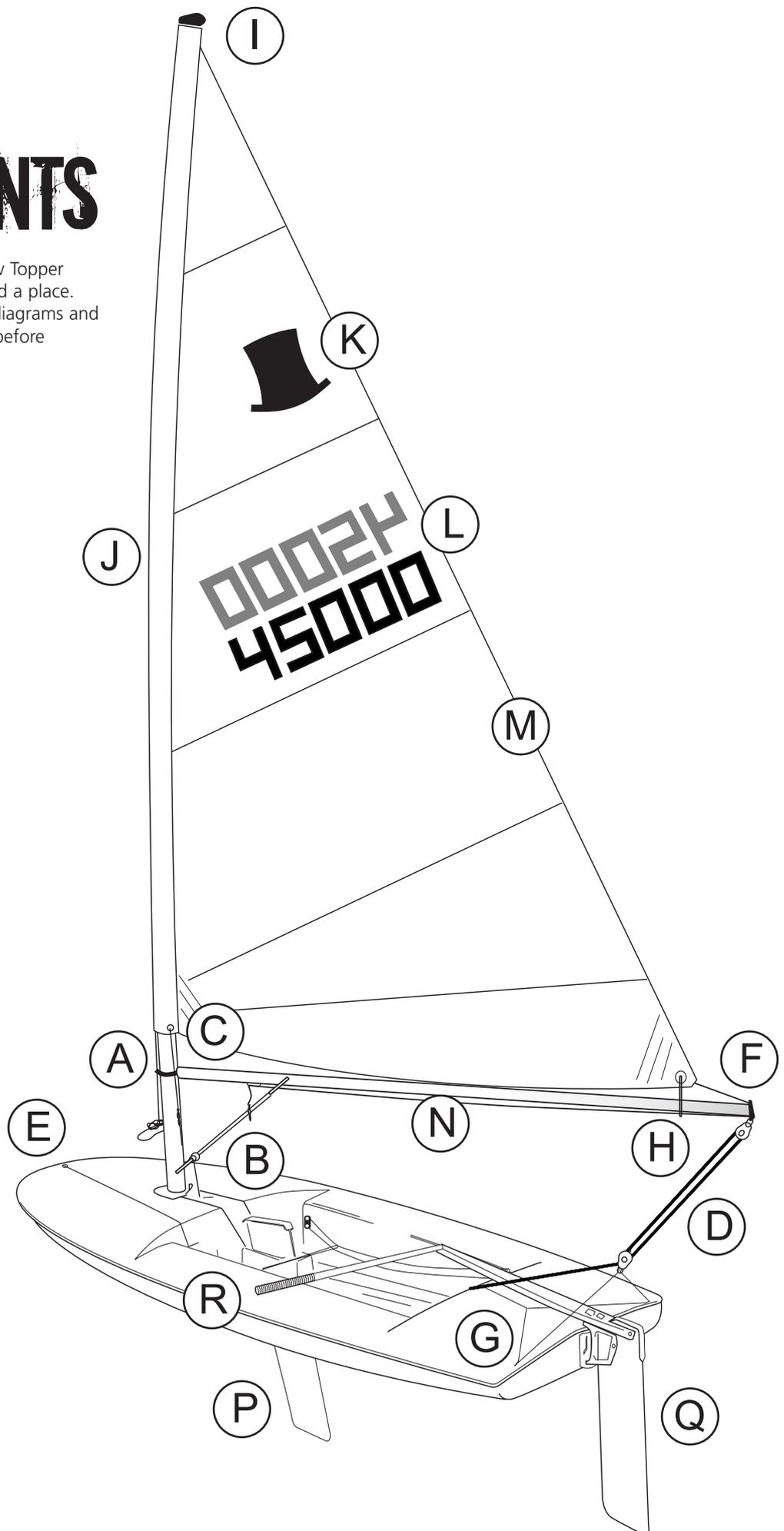
The Topper is not normally designed for use with an outboard engine.

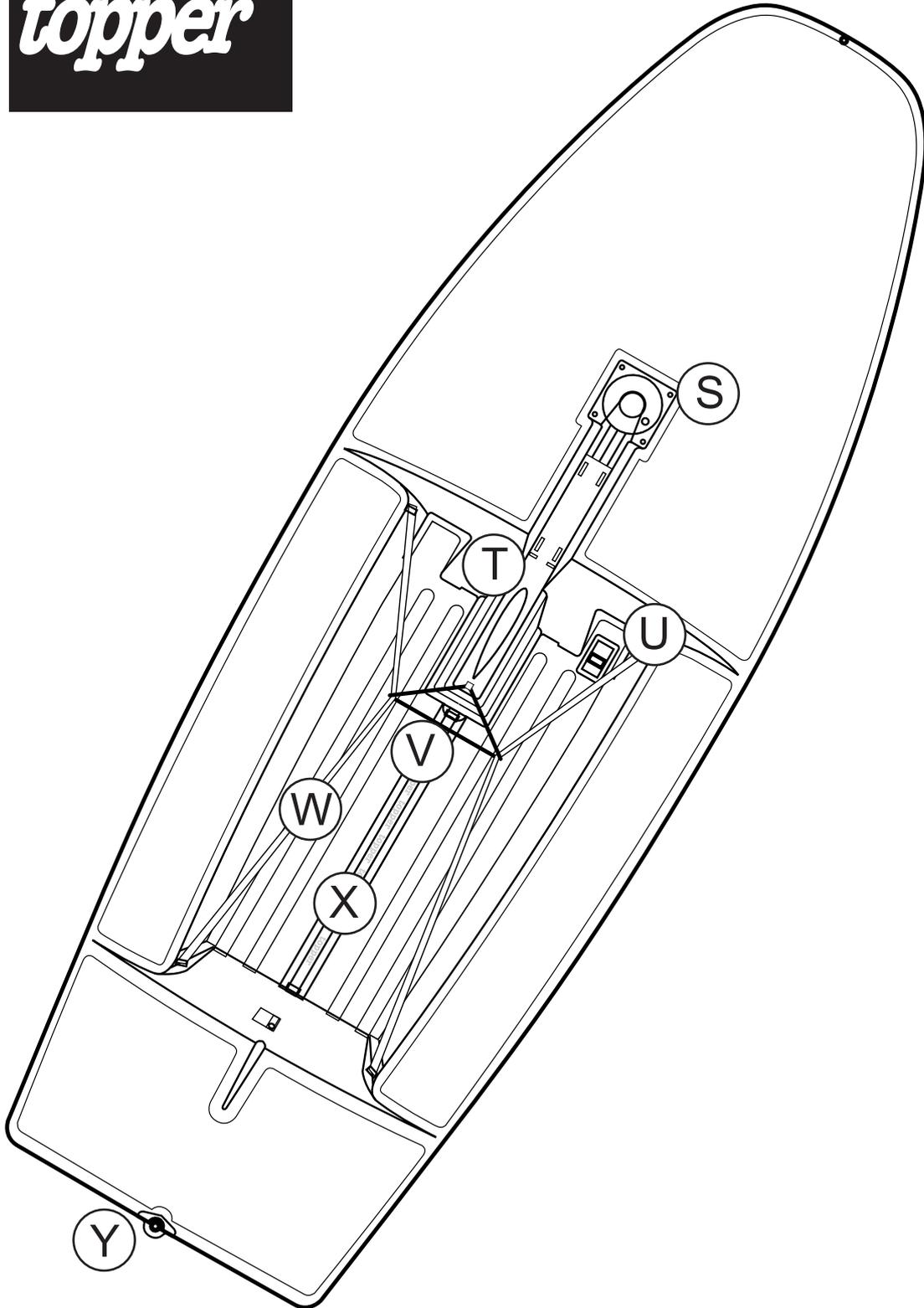


# P8 COMPONENTS

Each of the components of your new Topper sailing dinghy has a special name and a place. We recommend that you study the diagrams and the instructions given in the manual before setting sail.

- A. Halyard loop
- B. Kicking Strap (Boom Vang)
- C. Downhaul
- D. Mainsheet Assembly
- E. Bow Painter
- F. Outhaul
- G. Rope Horse
- H. Clew Strop
- I. Masthead Crane
- J. 2-part Aluminium Mast
- K. Topper Sail Insignia
- L. Self-Adhesive sail numbers
- M. Mainsail
- N. Aluminium Boom
- P. Daggerboard
- Q. Rudder and Tiller Assembly
- R. Tiller Extension
- S. Locking Mastgate
- T. Daggerboard Casing
- U. Self Bailer
- V. Toe Strap Cord
- W. Side Toe Strap
- X. Centre Toe Strap
- Y. Transom Plate





The Topper is built to the One-Design of Ian Proctor under licence of the Copyright from Ian Proctor Designs Limited. Topper is a registered Trade Mark of Ian Proctor Designs Ltd.

# P10. RIGGING INSTRUCTIONS

- Your Topper
- P11. The Control Lines - Identification
- P12. Sail Numbers - How to apply them
- P14. Preparing the mast
- P14. Sleeving the sail
- P15. Stepping the mast
- P15. Fitting the boom
- P16. Mainsheet & Rope Horse
- P16. Downhaul and Kicking Strap
- P17. Rudder and Daggerboard
- P17. Reefing the sail
- P18-21 The Topper Race Pack
- P22. Adjusting the Sail
- P23. Tuning for Performance
- P24-25. Care and maintenance
- P26. Guarantee
- P26. Register of Guarantee
- P27. Join the Club! - ITCA
- P27. ITCA membership
- P27. Topper International contact details

# WELCOME TO THE TOPPER CLASS

Congratulations on becoming the owner of a brand new Topper sailboat. We at Topper International believe that Topper's advanced design and sophisticated construction process will ensure that you enjoy many years of trouble-free and exciting sailing.

To enhance the enjoyment of your new Topper we have arranged for new Topper owners to receive FREE membership of the Topper International Class Association for the first year of ownership.

There are many benefits and full details are included in this Owner's Manual.

If you should incur any problems with your Topper, our sales staff will be pleased to offer advice and supply any spare parts and accessories you may need. Your International Topper Class Secretary will be pleased to advise you on the many aspects of Topper ownership.



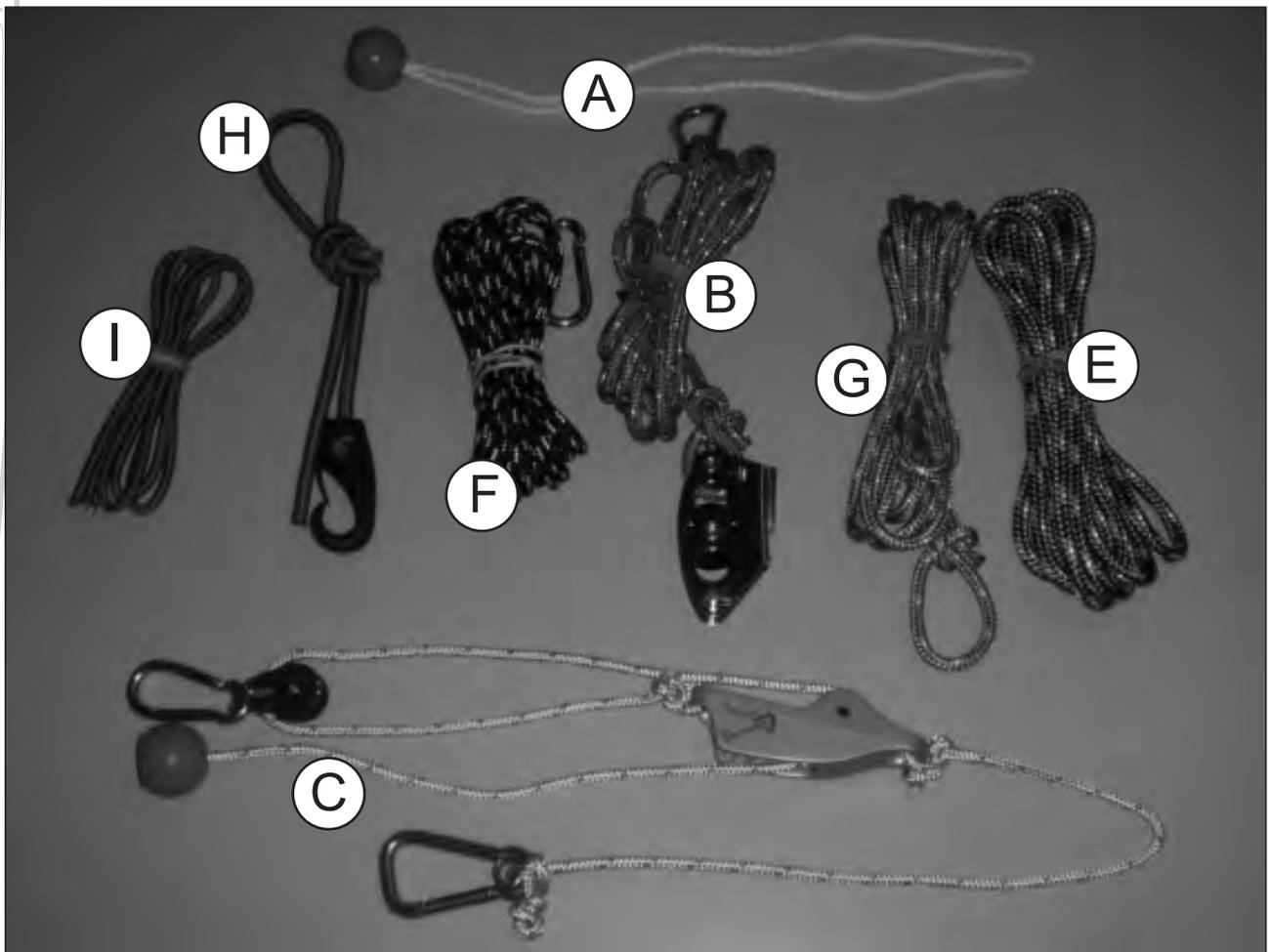
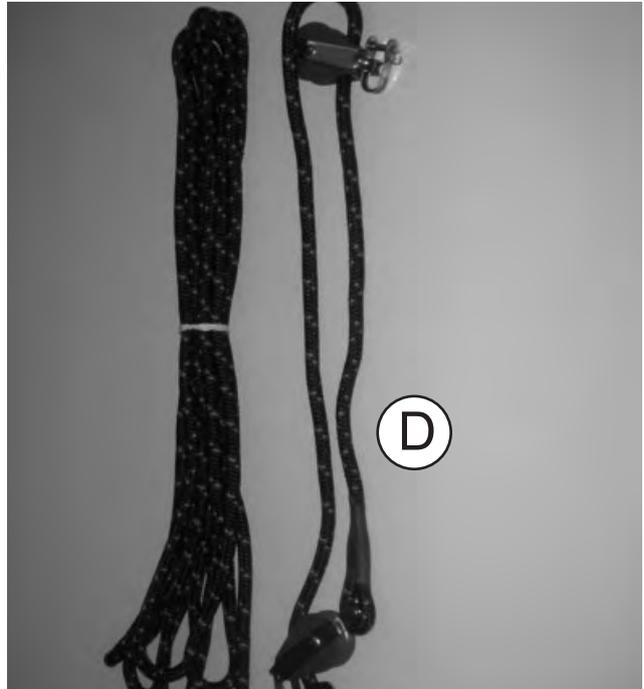
# P11. CONTROL LINES

Before attempting to assemble your Topper, carefully study the diagram on the inside front cover of this handbook and thoroughly familiarise yourself with all the components, their correct names and places on the boat.

If you follow these rigging instructions, stage-by-stage you will find Topper incredibly simple and quick to prepare for the water. When you have unpacked everything, lay out the various control lines on the foredeck and identify them:

- A. Main Halyard Loop
- B. Kicking Strap
- C. Downhaul
- D. Mainsheet
- E. Bow Painter
- F. Outhaul
- G. Traveller
- H. Daggerboard Shockcord
- I. Toe Strap Shockcord

A Centre Mainsheet and an Aft Rigged Mainsheet are available. The Aft Rigged Mainsheet kit is pictured below. The Centre Mainsheet kit is pictured on page 18.



On the following pages we have continued this coding system on the photographs so that you can immediately identify each control line.

# P12. STD TOPPER SAIL NUMBERS AND NATIONAL LETTERING

## SAIL NUMBERS

(please note all measurements are minimums)

- Should be placed on both sides of the sail with the numbers on the starboard side being above the ones on the port side.
- They should be placed two panels below the Top Hat logo.
- The height of the numbers should be 230mm.
- The numbers are supplied as 'digital eights' from which you can produce your own sail number.
- The preferred style of cutting numbers from 'digital eights' is shown below.
- There should be 45mm between each element of the complete number.
- The numbers should be in a contrasting colour to the white sailcloth.

## STARBOARD SIDE

- The upper edge of the numbers should be placed 45mm from the upper seam of that panel.
- They should start 45mm from the back of the sail.

## PORT SIDE

- The upper edge of the port numbers should be 45mm below the starboard side numbers.
- They should finish 45mm from the back of the sail.

## GBR LETTERS

- Should be placed on both sides of the sail with the letters on the starboard side being above the ones on the port side.
- They should be placed in the panel beneath the Top Hat logo.
- The height of the letters should be 230mm.
- They should be pre-formed letters at least as clear as helvetica.
- There should be 45mm between each element of the complete letter.
- The letters should be the same colour as the sail numbers.

## STARBOARD SIDE

- The upper edge of the letters should be placed 45mm from the upper seam of that panel.
- They should start 45mm from the back of the sail.

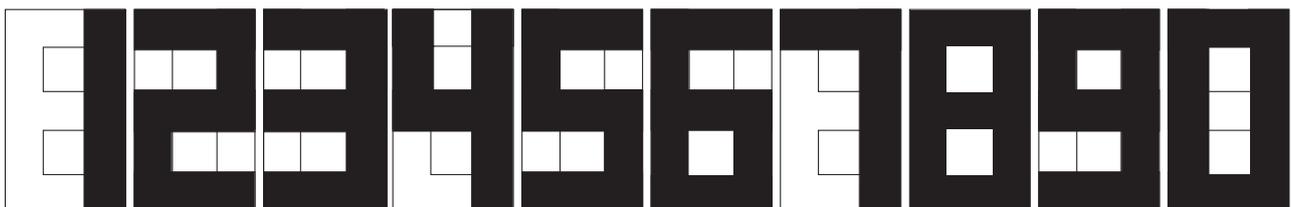
## PORT SIDE

- The upper edge of the port letters should be 45mm below the ones on the starboard side.
- They should finish 45mm from the back of the sail.

## ATTACHING NUMBERS & LETTERS

In our experience the best way to stick the numbers down is to peel away a corner, line up the letter and then attach the corner. Pull away the backing paper slowly as you push the number onto the sail.

**If in doubt - please ask**



\* NOTE: TOPPER Sail Numbers are derived from digital 8 numbers. Ten digital 8 numbers are supplied, from which any number from 0-9 can be obtained. Above you will find a simple chart showing how to obtain the number you require.

# P13. CHAMPIONSHIP SAIL NUMBERS

Before you sail your new boat for the first time, it is most important to apply the self-adhesive numbers to the sail. The sail numbers are exclusive to the boat and correspond with the serial number/sail number plate. These are always located inside the boat attached to the toe strap.

Follow these instructions carefully it is not a job to be hurried.

## CHAMPIONSHIP NUMBERS

(please note all measurements are minimums)

- Should be placed on both sides of the sail with the numbers on the starboard side being above the ones on the port side.
- The height of the numbers should be 230mm.
- The numbers are supplied as 'digital eights' from which you can produce your own sail number.
- The preferred style of cutting numbers from 'digital eights' is shown below.
- The outside corners should be snipped as shown above.
- There should be 45mm between each element of the complete number.
- Both sets of numbers should be in the 2nd coloured panel from the bottom of the sail.
- The numbers should be in a contrasting colour to the sailcloth.
- Use white numbers on red/ dark blue/purple sail panels.
- Use black numbers on grey/ light blue/ yellow/ orange sail panels.

## STARBOARD SIDE

- The start of the number should be placed 45mm from the leech of the sail.
- The upper edge of the number should be 45mm from the upper seam of the panel.

## PORT SIDE

- On the port side of the sail, the upper edge of the numbers should be 45mm from the lower edge of the starboard numbers.
- The end of the last number should finish 20mm from the reinforcement patch.

## ATTACHING NUMBERS

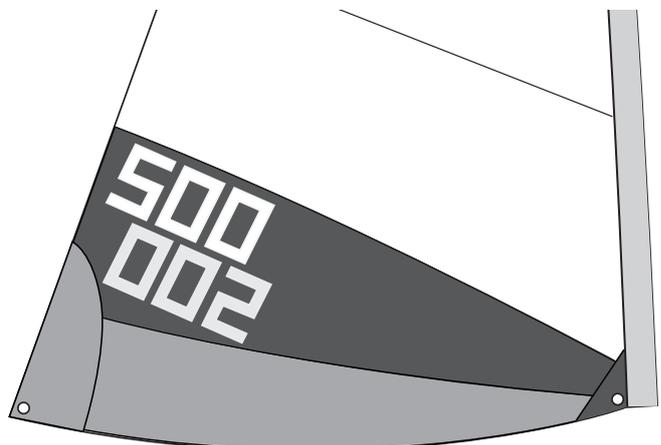
In our experience the best way to stick the numbers down is to peel away a corner, line up the letter and then attach the corner. Pull away the backing paper slowly as you push the number onto the sail. Fiddly but it works!

**If in doubt - please ask**



Snip 2/3mm off the corner of all championship numbers

Panel	Number
Red	White
Dark Blue	White
Light Blue	Black
Grey	Black
Yellow	Black
Purple	White
Orange	Black



# P14. PREPARING THE MAST

1. Slot the two mast sections together, making sure that the slots in the upper section have properly engaged with the rivets in the lower section.

# SLEEVING THE SAIL

1. Unfold the sail and lay it on the ground with the bottom edge of the luff sleeve adjacent to the top of the mast.

2. Insert the mast into the luff sleeve and pull the sail down the mast. If it is windy, keep your back to the wind!

3. Continue until the whole sail is sleeved and the masthead has appeared through the top of the sail.

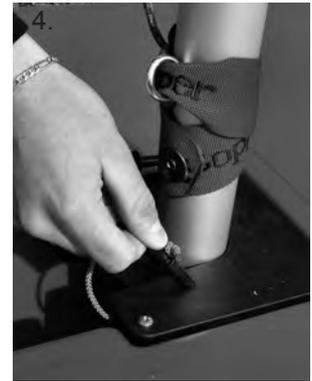
4. Use the Halyard Loop to attach the sail to the top of the mast as shown.

5. Tuck any surplus rope neatly inside the luff sleeve and insert the burgee into the special socket.



# STEPPING THE MAST

1. Point the Topper into the wind, support the mast at a 45 degree angle and engage the base of the mast into the cup under the mastgate.
2. Walk the mast forward into an upright position, ensuring that the collar is underneath the mastgate.
3. Pull the cord to close the gate.
4. Push the toggle in firmly to lock.



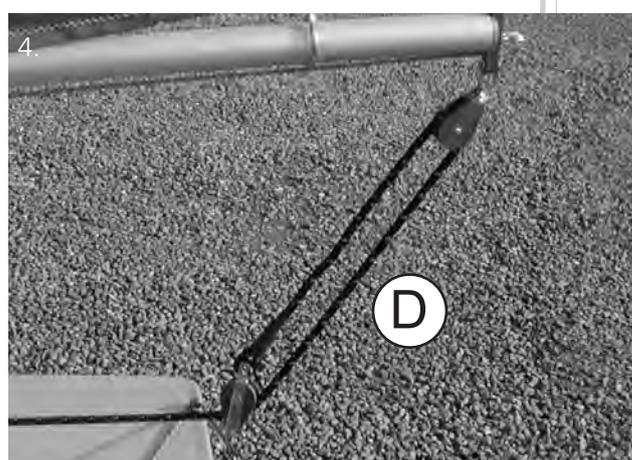
# FITTING THE BOOM

1. Engage the gooseneck end of the boom on to the mast immediately above the collar.
2. Thread the outhaul (F) through the boom end fitting as shown, knotting the end securely.
3. Thread the inboard end of the outhaul through the kicking strap eye and then through the tube cleat on the underside of the boom.
4. Engage the outhaul and clew stop hooks in the clew cringle of the sail. Tighten and cleat the outhaul.



# P16. MAINSHEET AND TRAVELLER ROPE

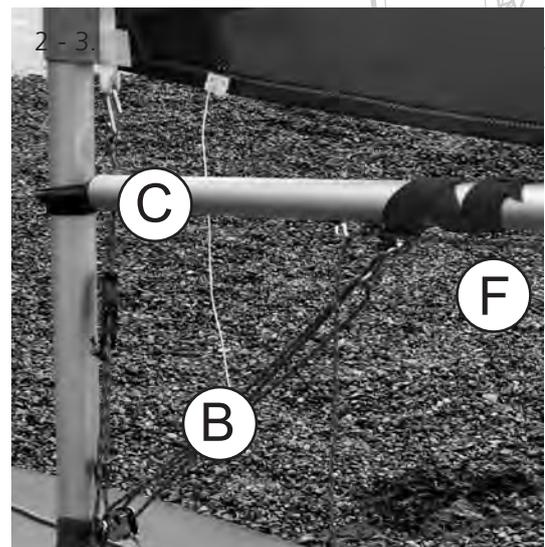
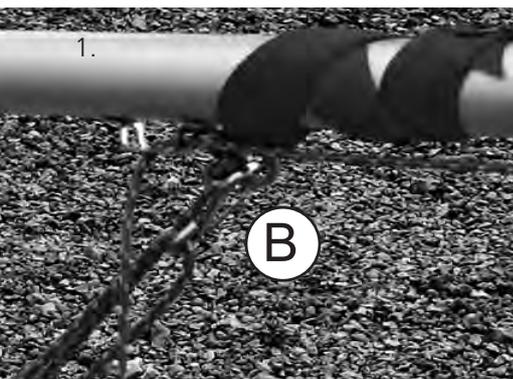
1. Thread the traveller rope (G) through the eyes on the stern of the boat, through the loop in the rope end and down through the cleat on the aft of the bulkhead. Tie a stop knot in the end.
2. Shackle the mainsheet block on to the rope traveller, making sure that the shackle itself - and not the pin - runs on the rope.
3. Attach the other mainsheet block to the boom end with the cotter pin and split ring as shown.
4. Lead the free end of the mainsheet forward and tie a stop knot in the end.



# DOWNHAUL AND KICKING STRAP

1. Clip the kicking strap hook onto the webbing stop's metal ring on the underside of the boom.
2. Clip the downhaul hook through the webbing eye on the sail. And attach opposite end with carabine hook to kicking strap on lower mast as shown.
3. Attach the kicking strap block to the ring on the mast webbing stop with the split pin. One end of the kicking strap rope is attached to the block.

Downhaul & kicking strap



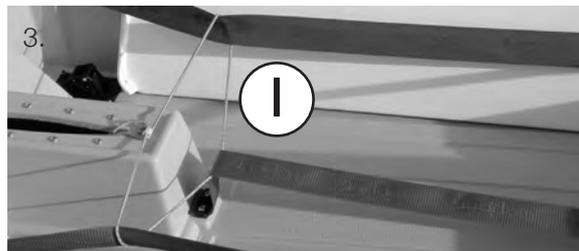
# P17. RUDDER AND DAGGERBOARD

1. Bolt the tiller to the rudder blade ensuring that it is adjusted correctly as described in the maintenance section.

2. With the blade in the raised position, pass the tiller under the traveller and lower the rudder on to the transom fitting. Ensure that it is completely home and that the spring retaining clip has engaged to prevent the rudder becoming detached in the event of a capsize. The blade is lowered by lifting and pushing back on the tiller. Lower the tiller again when the blade is vertically down.

3. With the shockcord (I) provided on the boat, tie the toe straps tightly towards each other. When not in use - you can stow the daggerboard behind one of the toe straps.

4. The daggerboard is retained in the desired position by the tension of the shockcord (H) creating a forward wedging action in the daggerboard housing. Loop the shockcord round the top of the webbing strap and mastgate and clip onto itself with the hook. Pass free end of shockcord through the top of the hole in the daggerboard rim. Tie a retaining knot having first adjusted the tension to suit.



# REEFING THE SAIL

The Topper sail can be quickly reduced in size by furling it around the mast. This will make the boat more manageable for novices and children as they can set precisely the amount of sail that they can confidently handle. As ability increases so can the sail area. Consider two rolls around the mast as the minimum.

Disconnect the kicking strap and tidy it on the downhaul cleat. Ease outhaul, laying loose end over boom and rotate the mast ensuring that the downhaul and halyard are revolving inside the boom gooseneck. Three complete rolls will reduce sail area by over 30%.

Re-connect the kicking strap and tension the outhaul. The Topper will remain perfectly balanced although obviously less lively.

For a Worlds Race Rigged Topper follow instructions but first ensure that the downhaul is fed through the inside of the gooseneck and is tight enough for only the rope stop to run inside. You should also disconnect the 4:1 outhaul blocks at the ring on the webbing strap attached to the boom to give a straight rope connection and more rope for reefing. Clip the hook onto the outhaul rope for neatness.



# P18. TOPPER WORLDS RACE PACK

The all new Topper Worlds Race Pack exploits the class rules and modern technological advances to give the racing sailor full and easy control of his rig.

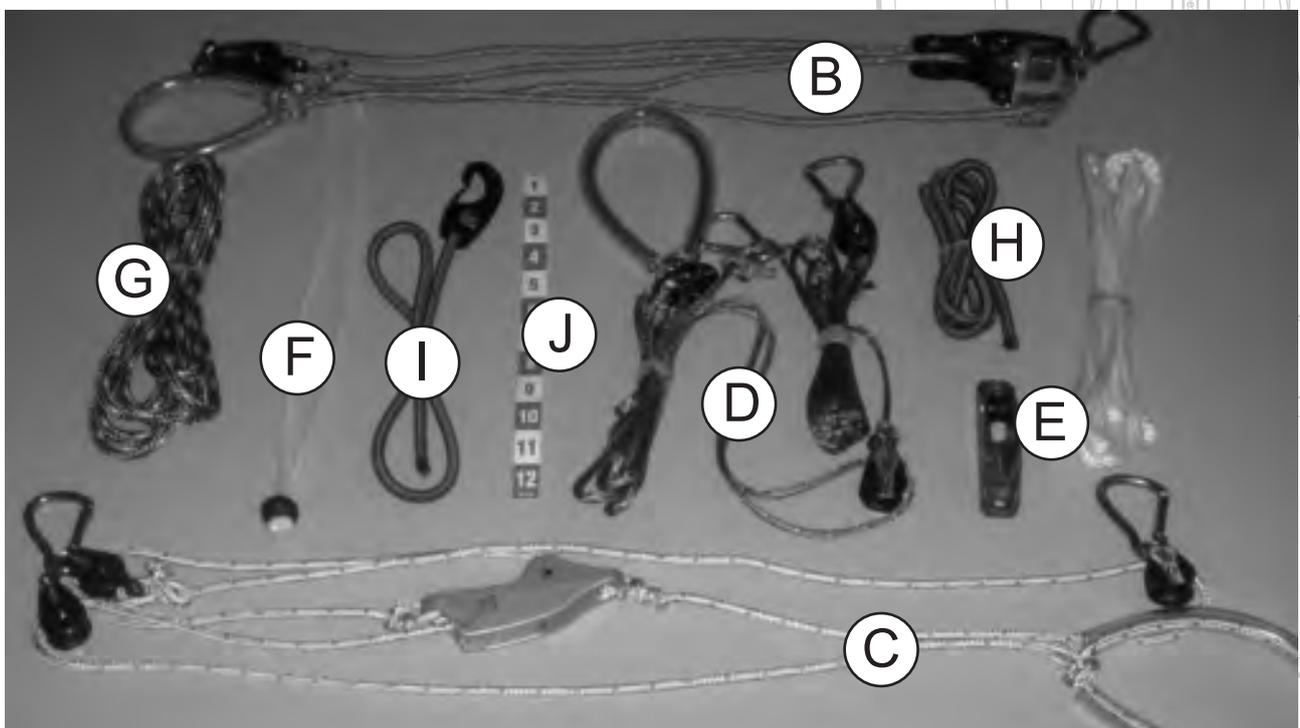
You can customise your Topper by purchasing a Worlds Race Rig either with your new Topper or as an accessory.

In principle the rigging instructions for setting up the Standard and Race Rigged versions of the Topper are the same. This section aims to highlight the areas that differ.

## CONTROL LINES

Begin by laying out the Race Rig items and identifying them all:

- A. Centre-mainsheet system
- B. 3:1 kicker system
- C. 6:1 downhaul system
- D. 4:1 outhaul system
- E. 2:1 traveller system
- F. Halyard loop
- G. Bow painter
- H. Toe Strap Shockcord
- I. Daggerboard Shockcord
- J. Measurement stickers



# 3:1 KICKER SYSTEM

To rig the 3:1 Worlds Kicker System (B) firstly attach the smaller block with the twisted shackle onto the metal ring on the underside of the boom. Then clip the main kicking strap block to the mast.

(The kicker should be supplied pre-rigged as described here; One end of the kicking strap rope attached to the block on the boom. The rope runs down to the main block and under the sheave at the top of this block then back up over the sheave on the boom block and then back down and through the main block and out through the jamming cleat. And a loop handle tied into the end of the rope).



# 2:1 HALYARD LOOP

(see notes and images on page 14)

# 4:1 OUTHAUL

To rig the 4:1 outhaul (D), drill a hole through the gooseneck and attach block with stopper knot.

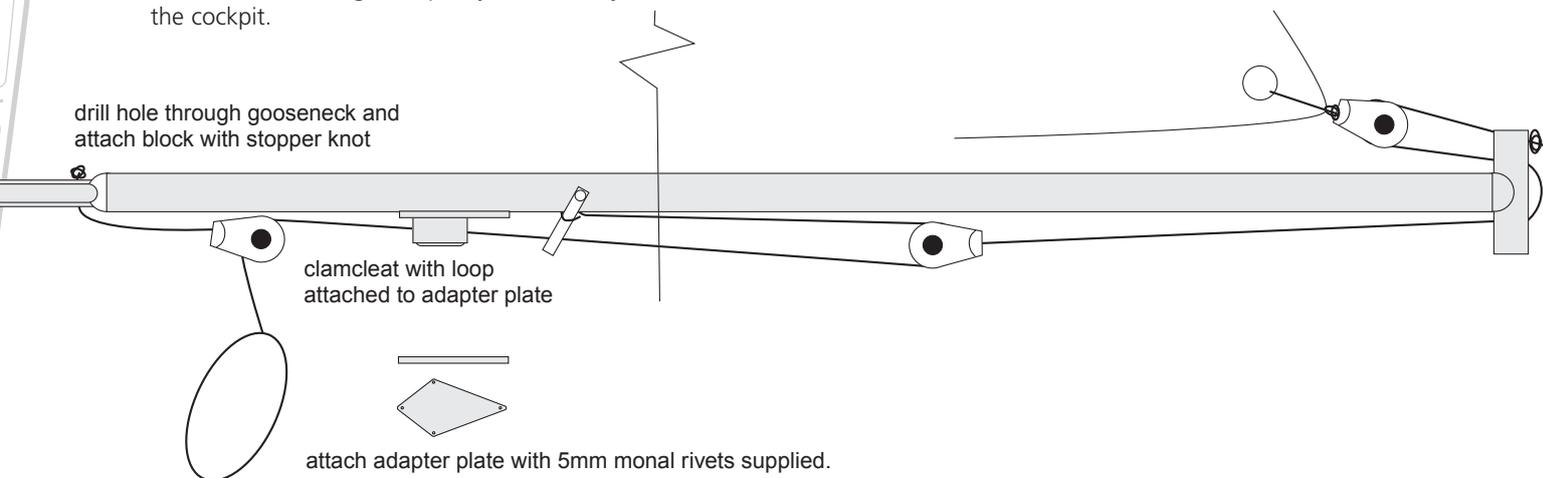
Attach the outhaul carbine hook in the clew cringle of the sail. Thread the outhaul line through the boom end fitting and tie off with a figure of eight knot. Feed line through boom end fitting as illustrated. Using the remaining line in pack D attach the carbine to the kicker fitting, lead the rope back along the boom to the block attached to the rope from the sail clew. This line is then brought forward through the cam cleat through the pulley to allow adjustment from the cockpit.



drill hole through gooseneck and attach block with stopper knot

clamcleat with loop attached to adapter plate

attach adapter plate with 5mm monal rivets supplied. use original v cleat holes



# TO ATTACH THE 6:1 DOWNHAUL

This is set up ready, all you need to do is attach the carabine hook with the single block on it to the webbing loop towards the front of the sail and the carabine clip with two pulleys to the kicker fitting on the mast.



# CENTRE-MAINSHEET SYSTEM

The extra length mainsheet (A) features a ratchet block which fits on the back of the daggerboard and three other blocks, one on the traveller, one on the outer end of the boom and the final one on a short length of rope behind the kicking strap webbing.

1. Attach the becket block onto the boom end fitting with the short rigging link supplied and the simple loop-top block onto the traveller rope with the forged shackle.

Lead the mainsheet as follows:

Tie the mainsheet to the becket of the block attached to the end of the boom.

2. Take the free end of the mainsheet down through the block attached to the traveller, from front to back, and back up through the boom end block from the rear.



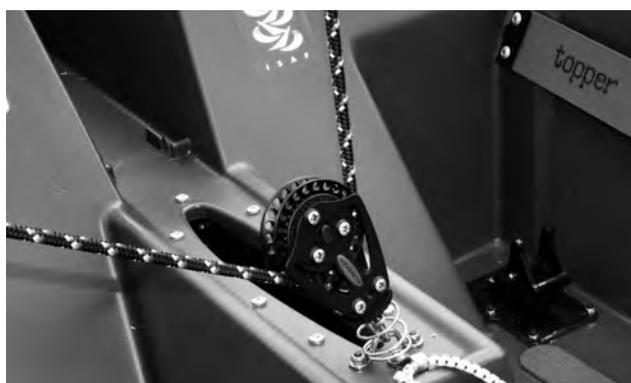
# CENTRE- MANSHEET SYSTEM (CONTINUED)

3. Lead along the boom, through the sailcloth loop, and then through the block hanging just behind the kicker.

4. Finally take the mainsheet down to the ratchet block, making sure it clicks as you feed it through.

Tip; Tie a stopper knot in the rope at a point so that it is in the helmsmans hand when the boom is at a 90 degree angle to the boat.

This PolyLite type mainsheet is constructed to prevent knots forming in use. The construction requires lanolin which is best removed before use. A low temperature washing machine program is fine. Occasionally allow the rope to trail over the side to prevent twists building up. The blocks will continue to give excellent service if washed regularly



## 2:1 TRAVELLER

To rig the 2:1 Traveller system firstly attach the clamcleat to the aft of the bulkhead (replacing the standard cleat). The traveller is tied across the back of the boat with a bowline (with a long tail). Tie loop in tail. Feed the tail down to cleat and round the pulley (see below). Then feed back up to the loop and then back down and through the clamcleat. Tie a stop knot in the end. You can now pull the bowline tight over the tiller arm.



## MEASUREMENT STICKERS

Three measurement stickers are provided so sail settings can be readily remembered. To apply pull the outhaul to maximum tension with sail rigged. Then apply the graduated stickers onto both sides of the boom with the no.9 against the block and the no.1 facing towards the end of the boom. On the lower mast stick the graduated sticker vertically 5cm above the gooseneck collar in line with the kicking strap attachment eye.



# P22. ADJUSTING THE SAIL

Your new sail is made from the highest quality Dacron material which has exceptional durability and resistance to stretching. These properties ensure that your sail will retain its shape throughout its long life.

Follow the simple setting instructions given below to obtain optimum performance from your sail throughout the range of wind strengths.



## THE BASIC PRINCIPLES

In strong winds it is best to have a flat sail, achieved by using lots of downhaul and lots of kicker but keeping some shape in the bottom of the sail with the outhaul.

In medium winds it is best to have a full sail, achieved by using no downhaul, only a little kicker and by having the outhaul at a looser setting.

In light winds a flat sail is needed again. Achieve this with the outhaul set quite tight. Do not use downhaul or much kicker in these conditions.

## V. LIGHT FORCE 0-2

Kicker – sheet in the mainsheet so the mainsheet blocks are 200mm apart.

Take up the slack on the kicker.

Downhaul – none.

Outhaul – tight but not so tight that there is a crease in the foot of the sail.

Traveller – Tight but just loose enough that the shackle can slide across the tiller without catching.

## HUNTING FOR EXTRA POWER FORCE 2-4

Kicker – sheet in the mainsheet so the mainsheet blocks are 75mm apart.

Take up the slack on the kicker plus a little more.

Downhaul – none.

Outhaul – so there is a maximum distance from the boom to the sail of about your hand length.

Traveller – very tight.

## BEING OVER-POWERED FORCE 4-6

Kicker – as much as you can pull on.

Downhaul – as much as you can pull on.

Outhaul – tight but just little enough to maintain a curvature in the foot of the sail.

Traveller – very tight.

These are a guide only. Much depends on your experience, weight and strength. In waves you will need a fuller sail – use less outhaul for a given windstrength.

# P23. TUNING FOR PERFORMANCE

The performance of the Topper gives very exciting racing, yet her simplicity and handling qualities make it quite feasible for those with little experience to sail competitively. The class rules aim to ensure that the one-design principles of the class are maintained and the racing is a true test of the helmsman's sailing skills. No one is able to gain advantage by making expensive modifications or adding sophisticated or specialised gadgets.

However, although the rig is very simple there is some scope for tuning to improve performance which is given in these notes. More detailed information can be obtained from the Dave Cockerill and John Caig Sailing book which is recommended for both the novice and the expert.

## SAIL FOOT TENSION

**Outhaul:** In light winds the tension on the foot of the sail should be less than in strong wind but never slack.

For windward sailing the sail should never be baggy. In moderate winds, tension the foot of the sail so that it is just pulled into horizontal creases at the foot. In light winds ease the outhaul so that the creases just disappear.

## FOOTLINE

For sails with a footline, with the outhaul pulled slightly tension the footline so that the edge of the sail just curls.

## ROPE TRAVELLER

This controls the position the boom takes up relative to the boat when the sheet is pulled hard in. In stronger winds going to windward, the boom should be out towards the corner of the stern. This is achieved by tightening up the traveller as hard as possible so that the mainsheet slides across easily from one side to another. In light winds going to windward you may choose to let out the horse so that the mainsheet does not travel so far across the boat.

The position of the boom is of course also controlled by the mainsheet itself, but the tension of this is constantly under adjustment, whereas the traveller is only occasionally adjusted to suit the general prevailing conditions.

## KICKER

This is an important piece of equipment as it not only improves performance by controlling the shape of the sail, it also helps to prevent uncontrollable gybes. The function is to hold down the boom and control the tension in the leech of the sail and reduce inefficient twist.

A tighter kicking strap is required in strong winds. Push down on the boom with one hand and haul in on the kicking strap with the other and jam it. In light winds the kicking strap should be just tight when the sail is hauled in when going to windward. It will then be just about right for running and reaching.

For the best performance use sufficient tension to significantly pre-bend the mast so the sail takes up an even curve close to the mast.

## DAGGERBOARD

This should be fully down when going to windward in light airs, but may be raised slightly for windward sailing in strong winds. It can be raised about half way when reaching and nearly all the way when running.

Take care when the board is raised, not to gybe and hit it with the kicking strap - or it may cause a capsize.

## RUDDER

The rudder blade should generally be fully down. In very light airs, beating to windward, it may help to push the boat round from one tack to another if the blade is raised two notches. The strains on the rudder assembly are considerably increased when the rudder blade is partially raised, so do not sail with it partly up in strong winds at full power. Only use in partially raised position in strong winds when negotiating shallows at reduced speed.

## SELF BAILER

This clears the water from the cockpit by suction under the hull. It pays to have the self-bailer operating and the boat kept free of water and as light as possible, but the bailer in the operating position does cause drag, so it is best to have it open only if it is really needed.



# P24 MAINTENANCE

Very little maintenance is required to your Topper, but some care and attention will produce better sailing performance.

Your boat should only be used with the propriety launching trolley. The use of any other trolley may damage the hull and invalidate your warranty.

Care must be taken to support the hull adequately if the boat is not stored on the correct launching trolley. Any sustained point loading could permanently dent or distort the hull.

Any repairs to the hull should be undertaken by qualified personnel with the relevant skills and equipment. Contact Topper International for advice.

UV light may cause fading to some components and fittings, a good quality cover is recommended to reduce UV degradation.

Keep the equipment clean by frequently flushing with fresh water. The stainless steel fittings will also bleed with a rust colour if not rinsed off after sailing at sea.

Excess water should be removed from the hull. Keep your Topper drained and well ventilated. Ensure the boat is stored with the bow raised to allow water to drain away. Before you set sail ensure that the transom drain plug has been correctly closed.

Ropes, rigging and fittings should be checked at regular intervals for wear and tear.

Inspect shackles, pins and fittings regularly. Tape up fittings that may snag with sails, ropes, or crew.

Damaged or worn parts should be replaced.

## REPAIRS

Contact Topper International or your dealer who will provide you with the best advice.

## MODIFICATIONS

Contact Topper International or your dealer about any modifications. Please remember any modifications may endanger your safety and invalidate your warranty.

## HULL AND DECK

The polypropylene from which the hull and deck are moulded is very strong but can be scratched so avoid pulling the boat over shingle or scraping it on anything hard and always try to rig the boat on a reasonably soft surface.

The moulding material has special additives to provide resistance to the effects of ultra-violet light, but very prolonged exposure to strong sunlight may affect the surface over the period of a number of years. Therefore it is recommended that you cover the boat or store it in the shade.

Static electricity on a polypropylene surface attracts dust. The harder you rub it with a duster the more dust will stick. So it is best to wash it or try an anti-static polish.

An annual check of screw tightness is a good discipline, but be careful not to overtighten.

## MAST CUP

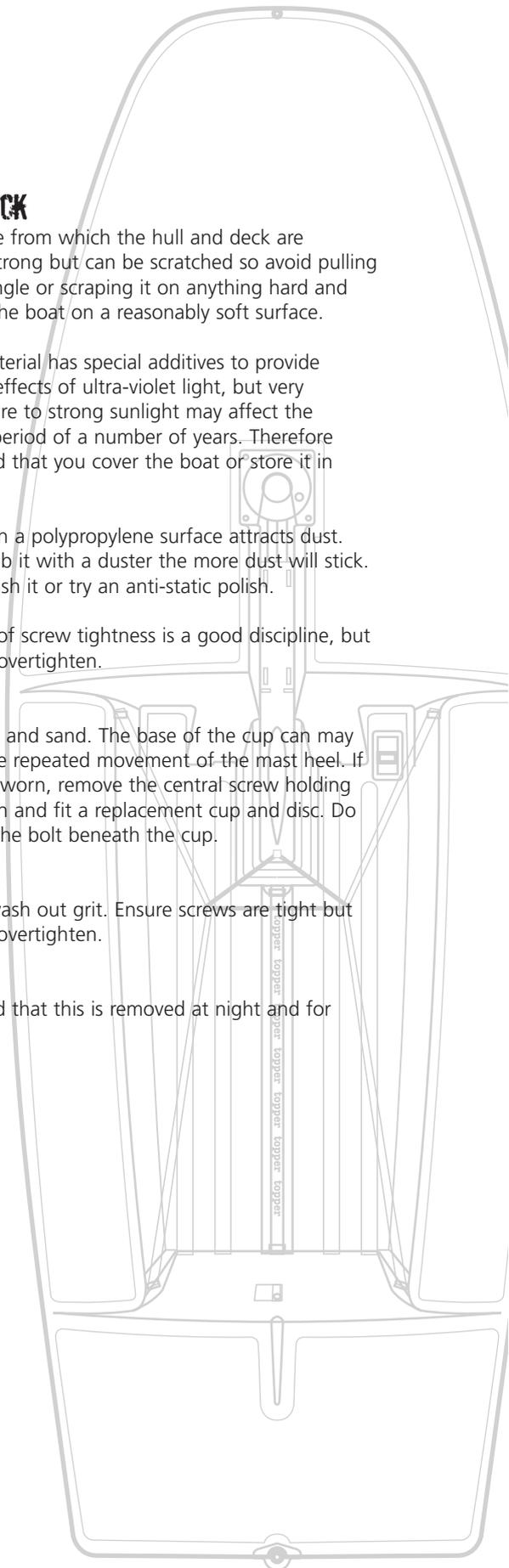
Clean out the grit and sand. The base of the cup can get worn from the repeated movement of the mast heel. If the cup becomes worn, remove the central screw holding the cup in position and fit a replacement cup and disc. Do not tamper with the bolt beneath the cup.

## SELF BAILER

Keep clean and wash out grit. Ensure screws are tight but be careful not to overtighten.

## DRAINPLUG

It is recommended that this is removed at night and for winter storage.





## **RUDDER**

Make sure that when you attach the rudder that the rudder stop clips over the stock. Sometimes a safety stop is attached from the boat to the rudder stock.

The rudder blade is intended to stay down in the fully lowered position when the tiller is lowered onto the pillar of the rudder stock (aluminium casting). If the rudder blade hits a submerged object hard, the blade will force the tiller to slide up on the pillar to allow it to move forward, thus releasing a locking mechanism and letting the rudder blade come up.

In order to do this correctly - yet not allow the blade to come up during normal sailing - the friction at the joint between the tiller and rudder must be adjusted correctly. This is done by adjusting the spring nut on the tiller pivot bolt. You must get this right by trial and error. It is also important that the bearing surfaces between the locking pegs on the tiller and the notches on the rudder stock pillar are smooth and clean, otherwise the tiller will not slide upwards when the rudder blade hits an obstacle.

## **TILLER EXTENSION**

No maintenance is required but check that the universal linkage is secure.

## **RUDDER PINTLE ON HULL**

This is the stainless steel transom plate on which the rudder pivots. Check occasionally that the fixing screws are secure and that there is not undue wear on the pivot pin.

## **MASTGATE**

Keep washed out and free from grit and sand. Do not lubricate.

## **TOP MAST**

This is designed to be water tight. The upper end fitting is sealed in with mastic and the lower end is plugged. It is difficult to check the top mast for leakage and the only practical way is by prolonged immersion.

## **LOWER MAST AND BOOM**

Check screws and rivets on fittings regularly.

## **SAIL**

The sail is very strong and will not rot, but can be spoiled by unsympathetic use. Occasionally wash any salt off the sail with fresh water with a hose, do not use a washing machine. Dry and fold carefully. Roll up the folded sail and stow it in its bag. If you crumple up the sail or stuff it in the bag unfolded you are liable to breakdown the smooth surface of the cloth and affect the performance of the sail. It will not ruin it but it will become less efficient.

## **BLOCKS**

Wash these occasionally and keep them free from grit. Do not lubricate.

## **ROPES**

Check these occasionally for chafe and wear and tear.

## **STORAGE**

The Topper may be stood on its transom, providing pintle and gudgeon are kept clear of the ground. It can be slung in straps or stored upside down in the same way that it is supported on a roof rack. If the hull is put in a rack the right way up, it is important to ensure that the forward support lies directly under the mast step, and that the load is spread as much as possible.

Trailers should be rinsed with fresh water and checked at regular intervals. It is recommended that the trailer be serviced annually.





# JOIN THE CLUB

Topper is one of the world's largest and fastest growing dinghy classes!

We are so sure that you will want to keep in touch with the Topper scene internationally that, for the remainder of the year in which you bought your new Topper we are offering you a FREE membership of the Topper International Class Association.

ITCA will send you regular newsletters and a magazine containing information on Topper activities and regattas, technical advice and sailing and rigging hints.

ITCA will put you in touch with Topper sailors in countries to which you may be planning a visit.

ITCA will offer you a range of clothing and accessories designed specially for the Topper sailor.

ITCA will liaise between your own national or regional Association, other regional Topper Associations and International Yachting Administrators.

*Free membership is available now to first year owners. Contact the Topper International Class Association at ITCA (GBR), 17 Woods Hill Lane, Ashurst Woods, West Sussex RH19 3RW or Telephone 01342 311873. We will then directly process your membership.*

## ITCA MEMBERSHIP

### Welcome to Topper Sailing!

Welcome to what is probably one of the world's largest and still fastest-growing dinghy class. To keep you in touch with the Topper scene internationally, ITCA (International Topper Class Association) will allow you free subscription for the remainder of the year in which you bought your Topper.

Just fill in the form below and return it to us; we will pass it on immediately to your National Secretary for processing and you will then receive your first copy of Topper Times, your membership card and details of many other benefits of ITCA membership.

So when you buy a Topper, you are not just treating yourself to the best small boat in the world - you are also becoming part of the exclusive Topper family.

We recommend that in the UK you insure your Topper with the Class Association. We will forward details to you.

**To: Topper International Ltd, Kingsnorth Technology Park, Wotton Road, Ashford, Kent TN23 6LN**

Please enroll me as a full member of the Topper International Class Association.

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