FUNBOAT

Rigging Manual

Funboat Rigging Instructions

Funboat Assembly Manual

Included in this guide are simple instructions for the assembly of your Funboat. The diagrams and commentary are intended as an aid for the assembly of your Funboat and are not a user manual. If any aspect of the assembly is not clear or you require further advice or assistance then please contact LaserPerformance.

1. Glossary

Aft: The back of the boat
Bow: The front of the boat
Batten: A thin plastic strip which fits into a long narrow pocket in the sail
Clew: The aft lower corner of the sail
Fairlead: a fitting that leads line in the most efficient direction for operation
Foot: the bottom edge of the sail
Forward: towards the bow of the boat
Gooseneck: A hinge fitting connecting the boom to the mast
Gunwale: The outer most edge of the craft
Head: The top corner of the sail
Kicking strap: A line or series of lines between the base of the mast and the underside of the boom to control sail twist and boom position
Leach: The trailing edge of the sail
Leeward: The opposite side of the boat from where the wind is blowing
Luff: The front edge of the sail
Mainsheet: The rope controlling the position of the mainsail
Mast Step: The position on the hull or deck in which the mast is located
Port: The left hand side of a boat looking forward
Reefing: The ability to shorten the sails appropriate to the degree of wind strength
Starboard: The right hand side of the boat looking forward
Stern: The aft-most area of the boat
Tack: The lower corner of sail
Tiller: A length of tube, usually wood, aluminum or carbon fiber, that fits into the rudder head to allow steerage
Tiller handle: A handle connected to the tiller by a universal joint
Windward: The side of the boat closest to the wind

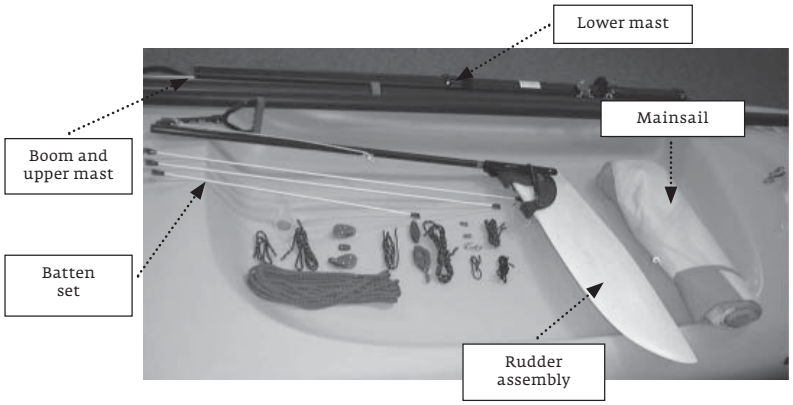
2. Basic safety afloat

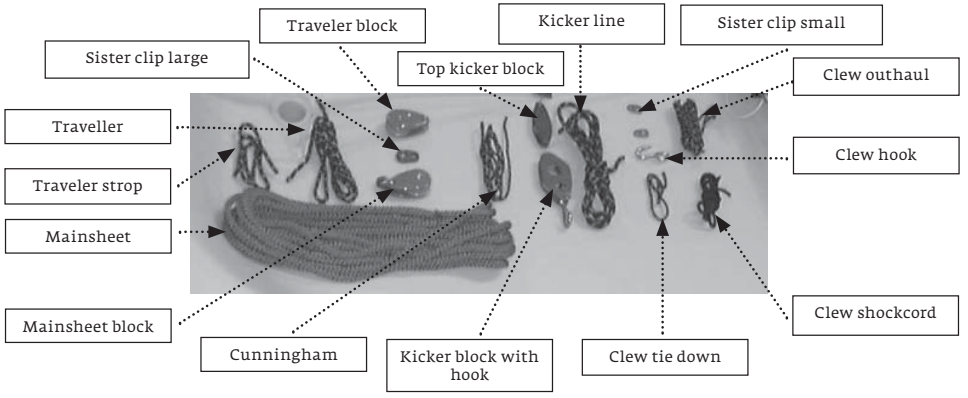
Before you go sailing

- The use of a LaserPerformance supplied Funboat mast head float is highly advisable. *(This device will assist in the prevention of complete inversion in the event of capsize).*
- Ensure that your level of sailing competency is sufficient for the conditions in which you intend to sail.
- Wear suitable clothing and safety equipment for the conditions and time of year. Always wear a buoyancy aid or life jacket.
- Inform a third party where you are sailing, how many there are of you in the group and when you expect to return.
- Check the local weather forecast: radio, television or the Coast Guard.
- Check the time of high and low tides, if applicable.
- Seek advice on the local conditions if you are sailing in a new area.
- Check the condition of your craft before launching.
- Check for overhead power cables when launching.

3. Identify all Parts

1. Hull
2. Spar assembly
   - Upper mast
   - Lower mast
   - Boom
3. Rudder assembly
4. Kicking strap block with cleat
5. Top kicker block
6. Mainsheet block with clip
7. Traveler block
8. Large sister clip
9. Small sister clip
10. Clew hook
11. Mainsail
12. Rope kit code
    - Mainsheet – 10 meters 8 mm
    - Traveler – 1.64 meters 5 mm
    - Traveler strop – 0.63 meters 5 mm
    - Kicker line – 2.7 meters 6 mm
    - Cunningham – 1.0 meter 4 mm
    - Clew outhaul – 3.0 meters 4 mm
    - Clew tie down – 0.35 meters 4 mm
    - Outhaul shockcord – 1.12 meters 5 mm





4. Assembly

1. Insert the upper mast into the lower mast, ensuring that the two arrows are aligned. (figure 1)

2. Insert the assembled mast into the luff tube of the mainsail and pull the sail over the mast. Ensure that the mast is fully entered into and firmly pushed completely into the luff tube. (figure 2)

3. Insert the battens into the batten pockets. Ensure that the inboard batten tip is located into the elastic at the bottom end of the batten pocket. The outboard end of the batten is tucked under the flap on the outside edge of the sail. (figure 3) (figure 4)

5. Insert the mast into the mast step. Ensure that the mast gate claw springs over the mast step collar on the lower mast. (figure 5a) (figure 5b)

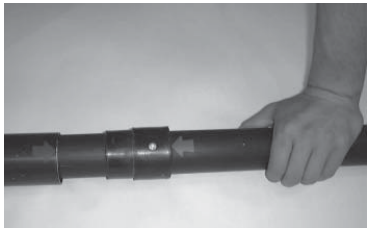


figure 1

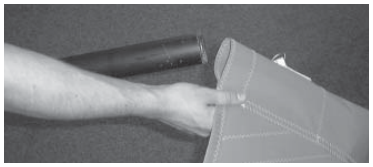


figure 2

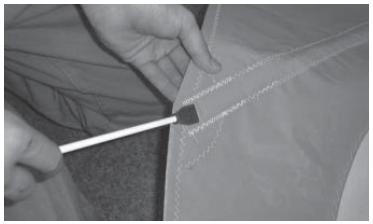


figure 3

figure 4

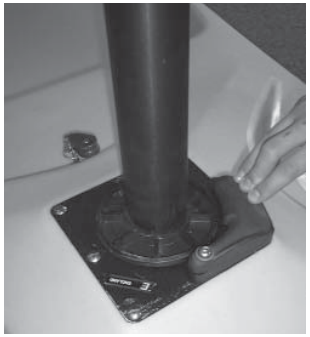


figure 5a

figure 5b

6. Attach the clew outhaul hook to the boom with the clew tie down line using a reef knot. (figure 6)

7. Tie the clew outhaul to the fairlead on the outboard end of the boom. Thread the clew outhaul through the hook and back through the fairlead. Ensure that the outhaul is threaded from right to left. (figure 7)

8. Take the outhaul forward and down the left hand side of the boom. Thread the line through the fairlead on the front end of the boom from left to right.
Attach one of the small sister clips to the end of the outhaul with an over hand stop knot.
Attach the other sister clip to the outhaul shockcord and join the two clips together. Attach the other end of the shockcord to the outhaul hook. (figure 8)

9. Tie the cunningham line to the stainless steel D- ring on the front of the sail. Thread the cunningham line through the lacing eye on the front of the mast. Tension the cunningham line and tie off. (figure 9)

10. Clip the boom onto the lower mast above the gooseneck plug. (figure 10)

11. Secure the clew hook onto the clew of the sail. Tension the outhaul so that the clew tie down is approximately 285 mm from the end of the boom. This is a good place to start for medium conditions. The stronger the wind, the more tension required on the outhaul. Secure the outhaul line in the cleat. (figure 11)

figure 6

figure 7

figure 8

figure 9

figure 10

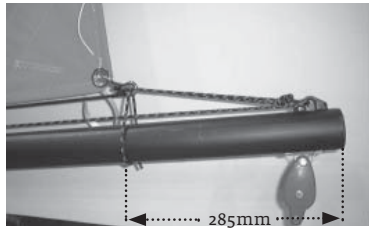


figure 11

12. Thread the traveler line through the traveler block and attach the two ends of the traveler to the traveler fairlead with a bowline or a overhand stop knot and half hitch. (figure 12) (figure 13a)

13. Tie the traveler strop to the traveler block with a overhand stop knot and half hitch and tie the other end to the large sister clip with a overhand stop knot. (figure 13) (figure 13a)

Important: *The length of the traveller line and strop should be adjusted so that the traveller block is positioned 395 mm from the center of the deck to the centre of the block sheave and the distance between the center of the traveler block and mainsheet block is 510 mm. See illus. 12/13. Do not reduce this as it will adversely effect the performance of your Funboat.*

14. Thread the end of the mainsheet through the bottom of the boom end block and secure with a figure of eight stop knot. (figure 14a) (figure 14b)

Thread the mainsheet through the blocks as illustrated in figure 14 and along the boom, through the webbing strap, through the forward mainsheet block and down through the block on the foredeck. Tie a figure 8 stop knot in the end of the mainsheet to prevent it from coming out of the mainsheet block on the deck.

15. Assemble the kicking strap line to the two blocks and attach to the mast and boom as illustrated in figure 15 a, b, & c.

Important: *Overtensioning the kicking strap will adversely effect the sailing performance of your Funboat.*


figure 12


figure 13

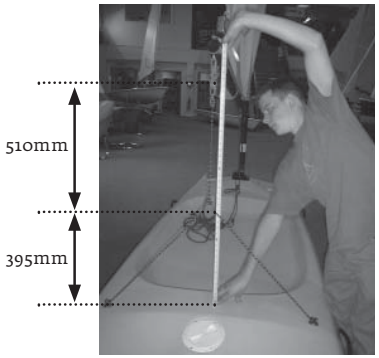


figure 13a


figure 14a


figure 14b


figure 15a


figure 15b


figure 15c

16. Fit the rudder assembly to the gudgeon plate. (figure 16)

The rudder retaining clip locates the rudder stock when the rudder assembly is positioned on the gudgeon plate and should be adjusted so that the stock cannot be removed without depressing the clip by hand.

17. To put the rudder blade down from the fully up position lift the tiller slightly and push backwards. (figure 17)

18. The rudder assembly has a kick-up system so that if you run aground the rudder will come up automatically. This can be adjusted by repositioning the plastic buffer under the tiller. When the rudder blade is fully down the tiller should locate over the capstone on the stock.
If the rudder blade can be moved backwards from the tip more than 3 mm then the plastic buffer under the tiller should be moved forward to remove the slack. The buffer is adjusted by loosening the Allen screws with Allen key provided. Adjust to desired setting and retention the screws. (figure 18)

Warning: *The kick-up system is a safety feature in case you run aground accidentally. Under normal circumstances the rudder should be lifted before approaching the beach or slipway.*

To lift the rudder raise the tiller slightly to disengage the lock down mechanism and pull the tiller towards you.


figure 16


figure 17


figure 18

19. Before you go sailing, ensure that the 2 transom bungs and the 3 hatches are fully tightened. (figure 19a) (figure 19b)

20. If you capsize when sailing the Funboat it is very easy to pull upright. Simply pull backwards on the black handle under the hull beside the mast step and at the same time climb onto the lower hull. As you do this the Funboat will come upright. (figure 20a) (figure 20b)

21. If the Funboat turns completely upside down, climb between the hulls from the transom. Using one of the handles underneath the hull at the back of the boat pull backwards, while pushing down the on the opposite hull. As the Funboat comes upright move forward and pull on the forward handle as described above.

4. Reefing your Funboat

In strong winds, or if you are unsure whether you can cope with the conditions, it is always best to reef the sail down to reduce its area.

A) Uncleat and slacken the kicking strap rope. (figure 21)

B) Unclip the kicking strap from the mast. (figure 21)

C) Uncleat and slacken the clew outhaul line and ensure that the foot of the sail is loose. (figure 22)

D) Rotate the mast in either direction by turning the mast below the gooseneck. This will roll the sail around the mast, thus reducing the sail area. This is reefing. (figure 23)

E) Reattach the kicking strap to the lower mast but leave it loose.

F) Recleat the clew outhaul and pull it tight.

G) Retighten the kicking strap.


figure 19a


figure 19b


figure 20a


figure 20b

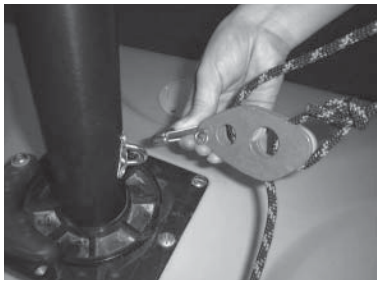


figure 21

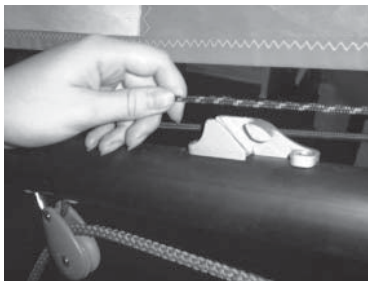


figure 22


figure 23

Care, Maintenance and Service of your LaserPerformance Product

Before rigging your boat, read and familiarize yourself with the rigging manual. Failure to adhere to these guidelines could invalidate your warranty.

Maintenance

- Keep the equipment clean by frequently flushing with fresh water. In corrosive atmospheres, stainless parts may show discoloration/brown staining around screw holes and rivets. This is not serious and can be removed with a fine abrasive.
- Excess water should be removed from the hull.
- Ropes, rigging and fittings should be checked at regular intervals for wear and tear, including winch gear.
- All moving parts should be lightly lubricated to avoid jamming, i.e., McLube, dry Teflon or a dry silicone based spray. Do not use oil.
- Inspect shackles, pins and clevis rings and tape up to stop snagging sails, ropes and clothing and to prevent them from coming undone.
- When refastening screws do not over tighten as this may strip the thread and do not reuse Nyloc nuts more than three times.
- Damaged or worn parts should be replaced.
- Sails should be thoroughly washed down with fresh water, dried and stored in a dry place.

Trailers and Trolleys/Dollies

- It is highly recommended that a trolley/dolly is used to launch and recover your boat. Dragging your hull up onto a beach or slip way will wear away the gel coat or polyethylene and damage the boat. Also, the hull should not be left on a pebble beach as the hull skin could be dented.
- Trailers should be rinsed with fresh water and checked at regular intervals. It is recommended that trailers be serviced annually. The trailer and road base should never be immersed in water.
- Trailers and trolleys supplied by LaserPerformance are designed to transport the hull in the best possible manner to avoid damaging the hull. For instance LaserPerformance does not recommend support hulls on rollers except on the keel line and only where there is a reinforced keelson. We also recommend gunwale hung trolleys for our smaller products. Hulls supported by a trolley bunk or wide strap must have the ability to drain water away from the hull. Trolley bunks padded with carpet or foam can cause blistering in the gel coat and changes to the hull color. Please do not transport your LaserPerformance product on a trailer or trolley that has not been specifically designed for the product. Hulls damaged through using an incorrectly designed or wrongly set up trailer or trolley are not covered under warranty.
- When securing your boat to a trailer for transport be very careful that ratchet straps and ropes are not over tightened and that there is sufficient padding under the strap or rope to prevent the hull/deck from being damaged through abrasion or pressure.
- Top covers must not be allowed to "flap" when driving at speed. This can abrade the surface of the hull and damage it. It is recommended if you are towing and plan to use your top cover that an under cover is fitted first to prevent cover flap damage to the top sides of the hull.
- Repairs to the polyethylene or GRP hulls should be undertaken by persons with the relevant equipment and skills. Contact LaserPerformance for advice.

Storage

- Your boat should always be tied down securely to the ground when not in use.
- UV light will cause fading to some components and fittings. A cover is recommended to reduce the UV degradation.
- Do not leave the rig under tension when not sailing or during storage.
- Care must be taken to support the hull adequately if storing on racking or similar. Any sustained point loading could permanently dent or distort the hull.
- Under covers for LaserPerformance products should be produced from a breathable or semi breathable fabric to allow moisture to evaporate away from the hull. This is essential to prevent damage to the hull skin. Also, the hull should never be left in the under cover wet or damp. A combination of moisture and heat over an extended period can also damage the hull. The under cover is designed to protect the hull when being transported and should be removed when the hull is being stored. Typical damage includes small bubbles or blisters, excessive print through of glass reinforcement, foam or wood and color change.
- Rudders and centerboards must never be stored wet in carry/combo bags. This can cause blistering, print through and warpage.
- All our GRP products are designed to be dry sailed. In other words stored on dry land. If you intend to leave your boat on a mooring for any length of time it is essential that you apply an osmosis barrier coat. LaserPerformance can recommend a suitable product.

On Water

- When wearing a trapeze harness, take particular care when climbing on to the centerboard and back into the boat after a capsize. The trapeze harness hook could easily damage the hull or deck.

On Water Towing

- Towing your LaserPerformance product at high speed (10 – 20 knots) behind a rib or power boat can seriously damage the hull. Boats damaged in this manner are not covered by the warranty. LaserPerformance recommends a maximum towing speed of 6 knots.

Owner Information

hull identification number

purchased from | date of purchase

contact name | phone #

address:

city / state / county | zip / postal code

hull color: sail #:

registration information (if applicable)

trailer vin #

license plate number

registration number | state / county registered in

insurance information

maintenance

LaserPerformance equips our Funboat with the highest quality parts available from the top suppliers. Shop online at **laserperformance.com** or at an authorized LaserPerformance dealer to be sure you are getting genuine LaserPerformance parts and accessories. Visit **www.laserperformance.com** to find your local dealer.

Notes

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