

Dart 15



DART 15
RIGGING MANUAL

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The DART 15 rigging instructions are a comprehensive guide to rigging your DART 15. Due to production supplies certain parts may be slightly modified from those shown. This instruction manual is not a guide to sailing your craft and should not be considered as suitable for the purpose of learning to sail a catamaran.

CAT. CLINIC. (Dart Catamaran Sailing School)

The Cat. Clinic is the Laser Centres' only recommended catamaran sailing school. Here you will find the most up to date DART CATAMARANS ready for your instruction. There is nowhere more modern than the Cat. Clinic. Catamaran enthusiasts of all abilities attend courses regularly to improve their technique. Further details of the Cat. Clinics' Centres can be obtained from

The "CAT. CLINIC"
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RECOMMENDED BOOKS

Catamarans are one of the fastest craft on the water. So that you can enjoy your catamaran to its full potential we recommend 'The Catamaran Book' by Brian Phipps as a valuable addition to your library.

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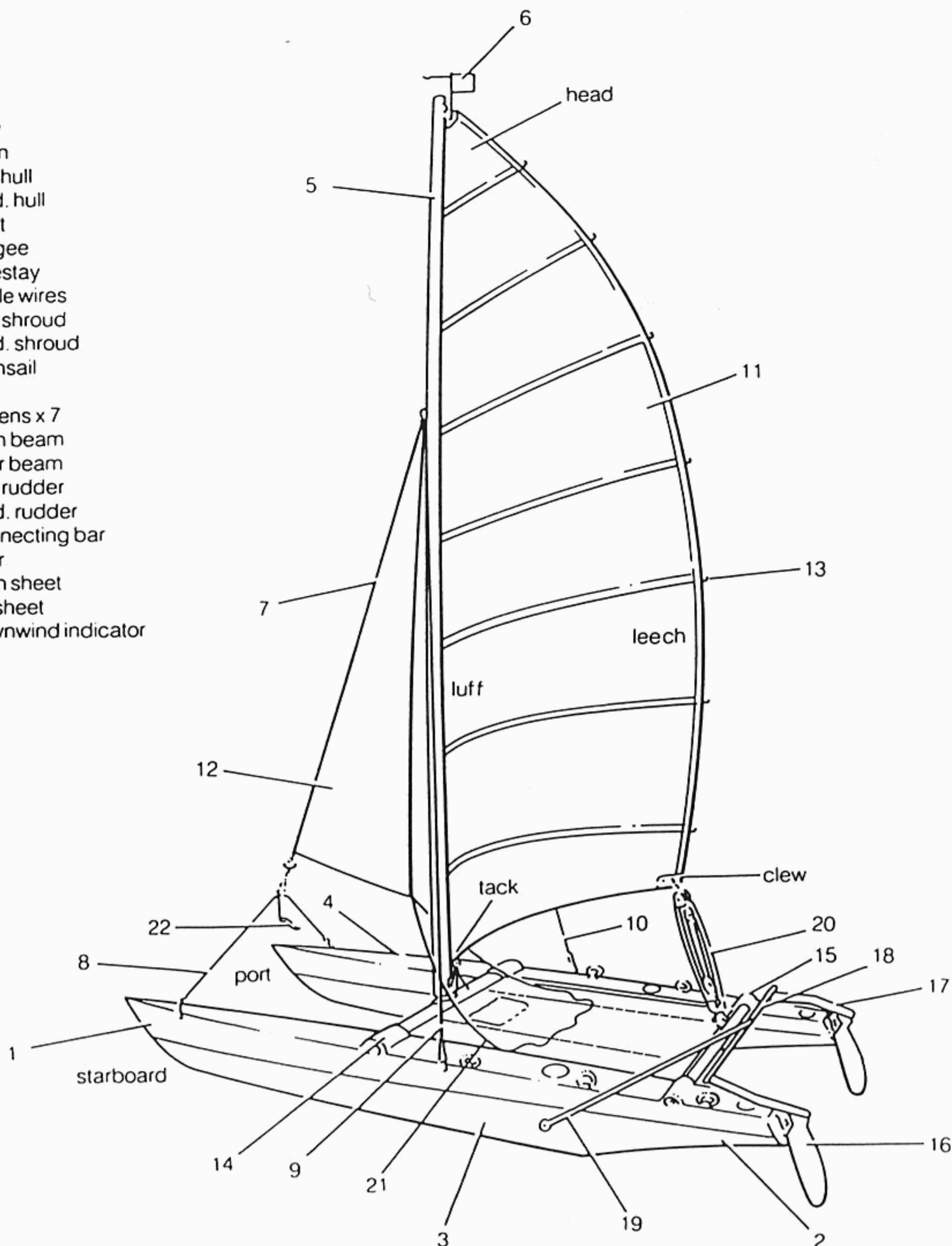
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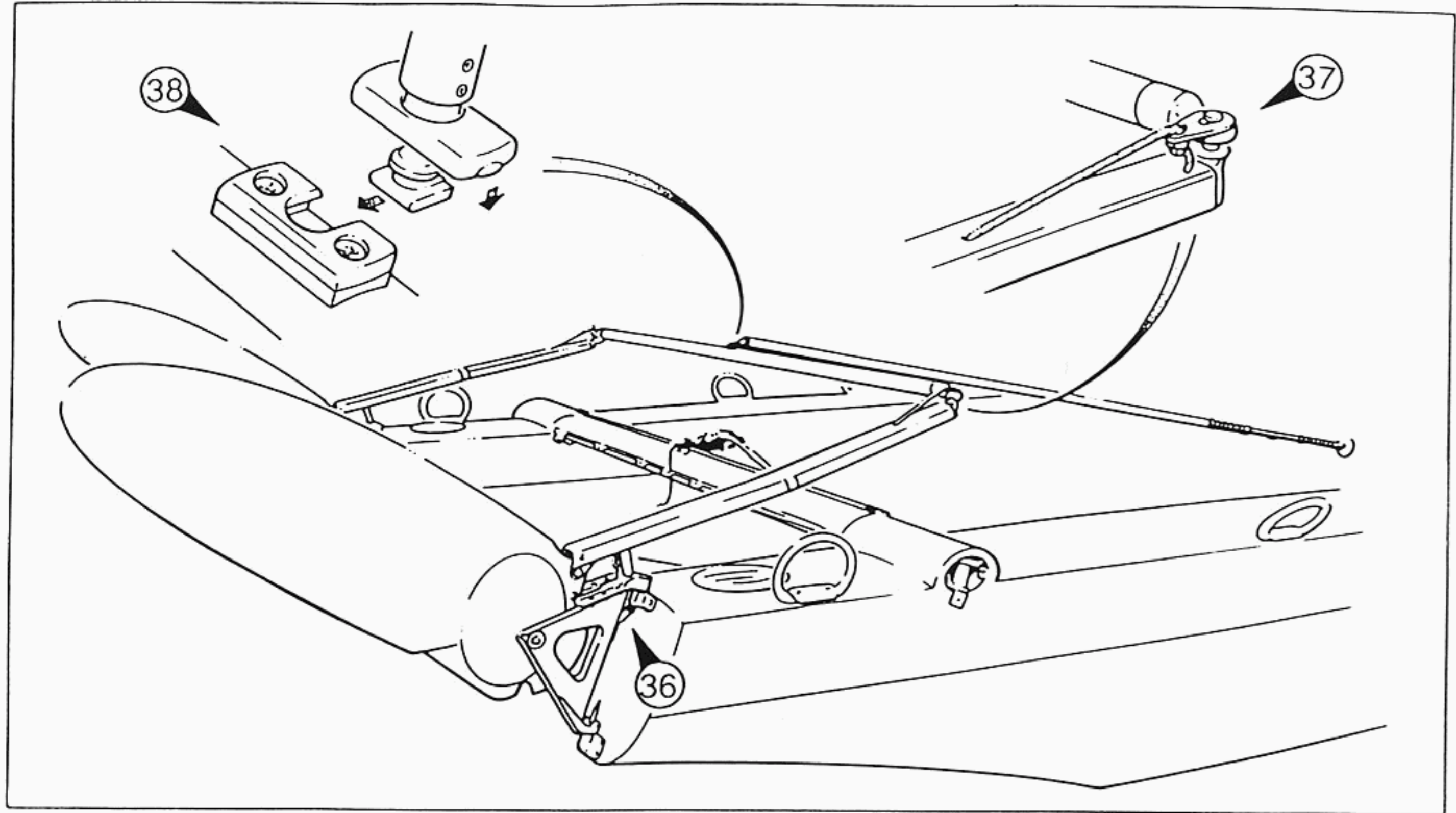
GLOSSARY

Aft: towards the back of the boat.
 Bow: the foremost end of the boat.
 Burgee: a flag normally flown from the top of a mast
 Batten: a thin plastic strip which fits into a long narrow pocket in the sail.
 Bridle wire: one of the two wires connected to the bow and forstay on a catamaran.
 Centre board: a pivoting plate that reduces sideways drift.
 Clew: the lower after-most corner of a sail.
 Foot: the bottom edge of the sail.
 Forward: towards the bows of a boat.
 Forestay: the wire supporting the mast in a fore and aft direction.
 Goose neck: a hinge fitting connecting the boom to the mast.
 Gunwhale: the outermost edge of the craft
 Head: the top corner of a sail.
 Hounds: the connecting point on the mast for rigging that gives it support.
 Halyard: a rope or wire used to hoist or lower sails
 Jib sheet: the rope used to control the position of the jib when under sail.
 Leech: the trailing edge of a sail.
 Leeward: the side of the boat on which the mainsail is set when sailing.

Luff: the front edge of a sail.
 Main sheet: the rope controlling the position of a main sail
 Mast heel: the casting at the base of the mast
 Port: the left-hand side of a craft looking forward
 Shroud: a wire securing the mast in position and preventing it from falling sideways.
 Shackle: a 'U' shaped piece of metal secured with a pin, used for securing halyards to sails etc.
 Starboard: the right-hand side of a craft looking forward
 Stem: the aft-most area of a boat.
 Tack: the lower forward corner of a sail.
 Tiller: a length of aluminium which fits into the rudder head to allow steerage.
 Tiller extension: a length of aluminium connected to the tiller by a universal joint which allows steerage whilst leaning out.
 Trapeze wire: a wire used to extend the body beyond the gunwhale of the boat.
 Transom: the flat area across the back of the boat to which the rudder is hung.
 Thwart: a seat or seats set across the boat at 90g
 Windward: the side of the boat opposite to which the mainsail is set when sailing.

1. Bow
2. Stern
3. Port hull
4. Stbd. hull
5. Mast
6. Burgee
7. Forestay
8. Bridle wires
9. Port shroud
10. Stbd. shroud
11. Mainsail
12. Jib
13. Battens x 7
14. Main beam
15. Rear beam
16. Port rudder
17. Stbd. rudder
18. Connecting bar
19. Tiller
20. Main sheet
21. Jib sheet
22. Downwind indicator





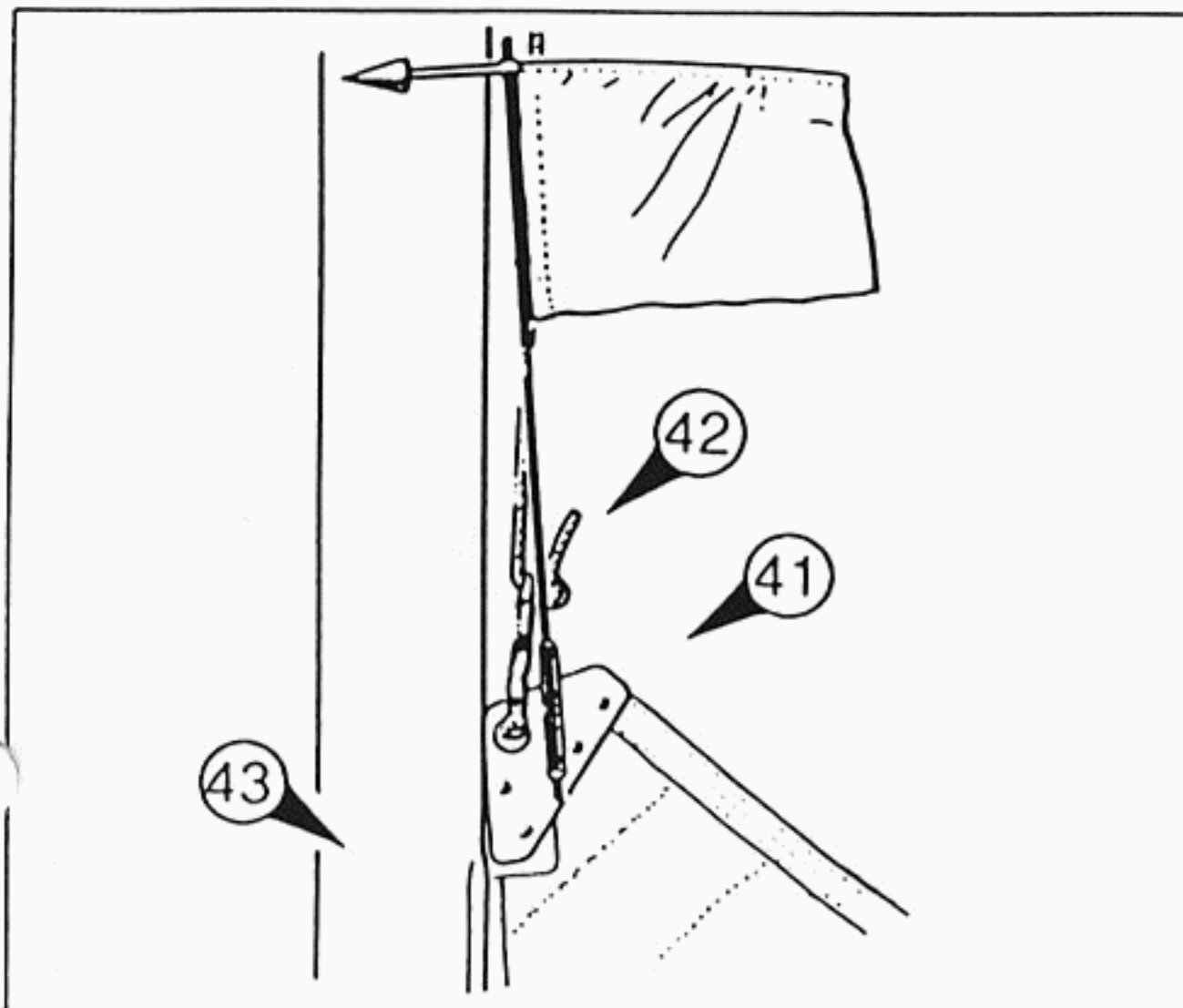
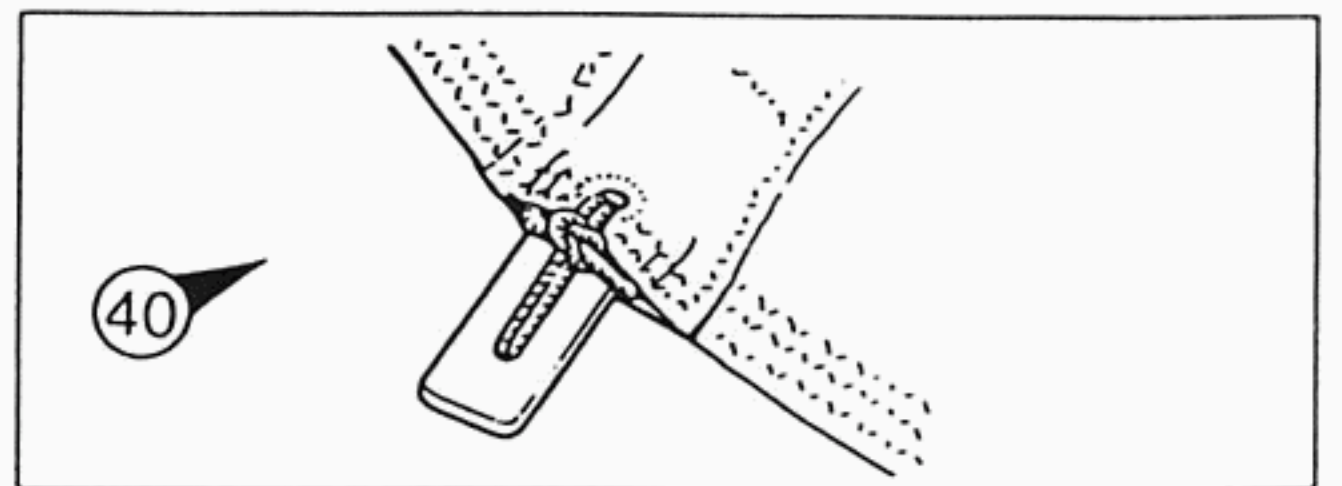
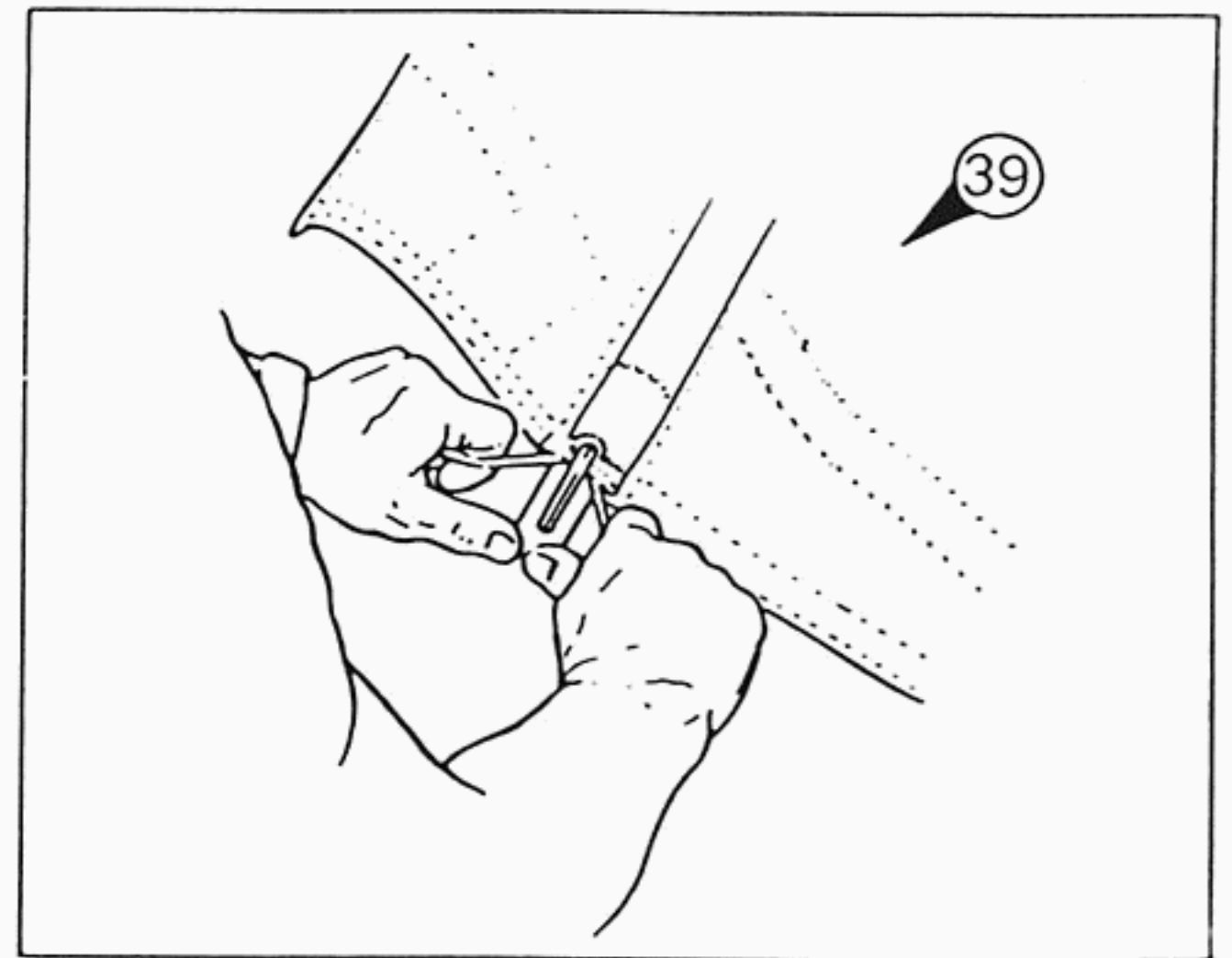
CONNECTING THE RUDDER ASSEMBLY

- Identify the port and starboard rudders (left-right) and position on the hulls as shown. (Make sure the retaining clips lock correctly.) (Fig 36) ◀
- Select the connecting bar, Part K, and place on the tiller pins, secure with the clip as shown, (Fig 37) ◀. (The connecting bar should be positioned with the black clip facing up.)
- Take the tiller extension, Part L, and clip it on to the connecting bar as shown, (Fig 38) ▲.

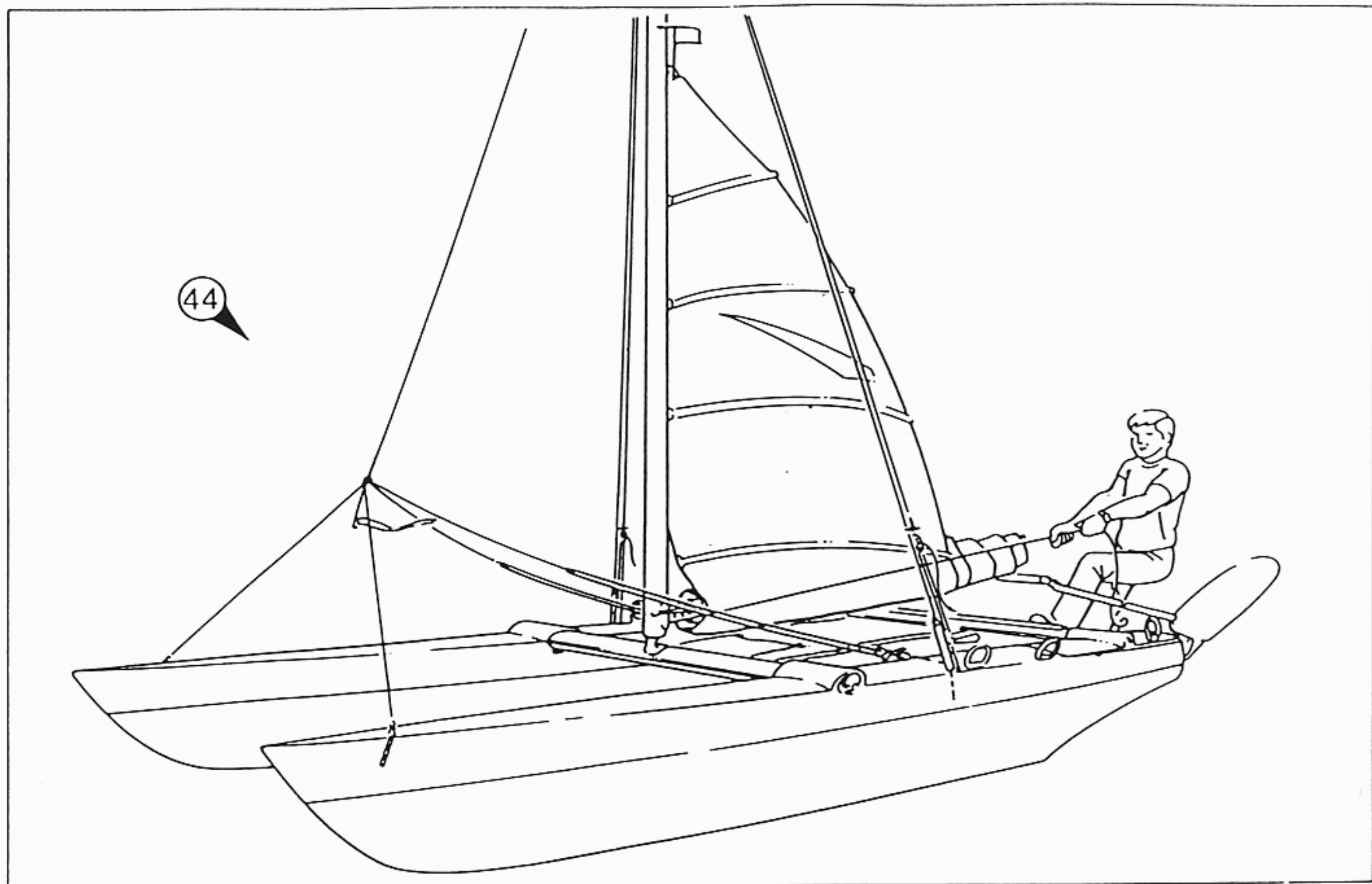
RAISING THE SAILS

MAINSAIL

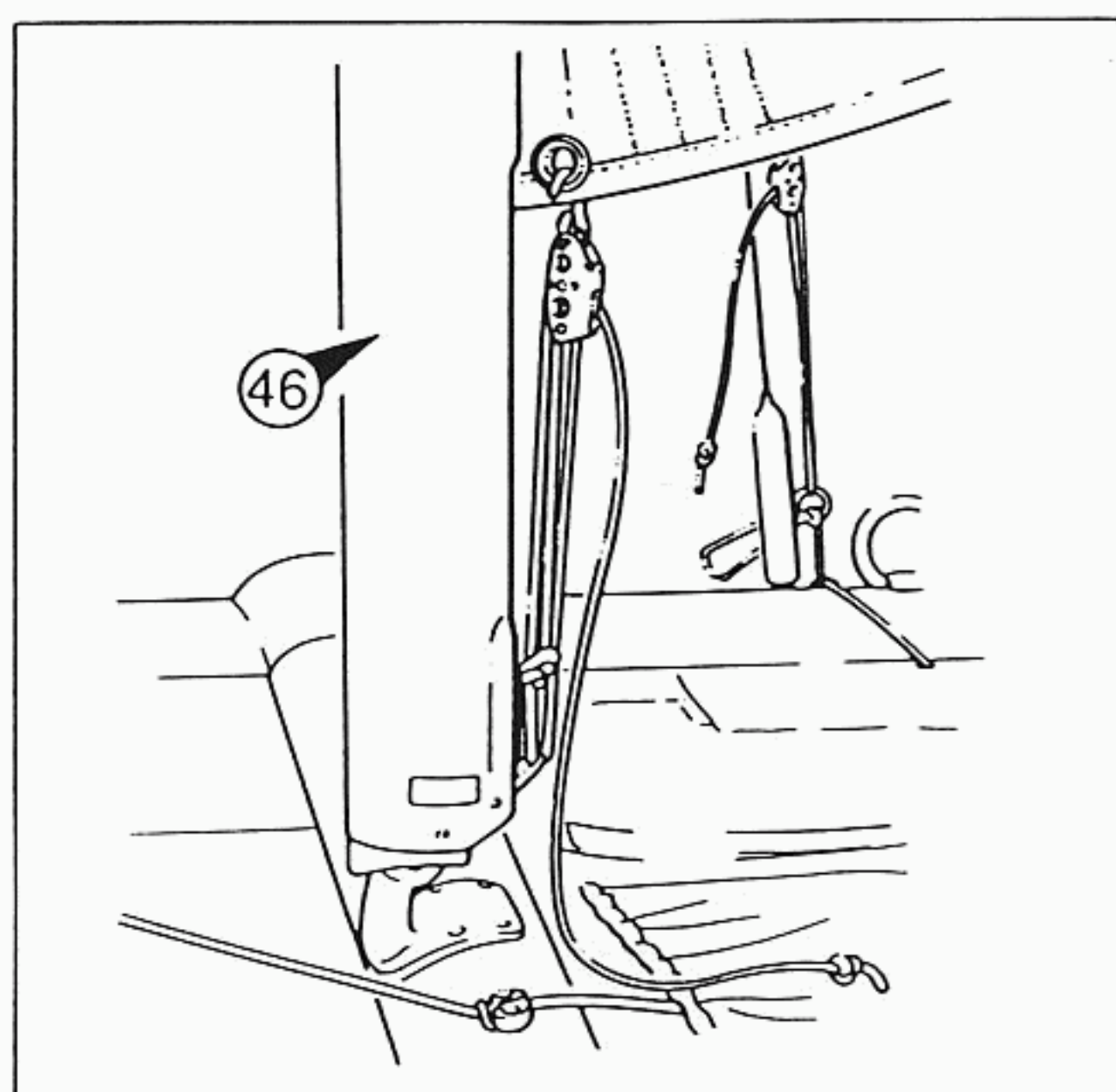
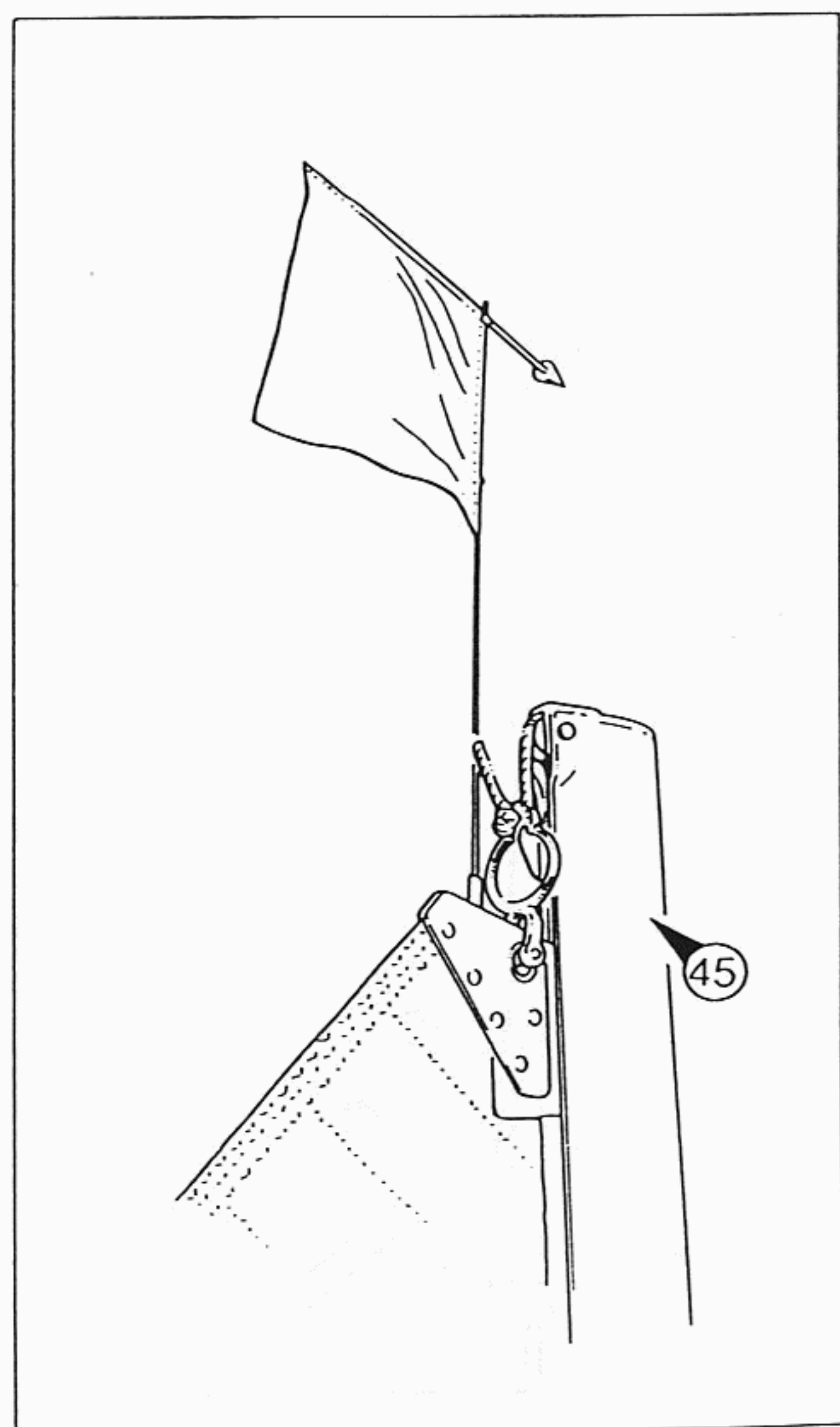
- Lay out the mainsail on a clean surface and insert the battens (No. 1 : Bottom / No. 7 : Top)
Lace the batten ties through the batten and sail.
Tension battens using the thumb and fore finger so that a small amount of tension is created down the batten pocket, (Fig 39) ▶. Secure the tie with a reef knot and feed the tail ends down the side of the batten as shown, (Fig 40) ▲. Roll the sail from the foot and place on the trampoline with the luff facing forward.



- Position your boat with the bow facing into the wind.
- Take the burgee (Flag) and clip it onto the head board as shown, (Fig 41) ◀.
- Attach the halyard to the head of the sail with the halyard knot facing aft as shown (Fig 42) ◀. Insert the luff of the sail into the mast groove opening approximately 0.5m above the mast base (Fig 43) ◀.



- Check that the halyard is running up the line of the mast groove (not around the mast hook) and raise the sail by pulling the halyard where it exists from the base of the mast. (Fig 44) ▲
- The mainsail is secured at the top of the mast by the halyard lock and the last 15cms of the mainsail hoist should be achieved with a firm pull to ensure the locking ring is positioned over the hook as shown, (Fig 45) ▲
- Feed the tack of the sail down into the lower part of the luff groove and connect the main sail down haul hook to the eye as shown, (Fig 46) ▼. (At this point no tension should be applied to the luff of the sail.)
- Store spare halyard in trampoline pocket.
- The mainsheet assemble should only be connected to the clew eye when the boat is in the water and you are about to go sailing.



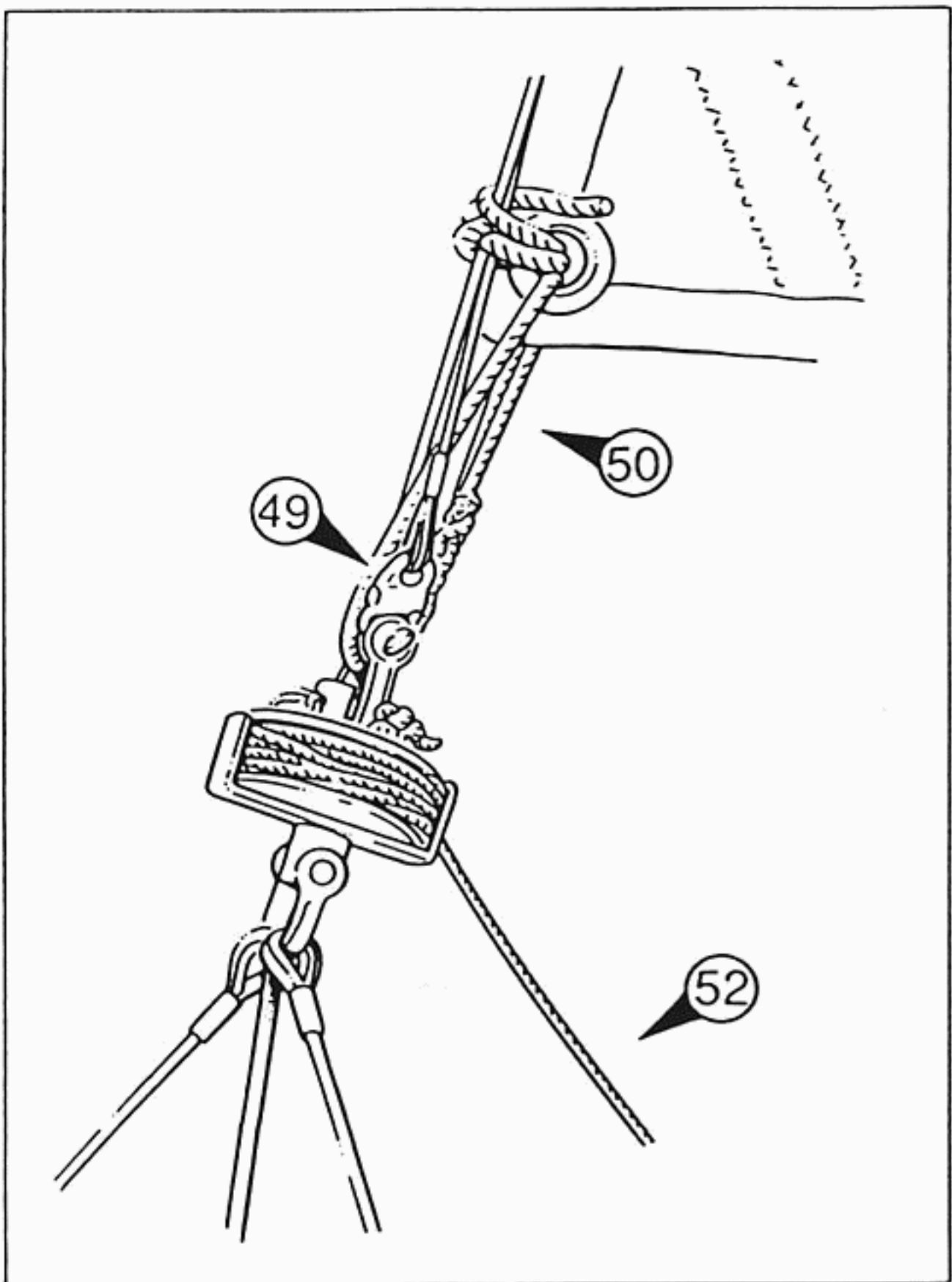
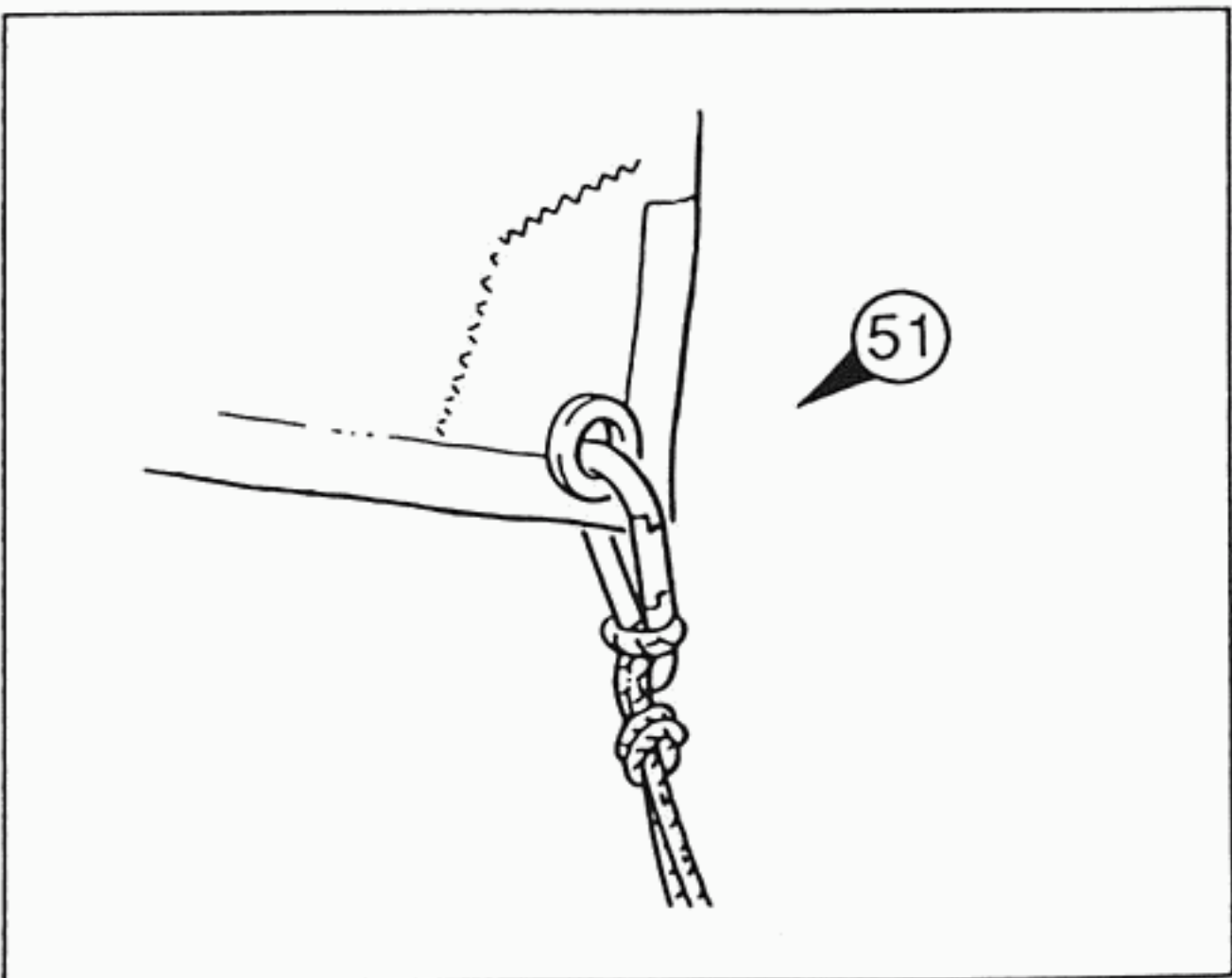
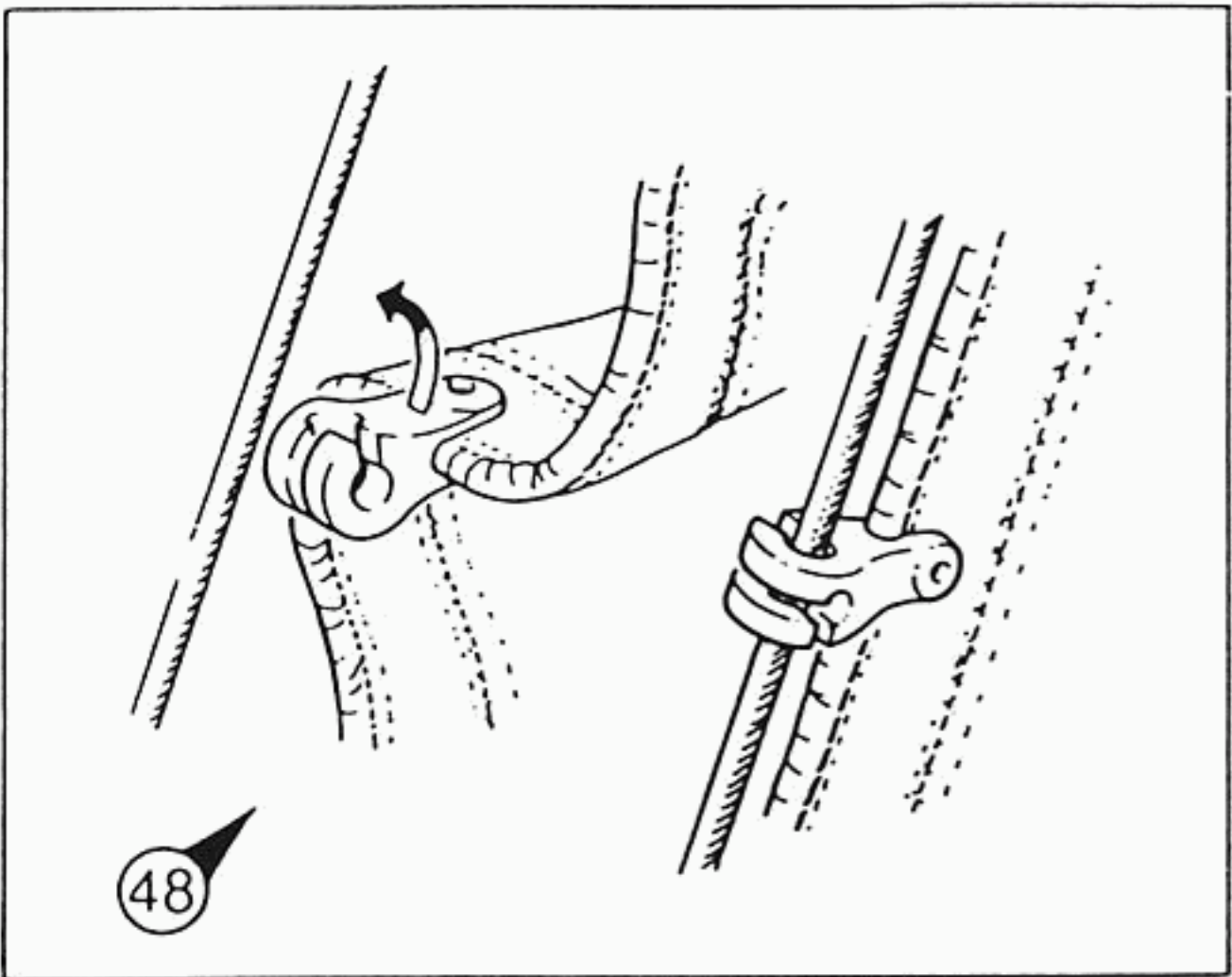
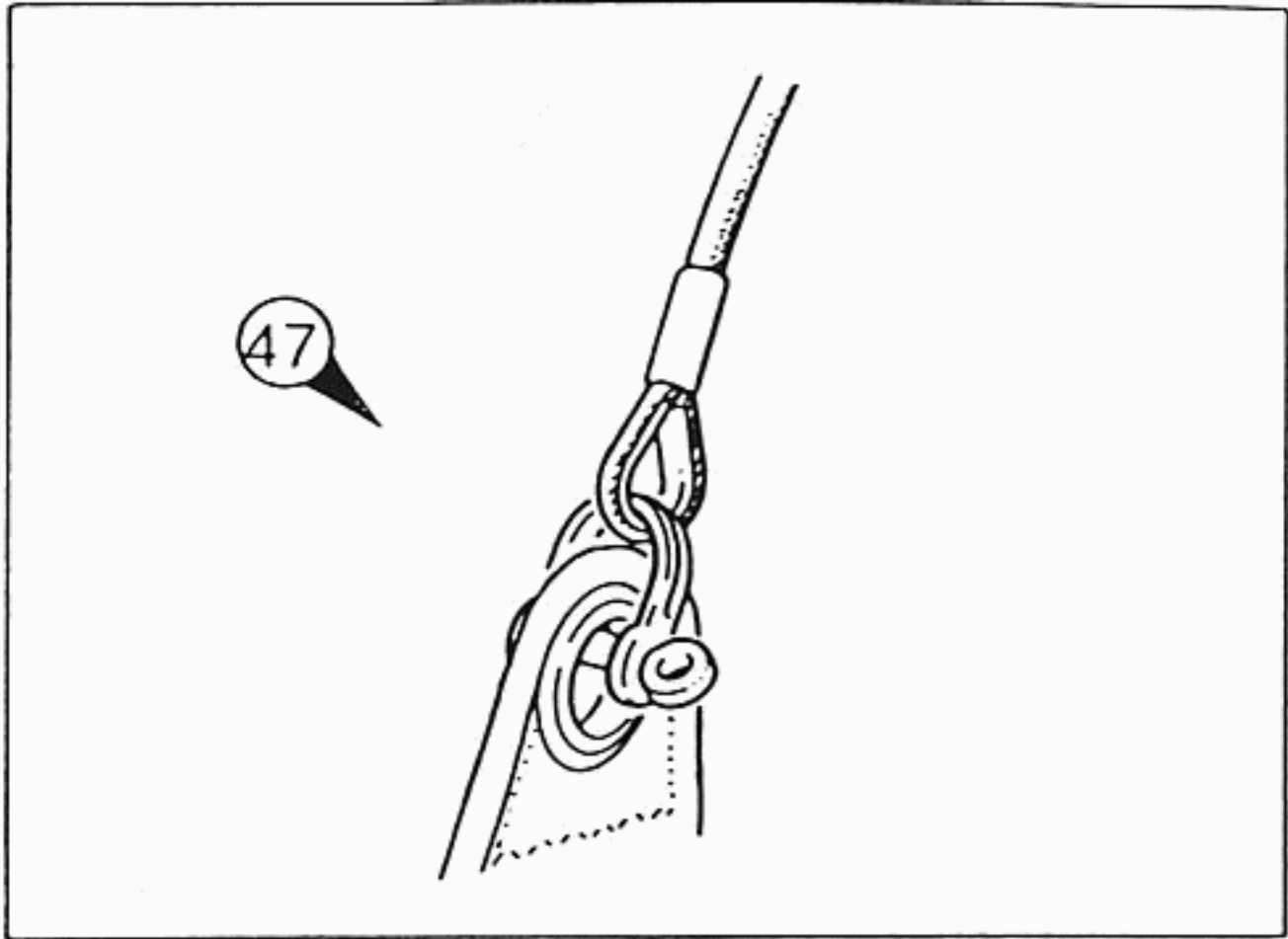
ROLLER JIB (if fitted)

- Unfurl the sail and connect the head to the wire halyard, as shown, (Fig 47) ➤. Hoist the sail via the slave halyard, clipping each sail hank to the fore-stay, using a push and turn action, (Fig 48) ◀.
- When the sail is fully hoisted the slave halyard can be removed from the halyard clip and stored. The clip is then attached to the fore-stay eye as shown (Fig 49) ➤.
- Tension to the luff of the jib using the down haul line, as shown, (Fig 50) ▼.
- Connect the jib sheet clip to the clew as shown (Fig 51) ◀.
- Furl the jib by pulling the jib furling line, (Fig 52) ▼.

NB. If the jib furling drum is not loaded with the line it may be necessary to disconnect the jib stop and wind the jib around the fore-stay until fully stored. Re-connect the jib stop, the drum will now load with line when the jib is pulled out.

IMPORTANT: The jib can only be rolled or un-rolled when the mainsheet is not under tension.

- Identify the paddle, Part AH, and place in trampoline pocket ready for use.



Your boat is now ready to sail but before you launch it, it is best to familiarise yourself with the boat's equipment, personal safety, and the technique of lifting and lowering the rudders.

PERSONAL SAFETY

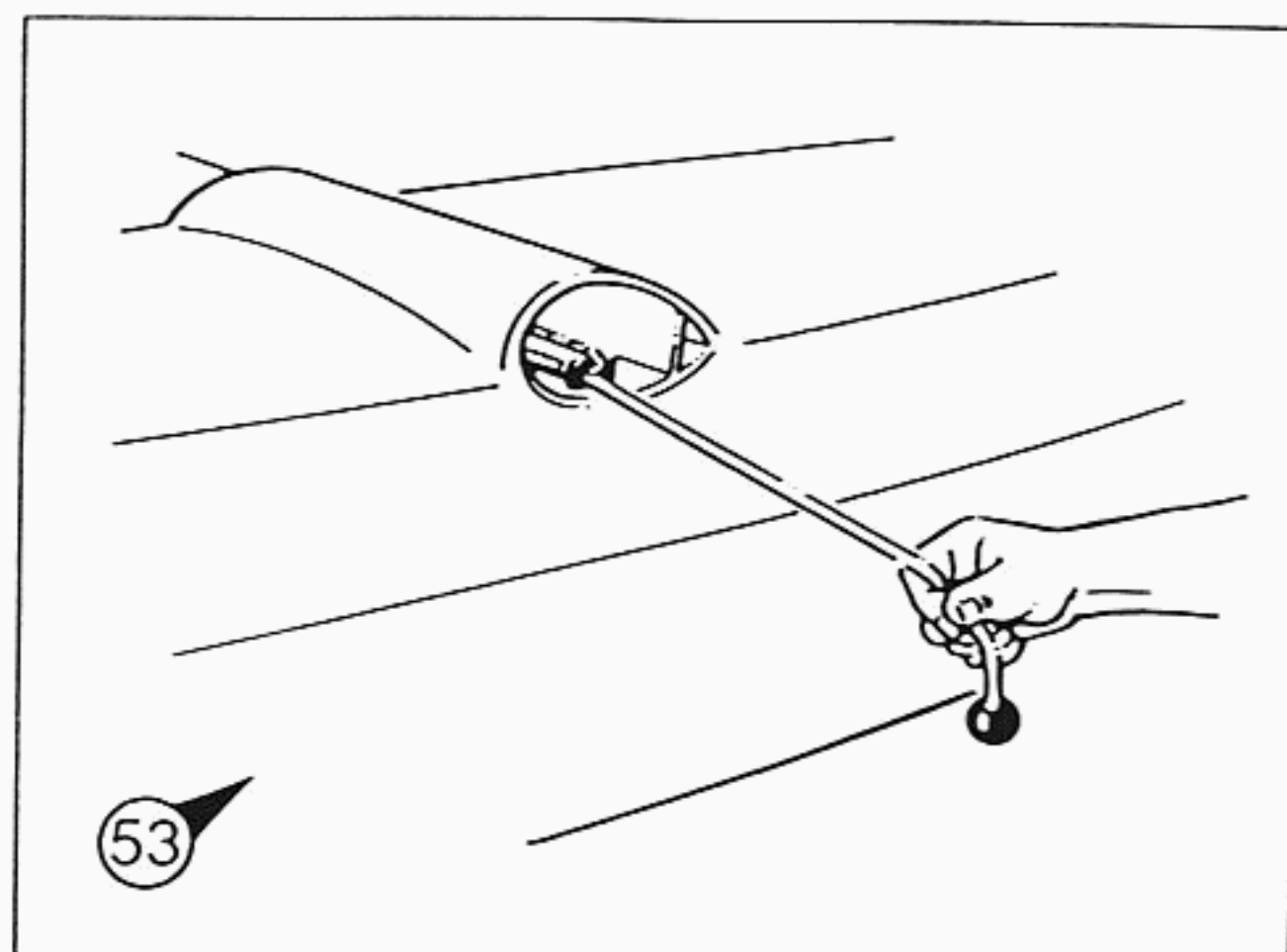
The Dart 15 is an excellent compromise between fun, speed and safety. We recommend you always wear suitable clothing and adequate buoyancy aid/life jacket when venturing afloat.

RIGHTING IN THE EVENT OF A CAPSIZE

The Dart 15 can be righted from a total inversion or a 90 degree knockdown. The righting line is situated in the main beam as shown (Fig 53) ▲ and should be fully extended to assist in the righting procedure.

NB. All catamarans can only be righted when the mast is pointing towards the wind

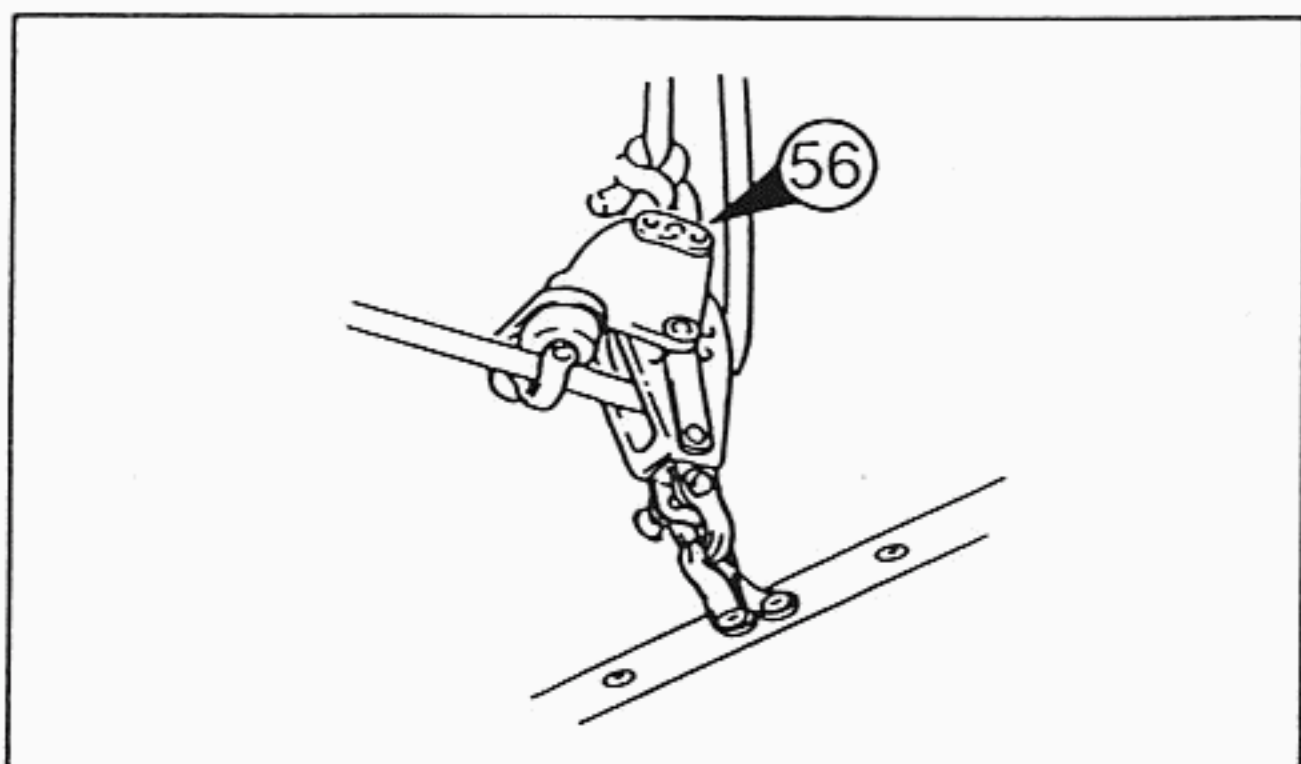
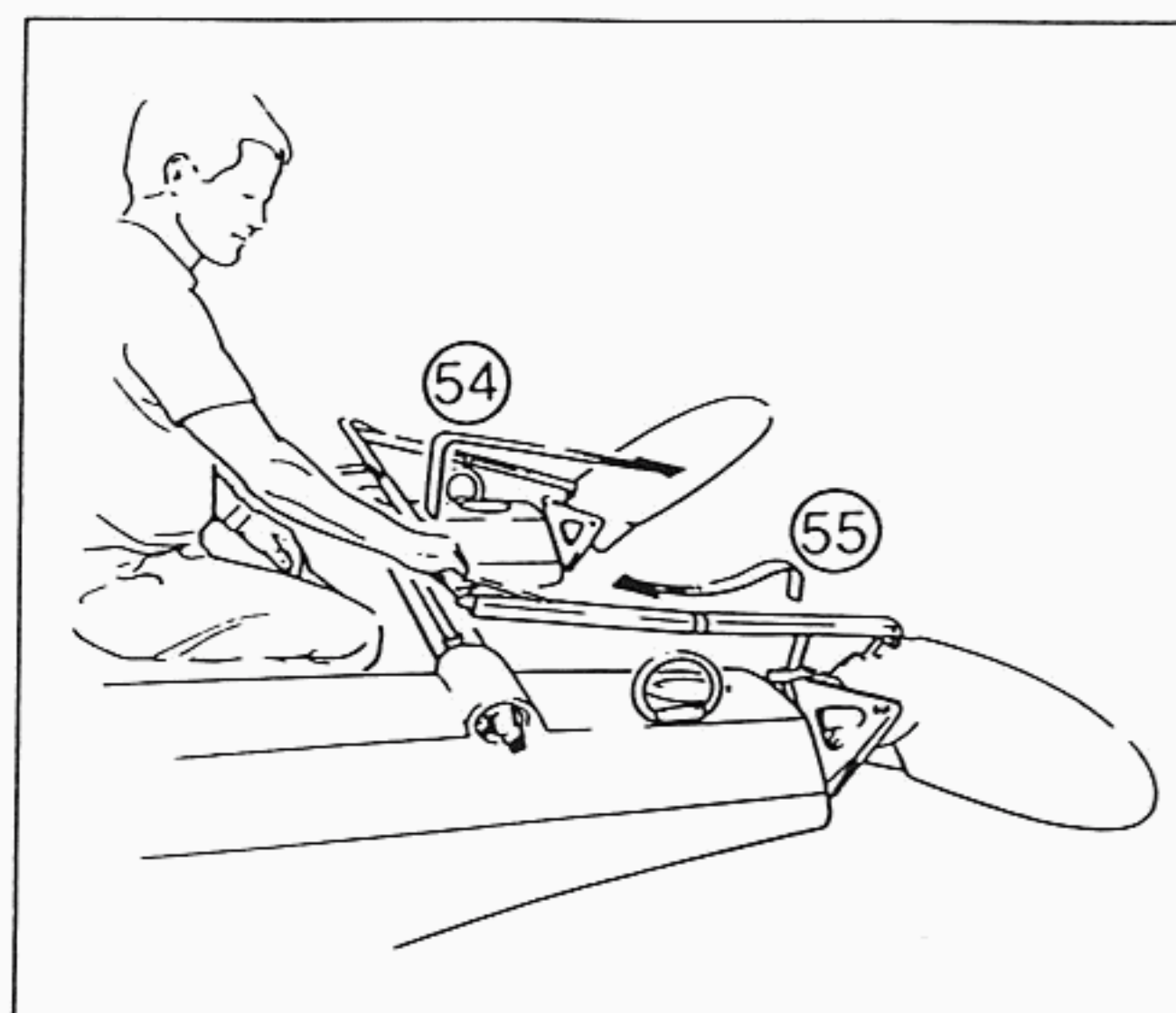
Further details on the correct righting procedure for catamarans is available in 'The Catamaran Book'



LIFTING AND LOWERING RUDDERS

The rudders may be lowered independently. To lower a rudder, lift the tiller arm via the connecting bar and gently push backwards (Fig 54) ► until the lock roller drops into the lower slot on the rudder blade. To lift the rudders, hold the connecting bar close to the tiller end. Lift and pull in a scoop action (Fig 55) ► allowing the roller to follow the rudder cam into the upper rudder slot.

NB. It is a good idea to lift and lower rudders independently to ensure some steerage control whilst sailing on and off the beach.



JIB AND MAINSHEET BLOCKS

- All blocks can be adjusted to allow quick release of sheets from the jamming cleats. (Fig 56) ►
- The mainsheet block also has a ratchet facility for sailing in strong winds (Fig 57) ▲.

LOWERING THE MAIN SAIL

To lower the main sail it is necessary to detach the halyard ring from the mast head lock. This sequence is simple but needs to be accurately followed.

- 1 Place the boat head to wind.
- 2 Disconnect the main sail down haul and remove the lower luff from the mast groove.
- 3 Pull the halyard firmly to lift the halyard ring off the hook, retain the tension on the halyard.
- 4 Turn the mast to port (left)
- 5 Release the halyard and pull the tack of the main sail downwards. (make sure the mast is still rotated to port).
- 6 Once the sail has been pulled down past the hook, the mast can be released and the sail lowered in a normal fashion.
- 7 It is a good idea to roll the sail as it is lowered to prevent it from being blown away in the wind.

