CATALINA
EXPO 12.5

OWNER'S
MANUAL

2nd Edition August 7, 2001
3rd Edition October 21, 2002

Log of changes(started on 2nd edition)

2nd edition added bulk of manual
3rd edition – added Velcro to mast. Added webbing snap clew hold-down / sail tie to sail.
Changed order so boom installed before mast.

TABLE OF CONTENTS

1. INTRODUCTION

Thank you for purchasing an Expo 12.5, built by Catalina Yachts. We welcome you to the fun and recreation of sailing and hope that you have many years of enjoyment from your Expo 12.5.

This manual will discuss techniques and characteristics specific to the Expo 12.5. A general Handbook also accompanies this manual and we ask that you read both of the booklets prior to sailing, rigging, or launching the Expo 12.5.

The Expo 12.5 is a lightweight, responsive high performance boat, which means that things happen faster than large, heavier boats. Therefore, you should read this manual carefully. Be cautious and practice until you feel confident. Once you have a "feel" for the balance of the boat you can enjoy hours of fun and excitement in a wide variety of wind conditions.

The techniques discussed herein are only general. You may want to purchase one or more of the many books available on sailing theory after you have become familiar with the boat. This manual has been written with the novice sailor and beginning racing enthusiast in mind.

If you have any questions after reading these instructions, please contact you local authorized Catalina dealer or, if necessary, the Customer Service Department at Catalina Yachts, 21200 Victory Blvd., Woodland Hills, CA 91367. (818) 884-7700. Either will be happy to answer you questions.

Good Sailing!

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9. OWNERS RECORD

Boat name _____

Owner's address _____

_____

_____

Hull number _____

State registration number _____

Insurance company _____

Insurance policy number _____

2. Parts of the Boat, Description and Use.

2.1 Hull

When you first put your boat into the water, you will want to complete a preliminary check of the hull and daggerboard well. The way to tell if you have any minor leakage problems is to sail the boat in the normal manner and then upon hauling out the boat, open the stern drain plug while the boat is still on the trailer inclined on the ramp. You should always check this drain plug prior to sailing and make sure it is tightly closed. If the plastic washer is not seated properly, you may incur leakage around the drain plug so verify that the plug itself is not the source of your leakage before looking any further.

You may experience some small amount of water inside the hull due to condensation of moisture. This is negligible and should not be a reason for any concern. Minor leaks can be sealed with a good marine silicone sealing compound if required.

To keep the shine of your boat, use fiberglass polish or wax. Wax on the bottom of the hull is not recommended for racing.

Anti-fouling paint should be applied to the bottom of your Expo 12.5 if it is to be moored in either fresh or salt water for any length of time. There are many brands available. Anti-fouling paint prevents the growth of algae, barnacles, and other fouling organisms on underwater surfaces.

Catalina models are manufactured with an integrally molded blister protection system in the hull laminate. This water absorption barrier material is between the gel coat surface layer and the laminates of the hull. The bottom may be prepared for painting using conventional de-waxing solvents, then sanding the gel coat surface or using a chemical etching type primer.

2.2 Daggerboard

The daggerboard provides lateral stability for your boat. The board is made of fiberglass and is very strong. However, the outside layer is covered with gelcoat that can chip. Be careful not to bang the board down in the well as this could cause damage. The condition of the board, especially the leading and trailing edges, can affect speed. You can keep your board in a cloth sleeve to protect it while it is stored. Refer to the General Handbook for maintenance and repair if required.

2.3 Hiking Strap

A hiking strap is provided and can be adjusted for more or less slack. Fastenings should be checked before racing to make sure they have not worked loose. A slipped hiking strap can cause you to fall out of the boat and lose control.

3. Rigging Description and Use.

Your new boat should be rigged and commissioned by your Catalina dealer. Your Catalina dealer should be happy to answer any questions you may have and demonstrate the basic operation of you Expo 12.5 by sailing with you after launching. A rigging diagram is on page 8. An explanation of the rigging and equipment follows:

3.1 Cordage: All Braided Dacron unless noted.

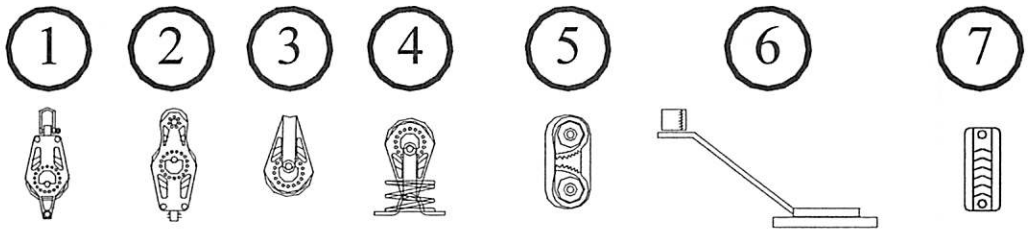
Item	Function	Diameter	Length	Quantity
A	Inhaul (Furling Line)	3/16"	14' 0"	1
B	Main Outhaul	¼"	23' 0"	1
C	Mainsheet Lanyard*	3/32"	0' 18"	1
D	Mainsheet	5/16"	19' 0"	1
E	Dagger Hold Down**	¼"	0' 18"	1

* 7 x 19 wire plastic coated ** Shock cord

3.2 Block and Hardware List

Item	Description	Quantity
1	Single block with Becket and Shackle	1
2	Fiddle block with shackle	1
3	Single block: fixed	1
4	Single block: stand-up fixed	1
5	Cam Cleat	2
6	Barney post	1
7	Clam Cleat	1

3.3 Block Illustrations



3.4 Boom

The boom is made of powder coated aluminum tube and although it is virtually maintenance free, it is a good idea to clean the surface with soap and water from time to time if you wish to maintain a new look. **Do not** use acetone to clean the boom as this will ruin the powder coated finish. Also when transporting be careful to wrap the boom where it has contact with another surface. This will prevent scratching of the surface.

The boom's short end is inserted into the aft hole on the mast/boom support and is set onto the aft mast step pin before the mast is stepped.

3.5 Mainsail

The mainsail is attached to the carbon fiber mast prior to inserting the mast into the deck. Make sure the screw at the masthead (top of the mast) is tight to prevent head of the sail from rotating independently of the mast. Slide the sleeve of the sail onto the masthead and place the insert at the head of the sail into the mast. Pull the sleeve of the sail down until the Velcro at the base of the sleeve is securely attached to the Velcro on the mast. Also note the webbing with clips through the clew of the mainsail. The webbing clip acts as a sail tie when the sail is furled.

3.6 Mast

The mast is a carbon composite and has a bearing at its base to allow it to rotate for furling and unfurling the sail. The deck has a notch that corresponds to extrusions on the mast's bearing case. The extrusions are offset 180 degrees so that the mast locks into place once inserted. To insert the mast, line up the lower extrusion with the notch on the top of the deck and lower the mast. Rotate the bearing case until the second notch lines up and the mast will drop and lock into place. A little bit of jiggling may be necessary to seat the mast on the mast / boom step pin.

Ball bearings are inside the bearing case; take care to keep sand and dirt away from the bearings. Rinse the bearing case with fresh water and lubricate the bearings and mast base plug with Boeshield T-9 or McLube occasionally to maintain smooth operation.

3.7 Mainsheet

The mainsheet consists of sheet blocks and the mainsheet lanyard, which control the mainsail and boom. For ordinary day sailing, only the general boom position is important. For competitive sailboat racing, the trim of the mainsail becomes critical at all times. The swivel mainsheet block allows you to adjust the position of the mainsail either by letting the sail out when reaching or running, or by hauling the sail inboard when sailing to the weather. It is an important aspect of the mainsheet cleat to keep the line in you hand at all times while sailing, ready to be quickly released in the event of a hard puff of wind that might lead to capsizing. Never wrap the sheets around your hands in such a way that they may become impossible to release instantly.

3.8 Outhaul

The outhaul is a line used to control the curve of the mainsail (called the camber). The heavier the winds, the flatter the sail. This is a general rule and it becomes a critical factor in achieving boat speed when racing. The mainsail is flattened by pulling the clew of the sail out towards the end of the boom. Easing off the tension on the outhaul line will increase the fullness of the mainsail for "light air" sailing conditions. The outhaul is run from the clew through a plug at the end of the boom and is secured to a cam cleat on the top of the deck, just aft of where the boom is inserted.

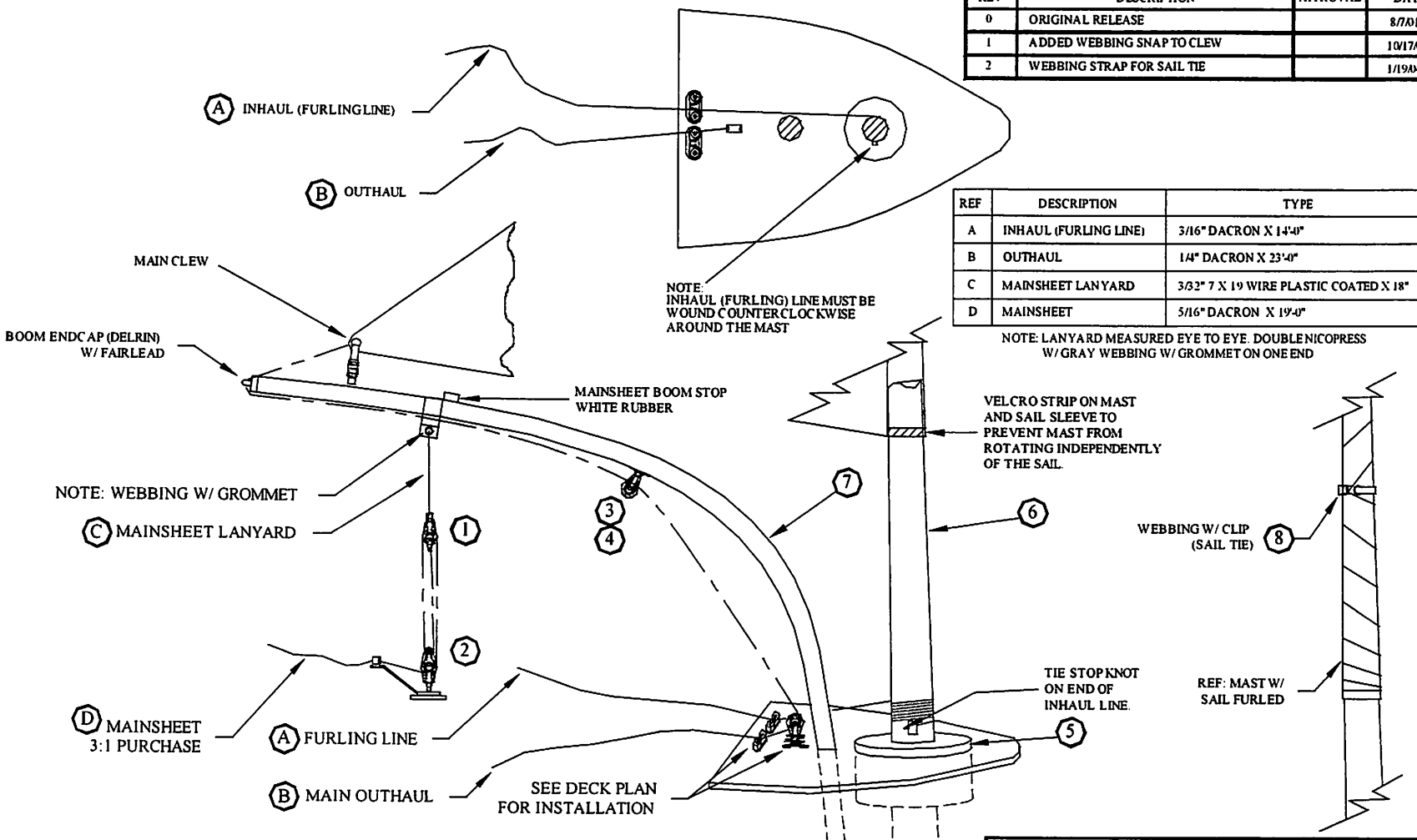
3.9 Inhaul (Furling Line)

The inhaul is a line used to control the sail area of the mainsail. With the outhaul tight, lead the furling line through the hole at the base of the mast and then tie it to the tack (lower, forward corner) of the mainsail. Take the long end of the furling line and wrap it counterclockwise around the mast about 12 times. Release the outhaul and pull the inhaul line to see if the sail becomes fully furled. If not, wrap the furling line around the mast a few more times. To unfurl the sail, release the inhaul line and pull on the outhaul.

3.10 Daggerboard Hold Down and Brake

The daggerboard height can be adjusted while under sail to reduce the drag on the boat while running. Before casting off, set the dagger brake so that when the shock cord is released the daggerboard raises slowly. To adjust the brake, loosen the screws and slide the brake inboard for more braking, or outboard for less braking. See 4.2 Deck Layout page 9.

REV	DESCRIPTION	APPROVAL	DATE
0	ORIGINAL RELEASE		8/7/01
1	ADDED WEBBING SNAP TO CLEW		10/17/02
2	WEBBING STRAP FOR SAIL TIE		1/19/04



REF	DESCRIPTION	TYPE
A	INHAUL (FURLING LINE)	3/16" DACRON X 14'-0"
B	OUTHAUL	1/4" DACRON X 23'-0"
C	MAINSHEET LANYARD	3/32" 7 X 19 WIRE PLASTIC COATED X 18"
D	MAINSHEET	5/16" DACRON X 19'-0"

NOTE: LANYARD MEASURED EYE TO EYE. DOUBLE NICOPRESS W/ GRAY WEBBING W/ GROMMET ON ONE END

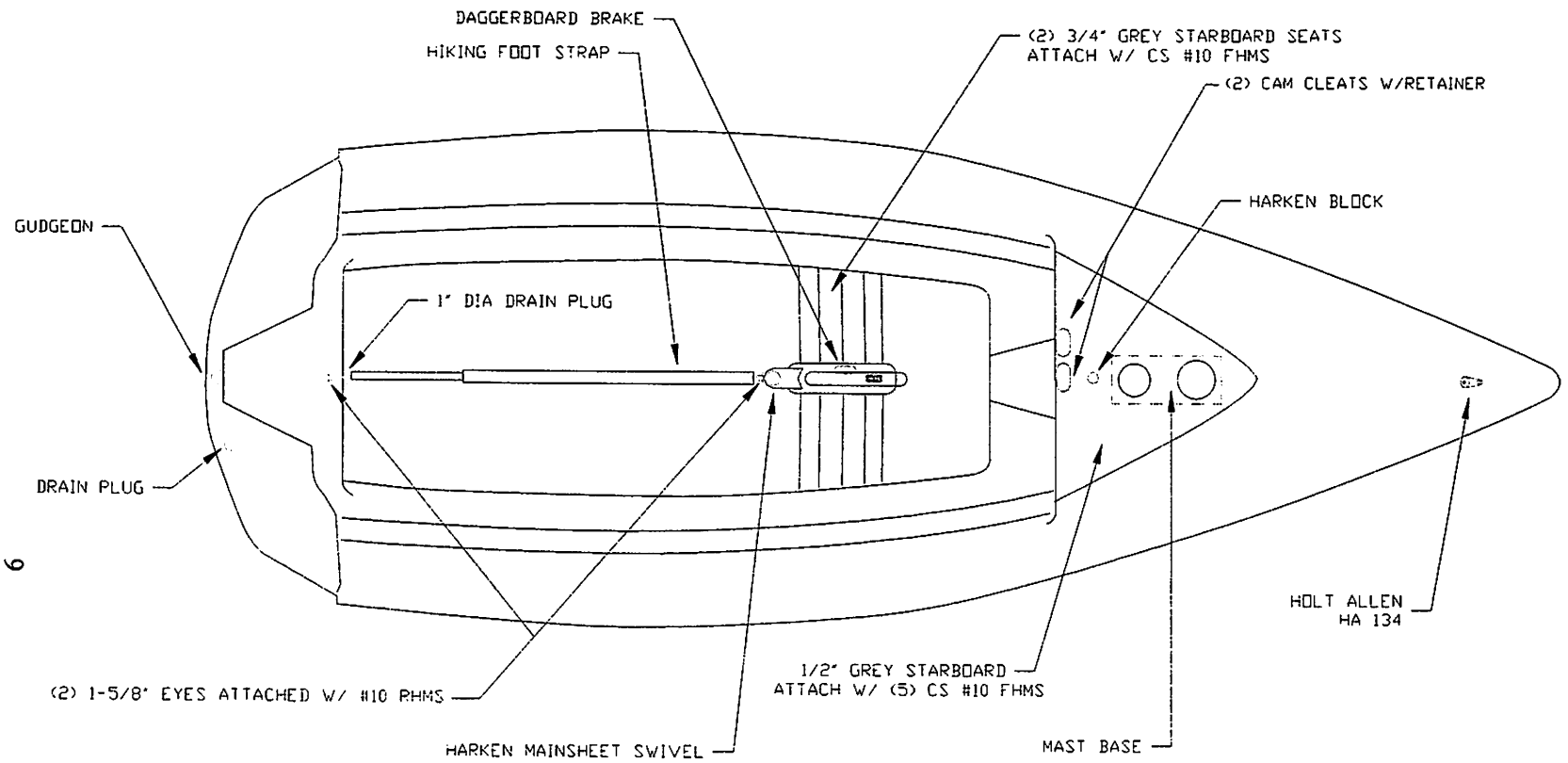
ITEM	CAT PT #	DESCRIPTION		QTY
8		SNAP WEBBING FOR SAIL TIE (WEBBING 11 1/4")		1
7	16328	BOOM		1
6	80178	MAST, CARBON	SKY POLE	1
5	30819	FURLING BOX	OAR MOLDWORKS 510217	1
4	30073	PAD EYE, SMALL		1
3	RIG KIT	BLOCK, SINGLE FIXED CARBO 29mm	HARKEN 348	1
2	DECK KIT	FIDDLE BLOCK W/ SHACKLE, CARBO 40mm	HARKEN 2655	1
1	RIG KIT	SINGLE BLOCK W/ SHACKLE & BECKET, CARBO 29mm	HARKEN 341	1

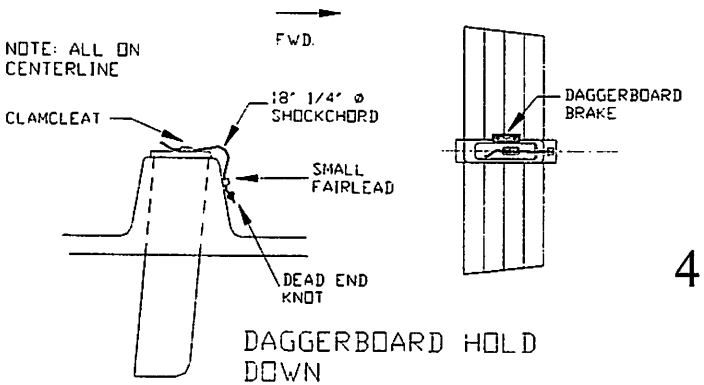
Catalina Yachts
21200 VICTORY BLVD.
WOODLAND HILLS, CA.
91367 -- (818) 884-7700

SCALE: NONE	APPROVED BY:	DRAWN BY: K.W.N.
DATE: 8/7/01		REVISED 1/19/04

MAINSAIL RIGGING

BOAT:	DRAWING NUMBER
EXPO 12.5	125-35001-2





4.2 EXPO 12.5 DECK LAYOUT

5. Useful, Basic Procedures

5.1 Self-Bailing Cockpit

One of the great features of your boat is the self-bailing cockpit. Should your boat accidentally capsize, the cockpit will automatically drain itself in a matter of seconds. As the boat floats well above the water level, little or no water will remain in the boat when it is righted. If there is any left it will pour out of the transom drains. Always keep transom drain holes clear of obstructions.

5.2 Righting Procedure

Righting the boat is very simple if done correctly. You should practice capsizing your boat on a warm, light-wind day and develop an exact procedure for righting. With a little practice the average skipper can right the boat in 10-15 seconds without even getting wet.

The recommended procedure is: As you feel the boat go over, uncleat the mainsail if possible and slide your legs over the side and stand on the daggerboard. If this is done quickly the sails will barely get wet and the boat will begin to right.

Your weight will tilt the boat toward you making it quite easy. Now you can roll the rest of your body into the boat. Note here that if you act fast the boat will begin heading into the wind and the pressure on the sail will counter balance your weight preventing a re-capsize to weather. If there was not time to uncleat, you must reach over or swim around and uncleat before proceeding.

For righting when off wind or downwind, again you must first uncleat. The second step is to hang your weight (fingertips) on the tip of the daggerboard and wait for the boat to swing its bow around into the wind. Now, climb on the board while the boat is coming up and follow the procedure described above. If you are not able to board over the side you can board over the transom. Some people find this easier. But here again even though the sail is uncleated, you must let the wind on the flapping sail counter balance your entry so as not to re-capsize.

Remember, do not panic, your boat was designed to float while capsized for short periods.

5.3 Car Topping

Your Expo 12.5 is easy to car-top. However, caution must be used to use the tie-down strap or non-stretch lines across the top of the boat as well as from the bow and stern. In addition the lines should be checked during the trip for tautness. The mast and boom can be car-topped on bigger cars in many states, however, check your state regulation on overhang.

5.4 Basic Knots

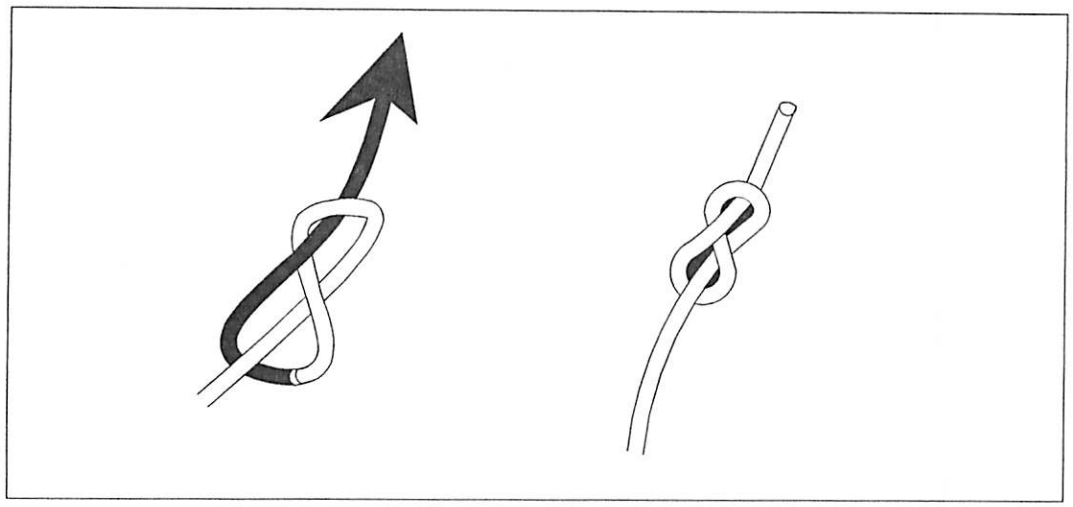
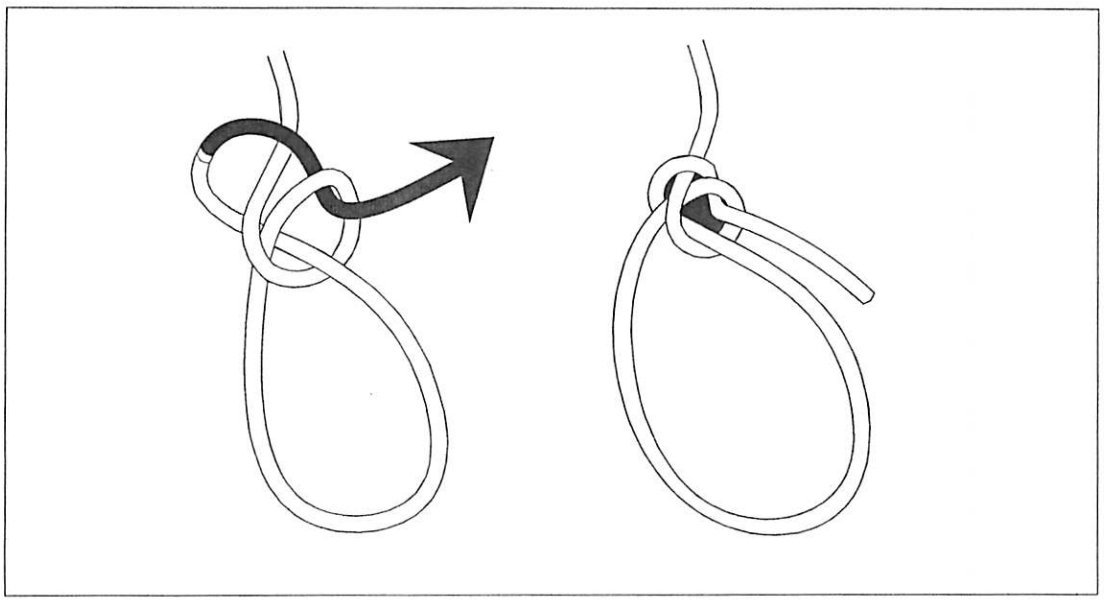


Figure of Eight (Stop Knot)

The stop knot is formed at the end of a line to prevent it from running out through a block or fairlead.

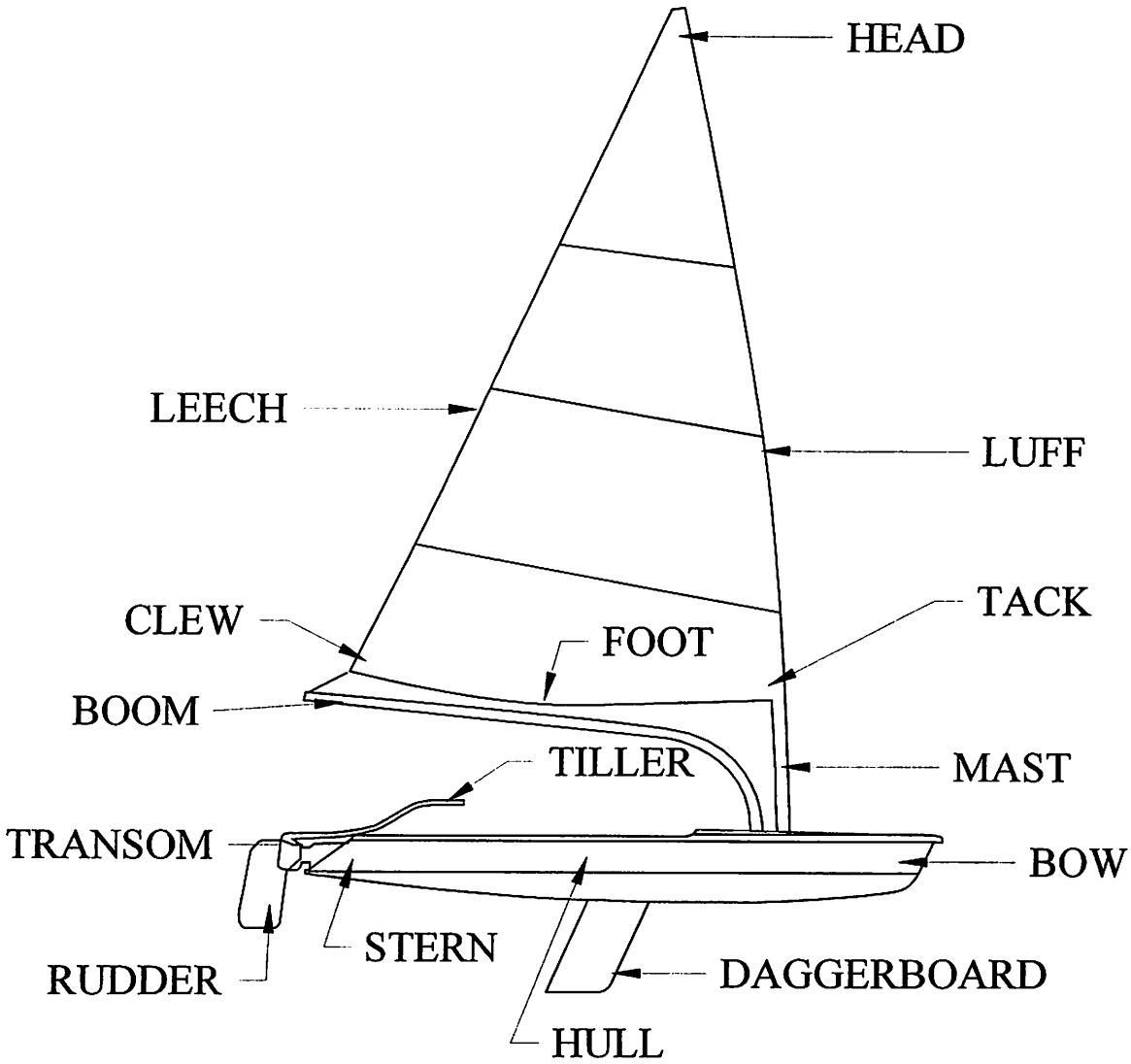


The Bowline

The bowline provides a standing loop in the end of a line. It is used to tie lines to sails and to tie the boat to the dock.

6. Glossary

1. Blocks: A pulley for a line.
2. Boom: Horizontal pole supporting the bottom of the sail.
3. Bow: The front end of a boat.
4. Capsize: When the boat tips over and sail is in the water.
5. Cleats: Fittings of various designs used to secure lines.
6. Clew: Back lower corner of the sail.
7. Close hauled: Sailing as close to the wind as possible.
8. Daggerboard: Projects down into the water to counteract the force of the sails, preventing the boat from sliding sideways.
9. Fairlead: A fitting through which a line passes.
10. Foot: bottom edge of the sail.
11. Grommet: A metal ring set into sailcloth material for a line to attach to or through.
12. Gudgeon: A fitting attached to the transom into which the pintle is inserted.
13. Head: Top of sail.
14. Hiking-strap: Foot strap used to lean out (hike out) over the side of the boat.
15. Leech: Back edge of the sail.
16. Lines: The name for ropes when used on boats.
17. Luff: Front edge of the sail.
18. Mast: The vertical main pole supporting the sail.
19. Mast tube: The fitting in the boat through which the mast is placed.
20. Outhaul: Adjustable system at back end of boom securing the mainsail clew.
21. Pintle: Metal pin upon which a rudder swings.
22. Port: When facing forward, the left side of a boat.
23. Reaching: All sail points between running and close-hauled.
24. Rudder: Attaches to stern of boat and controls direction sailed.
25. Running: Sailing before the wind. The wind is behind you.
26. Shackle: U-shaped metal device used to fasten sails and fittings.
27. Sheets: Lines used to control the adjustment or trim of the sail.
28. Starboard: When facing forward, the right side of a boat.
29. Stern: The back end of a boat.
30. Tack: Front lower corner of the sail.
31. Tiller: The steering arm that moves the rudder.
32. Tiller Extension: An attachment to the tiller allowing easier steering from a hiked-out position.
33. Transom: Back of stern, where the rudder is attached.
34. Turtling: When the boat has turned completely upside-down and mast is pointing toward the bottom.
35. Well: The housing for the daggerboard.



7. Sail Plan & Elevation

8. Safety Tips

1. Do you have proper registration for you boat? Most states have registration requirements for boats. Make sure you are aware of your own state laws concerning boat registration before launching your boat.

2. Always wear a Coast Guard approved personal flotation device. Even if you are an excellent swimmer, it is still advisable to wear a life jacket when sailing. When clothing gets wet it becomes extremely heavy, making even the most advanced swimmer tire easily.

3. Insurance for you boat should be purchased to protect your investment.

4. Never drag you boat across the beach or dock when launching. Always have someone help you carry your boat and place it carefully into the water. Be sure to stay clear of overhead electric wires when carrying you boat.

5. Don't venture out when the weather conditions are unfavorable or are predicted to become so. Listen to weather forecasts, check with you Harbor Patrol Office and look out for small craft storm warnings.

6. Be especially careful in areas where there may be commercial shipping traffic. Keep well away from shipping channels.

7. Learn the "Rules of the Road." All other sailors will expect you to know them and abide by them. The U.S. Coast Guard (U.S. Dept. of Trans., U.S. Coast Guard, 2100Second St. S.W., Washington, D.C. 20593-0001,) will supply free literature on this. Your local branch or Harbor Patrol Office may have it available also.

8. Sail during daylight hours only. Your Expo 12.5 is not equipped with navigation lights.

9. Purchase all Coast Guard required safety equipment and learn how to use it before that day arrives when it might be necessary to use it.

10. Enroll in a Coast Guard class or other certified boating/sailing class. You will learn a lot and enjoy sailing even more.

11. Do not take more than a safe number of persons aboard you boat when sailing. Two light people in calm conditions is the maximum.

12. CAUTON: The aluminum boom and other metal parts conduct electricity. Coming in contact with or near electric poser lines can be fatal. Stay away from overhead power lines and wires of any kind when launching, underway or stationary.

9. Closing Words

The builder hopes that you will enjoy countless hours of fun and relaxation sailing your Expo 12.5 and you will if you practice proper sailing and safety procedures both on land and on water. Take good care of your boat and take the time to learn the different phases of good seamanship.