

## QUESTIONS AND ANSWERS ABOUT THE GLOUCESTER 22

### DESIGN

Question: Is the Gloucester 22 Self-Righting?

Answer: Yes, there is approximately 700 pounds of lead ballast in the keel itself. The centerboard, which weighs 100 pounds, contributes relatively little to the stability of the boat. Whether the board is up or down, the boat will right itself easily in the event of a knockdown.

Question: Why does the Gloucester 22 have a keel-centerboard combination instead of a swing keel or fixed keel?

Answer: We ruled out a fixed keel because we wanted to have the Gloucester 22 sail and launch in shallow water. You cannot have a fixed keel with shallow draft and still avoid side-slipping, particularly when the boat heels. The shallow keel configuration without a centerboard to help provide lateral resistance gives unsatisfactory performance, despite a number of competitors who seem to get away with this.

A swing keel was also ruled out because this arrangement presents a number of structural problems and also uses some space inside the cabin which we wanted to keep clear. If you design a swing keel with a minimum of cabin obstruction, you have the same draft as you would have with our keel-centerboard combination with a lot more problems. The swing keel must be heavy in order to provide self-righting capabilities. This requires a complicated winch mechanism for raising and lowering the board. Unless it is pinned own while sailing, the swing keel can slide up into its retracted position during a knock-down and not provide adequate resistance against capsizing.

We use the swing keel in our smaller boats such as the Gloucester 16, 19, and 20, because:

1. The weight of the smaller swing keels is not as difficult to control.
2. These boats all have additional internal ballast in the bottom of their hulls so that stability in a knockdown situation does not depend entirely on the swing keel.

With the keel-centerboard combination on the other hand, all of the weight needed to make the boat self-righting is in the lead ballast in the keel itself. The centerboard can be kept light in weight and easy to control, lift up and down, and take care of. At the same time it provides a high aspect ratio lifting surface to furnish excellent resistance against side-slip.

Question: Will the Gloucester 22 sail while in shallow water?

Answer: With her draft of just under two feet with the centerboard retracted, and with the pop-up rudder blade, she will sail reasonably well in shallow water. You will experience some side-slipping, as she heels, although, if the boat is kept upright this will be minimal. The effect of the shallow keel on preventing leeway is only important going to windward.

You notice very little, if any, side-slip when you are reaching or running. There are so many areas of the country where water is shallow around the edges of lakes, bays and rivers that we thought it would be important to keep this minimum draft as low as possible.

Question: Some boats with centerboard, or swing keels have wire hum when you are sailing fast. Will this happen with the Gloucester 22?

Answer: The centerboard wire on the Gloucester 22 does not protrude at any time from the bottom of the boat. Therefore, it cannot set up vibration in the water and hum.

Question: How is the position of the centerboard adjusted?

Answer: The centerboard adjustment is made by a line which runs back to the cockpit on the starboard side of the cabin top and is secured to a cleat. This line disappears into the box above the centerboard trunk just forward of the mast. There it connects to a 6:1 block and tackle leading to the wire which attaches to the board itself. The length of travel of the centerboard line is a matter of five or six feet, so, it is quickly raised and lowered. The position of the board would be easy to tell at any time by marking this line. It is very easy to adjust the board from the cockpit while sailing. If you should run aground, you don't have to go below to raise the board.

Question: Why do we use a fractional 7/8 rig instead of a masthead rig?

Answer: The 7/8 rig means that the jib stay attaches to the mast 7/8 of the way up to the top of the mast rather than all the way up to the masthead. By using the 7/8 rig, we achieve a number of advantages:

1. We can, using a split backstay and block and tackle to control backstay tension, bend our mast, fore and aft, as is done with racing boats, in order to flatten the mainsail when it is blowing hard. The ability to change the shape of the mainsail for varying wind conditions is much easier to do with a 7/8 rig than with a masthead rig.
2. Using a 7/8 rig, we are able to use smaller spinnakers and smaller jibs and genoas. These are easier for the family to handle than the larger headsails. They also cost considerably less than masthead genoas and spinnakers would cost, and require smaller, less expensive winches to control them.
3. Because the 7/8 rig is allowed to bend, it is also possible to use a slightly lighter mast than with a masthead rig. This enables the entire boat to have more stability. It also makes it easier to raise and lower the mast since the whole rig is lighter.

Question: How difficult is it to step the mast?

Answer: Since the Gloucester 22 has a relatively light mast and is attached to the hull by means of a pivoting hinge on the cabin top, it is quite easy to step the mast with just two people or even a man and his wife. To do this, the backstay and shrouds are attached before the mast is raised--with the head of the mast extending out past the stern of the boat. Once the pivot pin is installed in the mast hinge, it is easy for one person to walk the mast forward into the upright position, with the second person pulling on the forestay and making the final connection of the forestay to the bowplate.

Question: Why doesn't the Gloucester 22 have a pop-top?

Answer: The pop-top is primarily a sales gimmick which allows greater head room and a more roomy appearance to the cabin. In practice, they often prove less than satisfactory. Most leak when closed, allow rain or spray to get below when raised in foul weather, interfere with sheets, boom vang, and jiffy reefing lines, impair forward visibility when raised, look like a plumber's nightmare, and unexpectedly fall on people's heads.

Instead of the pop-top, we use a large sliding hatch for the Gloucester 22. This is a much neater and safer arrangement, watertight when closed, streamlined and nonfouling at all times, and permitting plenty of light and airiness below in good weather, combined with unlimited headroom. It is strong enough to stand on, and in combination with the six opening ports and the forward hatch, provides plenty of cabin ventilation. If additional headroom in bad weather is considered essential, we suggest a canvas dodger.

Question: Six opening ports?

Answer: Yes, six opening ports are standard, complete with screens--features that most of our competitors in this size range do not offer--even on an option basis.

#### INTERIOR

Question: Why is there no dinette in the Gloucester 22?

Answer: Although the dinette initially is attractive to new sailors, more experienced people almost invariably prefer the conventional layout such as we have in our "22." The dinette is convenient while eating, but a stowaway table will accomplish the same thing. The dinette is always there however, whereas the table is probably used less than 5% of the time. A dinette invariably gives a crowded appearance to the cabin, and it must be disassembled to convert it into a bunk. Even then, it frequently yields a very small double berth in boats of this size. For example, the dinette berth in the

Catalina 22 is only 5'10" long and 2'9" wide--hardly suitable for adults. Contrast this with our double berth which measures 7'0" long on the outboard side, 6'4" long on the inboard and is 40" wide.

And while most people don't spend a lot of time below sitting at a table, you do often want to just sit below snacking, drinking, or just socializing. Half a dozen adults can sit on the facing settees in the cabin of the Gloucester 22 in perfect comfort. Try that in other 22's!

Question: How about a table?

Answer: We have designed a table which will hang from the main bulkhead, and which will store under the deck at the aft end of the main berth on the starboard side. This table has a butcherblock formica top with teak fiddles and measures 24" x 30", being large enough to seat four comfortably, facing each other at the forward ends of the main berths.

Question: Why didn't you provide a built-in ice box?

Answer: We have found through experience with boats of this type, that the removeable ice chest concept works extremely well. With a built-in ice box you still have to get the food down to the boat and back off again at the end of your trip. Therefore, you often find yourself carrying another portable ice chest down to the boat and then having to worry about where to store it. It is simpler to have the portable ice chest merely commute to the boat with the owner. There is room under the sliding companionway step in the Gloucester 22 for two 48 quart coolers. Before buying any boat in this size range, be sure to check as to where the inevitable cooler will store and how convenient it will be to use it.

Question: Can the "22" be equipped with a galley?

Answer: Yes. Many owners of boats this size will not want a galley, so we have made this optional. When one is ordered, it will stow at the foot of the starboard berth in the main cabin. When the galley is stowed, the berth is usable, and is 6'3" long. To use the galley, remove the short cushion at the aft end of this berth and slide the galley forward into position. The galley consists of a generous table top, finished with formica butcherblock and teak fiddles, with a stainless sink and water pump on the top. A drawer is included for storage of silver, etc., and a two burner stove stores under the galley top and slides out for use.

Question: How big are the berths?

Answer: The main berth on the port side is 7'0" long and 24" wide. When our double berth conversion unit is used, the "double" part of this berth is 6'4". This double is 40" wide and will provide comfortable sleeping for even big couples. The main berth on the starboard side, without the galley unit,

is 8'6" long and 24" wide. With the galley in its stowed position it is 6'3" long. All these berths are wide enough for comfortable sleeping. Our "V" berths are 6'0" long--adequate for short-and medium-sized adults. Most owners will bed the kids down there.

Many boats in this size range do not provide bunks which are adequate in size for full grown people. Check this out before deciding what to invest in.

#### POWER

Question: What do you recommend for outboard power?

Answer: 4 h.p. is suitable for this boat, and will drive it along nicely at hull speed. This should be a long shaft outboard.

Question: Where will I store my gas can?

Answer: The most practical way to store the gas can is in the back end of the cockpit itself in the area which is not used for anything else since it is under the tiller. In this way you do not have to worry about ventilation, fumes or any other regulations or dangers involved in storing gas in enclosed compartments. There is plenty of room in the back of the cockpit for a standard six gallon gasoline tank and we do offer a handsome hinged fiberglass gas tank locker which can be locked for security.

Question: What kind of an outboard bracket do you use on the Gloucester 22?

Answer: We use a spring-loaded bracket. The spring tension counter-balances the weight of the motor being used, making it easy to pull up and drop down.

#### CONSTRUCTION

Question: How are the hull and deck on the Gloucester 22 joined together?

Answer: The deck of the Gloucester 22 overlaps the hull, and is what is called a "shoe box" fit. When the hull and deck are first assembled they are attached together using closely spaced stainless steel fasteners. After the hull and deck are together, the outside of the joint is filled with a polyester putty which also acts as a bonding agent and provides a seal against any possible joint leaks. The rubrail is put in place with rivets and the finishing strip inserted.

Question: How do you attach the deck hardware?

Answer: Deck hardware is all through-bolted using stainless steel bolts and lock nuts. Where high loads are expected such as mooring cleats, etc., backing plates are used under hardware. In attaching the exterior teak trim such as handrails and hatch drop slides, holes are counterbored in the teak, the piece is attached to the deck with stainless steel machine screws and lock nuts and the holes plugged with teak--the accepted way of fastening these parts on high quality yachts of all sizes.

Question: How difficult is it to remove the centerboard for repainting?

Answer: The centerboard can be removed easily through the bottom of the boat. It is first necessary to remove the aft teak piece from the column which supports the mast. Then the board can be removed from the trunk by undoing two bolts, which allows the board to drop out of the bottom of the boat.

Question: Any chance of centerboard trunk leaking?

Answer: We have constructed the centerboard trunk for the Gloucester 22 as an integral part of the hull. It is laid up at the same time that the hull is made and is constructed with a neck at its forward end which extends well above the waterline. The board pivots around a bolt which is supported by two stainless steel straps which extend up into this neck of the trunk. These straps, and therefore the board itself, are held in place by two rugged stainless steel bolts and nuts which pass through the neck of the trunk considerably above the waterline. Therefore, there are no openings or holes in the trunk itself at or near the waterline to cause leaks. We believe that this is the most foolproof way of constructing the centerboard arrangement, even though it is more expensive to build the boat this way. We have been using the same system on our 23' since 1977 without any problems.

Question: What kind of material is the Head liner? Can this be replaced if the material is damaged?

Answer: The head and hull liner materials are of woven nylon backed up by a fire retardant open cell polyurethane flexible foam. According to the manufacturer, this material has been in marine service for approximately 13 years. It has not shown any kind of degrading. If it is damaged and has to be replaced, this is not a difficult thing to do and can be done about as easily as putting a piece of wallpaper on a room in your home. Even if slight mildewing should result from the boat being kept tightly closed in very hot and humid conditions, this is easily removed with a mildew remover such as X-14.

#### PRICING

Question: Why do you price the boat with so many options?

Answer: Why make your customer buy things he does not want? "Packaged" boats are much simpler to manufacture than customized boats, but in the case of a small boat like this, different owners will use them for widely different purposes such as daysailing or cruising. A person who is basically using the boat for daysailing in protected waters may not want lights, galley, lifelines, and the like. Also, we have found that different areas of the country favor certain options, which are often not preferred in other places.

Gloucester Yachts is a small company, and as such, has the flexibility to build your boat with just the options you want, without requiring you to buy things you may not need or use.