

Perry Design Review: Pearson 27

Small shoal draft cruising yacht

By Bob Perry

August 25, 2000

If you have started in dinghies and are ready move up to something you can sleep on, you might take a look at this new Pearson, the 27. This design is by Bill Shaw and the Pearson design team. Clever use of interior space makes this design a natural for family cruising.



The Pearson 27.

I don't have any information on the hull shape but we can safely assume that it is a conservative design. It has a D/L ratio of 227. The beam is moderate and carried well into the stern resulting in a broad transom. This is a good in a small boat because it greatly increases the cockpit and this convenience becomes more important in smaller yachts. The broad stern also provides stability and the interior volume required for the double quarter-berth arrangement shown.

I find the wing keel interesting. There is no doubt that winglets work at improving the performance of shoal draft boats. There is some argument over just how the wings should be designed. While there are theories attributing lift and drag contributions to the keel foil, the major benefit of the winglets may be simply a matter of getting the lead down low in a clean shape. Just where to start the wings, dihedral angle and angle of attack are open to debate.

The new Pearson 27 shows the winglets starting at about the 35 percent chord position at the tip. This probably corresponds with the point of maximum thickness of the foil, which I would guess is a 63 series foil. Studying the profile at the tip, it appears that there may be some negative angle of attack to these wings. But with the complex geometry of the two foils intersecting, this may be an illusion and the winglets most probably have a zero degree angle of attack. Note the lack of taper to this keel planform, ensuring plenty of meat at the tip. This planform in conjunction with the winglets should really result in a low VCG for the ballast and a stiff boat. Keel design is something that must be constantly reconsidered in light of the 12-Meters and their variations on the winglet theory. I consult my keel guru, Dave Vacanti, on a regular basis.

I have had clients say that outboard rudders look like they belong on small boats and don't impart a yacht-like appearance. In fact, this outboard rudder is the best and most cost-effective design available. It puts the rudder as far aft as possible. It puts the tiller in a convenient location. It avoids a costly rudder tube and stuffing box. Note the slight "bend" in this rudder design to decrease the leading edge angle of the rudder. I feel that the outboard rudder offers a positive contribution to the general aesthetics of this design by actually adding length to the boat.

The 27 has a very simple rig. It's a sloop with single lower shrouds and slightly swept back spreaders. The backstay is split to leave room for the outboard rudder and this makes it very convenient for a simple backstay adjuster. I wish the mainsheet traveler were in the cockpit. It would eliminate the mainsheet winch and make quick adjustment of the traveler position very easy. But, with it on the coachroof, it does open up the option of a dodger.

The SA/D ratio is 16.35, which is far from overpowering, but should provide enough horsepower to make this boat fun to sail in any breeze. If you put a 90 percent jib on the roller furling, you would have a very sedate and easy-to-handle boat for beginners. A short LP jib, like 90 percent, does not overlap the mast so it is very easy to sheet in. You just ease the jib from side to side and give a little tug as the boat comes through the wind. With minimum ingenuity you could even right up a self-tailing system for this jib and then you have a real hands-off tacker. This rig is very versatile. I'm telling all my cruising boat clients to go to fully battened mainsails and lazy jacks. Add a rigid or hydraulic vang to this and you have a very easy boat to sail.

This interior borrows a little from the European competition. Big, double quarter berths and aft heads have become very popular. Note that the V-berths have been pushed aft in this layout and wrapped around to give a settee-dinette effect. I guess that the icebox is under the chart table. Note the hanging locker and big storage bin forward. By moving the head aft, it opens up the interior and creates the feeling of a much larger boat. Even with six feet of headroom, the sail plan still shows a well-proportioned and handsome boat.

The Pearson 27 is a well thought out small cruising yacht, small enough not to intimidate and big enough to be forgiving and stable. The boat is available with inboard or outboard power options.

Boat Specifications

LOA 26'1"

DWL 22'6"

Beam 9'1_ "

Draft	3'4"
Displacement	5800 lbs.
Ballast	2175 lbs.
Sail Area	330 sq. ft.