

CONSTRUCTION DETAILS

Pearson demonstrated better manufacturing controls than many of its competitors in the late 1970s thanks to Grumman's focus on quality engineering practices.

Hull: Laminate materials for the hand-laminated solid FRP hull were bench cut, pre-marked and carefully overlapped inside the female mold. Crews wetting out the dry fiberglass used serrated rollers to remove air bubbles and better insure interlayer bonding between the units of FRP composite material. The bottom of the sump is thick enough to accept the tensile loads created by the ballast, as well as handle other non-sailing stress and strain associated with unintentional groundings. Extra units of 24-ounce woven roving and chop strand mat were used in the turn of the bilge and along the centerline to add stiffness and improve the load bearing quality of the laminate in high stress areas.

Hull-deck joint: The hull-to-deck joint incorporates an inward turning hull flange, and the outer perimeter of the deck element overlaps this part of the hull. There are several advantages to this form of construction, and they include the extra seam strength derived from the angle-bracket-like stiffening effect of the inward turning flange itself, the potential for a large overlap of the seam, and an adhesive seal as well as mechanically fastened



Fiberglass athwartship floor frames helped reinforce the keel stub and cope with the side force imposed by the lead ballast keel.

junction. The fact that the seam is not directly exposed to topside impacts makes it superior to outward turning flanges that provide only a small overlap, and are constantly exposed to whatever the topsides rub or bump against.

Deck: The deck is a balsa core sandwich structure that is stiff enough to have prevented delamination problems, and these boats have a good reputation when it comes to water intrusion and core deterioration.

Rudder and keel: The spade rudder stock is stainless steel, and the fiberglass coated high-density urethane foam core blade was well designed and constructed. The bolt-on lead ballast keel attached to a stub like keel sump that was molded into the hull. Good quality stainless steel keelbolts are placed side by side in the keel stub, and on boats PS has inspected, neither the nuts, bolts nor the keel show signs of deterioration.

Rig: Chainplates are inboard and are mechanically fastened to the main plywood bulkhead. Care needs to be taken to keep the deck penetration point where these chainplates enter the cabin well bedded. Any water penetration will result in wood rot that may significantly diminish the structure supporting the chainplate.