Voyage tested

A solid hull and rugged rig give the Pacific Seacraft 37 offshore reliability

by Michael Carr

Since 1980 Pacific Seacraft Corporation has built 217 rugged Pacific Seacraft 37s. Many of these boats have made long ocean passages and a handful have made circumnavigations. Designed by Bill Crealock, the distinctive canoe-stern 37 is meant to be a comfortable cruising boat that is able to cross oceans.

Recently I had the opportunity to sail on a well-equipped Pacific Seacraft 37 out of Gig Harbor, Wash. This vessel, hull number 163, was equipped for extended cruising in the Pacific Northwest and Alaska. It had been equipped with a variety of after-market gear, including an Espar heater to keep the cabin warm, Furlex furling gear on all sails, a Monitor windvane, and an Alpha Marine autopilot for self-steering.

After motoring from Gig Harbor out into Dalco Pass, which connects with Puget Sound, we hoisted (unfurled) the jib, staysail, and main and put the 37 on a close reach, trimmed the sails, and engaged the Monitor windvane. With the Monitor's airvane adjusted for the apparent wind, the 37 steadied up on course and headed upwind, making 6.3 knots in 13 knots of true wind and keeping an exceptionally straight course.

One of the best features of the Pacific Seacraft 37 that I discovered as the day progressed was its ability to be easily balanced and maintain a straight course. During the day-long sail we routinely switched between the Monitor windvane and Alpha Marine autopilot, and the 37 was always steady and predictable. This change from windvane to autopilot was easily done since the Alpha's clutch/de-clutch control cable was mounted near the wheel, near the Monitor control clutch.

Alpha Marine autopilots differ from other electric autopilots in several interesting ways; most noticeable is the method in which the linear drive ram connects to the quadrant. The output end of the linear drive is locked to the quadrant only when the autopilot is running. This is done for two reasons: to keep the drive unit from being dragged back and forth as the boat is either steered by hand or by windvane and to keep power consumption low, since a magnetic clutch is not needed for engaging the pilot.

Photo courtesy Pacific Seacraft

With its canoe stern, modest beam, and symmetrical hull, the Pacific Seacraft 37 tracks well, allowing the boat to be easily steered by windvane or autopilot. A rugged mast, with shrouds leading out to the gunwhales, supports a powerful cutter rig, ideal for both upwind and off-the-wind sailing.

To bring the Alpha pilot on line the boat's course is dialed up on the autopilot's control panel. Then the wheel is gently rocked back and forth a few inches while the control handle on the Morse control cable is pulled up. This procedure, which takes just seconds, aligns the Alpha linear drive with a notch on the quadrant arm, engaging the unit. As soon as the linear drive ram engages one can feel the ram take control of the wheel and the pilot is steering. To disengage the pilot you just push down on the Morse control handle. This is a very simple, reliable, and efficient way to utilize an autopilot.

Cockpit designed for offshore work

The cockpit on the 37, with its large scuppers and high bulwarks, is obviously designed for offshore sailing. With the mainsheet traveler mounted on the cabin top, access through the companionway is not restricted. To provide security when coming on deck in rough conditions there are two large, through-bolted padeyes for clipping on harness tethers located on either side of the cockpit adjacent to the companionway.

The 37 tracked upwind so easily and straight that several times when the boat was being steered by autopilot or windvane I wondered if the units were still engaged; minutes would pass without apparent movement or course correction by either unit.

On a lighter side, though Pacific Seacraft did not intend for the 37's aft cockpit scuppers to be used for cup holders, the deep recesses surrounding the scuppers are perfectly shaped for securely holding a large coffee mug. I used those recesses to hold my Green Mountain Coffee Roasters mug throughout the day, and it never moved.

Every deck fitting on the 37 is robust and, if not made from bronze, is quality Harken or Schaefer gear. Stanchions, bow pulpit, and stern pulpit are all bolted through the inboard side of the six-inch-high gunwale, not the deck, making for a strong attachment and eliminating eventual deck leaks. Both a bow and stern anchor locker are standard on

AWYC photos

A pair of bow rollers are standard on the Pacific Seacraft. With this setup one can stream twin anchors and rodes when needed. Increased bow volume above the waterline adds reserve buoyancy.

A vang supports the boom, eliminating a topping lift. The mainsail furling system includes a low-profile winch beneath the boom. Thus the main can be furled both at the mast and in the cockpit.

Pacific Seacraft 37s. These lockers are constructed with stout bulkheads to restrain a pile of chain and a padeye for securing the rode's tail end.

Constant ventilation is provided by several large Vetus dorade vents as well as Nicro Fico solar vents, so when weather requires that the bronze portholes or Bomar hatches be dogged shut, the interior should not become untenable. Though ventilation might not seem as high a priority as, say, a rugged mast, anyone who has been cooped up inside an unventilated boat for days during inclement weather will attest to the need for fresh air. A full chapter is devoted to ventilation in the book *Desirable and Undesirable Characteristics of Offshore Yachts*, authored by the Cruising Club of America Technical Committee, and obviously Pacific Seacraft took their advice seriously.

A single spreader, large-section aluminum mast, built by LeFiell Marine Products, is supported with double lower shrouds, twin headstays, and running backstays. Upper and lower shrouds are attached to bronze turnbuckles that, in turn, are attached to chainplates bolted to the outside of the hull. This arrangement is not often seen these days, but structurally it is the best method for both supporting a mast and distributing loads. Chainplates have crept inboard over time with the increased use of overlapping headsails, which by design require tight sheeting angles. It should be remembered, however, that the shorter the spreader base, the higher the loads on the spreaders, rigging, and mast.

By taking shrouds out to the gunwale, and using spreaders that reach as far, Pacific Seacraft has a mast arrangement that is very strong. And this rig, combined with a cutter sail plan, ensures that there are no headsail sheeting dilemmas.

Attached to the mast are two styles of steps for going aloft; near the deck the steps are folding units and above head level they are of fixed triangular type. I climbed the mast prior to leaving the dock, having no problems other than the need to be a little creative in working around a Firdell Blipper radar reflector and a Raytheon radar dome which were mounted on the mast's forward side, but once past those units, I made it to the masthead without trouble. Without mast steps such an impromptu journey to the masthead would not have been possible. For both preventative maintenance and emergency repairs, mast steps on a cruising boat are a good feature.

There is a school of thought that says a bosun chair or harness should be used in conjunction with steps, but in reality, on vessels sailing short handed, a single person should be able to go up a mast for inspection or repair without it becoming an "all hands" drill. Mast steps, especially triangular ones which capture the climber's foot, are a very appropriate addition to a mast.

All three sails on this Pacific Seacraft 37 were attached to Furlex roller-furling mechanisms and could be reefed and furled from the cockpit. Of great help in trimming the mainsail was a Selden Rodkicker vang, also produced by Furlex, which was controlled from the cockpit and allowed us to adjust the boom to any desired angle. Going to windward the vang was cranked in to keep the mainsail flat, and off the wind the vang was eased to leeward to keep the boom parallel to the horizon so the mainsail could draw but not twist and spill air.

Inside the Rodkicker vang is a gas-loaded spring (resembling an automobile's shock absorber) which lifts up the boom when the external block and tackle (kicking strap) is released. With a Rodkicker vang in place, a boom's topping lift becomes redundant and can be either moved forward to the mast to keep it clear of the mainsail's leech, used as a spare halyard, or even put back in place if a backup to the vang is thought necessary.

Furlex provides an external groove on their mainsail-furling aluminum cover that allows a storm sail to be hoisted independently of the furling mechanism, a necessary feature for offshore sailing. Additionally, they have mounted a low-profile winch on the mast's aft side, just under the boom, that allows the mainsail to be rolled up from that location or from the cockpit by means of a continuous loop of line that runs through this same winch.

Numerous spinlock line stoppers mounted around the cockpit allow flexibility in adjusting, reefing, and furling sails, and the Harken self-tailing winches are oversized and allow the headsails to be cranked in using one hand on the winch handle.

Tremendous stability

Pacific Seacraft 37s are designed with tremendous initial and overall stability: they are able to heel to 35°

before the rail touches the water and to 140° before going all the way around—a highly unlikely event. Maximum righting arm occurs at approximately 75° of heel, and at 90° it has decreased only slightly, so it should be reassuring to know that under the worst weather conditions, when an extreme roll or knockdown might occur, a Pacific Seacraft will develop its greatest righting force just when it is needed most.

Additionally, the Pacific Seacraft 37 has a pounds-per-inch (PPI) immersion of 1,010, meaning that 1,010 pounds of gear would have to be loaded aboard before the hull would immerse, or go down, an additional one inch. This gives the 37 a capacity to carry people and stores for extended passages without excessively sinking the hull on her lines and thus decreasing performance.

Changing the trim, or fore and aft draft, of the 37 requires putting 1,600 pounds in either end of the boat. This is a significant amount of weight and reflects a well-balanced waterplane and a boat that is not sensitive to weight changes and unlikely to pitch excessively. Full bow and stern sections above the waterline and a symmetrical waterplane indicate a hull that will rise to waves and swells.

A navigation area to port, with quarter berth directly behind, and a galley to starboard are at the foot of the companionway ladder, making watchstanding and communication with the cockpit uncomplicated.

Tubes for chart stowage are installed in the overhead aft of the navstation, providing a dry and secure location for several dozen full-size charts. Additionally, there is room for books and reference material in numerous compartments surrounding the nav area. It is apparent that Pacific Seacraft values interior space since they provide front and top access to every nook and cranny within the boat.

When sitting at the navigation station, the bulkhead to port holds the electrical panel as well as adequate room for an assortment of navigation and electronic gear. There is adequate depth and panel space for an SSB

SPEC sheet **Pacific Seacraft 37**

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LOA:	**36' 11"**
LWL:	**27' 9"**
Draft:	**Standard 5' 6"** **Shoal 4' 5"**
Beam:	**10' 10"**
Ballast:	**6,200 lbs**
Displacment:	**16,000 lbs**
Sail area (cutter):	**758 sq. ft.**
Sail area to displacement ratio:	**17.5**
Sail area to wetted surface ratio:	**2.3**
Waterplane to displacement ratio:	**4.3**

radio, VHF, weatherfax, GPS, etc., to be installed.

On this Pacific Seacraft a Raytheon R20 radar was mounted on a gimbaled mount above the nav table, where it could be adjusted, like an automobile's rear-view mirror, to fit the vision needs of the navigator. This swivel could be handy for reducing glare from bright sunlight or making the radar visible from the companionway at night or during reduced visibility conditions when it would be in constant use.

Engine room access is through both a cover behind the companionway ladder and a removable portion of the cockpit sole. With both the inside and outside covers removed, there is sufficient light and space to access each side of the engine. Good access to the engine can be gained with just the cockpit sole removed, eliminating the need to disrupt the interior by removing the companionway ladder and inside engine cover.

A Par hand pump for removing water that collects in the bottom of the reefer is mounted near the front of the engine compartment next to the galley and is reached by opening a convenient access cover.

By eliminating a drain in the reefer bottom the refrigeration system should operate more efficiently. In addition, the boat's interior will smell better since cold air will not escape out the bottom of the reefer and accumulated, aromatic water in the reefer will not drain into the boat's bilge.

Solid glass hulls

Pacific Seacraft 37s are normally built with a solid glass hull using vinylester resin, but a balsa-cored hull is optional and a dozen of the 200-plus Pacific Seacrafts sailing were built with a core. Balsa coring is requested, according to Don Kohlmann, vice president of sales and marketing for Pacific Seacraft, more for the insulation and acoustic properties than for strength reasons.

When a hull is built with balsa coring, sufficient glass is used on the exterior to support the hull and expected loads without the balsa and interior skin. The added balsa and inner skin contribute, obviously, to the hull's overall strength, but the hull can support itself without it.

A raised and overlapping gunwale joins the hull and deck and adds tremendous longitudinal strength (see "Longitudinal strength," Issue No. 70) to the hull by forming a box girder. Not only does this box-shaped gunwale add to the boat's overall strength, but it provides a brace for sure footing on deck, gives proper support to stanchions, and reduces the amount of water coming on deck.

The Pacific Seacraft 37, like the many other boats in the Pacific Seacraft inventory, is a conservatively designed, long-distance cruiser. It is built to be robust. These boats exhibit the attention to detail and sturdy construction required for serious ocean sailing; they are a credit to Pacific Seacraft's managers and production team.

With a Monitor windvane mounted on the stern and a case of Green Mountain coffee down below, a Pacific Seacraft 37 could probably sail just about anywhere. ■