

## **HAWK**

LOA 47', LWL 39.5', Beam 14.8', Draft 7'

Displacement 30,000 lb (dry & empty)

Owners: Evans Starzinger & Beth Leonard

Designer: Van De Stadt

Built 1997 by Topper Hermanson and owners, Fernandina Beach, FL



(Walker Vought)

Our first offshore boat was a Shannon 37' centerboard ketch. She was a very pretty boat and a marvelous learning platform for novice offshore sailors. However, we were looking for a quite different boat as we started considering a voyage to higher latitudes. We had five priorities:

(1) High on our list was a good looking integral hard dodger. We considered this a safety priority as it would reduce fatigue on passage and allow better watch keeping. It also proved to be one of the toughest elements to find and ultimately drove our final design choice. We were not interested in the more popular pilot house/deck saloon concepts as we believe it essential to maintain some contact/exposure with the weather, so we can sniff out early signs of a weather change.

(2) We wanted aluminum construction, primarily to provide a completely leak-proof vessel, rather than for strength. We had found it difficult to keep fiberglass decks completely leak-proof over the course of an ocean crossing or two, as the fiberglass moves and the various stainless thru bolts don't, which breaks down any caulking seal. With aluminum construction we could weld to the deck rather than drill through it. After spending time on an aluminum ocean-racer, we were comfortable we could avoid the potential corrosion and electrolysis problems often associated with aluminum construction.

(3) We especially wanted a boat that sailed well in light air and upwind, two things that cruising boats are not noted for. We have spent a third of our time offshore in under 10 knots of wind, and in the higher latitudes we expected to spend more than a third of our time going upwind. These two requirements mandated a sloop rig with a tall mast, deep keel and high righting moment. After much consideration we picked a 7' bulbed keel as the optimal draft – the maximum we could carry without unduly restricting our choice of harbors.

(4) We were looking for a somewhat bigger vessel, in order to provide greater fuel and water tankage, battery capacity, and guest quarters. Initially we considered 42'-43' the ideal range, but after sailing on a Swan 47, we concluded we could handle 47'. We believe larger than 50' would be restrictive in terms of handling the sails without mechanical assist, maneuvering in tight Chilean coves and marina space in Scotland and Ireland.

(5) We were looking for a simpler boat both in terms of cosmetics (no gloss paint, gel coat or varnish) and minimal systems. The unpainted topsides were a last minute decision but have proved to greatly lower the stress associated with difficult docking situations. I was instructed by several quality control engineers that the key to ensuring reliability is to minimize the number of moving parts. We followed this edict vigorously as we fit-out *Hawk* (e.g. no generator, water-maker, pressure water, etc). This has proved a successful approach, as we are more self-reliant and our maintenance workload is about a quarter of that aboard the more complex Shannon.

We initially looked for a used boat with these five traits. However, we quickly realized there was nothing available used that came anywhere close to our requirements and started looking at building a boat. We talked with a number of naval architects about new custom designs but none seemed to offer much incremental value over the stock Van De Stadt “Samoa” design. We looked at various construction options and concluded that getting a bare hull welded up at a small yard in Florida and then finishing out the boat ourselves was both feasible and financially attractive.

During the construction process we were able to fine tune the design to even more closely match our vision of a simple, strong boat with exceptional sailing performance. She was originally designed to have teak decks and a heavy wood interior. By using painted decks and a cored panel interior we were able to put the resulting massive weight savings into extra aluminum (double framing, three watertight bulkheads and chain-plate strengthening) and extra lead. With a 47% ballast ratio, the righting moment is 2700 foot-pounds per degree and the limit of positive stability is 145 degrees. Reducing the structural weight also gives us extra load carrying ability (we have an amazing and somewhat disturbing 10,000 pounds of stuff aboard).

We ended up with a very tall fractional rig with masthead code zero and running sails, which has proved the perfect combination for excellent performance and easy handling in all weathers and conditions. The apparent wind angle sailing upwind is 27 degrees, and light-air polars are about 80% of wind speed. The design called for two heads and five sinks. This seemed like a lot for two people, so we replaced the forward head by a sail locker and eliminated all but two sinks. We also converted one of the two aft cabins into a dedicated workshop/garage.

We have four anchors on board - a 50kg/110lb Bruce is the main anchor and the only one carried on the bow. A 40lb Danforth and a 55lb Delta are stowed in the lazarette and an FX55 (Fortress) in the sail locker. We carry two chain rodes and 4 line rodes (with short lengths of chain for each). The engine is a Yanmar 75hp turbo Diesel with a 2.6:1 reduction and a 20" AutoProp. The tanks hold 185gal of fuel and 200gal of water.

After 55,000 miles we are immensely pleased with *Hawk*. While designing and building a new boat, it is very difficult to gauge two of the most important factors for a successful end product - whether the helm will be perfectly balanced and whether she will pound upwind. Our experience has demonstrated that *Hawk* smashes enthusiastically through big waves upwind, in fact with much more enthusiasm than her crew, but she does not pound at all. This is perhaps because we have much more canoe hull in the water than the currently fashionable extra light flat bottom designs. And her balance and helm feel is identical to comparable Swan's and J-boats.

We have concluded that “the perfect boat” is an oxymoron, as all boats represent a whole mess of compromises and they all break after enough sea time. So, we are quite happy that *Hawk* is merely an excellent boat. She does her job perfectly with no fuss or complaint.



(Walker Vought)

This photo reefed down shows the clean decks, hard dodger, radar tower and the Pacific Plus windvane. The vane steers its own auxiliary rudder, which avoids lines to the main wheel and provides a back-up rudder.



A watertight hinged door closes off the companionway under the rigid dodger. Reefing lines, main halyard and a vang control lead to the winches at the forward end of the cockpit.



View of the main cabin from the companionway. On the starboard side is the nav station and a writing desk. To port is the saloon. Displayed on the main bulkhead to port is a chart of the world showing the tracks of *Hawk's* extensive cruises. Further forward is the forward cabin on the port side, and large lockers to starboard. Ahead of this area is the sail locker.



View of the nav station. From right to left on the mahogany shelf are a Northstar chart plotter (the primary navigation tool), a back-up Garmin GPS, and B&G instrument repeater. Below the shelf are a small 110-volt inverter, the Icom VHF DSC radio and a Vetus digital barograph. Above the shelf is a Furuno 4kw radar and a Sony all-band radio used to get both BBC and weatherfax. The head is aft of the nav station, and further aft is the passageway into the `garage`.



The saloon includes an L-shaped settee and drop-leaf table. Forward of this is a Reflex drip Diesel heater, designed for use on North Sea fishing boats. All the charter sailboats in Chile use this stove, since it has only one moving part and will burn clean in strong winds. Below the chart is a Diesel 'day tank' for the heater. (It actually contains about a week's worth of fuel).



The forward cabin has a large double bunk. Note the wood ceiling outboard which extends up under the deck.



The galley includes a Seaward Princess propane stove in gimbals. The double sink is fitted with both salt and fresh water spigots. The counter is Corian, with integral sinks and fiddles. Outboard is a large locker with sliding acrylic doors.



Abaft the galley is the aft cabin with two seaworthy bunks.



On the starboard side aft is the 'garage'. The area overhead is sprayed with 3 inches of fire-resistant polyurethane foam. On the aft bulkhead is the B&G autopilot computer. Outboard are an inverter (yellow) and battery charger (black). The battery charger works on all-voltage and all-frequency shore power.

