

## Inside the Tartan 37

A great design for a great price

by Staff

Blue Water Sailing

A classic S&S design, often available for \$60,000 or less, here's a boat capable of sailing the world without breaking the bank.

**Few cruising boats engender as much loyalty among owners as do Tartan 37s.** From 1976 through 1989, **486 of the boats were built** in the Tartan factory at Grand River, Ohio. Today, virtually all of the original boats remain in service, yet at any given time only a handful will be on the market.

**Designed by Sparkman & Stephens in collaboration with the Charlie Britten at Tartan Marine, the 37 represents the combined wisdom and experience of two of the best minds ever to work in the boat building business.** Stephens and Britten had collaborated on the earlier Tartan 27, which became a classic pocket cruiser. The new larger boat, was conceived as a family cruiser with long-range coastal and offshore capabilities. In that role it has become one of America's classic cruising designs.

For those looking for a capable, handsome cruising boat particularly suited to a couple and in the \$60,000 price range, the Tartan 37 stands out from the crowd.

### Design

The design of the 37 is now 22 years old and was conceived as a compromise between performance, comfort and shoal draft. With a displacement of 15,500 and a **displacement/length ratio of 298**, the boat is moderately heavy by modern standards. By comparison, a late model Sabre 402 has a disp./length ratio of 210 and the Valiant 39 has a ratio of 250.

But don't be fooled by the disp./length numbers. The 37 was designed to **feel solid under foot and to stand up to the breeze.** It has a high **ballast/displacement ratio of 48 percent**, an indication of stiffness and ultimate stability, and a beam/length ratio of 32 percent, which is about average for modern boats and an indication of good initial stability. Moreover, the 37 has a sail area/displacement ratio of

16.1, about average, **which means that despite its weight, the boat has the sail area to perform in light airs.**

Designed as a center boarder, the draft with the board up is only 4-foot-2-inches, making it a **perfect boat for the Bahamas, Chesapeake Bay and southern New England.** With the board down it draws 7-foot-9-inches. Of the 486 boats built, 15 were given taller double-spreader rigs and deep fin keels, a configuration that proved successful on the race course in the late 70s. Today, these boats would make excellent offshore cruisers for those not concerned about shoal draft.

Under the water, the hull form is a modified fin, with a **centerboard and a skeg-hung barn-door rudder** positioned well aft. The prop shaft, not shown, runs through a bronze P-bracket. The shape of the hull forward is elliptical underneath extending to a moderate flare at the topsides, which give the boat a smooth motion sailing to windward and keep the decks dry. Aft, the sections are pinched by modern standards, reducing driving power when reaching and limiting lazarette stowage.

The single spreader rig was designed for simplicity and moderate weight. Note the 70s style of a **small main and a large genoa**, just the opposite of modern trend. The forward position of the aft lowers means the main can be flown full out when running without chafing and, when going to windward, the back stay can be cranked down to flatten the main and tighten the genoa luff. A staysail stay with runners was offered to some owners as an option.

### **Construction**

The hulls and decks were molded of hand-laid polyester resin and glass over a **balsa-wood core** Contour-Core in most cases. Unless the hull has been damaged, the balsa core should last for many years without trouble and gives the hull the stiffness and lightness the high ballast to displacement ratio requires. ( I know of NO core issues in any 37C)

The decks are of the same construction. **In boats built through 1985, deck hardware was bolted on right through the balsa coring, so areas of softness may now be a problem. Boats built from 1986 on had solid glass deck sections to bolt through and stainless-steel backing plates.** (this is not accurate, many of my 1982 boat deck is solid)

**The hull-deck joint on the 37 is unorthodox.** Instead of using bolts to attach the hull, deck and toe rail together, a length of aluminum plate was glassed to the underside of the hull flange and then the deck and rail were joined with sealant and stainless-steel machine screws, which fastened down through tapped holes in the aluminum bar. The mating of dissimilar metals in an enclosed space that can collect water seems an invitation for electrolosis. And, the flexing of the hull-deck joint as the boat pounds to windward is bound to loosen the tapped machine screws. **Although the 37's hull-deck joint is not known for failures, it should be examined carefully by a prospective buyer.**

The **general engineering of the boat's systems were all done with great care.** The rudder and Edson steering systems are robust. The **engine installation, although cramped and difficult to access easily, particularly while underway,** is logical and well executed. The boats were equipped with Westerbeke 40 and 50-horsepower diesels from 1976 through 1981 and the Universal 40 diesel from 1982 through 1989.

### **Performance**

A moderately heavy sloop with a high aspect mainsail and genoa, the 37 's performance is dictated by the head sails. Having in-board chainplates and narrow sheeting angles, the boat can be tacked through 90 degrees reliably and will **sail closer to the wind in lighter breezes** and flat seas. With the centerboard down, leeway is minimized to less than 3 degrees. Up wind average speeds will vary between 5.5 to 7 knots.

**Off the wind and in running condition, however, the 37 will excel,** particularly with an cruising chute or MPS flying. On long hauls in the trade winds, overall average speeds will be in the 6.5 knot range and 150-mile days the norm with the occasional 175-mile day thrown in . In variable conditions, average speeds will decrease to 5.5 knots or so, with daily runs of 120 to 140 miles being normal.

Under power, with the 40-horsepower diesel and a 2:1 reduction gear, 6.5 knots is possible in flat water and a steady cruising speed of 5.7 to 6 knots normal. **With a two-bladed or folding prop, punching into a head sea under power can be a painfully slow experience.** (get a 3 blade folding prop if it doesnt already have one)

### **Accommodations & Living Aboard**

The layout of the 37 is simple and open, with a single large head and

room for seven people to sleep. The forward cabin is fairly small but will accommodate adults that are not too large or two children. The quarter berth aft is a double, although it will be tight for two, especially in hot climates. Also, the quarter berth is exposed to the weather through the companionway hatch, so it could be damp in rainy weather. In good conditions, the quarter berth will be the best sea berth. When it gets rough, the settee bench seat will be the best sea berth.

**The galley is interior's strongest feature.** The double sinks are almost amidships where they drain best. The counter-top ice box is large, although preparing meals on top of the fridge is always a juggling act. Alcohol stoves were put on most of the boats, although CNG was added in later models. No provision was made in the design for propane tanks.

Although it **doesn't have a deep bilge**, the 37 has enough general storage space for most gear and equipment a cruising couple would want to bring aboard, adding up to more than **30 cubic feet in lockers, drawers, bins and closet space** in the main saloon and galley. The three hanging lockers will appeal to coastal cruisers but are redundant for most live aboards and can be converted into storage.

With 90 gallons of water and 50 gallons of fuel, the boat has a cruising range for two people of about a month. For extended cruising, an extra fuel bladder under the quarter berth and a water maker or extra water bladder would be useful.

### **Retrofitting for Voyaging**

The list of gear that offshore sailors covet for extended cruising is long and expensive. However, when looking at boats on the market for their suitability for offshore sailing, it is important to factor in what would need to be done to make the boat ready. Given an unlimited budget (!), here's what BWS would do to transform a sparsely equipped Tartan 37 into a world cruiser:

Rig: add removable staysail stay, staysail and running backstays; roller furling on headsail; high-roach, full-battened main, triple stitched, with three reef points; storm trysail track on mast; rigid vang on the main boom; adjustable traveler on main sheet; hydraulic backstay adjuster; insulated backstay for SSB/Ham.

On deck: Dodger over companionway; radar arch/ Bimini over helmsman's seat with solar panels, GPS anetnna and radome on top;

weather cloths around cockpit; MOM unit; line organizing bags in cockpit; life raft on cabin top or stern rail bracket; tracks and cars for staysail; padeye's aft for spinnaker sheets; vertical windlass on bow; anchor roller; deck box forward of mast.

Engineering & systems: 400 amp/hr, battery capacity; 120 amp alternator with 3-step regulator; portable generator; propane system for stove/oven and hot water; high-capacity bilge pumps (manual and electric); 20 gallon diesel bladder; 20 gallon water bladder; 12-volt refrigeration; fluorescent lights in galley.

Electronics & Self steering: Radar; GPS; VHF; SSB/Ham; Speedo-Log; Sailing instruments; high-seas receiver; below-deck autopilot; cockpit wheel-pilot; wind vane.

**Specifications:**

LOA 37'3"

LWL 28'6"

Beam 11'9"

Draft-C.B. 4'2" (up), 7'9" (down)

Draft-Keel 6'7"

Ballast 7,500 lbs.

Disp. 15,500

Sail Area 625 sq. ft.

SA/Disp 16.1

Disp/LWL 298

Bal/Disp. 48%

Designer S&S