

## Beneteau First 36.7

# This dual-purpose boat, designed by Bruce Farr, is more user-friendly than its high-performance progenitors, but will still sail fast as a one-design or in handicap fleets.

From her office in France, Madame Annette Beneteau Roux, granddaughter of her company's founder, Benjamin Beneteau, oversees the largest boatbuilding company in the world.

In the US, the Beneteau and Jeanneau brands are madame's two most popular lines. Under the banner of Beneteau USA, the company markets the Beneteau line, once known as Oceanis models, as distinguished from the First line of performance cruisers. Historically, the Beneteau marque has been stamped on a cruiser with a distinctly European flair. However, recent French-European styling is less pronounced than in boats introduced 10 years ago. They can generally be characterized as having a turn of speed, spacious accommodations, and pricing competitive with American production builders.

First models are sportier, more aggressive designs, and typically exhibit better performance than their more conventional sisters, though they sacrifice little of their appeal for those seeking creature comforts.

Like its competitors, the company has experienced its share of production and blistering problems. However, refinements in raw materials and construction methods are resulting in fewer production glitches.

Most Beneteau boats designed for use in the US are constructed in Marion, South Carolina. The 36.7, however, was the first of the First line to emerge from that production facility in several years. Since its unveiling in the fall of 2001, 100 of the 36.7s have been sold in the US.

#### Design

The first collaboration of the Bruce Farr design office with Beneteau resulted in the 1992 introduction of the First 45s5. More recently, Farr designed the First 40.7, which the company claims is the most successful performance yacht of its size in the last 20 years. It has a stellar record racing under IMS handicapping.

Though they share a similar pedigree, the 36.7 was not designed to meet a racing rule. Still, whether she's steered with the big stainless steel wheel preferred by the American market, or with a tiller, which seems to be the choice in Europe, the boat 's work zone speaks plainly of performance, with a big mainsheet traveler that spans the cockpit, and efficient grinder stations forward of that.

In profile she displays a flat sheer, plumb bow, and reverse transom. These shapes are getting downright common today, thanks, probably, to the influence of European offshore racing boats. The new J/109 is shaped very similarly.

The swept double-spreader rig with large mainsail and comparatively small foretriangle is another trend of recent years, and a welcome change from the IOR-influenced sailplans that held sway in production cruising boat design long after the IOR itself faded.

The underwater hull of the 36.7 is quite slippery, with two nicely shaped keel options—one that gives a draft of a bit over five feet, the other a bit over seven.

Among Bruce Farr's early creations is Design #51, a 36' one - tonner known as the 1104. It was so fast that it allegedly caused the IOR to revise design criteria. Although not as flat-out as the 1104, the 36.7 can be seen as a direct descendant. Comparing the differences between the two, Jim Schmicker of the Farr office says, "The 1104 was designed primarily for the New Zealand and Australian markets, where proportionately less sail is needed because of windy sailing venues. "The 36.7 has similar sail area to wetted surface ratios, but carries more cloth because it's 25% heavier."

The new Beneteau was driven by a "different design requirement that requires a more luxurious interior while at the same time producing a fast boat."

The 36.7 is also an offshoot of the Beneteau 40.7, although Schmicker says the 36.7 "has a more advanced hull shape and refined look when heeled at high angles." That heeled shape, combined with what the Farr office calls a "generous rudder area," simply means that the rudder keeps its bite in the water when the boat is reaching in big winds.

"The changes are more noticeable when the boats are side by side," says Schmicker. "The 36.7 is straighter in plan at the sheer, with less curvature than the 40.7. It has less volume above the waterline amidships because more volume was placed in the ends. The result is a longer heeled length, producing good handling throughout the heeled range.

"We created the same interior layout in a boat that is nearly three feet shorter. However, there's less space between the stem and V-berth, and aft berths and transom.

"With the keel design it's all about laminar flow. This keel on the 36.7 is the result of years of intensive research that produces airfoils designed specifically for the boats that we design. They don't come from the pages of a NACA foil book. They are the result of 15 years of IOR, IMS, America's Cup, and Volvo Race research. We provide complete 3D representations to Beneteau so they can produce our designs accurately. The objective is to design the smallest rudder with the maximum lift and low drag that will withstand high loads in heavy winds without stalling. We place the rudder shaft in the blade and set the sweep of the blade tip to give the right amount of helm load for all conditions. We also want robust sections that don't stall abruptly. And, they must be able to be made in a mass production line that produces the same surface finishes."

Beneteau USA president Wayne Burdick points out that many yacht designers are surprised "if a boat comes within 1,000 pounds of her designed weight," because boats tend to put on weight in the production process. However, the weight target is critical to one-design racers, who expect a level field. Schmicker says that the collaboration between the Farr office, Beneteau production managers, and Sparcraft, which builds the mast and boom, yielded a prototype within 100 pounds of targeted weight, and the first boat off the production line was "spot on."

### **Deck Layout**

Like other aspects of the boat, excepting the massive wheel and location of the traveler, the deck arrangement is typical of many production boats.

Halyard and mainsail controls are led aft to Spinlock ST clutches on the cabintop. Jib and spinnaker sheets are led to Lewmar 48 and Lewmar 40 self-tailing winches. The solid vang is supplied by Sparcraft.

Cockpit seats are 19" wide, 15" high, and 52" long, and accented by teak veneer. Though the cockpit arrangement appears conventional, a Farr touch is that it is a convertible: Seats port and starboard with shallow storage compartments below may be removed to make space for sail trimmers, shortening seats 20".

Length on the centerline between traveler and companionway is 58", and the width of the footwell is 39". With room for the helmsman and a passenger in the stern, she seats seven comfortably in cruise mode, about what we'd expect in a boat this size.

From the perspective of a non-racer or shorthanded sailor, the big wheel is an obstacle in getting to the traveler, and the traveler is an obstacle in getting to the companionway or back to the stern. Singlehanders will need to be nimble, especially when trying to work the sail controls on the cabintop.

An excellent footrest provides a brace for the driver. An additional brace on the cockpit sole would increase crew comfort when heeled. An instrument pod at the companionway provides helmsman and crew with excellent visibility while avoiding the risk of the "kneethrough-the - instrument-lens" repair job.

Since the mainsheet is located at the end of the boom, it allows guests to sit in front of the traveler, or move below easily. That layout is a refreshing change, since many builders locate mainsail controls on the cabintop, with mid-boom sheeting. That compromise does prevent interference of the mainsheet with guests, but often at the expense of good sailtrim and efficiency.

Our test boat lives in rainy Washington, where year-round sailing mandates a dodger. Properly fitted, it doesn't interfere with movement of skipper or crew while underway.

At one end, the bow sports an anchor roller and locker. A foot brace molded into the foredeck, double lifelines, aggressively patterned non-skid, and a teak toerail provide a bowman with a safe working area.

At the other end, the stern seat is removable to ease boarding. A telescoping ladder, shore power, and cockpit shower are standard equipment. A liferaft can be stowed below the helm seat.

There's little storage in the cockpit, since quarterberths occupy spaces on both sides belowdecks. A small storage area in the starboard quarter provides room for fenders and lines. Most cruisers will sail with a genoa on a furler, and racers underway will keep sails amidships and forward, but still, a boat this size will always have gear that's best stowed in a cockpit locker or lazarette—bucket, hose, shorepower cable, maybe a grill, and so forth. Much of that will have to live below, and the smaller aft cabin is the likely candidate for "shed."

#### **Belowdecks**

The layout of the 36.7 is a smaller version of that on the 40.7. The saloon provides seating for six, and there are bunks for seven, but tall people's toes will be closer to the ends than they are on some comparable boats.

The appearance is traditional (that is, without the Philippe Starck stylized interior that Beneteau used on many of its boats).

The saloon measures almost 10' on the centerline. There's 6' 2" of headroom, and 8' of clearance between the settee backs. Settees are 6' 4" long and 2' 1" wide, and will double as berths if leecloths are installed.

The versatility of design is reflected in the saloon table: When in place it provides a surface for four to six diners; remove it, and its stainless steel support provides a foot brace for crew when underway.

Removal of the table also eases sail packing when in race mode. On our test boat, the brace also provided a space between settee and footrest for a 25-gallon plastic storage bin that holds lifejackets and crew gear. However, if the table is not stored in the garage, odds are it will be atop a bunk.

The L-shaped galley to port is small but adequate, equipped with a two- burner stove and double sink. A counter covers a 24" deep x 17" wide reefer located outboard that needs shelves or portable baskets to be organized. Storage is in enclosed cupboards with teak doors, and opening ports provide ventilation.

To starboard, the nav station faces forward and is fitted with wood cabinetry large enough for mounting electronics and fuse panels. The chart table measures 31" x 23"—large enough for use with a folded chart. Storage drawers and shelved compartments are below the chart table and navigator's seat. In a world in which gear expands to fill the space available, the well-organized skipper will find room for necessary gadgetry, but with little space left over.

The master stateroom is furnished with a V-berth measuring 6' 1" long and 5' 3" wide at the head. The cabin also has a hanging locker and shelves on the hullsides.

Since Americans' preferences in sleeping quarters differ from their French counterparts, US boats were reconfigured to suit the marketplace. Rather than having equal-sized spaces in the aft staterooms separated by a bulkhead on the centerline, the bulkhead has been moved outboard to starboard. As a result, the bunk to port is nearly queen-sized, while the one to starboard is basically a single quarterberth with some privacy—actually an ideal sea berth.

The head compartment on any three-cabin, 36' boat will be, at the least, a designer's challenge. On this boat, a clear choice was made, and the head is Lilliputian. With six feet of headroom, crew can brush teeth while standing, but showers will be taken while seated on the toilet with little space left for swinging arms. On the plus side, small head compartments in which elbows and knees can be wedged against bulkheads are best in a seaway (if any head in a seaway can rate above "dismal"), and this space is shiny fiberglass, vented overhead—so it will be low-maintenance.

#### Construction

Since Beneteau promotes the 36.7 as a one-design racer, it's being produced with close scrutiny of the weight and application of raw materials. Boats are constructed to CE Class A requirements for unlimited offshore use.

Mike Thoney of Beneteau says the laminate, laid up behind the gelcoat with glass and vinylester resin, is pre- cut to assure proper dimensions. Beneteau has discontinued use of the Beneteau Underwater System in favor of vinylester resins designed to prevent osmotic blistering. The company is mixing resins to its own formula. Mike Thoney declined to provide details about the mix.

Internal structure is a one-piece grid used in most models that reinforces the hull and distributes mast and keel loads. It also provides a bed for bulkheads and furniture, engine mounts, keel, chain plates and tankage. Bulkheads become part of the structure when they are bonded to both hull and deck. Chainplates are attached using tie rods molded into the grid system.

The hull-deck joint is an inward- oriented flange onto which the deck is laid and secured with PU 501, a proprietary polyester glue, and mechanical fasteners through-bolted through deck and toerail.

"The deck is laid up with a skin coat, layers of precut fiberglass, and cored with balsa," Thoney says. "Hardware is all bolted through solid glass and secured with backing plates. Where it goes through coring, the coring is removed and replaced with fiberglass. Backing plates for stanchion bases are bedded in putty to avoid movement. Engine mounts are through-bolted and secured with backing plates and nuts."

On our test boat, 31 keel bolts and plates designed to disperse loads were easily accessible in a shallow bilge. A robust mast boot prevents water from intruding. In the three rainy months before our inspection, no water had appeared in the bilge. Water and fuel tanks are form-fitted to beds and secured with stainless steel rods. A holding tank is held in place by straps.

Joe Foss, service manager for Beneteau USA, described three post-production problems:

First: "The Edson steering system was designed with a short drag link that inhibited steering, depending upon the angle it met the wheel during the commissioning process. When several boats experienced the problem, the link was lengthened. A repair kit was distributed to the owners of hulls 1-33."

Second: "A washer at the stemball on one of the shrouds (D-2) was so small it pulled through the spreader bar. Though the problem was encountered only on one boat, hulls 1-43 were examined and found sound."

Third: One of the boats experienced a broken spreader bar. Since the same spreader is used on the 40.7 and 42.7, and more than 11,000 have been produced with no failures, Foss considers this an anomaly.

## Performance

During a test sail near the Olympic Peninsula, we immediately discovered that she's a responsive yacht. She easily backed out of the marina into a three-knot current with wind on the beam. A 29-horsepower Volvo sail drive provided quick acceleration and produced a short turning radius.

Crewed by a 62-year-old retiree and his small wife, sailhandling proved easy, with an autopilot holding her nose into a stiff breeze. We sailed with 12-13 knots displayed on the wind indicator with full mainsail and 105% genoa. The helm was perfectly balanced, though she felt slightly underpowered.

In 15 knots of wind, we sailed closed hauled at six knots. Footing off to a beam reach, speed held steady at 7.2-8.0 knots, and we steered with two fingers. As we sailed down below a broad reach, speed dropped to 5 knots. In these conditions, a shorthanded crew could hoist an asymmetrical spinnaker and keep the speedo scrambling.

#### Conclusion

With more than 100 boats sold since its US introduction, the 36.7 is already a success. The base price has increased approximately 10% since its introduction, to \$135,000, sailaway, FOB the factory. However, an autopilot adds \$2,065; an electronics package with VHF, Raytheon ST60 Tridata, and wind instruments \$2,155; and Harken split- drum roller furler \$1,695.

For racers, spinnaker gear and an aluminum pole will add \$2,505 to the pricetag; a carbon pole adds \$1,145.

We suspect that the J/109, mentioned earlier, would be natural competition for this Beneteau, both for one-design fleet racers and performance cruisers. Compare some of the J boat's specs—LOA 35' 3", LWL 30' 6", beam 11' 6", standard draft 7', DSPL 10,500 lbs., SA/DSPL 21, DSPL/L 165—to the Beneteau's numbers on page 17. By those numbers, the J is just a trifle more moderate, and quite a bit higher priced at \$165,500 for the base boat. That price differential may have to do with costs associated with the SCRIMP building technique used by J-Boats, or with differences in standard hardware and fittings, or maybe with economies of scale—although J/Boats is hardly a low-production builder.

But back to the 36.7. She's quite nimble. She goes faster and points higher in light air than standard production cruising boats her size. As a racer she'll be competitive in a one-design or handicap environment. Beneteau has laid out restrictive one-design fleet rules designed to control cost and promote competition among amateurs. There's an "owner-driver" rule, and boats may not be stripped of standard equipment for racing purposes. Sail inventories are limited to four sails that can only be replaced at 12-24 month intervals.

This enhanced performance, combined with comfortable, functional accommodations and a good price, should attract a broad-based market. She won't be as comfortable as a full-keeled cruiser when pounding into big seas, but the adaptable sailplan will allow a shorthanded crew to fly big genoas on a furler easily, or an asymmetrical spinnaker almost as easily as a sprit boat—as long as they're nimble enough to jump around the wheel and over the traveler.

The lack of cockpit-accessible stowage space is a shortcoming, partly balanced by the good sense of the aft cabin arrangement below. The size of the head compartment really is a matter of preference, and on a race boat or offshore boat, small is fine. Belowdecks, owners will more likely curl up with a book than a television remote, and that, too, is fine.

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