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**THE VIKING
58' CONVERTIBLE**



viking 58 



BIGGER AND BETTER

Some small changes add up to a big difference in the new Viking 58, Michael A. Smith reports.

A couple of years ago, Viking Yachts introduced a top-of-the-line convertible, the 57C. The boat was a big hit with sportfishermen, cruisers, and editors; however, the Viking folks didn't join the ranks of the premier yachtbuilders in America by resting on their laurels, so they started tinkering with the 57C, trying to make it better.

By the time they finished, they had built a whole new boat. The new 58 Convertible is obviously an offspring of the earlier model, but with a number of subtle improvements over the 57.

First, the new boat is bigger and her volume is redistributed to enhance the cabin arrangements. The guest stateroom, forward, is only 10% smaller than the similarly located master aboard the 57C. Viking's designers increased the flare in the bow sections to expand the usable volume of the forward cabin; the added flare also knocks down spray, keeping the decks, flying bridge, and crew dry.

At the same time, the company changed the stem angle

We photographed a 58 "out of the box" in Florida. That 165-square-foot cockpit allows plenty of room for tricking out.

FOREST JOHNSON

and sharpened the entry; this improved the boat's rough-water performance. The reduction of the underwater sections of the hull has very little effect on usable interior volume this far forward.

The master cabin aboard the 58C has a walkaround, king-size berth, two night tables, a credenza with three drawers, and a double-sized, cedar-lined hanging locker. An entertainment center with color TV is standard. Both the master and guest staterooms have private heads with molded countertops and sinks, stall showers, medicine cabinets with mirrors, and vinyl soles; the master has a full-size linen locker, too, hidden behind a full-length mirror.

Opposite the master stateroom is crew's country (or a second guest stateroom), with upper and lower berths and a hanging locker (also cedar-lined), a head, and a locker holding a stacked washer and dryer.

The changes don't end on the lower deck—the saloon and galley have also been upgraded. While preserving the basic layout of galley "up" to port, with dinette opposite and a large L-lounge aft, Viking moved the companionway about one stair-width to starboard. This robbed some space from the saloon dinette and the crew's cabin below, but resulted in an additional 20% of counter space and 30% more stowage in the galley, while providing extra volume in the master stateroom.

Viking decided that six berths were enough, and opted to build rod stowage rather than a fold-out berth under the L-shaped lounge; both legs are similar in length, which means lots of seating as well as lots of rods. Just across the saloon from the sofa, adjacent to the cockpit steps, the entertainment center and wetbar with icemaker are within easy reach.

The Working End

Dazzled by the living arrangements, an inattentive observer might forget that this is a sportfishing boat—most of the action takes place in the cockpit. Viking's design and management teams fish dozens of tournaments every year as research in a constant effort to improve the boats.

A good cockpit is uncluttered. The Viking 58C has the ancillary gear tucked up against the deckhouse bulkhead; here you'll find a chill box, bait-prep center-sink, freezer, and enough drawers for artificial lures, hooks, leaders, and so forth. When fishing is over, fiberglass lids turn this unit into an off-white monolith that blends unobtrusively into the cockpit.

In the saloon, the clear acrylic coffee table is optional—it matches the dinette table.



INTERIORS BY DAN FORER





The engine room door is part of the structure, too, and the whole thing is molded integrally with the rest of the deck laminate, so there are no joints to crack, squeak, or trap dirt.

There must be enough room to work: The 58C's cockpit has 165 sq. ft. of usable space, with an 8'x2'x20" deep fishbox running athwartships under the sole. This may be refrigerated. Aft of the fishbox, a smaller under-sole locker can be plumbed as a live well. Naturally, there's a transom door and gate for hauling the catch aboard, and salt- and freshwater washdowns for cleaning up afterwards. Except for the treads on the flying-bridge ladder, there's no teak to clean, and most metal parts are powder-coated for minimum maintenance.

To improve the boat's handling in the heat of battle, Viking's designers added some athwartships curve to the transom (in plan view), while radiusing the corners more than on the 57C. This makes the new boat handle better in following seas, and take aboard fewer gallons of seawater when backing down hard. It was expensive to make this minor change—it involved altering the mold, a labor-intensive project demanding skilled hands—but it's also indicative of the lengths to which Viking will go to build the best boat they can.

Built And Overbuilt?

Once at sea, all the design brilliance in the world won't help you if your hull is as limber as a soggy Cracker Jack box—

boats that work, twist, and bend at sea develop all kinds of problems, both cosmetic and structural. Sportfishermen like the 58C are regularly subjected to adverse conditions, so they must be stoutly built. Viking's construction philosophy is simple: Use the best materials, assemble them skilfully, and once you think you've used enough, add a couple of extra layers.

To resist water penetration, the company uses an isophthalic NPG gelcoat backed up with a skin of chopped strand mat and AME 4000 modified-epoxy resin in the hull. Coremat is used in the topsides for a perfect final finish, then layers of stitched bi-axial fabmat are laid-up using a premium polyester resin—areas like the shaft logs, strut recesses, and so forth, get extra reinforcement.



The master stateroom (left) has a standard make-up center. In the galley (right), Viking beefs up the shelves of the 20-cu.-ft. fridge so they can support extra weight.



The hull sides, above the chines, are cored with Baltek's Contourkore end-grain balsa, followed by more fabmat. The deck, deckhouse, flying bridge, helm console, and cockpit sole are also Baltek-cored, and Corematted where necessary for cosmetics.

While this is good construction, it's not much different than that used by several of the top boatbuilders—however, while most builders wet out several layers of laminate in succession, Viking craftsmen do it one layer at a time, allowing each to cure and then sanding between applications. The company feels that this increases the bonding between layers while preventing deformation of the laminate due to the excess heat build-up caused when multiple layers of polyester-soaked

T H E B A S I C S

VIKING 58 CONVERTIBLE

Boat type: convertible sportfisherman

Standard power: twin 1,100-hp MAN D 2842 LZE's

Notable standard equipment: Hydraulic hydraulic controls and power assisted steering; Onan 20kW genset w/ control panel; Delco maintenance-free batteries; oil add/change system; Glendinning cable master and engine synchronizer; recessed, dual-ram trim tabs; entertainment system w/ color TV, VCR, am/fm/stereo cassette; central vacuum system; washer and dryer; dishwasher; Cruisair reverse cycle A/C; tackle cabinet in cockpit w/ sink, freezer, bait center and chill box; VHF radio; Datamarine/knotmeter/log/depthfinder; Sealand VacuFlush heads.

Notable optional equipment on test boat: engine room mechanical gauge package; Rupp triple-spreader outriggers; fiberglass hardtop; 6-rod rocket launcher; Datamarine Link 6100; Icom M120 VHF.

Hull type: modified V

Designer: Viking Yachts design team

Construction: Fiberglass w/NPG gelcoat and AME 4000 modified epoxy-resin skin coat to resist osmosis; bi- and tri-axial fabrics; Baltek end-grain balsa coring in hull sides, decks, and cabin house; solid bottom; keel and chines; pulpit, foredeck deckhouse, cockpit and tackle center laid up as one piece; stringers

and bulkheads of multiple layers of 7-ply marine plywood, fiberglass encapsulated; engines mounted on I-beams between "dedicated" bulkheads; four longitudinal stringers.

SPECIFICATIONS

LOA: 58'11" **Beam:** 18'0" **Draft:** 5'3"

Approximate displacement: 81,500lbs.

Bridge clearance: 1'4" to top of flybridge windshield

Usable cockpit area: 165 sq. ft.

Maximum saloon headroom: 6'7"

Fuel capacity: 1,500 gal.

Water capacity: 260 gal.

Sleeping capacity: 6 in three cabins

DRIVE TRAIN

Test Engines: twin 219-litre MAN D 2842 LZE V-12 diesels, 1,100 hp each.

Transmission: ZF 16.5

Reduction ratio: 1.5:1

Propellers: Rollo 30x34; cupped three-blade w/high blade-area-ratio

Steering: Hydraulic power-assisted hydraulic

Controls: Hydraulic hydraulic

Trim tabs: Bennett, recessed, dual-ram

TEST RESULTS

Test conditions: temperature: 70°; humidity: 60%; wind: light; seas: calm; water temp: 66°F; depth: 12'-15'; load: 1,500 gallons fuel, 260 gallons fresh water, three persons, and average gear

Indicated rpm	mph	(knots)	Total gph	mpg	(nmpg)	Usable range (miles)	Decibel level at helm
600	8.4	(7.3)	4.2	2.0	(1.74)	2,700	71
900	12.7	(11.1)	15.2	.83	(.73)	1,128	77
1200	17.3	(15.0)	33.0	.52	(.45)	708	80
1500	24.7	(21.5)	47.0	.53	(.46)	709	82
1800	31.5	(27.4)	65.0	.48	(.42)	654	85
2100	37.5	(32.6)	89.0	.42	(.37)	569	90
2350	42.0	(36.5)	125.6	.33	(.29)	451	87

Speeds are two-way averages using trim tabs as appropriate, measured by K-15 digital radar gun. Fuel consumption measured with OZL meter. Usable range is 90% of total advertised capacity. Decibels measured on A scale using GenRad GR1565-B acoustical meter (as a reference, 60 dB is the level of normal conversation).

laminated "kick" at the same time.

Before the hull is popped from the mold, an elaborate "egg crate" network of bottom support, including diagonal stiffeners, is glassed in place. Bulkheads and stringers are built from two layers of 1/4" plywood stapled and glued together, then fully encapsulated with two layers of fabmat. Once everything is in place, the inside of the hull is gelcoated from the keel to above the waterline to guard against moisture intrusion from within.

The 58C is built with a one-piece deck assembly that incorporates the pulpit, deck, deckhouse, tackle center, and cockpit; since joints are a potential source of weakness, Viking does away with as many of them as possible. The hull-to-deck joint is bolted and fiberglassed.

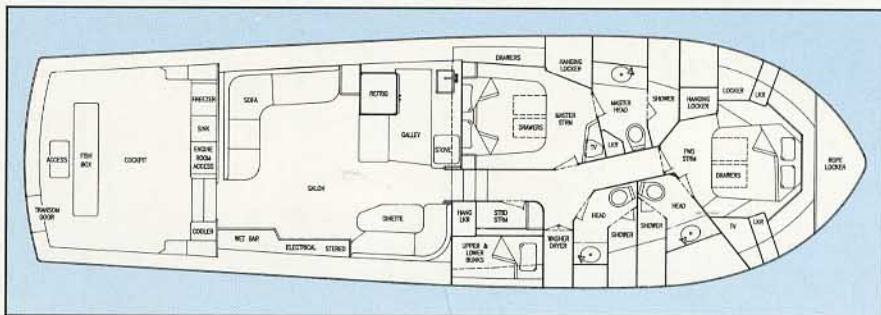
It's A MAN's Job

Standard power for the 58C is a pair of DDC 12V-92TAs (1,080 hp each), but the test boat had a pair of MAN's brand-new 1,100-hp D 2842 LZE diesels, the first set in this country. While the difference in horsepower between these engines might not seem to warrant the \$46,000 premium for the MANs, the difference in weight is remarkable: 6,300 lbs each, dry, for the Detroit's against 3,500 for the MANs—that's a 2.5-ton weight saving.

In a departure from standard practice, the ZF 165 gearboxes aren't bolted to the engines, but coupled to them by a short, heavy driveshaft. The gearboxes are hard-mounted to the engine I-beams for positive shaft alignment, while the diesels sit on "cushy floats" that absorb vibration or torsion-induced movement.

The engines and gearboxes rest on Viking's by-now-famous I-beam engine beds. Rather than build the beds atop the inboard longitudinal stringers, Viking adds two intermediate "dedicated" bulkheads just inside the main engine room bulkheads, then spans the space between the intermediates with two deep, powder-coated steel I-beams. Consequently the engines "float" above the bottom, the I-beams, rather than the hull, absorbing most of the vibration and stress.

Viking has taken great pains to improve the environment in the engine room. Instead of a deck-beam-and-plywood saloon sole, Viking uses a fiberglass sandwich, vacuum-bagged around Baltek's D-100 end-grain balsa and gelcoated top and bot-



tom. The structure is then glassed to the hull sides and bulkheads, making only a couple of vertical supports necessary.

Although the MANs are big engines, there's room for even a husky editor to move easily all around them, with enough clearance between the diesels and the hull sides to work comfortably, a blessing that's too infrequent aboard boats of any size. The 20-kW Onan genset sits aft of one MAN, with room for a second generator opposite. Two fiberglass waterlift mufflers quench exhaust noise before it gets a chance to leave the engine room.

The level of engineering is in keeping with that of the rest of the 58C, but a few things are especially worthy of note: First, everything is labeled—even the most obscure seacock is clearly marked with a readable plastic tag affixed to the hull. Second, the seawater intakes have emergency bilge-water pickups Y'd into them. Finally, each engine has a pair of Dahl primary filters, parallel-plumbed so that either one can be cleaned without shutting down the engine.

The Blade Runner Of New Gretna

Getting 1,100 hp into the water efficiently is more problematic than most people think. High-horsepower engines like the MANs load the prop blades so heavily that it's common for cavitation to start before the maximum hp is reached, resulting in severely reduced performance. (This problem isn't restricted to MAN diesels—it's a function of horsepower, allowable propeller diameter, boat speed, and about a zillion other factors.)

The common solution is to use props with wide blades, built to exacting specifications. To ensure that no prop is installed on a Viking that isn't up to spec, the company has invested in an expensive gadget called a Blade Runner (only three are in the U.S.). Coupled to a PC, this

super-accurate measuring device checks prop diameter, overall pitch, local blade angle, balance, and tracking—how closely one blade follows another. The results are disturbing.

Although Viking buys its propellers from the country's top manufacturers, 40% are rejected. The logical conclusion is that an awful lot of inaccurate propellers wind up on the end of prop shafts.

In order to get sufficient blade area for the 58C's power, Viking started out by buying props larger, and with wider blades, than the 30x32s recommended by the design team, and trimming the tips; this procedure gave good results, but not the performance the company wanted. They then ordered a pair of three-bladed 30x34 Nibral props from Rolla, the European company that supplies the fast-megayacht trade. Rolla is used to such problems, and custom-builds props for any application—at a price. In this case, the 58C is carrying almost \$5,000 worth of Nibral at the end of each shaft.

Is it worth it? Well, our 58C leapt to a top speed of 36.5 knots, almost three knots faster than the pre-Rolla trials. Not only is the boat fast, but she makes a quantum leap from idling to planing, leaping over the hump so fast that the crew isn't even aware of it.

Once up and running, the 58C is an overgrown sports car, turning 180° within a couple of boat lengths even with the throttles on the firewall. Vikings have a reputation among their owners for being good seaboats, and the 58C's hull is typical of the breed, with double chines, 17° of deadrise, and a flat planing surface aft.

All in all, a nice package. The 58C is proof positive that, in boatbuilding as in real life, little things do mean a lot. □

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