

# FLYING SWANS

From a little boatyard just south of the Arctic Circle in Finland come hand-crafted yachts called Swans which are luxurious, very expensive, good in hurricanes and damn fast in any kind of weather

A

hard-sailing man named Eric Swenson, who thrives on rough weather, once got into trouble in moderate seas when fog smothered Cape Breton and he ran aground on a shelf of solid granite. For 20 minutes, the relentless waves tossed his yacht up a couple of feet and dropped it, with a sickening crunch and squeal, down on the rock. But when he finally cleared the reef to safe Channel waters and was able to check the keel, there wasn't a single leak, split or shattered joint anywhere.

Swenson, vice-chairman of W.W. Norton publishers in New York, was at the helm of a Swan 47, a boat he's raced in every kind of weather for seven years, and one with a reputation for extraordinary durability, state-of-the-art craftsmanship, and tearing speed. Leaving a small margin for the inevitable argumentative cranks, Swans are considered to be the finest series production sailing yachts for extended cruising and racing in the world. They consistently are among the top finishers in the punishing eight-month, 27,000-mile Whitbread round-the-world race. They are also good at more modest adventures.

"Our best sail ever was taking the 46 from here down to the British Virgin Islands," recalls Richard Bartley, a physician from Virginia. "We skirted the edge of a hurricane, then headed south with it behind us. The boat handled just beautifully, and we averaged 200 miles every day for four days straight." Nonetheless, Bartley admits to preferring the more sedentary aspects of his Swan. "If you ask me when it's really at its best, it's when you get into the dinghy and row away from it to look at it. It's a pretty boat."

Indeed, Swans are the farthest thing from stripped-down speed machines. Somewhere in the world today there's a Swan with a Picasso hanging on one of its bulkheads, and





*Swan 46: At the moment, the sea is the art in its class.*

SWAN 46



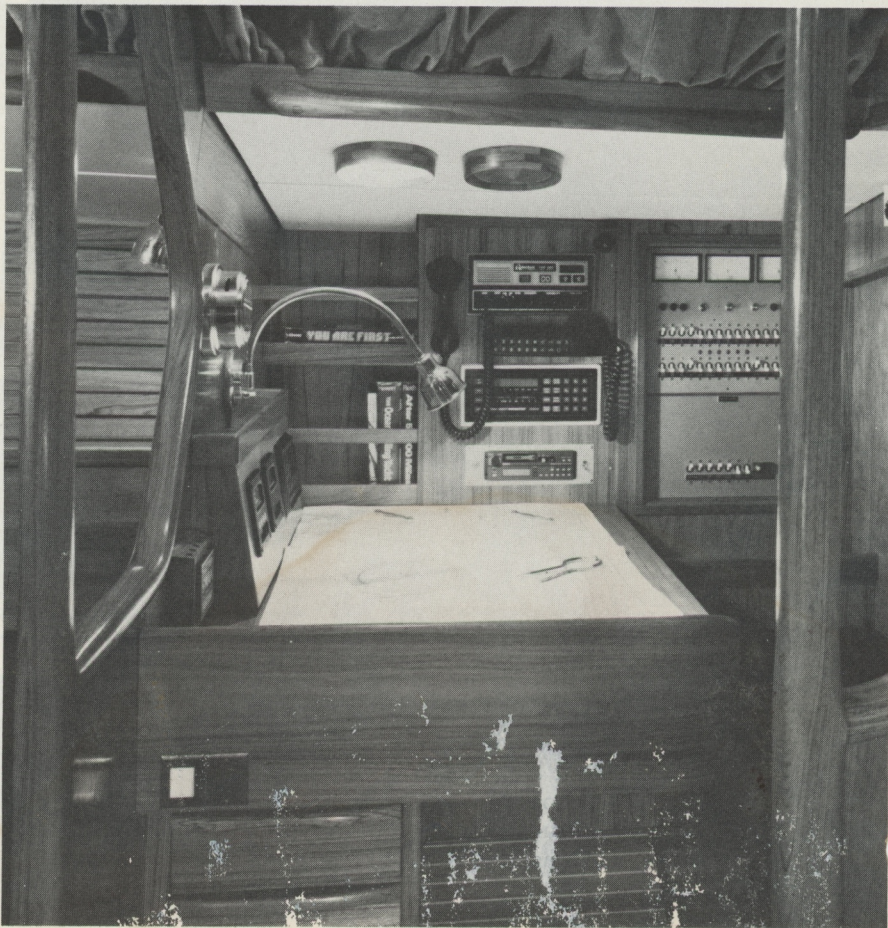


Swan 43: "We want the most elegant boat, but not at the expense of function."

another with a museum-quality antique Chinese bronze under spotlights in the main salon. Bartley recently traded his 46 for a Swan 59 and sailed it home from the factory in Kolppi on the northwest coast of Finland, not far from the Arctic circle. "We docked in Deauville on the way back, to spend a few days in Paris," he says. "But we decided the boat was more comfortable than the hotel. We were more than happy to get back on it."

Over lunch in the company cafeteria at Nautor, the company that manufactures Swans in Kolppi, the executives who have to cope with a client's modern masters and precious *objets* (and they really have been confronted with a Picasso and a bronze and more) like to say how those incidental decorative touches can wind up costing more than the boat itself. A medium-size production yacht—one, say, of 46 or 53 feet—is priced between about \$500,000 and \$1,000,000. With extras, tickets can easily climb \$100,000 to \$150,000 higher.

The price, which admittedly is not in every seaman's league, partially explains why only 1,400 Swans from 37 to 76 feet have been sold since Nautor was founded in 1966. That they are almost entirely handmade by a force of 280 artisans explains the rest.



The navigation area of a Swan 46



"A Swan consists of basically two things: strength—otherwise we couldn't sleep at night—and beauty," says Ingmar Granholm. Among the many exceptional things about Nautor is the fact that its marketing manager, Granholm, is also a naval architect. "Beauty means the top designers—Ron Holland, German Frers, Olin and Rod Stephens. We want the most elegant boat, but not at the expense of function. To some extent, function makes us compromise. Like everyone else, we are after lighter, stronger, more modern yachts, but not until they're tested and proven. If it's just a trend, we're not interested."

**N**autor assumes a customer knows what he wants but that he may not know how it should look or how it can be realized. "That's when we want them to rely on us," says Granholm. "When I meet a client, I want to know what his expectations are, how he is going to use it. People buying a Swan, they're supposedly buying a dream, not a nightmare."

For Max Mehlberger, a lawyer from Little Rock, Ark., his Swan 38 proved its mettle not by winning a Marion (Mass.) to Bermuda race in 1985—which it did, handily, thanks to a strategic tack far west of the Rhumb line—but during a pleasure cruise from there to Antigua the following fall which almost turned into a bad dream. "We were in the middle of November, late in the season, when it ought to be perfect," recalls Mehlberger, "and we ran into a hurricane called Kate. No one knew she was there. The weather forecasts all said perfect sailing, right up until we found ourselves in 50 knots of wind and they put a name on the sonof-a-bitch. We had to battle the hurricane for about 24 hours, and there's no other boat I'd rather have been in."

"We took a rather aggressive tactic that this boat allowed us to do. We were 138 miles northeast of the eye when the storm consolidated, but hadn't yet moved. The book tactic would be to sail northeast, to avoid it, but if the storm moved in that direction, it'd be right over us. Instead, we sailed southeast, across the back of the storm (hurricanes turn counterclockwise) making 10-12 knots on a close reach, with a triple-reefed main and a #5 jib, running against the waves."

## SWAN LAKE

The Whitbread Round the World race may be the toughest ocean contest there is for fully crewed yachts. The race runs from Portsmouth, England, to Cape Town, South Africa, then to Auckland, New Zealand, Punta del Este, Argentina, and finally back to Portsmouth. In the first Whitbread, a 65-foot Swan production yacht called Sayula II, skippered by its owner, Ramon Carlin, placed first, beating out numerous boats which had been designed and built specifically to compete in the race.

Swans have also done well in succeeding Whitbreads. In the second, 1977-78, Swan 651's—King's Legend skippered by Nick Ratcliff, Disque d'Or skippered by Pierre Fehlmann, and ADC Accutruc skippered by Claire Francis—took second, fourth and fifth places.

In the third Whitbread, 1981-82, Xargo III, a Swan 65 captained by Padda Kuttel, placed sixth, while a modified Swan 57 under Peder Lunde placed eighth.

In the fourth and most recent Whitbread, which started in September 1985 and finished in May 1986, a Swan 651 placed third overall and first among production yachts. The Fazer Finland, skippered by Mickey Berner, had a complex system of transducers attached to it to see how the hull and rigging reacted to stress, which was measured at 16 points, making the yacht a floating testbed for recording dynamic sailing loads. Nautor says as a result it has more information about the performance of its boat in the race than any of the other entries have about theirs.

The Fazer Finland is almost standard except for an elliptical keel and rudder, narrow triple spreader rig and stripped-out interior.



*Swan 651: A tough boat for one of the toughest ocean contests, the Whitbread.*



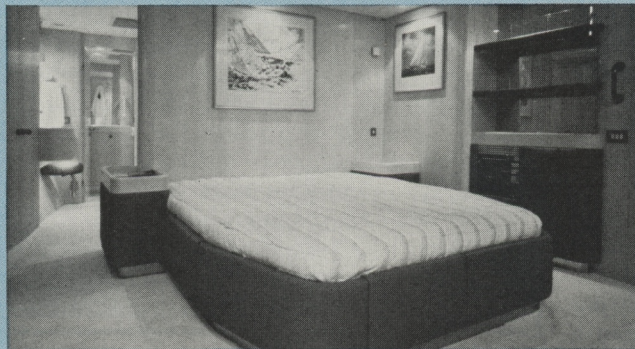
# MR. BURDA'S DREAMBOAT

Nautor signed the contract for its first one-off sailboat in October 1984 and delivered it exactly two years later to the day, as promised. The brief was for a fast and comfortable luxury cruising yacht with power-assisted sail handling, shallow draft and ample engine power. The client, German publishing magnate Franz Burda, had already owned two Swans, was crazy about them, and thought he could do no better than to enlist Nautor to build his 102-foot dream boat, which he christened Garuda.

The Burda boat has a gross weight of 165 tons, and mast step and chainplate loads are taken by a ring frame construction of aluminum alloy. The deck gear was chosen to enable a small crew to manage the sails (which have electro-hydraulic furling) comfortably. Power winches (Lewmar 120 selftailers with servo jaw and backwind facility) are used for the primaries, secondaries, main



*The 102-foot Garuda: The biggest boat Nautor ever built.*



*Garuda's interior: Luxury piled on luxury.*

sheet and two halyard winches. The 550 hp. turbo-diesel engine is by Wize-menn; the keel is a Scheel.

Inside the yacht, luxury is piled on luxury. Crew quar-

ters are separate and include their own entrance, galley and mess. The owner's galley is part of the salon but can be closed off with an electric roller blind. All the visible

joinery is beechwood, and deck hatches feature pull-out mosquito screens and night blinds. In the owner's cabin the hatch is electric and remote-controlled. The galley is outfitted with eight refrigerators (two with canned drink dispensers) and three freezers. And the sink has a garbage mill. Garuda also has an 800-gallon water capacity supplying a whirlpool bath and five separate shower units.

As if all that were not enough, the biggest boat Nautor has ever built is equipped with color radar—interference rejector, collision alarm, video plotter, cockpit monitor and all. Thirteen intercom stations facilitate communication, and five stereo systems and three multi-standard TV-video sets facilitate fun.

Nautor won't say how much it charged Burda for all this, but it does admit a boat this size with similar specs would cost between \$5 million and \$8 million.

Except for a few opened seams in the mainsail and a lost cowl vent, the boat pulled through without any damage, and Mehlburger continued on to his destination. "We circumnavigated Antigua, and had a lovely trip once we got through with Kate."

Swan hulls have no cores, importantly, and are laid up completely by hand in solid fiberglass. Strength and lightness equal to that of a yacht with a core are achieved by stiffening the hull with a grid of closely spaced horizontal and vertical foam beams laminated with fiberglass. The resultant panels measure not more than half a square meter, and the system provides support for bulkheads and major pieces of furniture that might otherwise print through the hull, creating an ugly weak spot.

Nautor also bonds its bulk heads into a fresh, newly laminated hull, a method that results in a chemical reaction, and therefore a surer bond, than an adhesive reaction. Another branch of company philosophy holds that, to insure shape, a hull should be "cured" in its mold. For the same reason, gridworks are put in before the hull is unmolded. Granholm recalls the disastrous time a boat was pulled before they were put in and the hull deformed under its own weight. You never stop learning, he says.

In recent years, Nautor has learned a lot, in particular, about the mast step. In newer models it is integrated into a complex metal floor grid. The benefits are a hull that is less flexible against the torquing of the keel, and wider distribution of the mast load.

The sophisticated mast step built into the price of a Swan, of course, but Nautor management hasn't succeeded

in passing on the tremendous cost of custom-anodizing all metal parts, both inside and outside the yacht, to the client. "It's terribly expensive. Because we don't have the volume, it doesn't pay for itself," laments Granholm. "But it's absolutely necessary for the quality of the product. There are seven baths in all, and we start by degreasing. At the end there's a 20-micron thick layer of very hard aluminum."

According to Gunnar Ost, head of quality control, Swans are so meticulously inspected at every stage of production that very little comes out of the final test. "We may find an extra hole here, been drilled, a fitting without a seal, a hole in the floor, a pump running in the wrong direction, but nothing major," he says.

In the test tank, the deck is flooded during a simulated down shower, with water pouring down in search of leaks at the rate of 20,000 liters per minute. All



mechanical functions, from bilge pumps to seacocks to the engine, which can be run at full power, are also checked there.

**F**ew deck leaks are ever discovered, thanks to a system of laying the scrupulously edited Burmese teak without screws except for the covering boards and king plank. The plain thinking is, the fewer drill holes, the better. The majority of the wooden strips are glued to the deck under pressure with epoxy. The method was tested for two years before it was put into production. Granholm remembers simulating freezing, hyper-heating and drying in an effort to provoke a separation. He never got one.

For Lars Strom, engineering manager of Nautor's nine-man design team, the hallmarks of a Swan are strength, integrity, safety and good design. "The boat should be beautiful to look at," he insists. "But if you design one purely to fit regulations, it will not be very beautiful. We are not slaves to rules."

Nautor excels in customizing—unless the customer is asking for modifications that will weaken the boat, such as a propeller in the front of the craft, he can have virtually anything he wants. Granholm remembers the Swede who demanded a galley apart from the salon. "Maybe the cook was ugly," he cracks, "or the owner didn't like the smell of garlic." Whatever, the company complied with a very effective partition.

Air conditioning is becoming more of a popular extra, not to mention washing machines and dryers, dishwashers, compact disc and video players, freezers that can handle half a cow, saunas, safes—you name it.

But when Nautor feels it knows better and its integrity is at stake, the firm tries hard not to be a slave to its clients. When a bump on the hull is ordered in the interests of a better handicap, Strom winces. Bumps are cheating, and he is not a cheater.

Since the men who design Swans work for Nautor on a commission basis only, which means they also do for the competition, a big part of Strom's job is making sure Nautor yachts wind up looking superior and performing better. "Taking the basic design from the big names and doing the details," he says.

His office turns out 1,000 drawings



*Swan 391: Every Swan is hand-wrought by 280 artisans.*

for every yacht. "Superficially and from a distance, yes, a Swan clone—and there are many—is the same as a real Swan. But not when you look closely. That's a concern of ours now, which is one of the reasons we started a one-off department. In principle, for one-offs the drawings are the customer's property."

Strom doesn't discount the notorious Finnish climate when trying to account for what makes the Finns such great boat builders. The winters are as brutal as they are long, and constructing yachts, after all, does give the warm place to pass the workday. "The Finns are considered to be rather

introverted and to have a rather 'long spring,' meaning they can do a job that takes a long time without getting bored," he suggests. "And they like to do it well because it represents Finland out in the world."

When Swans are criticized, it is usually for their heavy build (despite Nautor's protestations), price tags, and general conservatism. "But," says Granholm, "if you look at it over a period of three to five years and include secondhand value, I don't think we have an expensive boat."

"Besides," he adds, "a Mercedes is not a Ford."

—CHRISTOPHER PETKANAS