PHOTOS BY MARIANNE SCOTT EXCEPT WHERE NOTED

Hanse

The story of the rapid emergence—and increasing international reach—of a privately owned sailboat-production company situated in the former East Germany.

by Marianne Scott

A few years ago, Michael Schmidt, owner of Hanse Yachtzentrum in Greifswald, Germany, watched his 11-year-old daughter, Rebecca, sail a dinghy with great competence. "Gee," commented a friend observing Rebecca's maneuvers, "I guess she learned to sail from her Admiral's Cup-winning father." "No," Schmidt replied, "she doesn't know much about sailing. But her dinghy, with its blade jib, makes it simple."

That minor event influenced the overall design of Hanse sailboats. Schmidt resolved to build boats that were not only fast but could be easily sailed by the entire family. He retained the Judel/Vrolijk design office (Bremerhaven, Germany) to help him develop yachts that would handle like his daughter's dinghy. The result is a series of performance cruisers with a number of convenient features that include a self-tacking furling jib and fully battened mainsail, a rod-link steering system, and roller bearings on the rudder shaft. This year, Schmidt will build about 400 boats at his 25-acre (10.1 hectare) manufacturing facility on the Ryck River, just a couple of miles from the Baltic Sea in what was East Germany until 15 years ago. Schmidt's Hanse Yachtzentrum offers an outstanding example of how some businesses in this recently communist country are embracing the entrepreneurial spirit of capitalism—and are flourishing.

Boatbuilding and Politics

It's impossible to describe the founding and growth of Hanse without discussing the impact of the plant's location and the politics of German reunification. Greifswald, founded by Cistercian monks in 1199, has a present population of roughly 53,000; it is three hours by car north of Berlin. During the Middle Ages, the town established a university, became an active trading port, and joined the Hanseatic League—a highly innovative group of merchant associations in European cities fronting the Baltic. The League eventually included member communities as far away as Norway, the Netherlands, and Belgium, and provided a measure of

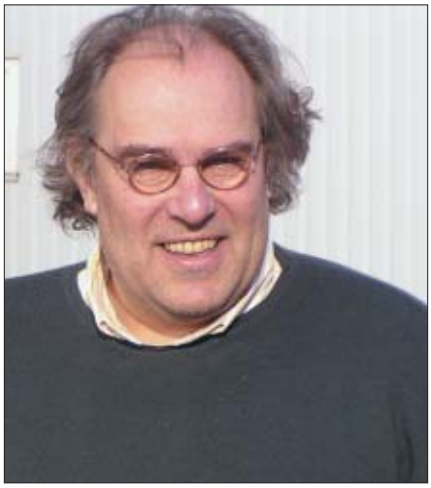
free trade and insurance in the perennially risky business of import-export. Today, when you enter Greifswald's city limits, a sign proudly proclaims it as "Hansestadt Greifswald." (*Stadt* is German for "city." By christening his sailboat series "Hanse," Schmidt invokes the term's mercantile and cultural heritage.) Through the centuries, boatbuilding, fishing, and trading supported the town, and a flock of vintage vessels moored at the river's edge attest to its commercial past. Luckily, the town escaped destruction during World War II; its city center is graced by well-maintained medieval town houses and churches. The city also avoided the dreary, concrete-block, urban-renewal look so ubiquitous in the former Eastern Bloc countries. During Greifswald's 45 years in the communist German Democratic Republic, its growth was limited. Currently, the town is trying to shrink its 17% unemployment rate—one of the unwelcome legacies of the GDR era.

But without such legacies, it's unlikely that Michael Schmidt could have purchased the property that houses the antiquated Volkswerft Stralsund, a boatyard dating to 1879 and known for its commercial vessels and repair facilities, along with the occasional construction of a yacht. It's as if all of Schmidt's previous life experience had prepared him for investing in the former East Germany and launching an enterprise that has made his firm the second largest production builder in Germany, after Bavaria Yachtbau in Giebelstadt. He quips that if you count Bénéteau and Jeanneau as one company (because Bénéteau owns Jeanneau), Schmidt's operation is the third largest sailboat company in Europe. And he's achieved that growth in just a dozen years.

The Founder

I'd become interested in Hanse after reading several magazine boat-reviews. Then, after discussions with several German friends, I was curious to discover how a modern yacht yard could grow so fast in a former communist environment. So I took advantage of my husband's lecture trip to Germany, and visited the Hanse plant on the Baltic.

When I first met Schmidt, I asked him for his business card. He pulled a fat wad of paper out of his pocket and riffled through note scraps, receipts, euro bills, his driver's license, credit cards, and other people's



Above—*Hanse founder-owner Michael Schmidt, an avid racer as a young man, sold his Hamburg, Germany, yacht brokerage and other businesses to focus fully on production boatbuilding.* ***Facing page—****Greifswald, home of Hanse Yachtzentrum, was established in 1199. Today its population is 53,000, but unemployment is high: 17%. The town's main square and medieval townhouses were spared Allied bombing during World War II.*

During the Middle Ages, Greifswald was a member of the Hanseatic League, a trade consortium. Situated on the Ryck River just a few miles from the Baltic Sea, Greifswald has a long seafaring tradition. Its banks are lined with old commercial vessels of various types.

business cards—but none of his own. "I can't give you one," he said. "So how do I identify you?" I asked. "Are you the company president?" "Oh, titles are bs," he boomed. "Just say I'm the first slave of the German government. We have so many regulations and taxes, I've had to hire a tax consultant." To emphasize the point, he said that last month his British resin supplier couldn't deliver on time and asked its Croatian subcontractor to ship the product instead. "Since Croatia isn't in the European Union, I went through a nightmare of import duties and taxes. Spent the whole morning doing paperwork rather than building boats," he grumbled.

Schmidt is a large, good-natured man, fond of food and wine, and, like many Germans, inhales cigarettes endlessly. He has a robust sense of humor. Yet one detects a keen instinct for business and the guts to take chances.

Born in 1948, Schmidt grew up in Kiel, the largest port on Germany's Baltic coast. By age 10, he was racing an Optimist pram, which he and his father had built from a Danish kit. "It had a bamboo mast and tailorshop-made linen sails," Schmidt recalled. "I was an aggressive sailor who didn't like to lose. I've kept the medal I won in 1958 and am still proud of it." School, he said, "wasn't much on the agenda." But sailing was, and in 1972, he tried out for the Olympics in a Finn. A year later, he and Rolf Vrolijk (current co-designer of the Hanse series and the designer of last year's Swiss-sponsored *America*'s Cup winner, *Alinghi*), placed second in the world Shark competition in Kingston, Ontario.

The Sharks they raced were being built by C&C in Canada. The silver medal that Schmidt and Vrolijk won later led Schmidt to constructing C&C yachts in Kiel for a few years. In 1980, Schmidt bought a bankrupt boatyard in Wedel, near Hamburg. There he established a Grand Banks brokerage, and also built some one-off raceboats, designed by the Judel/Vrolijk firm that Rolf Vrolijk and Friedrich Judel had founded the previous year. *[For more on Judel/Vrolijk, see the sidebar on page xx—Ed.]* Schmidt described these boats as "40′ [12.2m] offshore racing dinghies. Huge cockpit, flattened trunk cabin. Quite radical for the time. We experimented with

COURTESY MICHAEL SCHMIDT

Above—*An active racer of Optimist dinghies at the age of 10, Schmidt went on to race and build larger boats, experimenting in the early 1980s with Kevlar reinforcements and honeycomb cores. His one-off Düsselboot won the Admiral's Cup in 1983.*

Below—*Schmidt got his boatbuilding business underway by acquiring old molds from other builders—the 29' (8.8m) Aphrodite, for example, from bankrupt Rex Marin, in Sweden. When it came time to establish a fresh and consistent identity, Schmidt turned to the design firm of Judel/Vrolijk (Bremerhaven). The first all-new Hanse, the 371 (11m), was introduced in 1999.*

HANSE YACHTS

Kevlar and other composite materials, including honeycomb cores." Two of those boats, *Düsselboot* (later *Outsider*) and *Pinta*, were on the team that won the Admiral's Cup in 1983; Schmidt himself skippered one of the three winning boats, *Rubin*, in the 1985 Admiral's Cup. He also added the Sardinia Cup to his laurels in 1984 and 1986, and has participated in offshore racing.

HANSE YACHTS

The Greifswald boatyard that Schmidt bought had been nationalized by the communist East German government, and employed far more people than there was work for. The yard mostly built commercial boats, but also a few yachts such as these two yawls.

Buying a Factory in the Former GDR

Zoom to 1990. "I'd built a few boats in Poland," said Schmidt. "Someone told me I should stop by Greifswald on my way back from a Polish trip. Long story short: I soon found myself in a joint venture to redevelop a boatyard that had been nationalized under the East Germans."

Did Schmidt have a grand plan in mind to introduce a new series of sailboats? No. But he did recognize the opportunity this yard presented—given the property's proximity to the sea in the country's best sailing location. "In West Germany," he said, "I couldn't own land to build yachts. It's too expensive, and three levels of government regulate everything. I'd never get the needed permits. But here, the provincial ministry has been very supportive and offers incentives. All this fostered a kind of semi-master plan in my head."

After acquiring the yard, Schmidt faced a raft of logistical and personnel problems. The facility's too-small structures were "stuck in a 1935 time warp," so he constructed new sheds. The previously government-owned company employed 130 people—about 100 too many for the work at hand. Schmidt laid off the surplus workers. He told the ones still on staff that competition had arrived. "I'll fire anyone who's lazy, stupid, or unwilling to learn," he informed them in his direct manner. "You've lived on an

Designer Friedrich Judel (left) discusses the three-bladed folding prop with a Hanse client.

The Designers

Billing itself as "Judel/Vrolijk & Co., yacht design & engineering," this firm is based in Bremerhaven and was founded in 1978 by Friedrich Judel and Rolf Vrolijk. A third partner, Torsten Conradi, joined in 1986. Over the past quarter century, this office has designed production boats (for such companies as Dehler, Najad, JVC, Baltic, and Hanse), raceboats (Judel/Vrolijk designs have won Admiral's Cups), powerboats, catamarans, ferries, cruising sailboats, and luxury yachts.

Judel and Vrolijk were each asked to contribute their expertise to the last *America*'s Cup contest—but for different contenders. To avoid any conflicts of interest, the two designers split their offices for several years. Judel designed the German challenger under the major sponsorship of Illbruck, a German-based international building-supply company. "We finished about 90% of the project," said Judel. "Then the money ran out." Concurrently, Vrolijk designed the Swiss entry and eventual winner, *Alinghi.* It speaks volumes about the integrity and probity of the J/V principals that each could be engaged to design an *America*'s Cup yacht for competing countries without becoming embroiled either in the controversies of crew configuration (high-profile New Zealanders "jumping ship") or the series of prerace protests (one syndicate's alleged theft of technical secrets from another).

After *Alinghi* won, the low-key partners simply went back to work—together. —*Marianne Scott*

island and think you're great. But now you're entering the wider world. You're expected to work hard. And if you do, I'll promise not to lay anyone off for 10 years." Schmidt clasped his hands and leaned back, smiling a bit. "They thought I was just a stupid Wessi." (A reference to the East-West cultural split that continued after the Berlin Wall fell, dividing Germans into "Ossis" and "Wessis.") Schmidt hired a Swedish manager—an outsider to reunification politics—who mitigated some of the hard feelings, and the yard continued its repair operations until 1993, when the work dried up.

Schmidt was then confronted with his own promise to keep the yard's employees employed. Moving quickly, he purchased molds from a bankrupt Swedish sailboat company (Rex Marin), and within a month produced what is now called the Hanse 291—a 29-footer (8.8m)—just in time for the Hamburg Boat Show. Schmidt calls it a "good fiberglass boat without gimmicks but less expensive than boats of similar size." He was not averse, however, to using a gimmick of his own to sell his first Hanse. At the boat show, he hung a giant hammer off the stern pulpit, calling it the "price hammer." It worked. Schmidt received 30 orders at the show and has sold about 250 units since. After updating the tooling and renaming the boat the 301, another 275 boats were built, and production continues. He also found molds for a 33-footer (10m), tweaked the tooling, rechristened the model the Hanse 331, and sold 230 units of that version. (Production of this particular unit has ceased). All this was accomplished while he maintained his brokerage and yard businesses in Hamburg.

But, being an absentee boss had serious drawbacks. "There were too many ventures. It all became very difficult to supervise," said Schmidt. "By 1996, I had troubles. The Greifswald manager had fudged the figures, and suddenly I was facing bankruptcy." For a guy who likes to win, this was unacceptable. He sold the businesses in Hamburg and moved his family to Greifswald—a shift his Hamburg friends compared to moving to Siberia. But Scmidt's on-site presence and restructuring of the workplace not only saved the company, it enabled it to flourish. He again cleaned house by firing more of the staff (nine are left from the GDR days), then hired and trained new craftsmen. "I'm not the most popular guy in town," he admitted. A downturn in local construction activity allowed him to hire certified carpenters, and he found that graduates of technical and boatbuilding programs were eager to work at the yard.

New Designs

During the turnaround, Schmidt attended a sailboat race, the first for him in a decade. "I was so busy I hadn't paid much attention, and was surprised by how much raceboats had changed. They'd been long and narrow. Now they were beamy, fat-ass boats. Especially the French ones. But those beamy boats could sail! So I went to my old friends at Judel/Vrolijk and said, "I need a new design, fast upwind, comfortable, with an appealing interior like the Hinckleys—a boat

Hulls are laid up by hand. Bottoms receive solid glass; balsa or Airex cores are applied to the topsides only. Plywood bulkheads get tabbed to the hull. The 371 is shown here.

that can be handled by a couple even in rough seas." In 1999, the company introduced its first original design, the Hanse 371 (37′/11m). It features a fine entry, nearly plumb bow, walk-through transom, 9/10 fractional rig, double swept-back spreaders, wire rigging, and a self-tacking jib, though inboard sail tracks are standard for a customer desiring an overlapping genoa. The following year, the 312 and 341 (31′/9.4m and 34′/10.4m) were launched; the 411 (40.5′/12.3m) was added in 2001, which was also the year of Hanse's first export to North America. The 531 (53′/16.2m) was introduced in 2003 and has already sold more than 35 units. A new 46-footer (14m) was scheduled for launch in July 2004, and the firm is developing a new 28-footer (8.5m). All are sail, and all are Judel/Vrolijk designs.

One thing Schmidt wants to influence: the way many women seem to feel about sailing. "I asked myself, 'How can sailboats appeal to more women and families?' I puzzled about that. We produce a classic raised cabin, but we instituted a number of changes. For example, we were the first to eliminate the dedicated chart table. In the 371 and 411, we still have a table, but there's a seat on

either side. That's in addition to the dining table. If you're with a family, one table isn't enough for games, eating, projects, and chart reading. The electrical panel and CD player are just above it. So the chart table doubles as entertainment center. In the 411, we also added a vanity table in the forepeak."

Schmidt likes clean deck plans. Walking forward there are no obstacles. A single-line reefing system is handled from the cockpit, and all other lines, such as halyards, lead to the cockpit as well. Mainsheets are midboom with the traveler ahead of the companionway, eliminating the clutter and obstruction of a traveler in the cockpit. The self-tacking jib, which obviates the need for hauling sheets and grinding winches, is another aspect of the family-friendly approach. True to his racing background, Schmidt shuns in-mast furling because, without battens, sail shape is "raggedy."

The interiors have more than 6′2″ (1.9m) headroom. "I want to add value, try new things—not newness for its own sake, but for making the boats either faster or more livable," Schmidt said. He therefore installs cabinet doors inset with wicker, both to brighten the interior and to reduce condensation inside lockers. The fusion of varnished mahogany and off-white bulkheads and deckheads evokes the time-honored finishes of traditional yachts.

Yanmar engines are standard, as are the Sparcraft mast and solid vang. Moreover, unlike many production boat builders, Hanse offers owners numerous options: more than one head in the bigger models, separate showers, extended galleys, shoal or deep keels, different hull colors. The recent 53-footer's interior layout, designed by Birgit Schnaase of Hamburg, can be semicustomized for the buyer. "The bigger the boat, the more the owner wants to be in charge of the final design," said Schmidt.

Construction

Interior installations and finishing of the Hanse product line take place at the riverside facility. One large storage shed contains stacks of foot-thick slabs of mahogany that will be milled and sawn for cabinets; another stores some of the hulls awaiting completion. In the remaining three buildings about 170 people work two shifts daily. Offices for 30 additional personnel—in sales, marketing, design, and bookkeeping—are scattered throughout a jumble of converted containers. "We don't spend money on fancy offices or company cars," said Schmidt, whose own digs demonstrate the austere furnishings and creaky floors of the rest of the buildings.

Hulls and decks are molded offsite. The 312, 341, and 371 get laminated in a rented facility in Szczecin, a once-Prussian city on the Oder River in northwest Poland. (Poland, with its lower wages, fewer bureaucratic impediments, and workers eager for jobs, has become a popular place for German outsourcing.) The 411 and 531 are presently laid up in a 100′ x 400′ (30.5m x 122m) shed attached to a decommissioned nuclear power plant just outside Greifswald.

***Left**—A molded grillage tabbed to the hull stiffens the bottom. **Right**—Production manager Gregor Bredendeck.*

It's a well-lit space, kept heated between 64°F and 77°F (18°C and 25°C) for proper resin curing and, as a legacy of its former purpose, is always guarded. Nevertheless, to improve quality control and to centralize all lamination, Schmidt plans to consolidate hull-and-deck construction at the Szczecin site later this year.

Hull laminates have been engineered in the traditional manner; the emphasis is on sufficient structural integrity to survive ocean storms. Hulls and decks are laid up by hand. "It's a process that is easy to control and oversee," said Schmidt. "The exotic materials and processes cost too much for what we want." For each boat, the female molds are cleaned, polished, and waxed before the gelcoat covestripe and boottop are brushed on. The rest of the 0.6mm (24 mils) of isophthalic polyester gelcoat is sprayed; off-white is Hanse's stock color for the large parts.

"We never begin a gelcoat unless we have enough time to complete the entire layup," said Gregor Bredenbeck, Hanse's production manager.

Hanse offers shoal- and deep-draft keels for each model. Shafts are cast iron and the bulbs, lead. The company offers its customers additional variations, as well as alternate accommodation plans—more options overall, in fact, than many production builders.

"Inside the gelcoat, we apply two layers of 300-gram/m² [1 oz/sq ft] chopped strand mat to prevent print-through. This is followed by a combo layer of 300-gram/m² CSM and 300-gram/m² woven roving. Then comes fiberglass cloth, laid up horizontally and vertically with 3cm (1.2″) overlaps. Next, we place 900-gram/m² [3 oz/sq ft] of 0/90 roving. For the 371 and 411, we then position sheets of 18mm (0.7″) resin-impregnated balsa, installed from the waterline to 10cm [3.9″] below the deck line. On the 531, instead of balsa we vacuum-bag Airex foam to the hull. After the resin has cured, we apply balsa and foam triangles to close out the core panels, before adding three more 900-gram/m² layers of combined CSM and roving."

In the keel area, additional layers of fiberglass and resin are laid down until the hull thickness there is between 30mm and 45mm (1.2″ and 1.8″). Then aluminum plates 12mm–20mm (0.5″–0.8″) thick are epoxied into those areas supporting the keel and mast, and at winch and rigging

The deck mold incorporates a flanged transom. Its open design eliminates the expense and complication of scuppers, and caters to a decidedly performance-oriented clientele.

points. The plates' footprints are larger, by a couple of centimeters all around, than the equipment they back up. Pretapped steel plates receive the engine mounts.

Keels are cast-iron shafts carrying lead bulbs; these are attached to the hull with at least 10 stainless steel bolts.

All Hanse boats get sail-drive transmissions. I asked Judel about North American perceptions that sail drives are more prone to corrosion than a shaft drive. "Everyone here uses sail drives rather than struts," he said. "No leaks at the stuffing box. We believe sail drives are better. And, as copper-based paints are now prohibited in many European harbors, corrosion isn't much of an issue. What must be treated against corrosion, though, is the cast iron keel shaft."

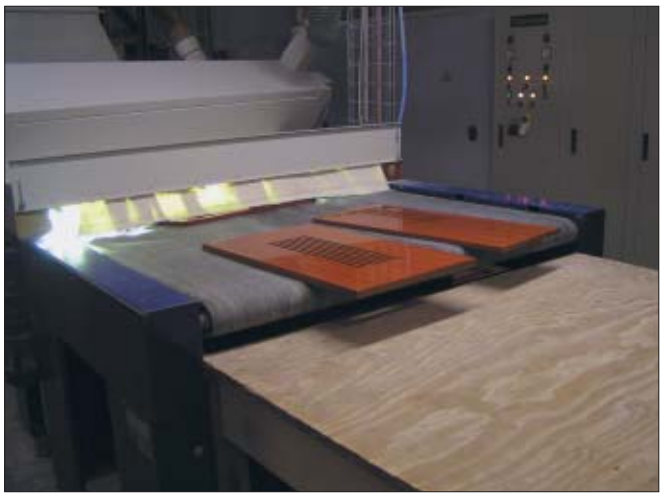
Keels are built by Hacon in Hamburg; the longest measures 2.8m (9.2′). The lead bulb is glued to the shaft with epoxy, and mechanically fastened with three heavy-duty stainless bolts. Bolt bores are slightly larger than the bolts to allow for some (0.6″/1.5cm) movement aft should the

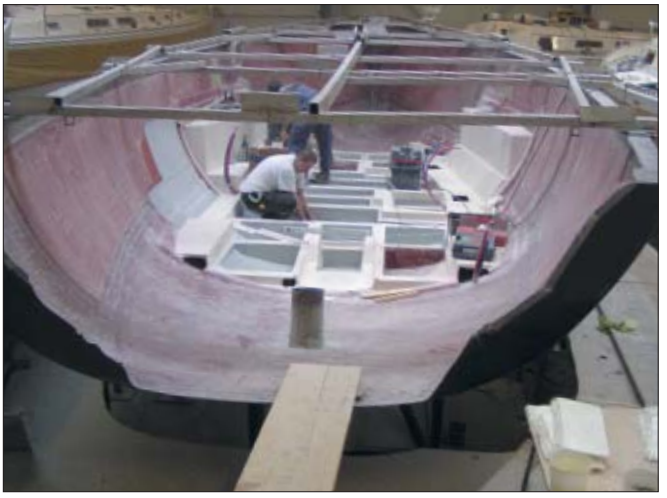
Left—*Cabinets are readied in the carpentry shop before being installed.* ***Right—****A carpenter prepares stock for an interior component. Rounded-wood pieces are manually sanded.*

boat hit bottom, hard; the hope is that hull damage will be minimized.

I asked Bredenbeck why Hanse uses polyester instead of vinyl ester resin when the latter is known to be more resistant to osmotic blistering. He said Hanse chose polyester because of its lower cost, and because Hanse's own tests suggest that iso resins resist osmotic blistering about as well as the vinyl ester. "In addition, our research indicates that vinyl ester shrinks more in the high-temperature places where many of our boats sail, like the Mediterranean. There've been no failures in the nearly 1,400 hulls built." That said, he advocates that the hull below the waterline be coated with epoxy to increase osmotic resistance.

Decks receive 22mm (0.86″) balsa coring, except for those areas carrying hardware such as rope clutches. (Schmidt believes that, generally,





Left—*Wood cabinet parts pass through the Rotoclean Cattinair spray varnish machine, on a conveyor belt. The same machine also dries the varnish.* ***Right—****An aluminum grid holds the hull shape while workers tab the grillage in place, which will be followed by bulkheads.*

balsa bonds better than foam.) Sikaflex adhesive-sealant is gunned into the hull-to-deck joint; an aluminum toerail and stainless bolts complete the job. The flanged transom is part of the deck and of course gets glassed to the hull. Overhead liners are the only components fabricated by chopper gun.

During this period of rapid growth, Hanse is experimenting with a number of new approaches to engineering its laminates. For example, the company is making its own pre-pregs and testing them in the 341 and 371. Explained Bredenbeck, "If we're satisfied with the results, we'll still be using the same number of layers of glass fiber, but less resin—saving weight, overlapping less, and achieving greater accuracy." To reduce weight

To avoid the use of fasteners and the inevitable problems with bungs and leaks, the teak decks on a Hanse 531 cockpit are vacuum-bagged in place.

in the 531 and 461 (46.5′/14.2m), Hanse is also considering substituting SP epoxy for the polyester resin; that switch may occur this year. "We think that for the higher-end boats, buyers will pay more for the quality of epoxy—and lighter weight," he said. "Our first 461 epoxy hull was launched last July. The cost increase to customers will be somewhere around €7,000 [$9,100]—not a huge amount, as we do save on time and materials. We'll also offer a long-term osmosis warranty. Remember, we're building our boats for the fast-cruising market. We don't want the weight of some of the Scandinavian-built boats."

Schmidt is also considering various combinations of carbon and Kevlar, but remains cautious about so-called exotics. When asked how much is gained for the cost of these materials, he says, "If I make the boat 10% lighter for a gain of 0.1 knots, there's no benefit for the buyer. Most sailors can get that improvement in speed, and more, just by learning how to trim their sails." For now, Schmidt, like many of his counterparts in production composite boat building, remains skeptical of resin-infusion technology. "It's all right for small parts," he said, "but at this time it's wrong for our decks. It's just too difficult to control the resin flow into

all those corners. To me, infusion is not yet proven for the long term. I realize there are environmental reasons for it, but I still ask if it's more of a marketing ploy." The company does use vacuum to bag Airex core to the 531 hull, and to secure a prefabricated teak overlay to the glass substrate on the decks of the 411 and 531. The teak work is performed by a subcontractor. Sikaflex seals the teak to the glass; vacuum-bagging ensures a good bond while eliminating screws, popped bungs, and the inevitable leaks.

Finishing Out

Once hulls and decks have been molded either at the Greifswald power station or the Polish site, they're transported to the Greifswald riverside facility. There, a 400m^2 (4,306 sq ft) carpentry shop prepares the cabinetry, bulkheads, countertops, and other furnishings. CNC programs direct VEMA sawing, shaping, and planing machines, and air hoses suck up the sawdust. A Heesemann sander smoothes flat pieces; trim with rounded sections is sanded manually. After carpenters fabricate the mahogany-veneered cabinetry and foam-cored doors, the pieces are coated with a high-gloss varnish inside a Rotoclean Cattinair spraying machine (made in Pont de Roide, France). This robotic operation sprays seven to eight coats of varnish on the surface of wooden parts, then uses ultraviolet light to dry them before they exit the booth.

In the finishing shed, able to accommodate from 14 to 17 boats, depending on size, a list on a stand behind each cradle-supported hull itemizes the tasks, modifications, or upgrades for that boat—not unlike the familiar patient-chart at the foot of a hospital bed. Upon completion of a designated task, a worker must place a checkmark and signature on the sheet. I watched as three workers began preparing the interior of a 411. An aluminum grid maintained hull shape at deck level. One worker positioned fiberglass forms to hold settees, while a second drilled channels for hoses and conduits in the hollow fiberglass stringers; these are premolded as a grid and then tabbed to the hull. The third worker cut shallow grooves into the fiberglass hull for landings for the bulkheads, which will be glassed on both sides. The main bulkhead, separating the forepeak from the saloon, is made of ⅞″(22mm) marine plywood, and is supplemented by similar cabin-dividing bulkheads aft. Hanse also installs what it calls "butterfly bulkheads"—structures about 30cm–50cm (12″–20″) behind the main bulkhead to help carry the load of the aft-angled spreaders and rig. The plywood is coated with off-white Resopal, a European plastic laminate. Glassed-in fiberglass berths add to structural solidity. "We laminate everything. There are flanges on the premolded pieces," said Bredenbeck. Once the tanks, bulkheads, cabinetry, plumbing, and wiring have been installed, a crane lowers the boat's deck onto the hull. In short order, winches, sheet stoppers, lazarette covers, stanchions, vents—all the hardware and gear needed to complete the boat—are

placed in their proper locations. It currently takes about two and a half weeks to complete a 411.

A series of padlocked cabinets line this shed's walls. When Hanse first started production here, the company provided an assortment of tools from which the entire pool of workers could draw. But this open-tool policy didn't work. Tools disappeared, or broke at an alarming rate, or were left behind in the bowels of boats. Now, each worker receives his own set of tools, kept in individual tool chests. A broken tool gets replaced only if the worker has not been negligent. "It's more expensive to buy so many tool sets in the beginning," said Schmidt, "but their longevity has more than paid for it."

Bredenbeck calmly oversees all this activity, giving instructions, answering questions, responding to an ever-ringing cellphone. Although he's only 33, it's obvious the men respect him and the knowledge he's gained from many years of sailing (including time spent in the Caribbean), from having completed a boatbuilding apprenticeship in Schmidt's Wedel boatyard, and, not least, from selling boats. He has another advantage: he was born and raised in East Germany, spent about a decade in the West [Germany], then returned in the late 1990s. "They call me a 'Wossi,'" he joked. "A Wessi-Ossi combo." He's very proud of the Hanse production crew. "We could not have been this successful in the West," he said emphatically. "We now have a good infrastructure in the East. So much money has been spent to modernize the region that we've come to outstrip the West in the quality of roads and high-tech communications. And the younger workers, once seen as lacking a work ethic, are more motivated than the Westerners, who've grown fat and lazy. Our workers are hungry and look to the future. The West looks to the past. Yes, wages are lower here, but so are living costs. The men take so much pride in their work—all of them—carpenters, mechanics, painters, fiberglass guys." One shop-floor problem, though, arose over smoke breaks. Naturally, smoking is not permitted in the flammable workshop environment. But since smoking is so prevalent in Germany, and especially in the East, many of the men were taking frequent breaks, thereby angering the nonsmokers. The solution? Smoke breaks are now strictly regulated—but not compensated.

Quality Control

In the early days, Hanse hired staff to oversee production quality. The company quickly learned that, in a small town riven by the politics of reunification, where you run into colleagues at the beer hall and supermarket, it was difficult for a staffer to remain neutral. "Five people were destroyed by the process," said Schmidt. "They'd inevitably take the side of the workers. The boss becomes the enemy." So Schmidt hired an outside contractor, who has a financial stake in the finished yachts. "Whatever's not up to snuff gets reported back to production," said Bredenbeck. "If the guy misses something that eventually requires a

warranty repair, then the travel costs to correct the problem, in the field, are charged to him. Works wonderfully."

Hanse's Future

Hanse's growth has been rapid, doubling in each of the past four years, with buyer waiting lists now running to nine months. To meet demand, Hanse has outsourced certain tasks, such as upholstery and some of the stainless work, creating an additional 50 jobs in the region. Schmidt believes the European market for Hanses is far from saturated, and he's barely introduced his boats to North America. (There are currently five dealers in the United States and two in Canada.) To increase production, Schmidt is working with the Stuttgart-based Fraunhofer Institute, a research outfit that helps develop industrial plans. "I gave them a blank piece of paper to come up with the most innovative and efficient way of building two boats a day." As soon as plans are finalized, Schmidt anticipates he'll erect a new production plant next to the existing Greifswald facility. He's also establishing an R&D shop at Hanse's lamination facility in Szczecin. Poland is emerging as a commercial powerhouse now that the country has joined the European Union. Schmidt plans to hire well-educated, young, ambitious engineering and computer graduates capable of "prethinking the yachts." "Why," he asked, "should a boat owner have fewer options than a car owner? I want both a production line *and* flexibility to serve customers. Judel/Vrolijk draws the lines; these new people will computer-generate the production drawings for the interior and the systems. I want everything pre-engineered. And I want three-dimensional views of different configurations that dealers can show to customers."

Schmidt's chances of reaching these goals seem good. His Greifswald facility has only a small mortgage, and he's financing his rapid growth out of cash flow. "We're privately owned, so we don't owe any explanations to shareholders," he said happily. "We're pleased with the profits. I could make more money if I didn't invest in the future, but I'd rather reinvest in the company than take it out for personal use."

At the end of our Hanse plant tour, we strolled through the cobblestoned streets of Greifswald. Residents, some with baby carriages, walked briskly in the cold February wind, stopping at bakeries and butcher shops to pick up that evening's dinner. We dined in an overflowing restaurant on some fine bratwurst and sauerkraut. Afterward, we walked toward the Ryck River with its thicket of masts standing out in sharp relief against a darkening sky. The blue flashing lights of a police car caught our eye. Behind the vehicle, a small truck hauled a large cradle supporting a completed Hanse 411, on its way to a new owner. PBB

About the Author: *Marianne Scott is a writer based in Victoria, British Columbia, who has specialized in marine topics since she and her husband sailed from Victoria to Tahiti and back. Marianne contributes to publications in the U.S., Canada, and the United Kingdom.*