



Finishing touches and a quality inspection underway at Smoker Craft in Elkhart.



(Clockwise from left) Robotic welding has increased efficiency and product quality at Smoker Craft's pontoon manufacturing facility; consoles await installation on the Sylvan line. A skilled seamstress assembles luxury pontoon seating upholstery at Lippert's Plant 91 furniture factory.

Product Pipeline

Elkhart, Indiana, is the center of the RV manufacturing universe. It's also home to marine manufacturers and boatbuilders.

Temperatures hovered around 8-below on the drive south to Elkhart, Ind., from Chicago. The landscape looked much like what I imagine as nuclear winter: buildings freeze-blasted with snow, Lake Michigan frozen a crusty gray, and factory stacks billowing ominous pillows of white steam. I was there to visit the non-geographic center of the Indiana manufacturing belt, where approximately 80% of all recreational vehicles are built. This end of the state is also home to several boatbuilders, including Smoker Craft, Bennington

and Godfrey, along with components and accessories manufacturers such as Lippert and Patrick Industries, which supply both the RV and recreational boating industries. These companies collectively fuel a large swath of the \$1.2 trillion outdoor recreation economy. My time there was designed to find the connections among them, and to get a look behind their complex manufacturing operations. I also had the chance to see how the RV industry is training service techs — in ways that might be useful to training for boat service.

Expanding Automation

Just off Indiana State Road 15 and around 20 miles south

of Elkhart is Smoker Craft, which includes the Smoker Craft, SunChaser, Sylvan, Starcraft and Starweld boat brands. The company, located in New Paris, rose from a galvanized steel tank builder in 1921. It has had a presence of one sort or another in northern Indiana since 1903. Today, the company is run by descendants of the Schrock and Smoker families, including CEO Doug Smoker, senior vice president of marketing and corporate development Peter Barrett, and vice president of sales Phil Smoker. Jim Ellis, director of dealer development, has been with the company for nearly 50 years and showed me around the nearly 1 million square feet of manufacturing space where

as many as 550 employees work every day. We began at the pontoon assembly line, where automation and robotics are helping to improve products, increase efficiency and bolster production numbers.

Process engineer Michael Boyle has been working on automating pontoon tube production for the SunChaser and Sylvan brands for at least three years. "The goal is not only to increase production numbers, but also improve overall quality and efficiency," he says. "And it's harder to implement than it looks."

The cell where the tubes are bent and welded looks like a typical metal shop, with bending forms, cutters and other metal-manipulating equipment. But just behind several large plastic curtains are robotic welding arms and fixed jigs that fabricate pontoon tubes and bow cones. They also attach support brackets and other metal hardware. Though the automation has replaced human hands in some cases, skilled labor is still required.

"Our guys are really good at what they do and have a full understanding of metalworking and welding," Boyle says. "The flat sheets of aluminum don't jump off the racks and onto those jigs themselves, and many of these manufacturing steps require a human to complete. The robotics and automation are simply a way to speed up the process. At full production, we can manufacture a minimum of 75 complete tubes a day."

The tubes roll down a line that looks a lot like an automobile assembly plant. Various parts merge as workers install pontoon decks, deck fencing, seating, consoles and components. Each completed boat is then quality-checked and loaded on a semi-truck for shipment to a dealer.

Smoker Craft also builds fiberglass deckboats and aluminum Starweld boats through its StarCraft brand. Ellis guided me through the toolmaking and fabrication buildings where crews lay up fiberglass, perfect hull molds and assemble boats. It's messy, smelly, hard work in the glass shop, which was busy with activity as we passed through.

Next, Ellis walked me through a line of assembly cells adjacent to a huge storehouse filled with millions of dollars' worth of outboards from Yamaha, Suzuki, Honda and Mercury. "Some dealers rig their own engines, and we do some here," Ellis says. "You should have seen this place during the Covid boom. They were stacked to the ceiling."

The storeroom also has many boxes plastered with the Lippert name, filled with seating components for pontoon boats. That was my cue to head north to get a look at Lippert's marine furniture-making operation.

Passionate About Components

Driving through Elkhart, Lippert's name is seemingly everywhere, from its modern-looking mothership adjacent to the RV Hall of Fame & Museum to the multiple manufacturing facilities that pepper the Elkhart landscape.

Lippert was founded as B&L Industries in 1956 by Larry Lippert and Don Baldwin. Today, the company is one of the largest components and accessories manufacturers for RV and marine, ticking off \$3.8 billion in sales during fiscal year 2023. Lippert is known in the RV market for its trailer frames and axles, doors and windows, furniture, towing products and more. Its marine offerings include products from such brands as Lewmar, SureShade, Taylor Made, Trend Marine and several others, and it operates a custom

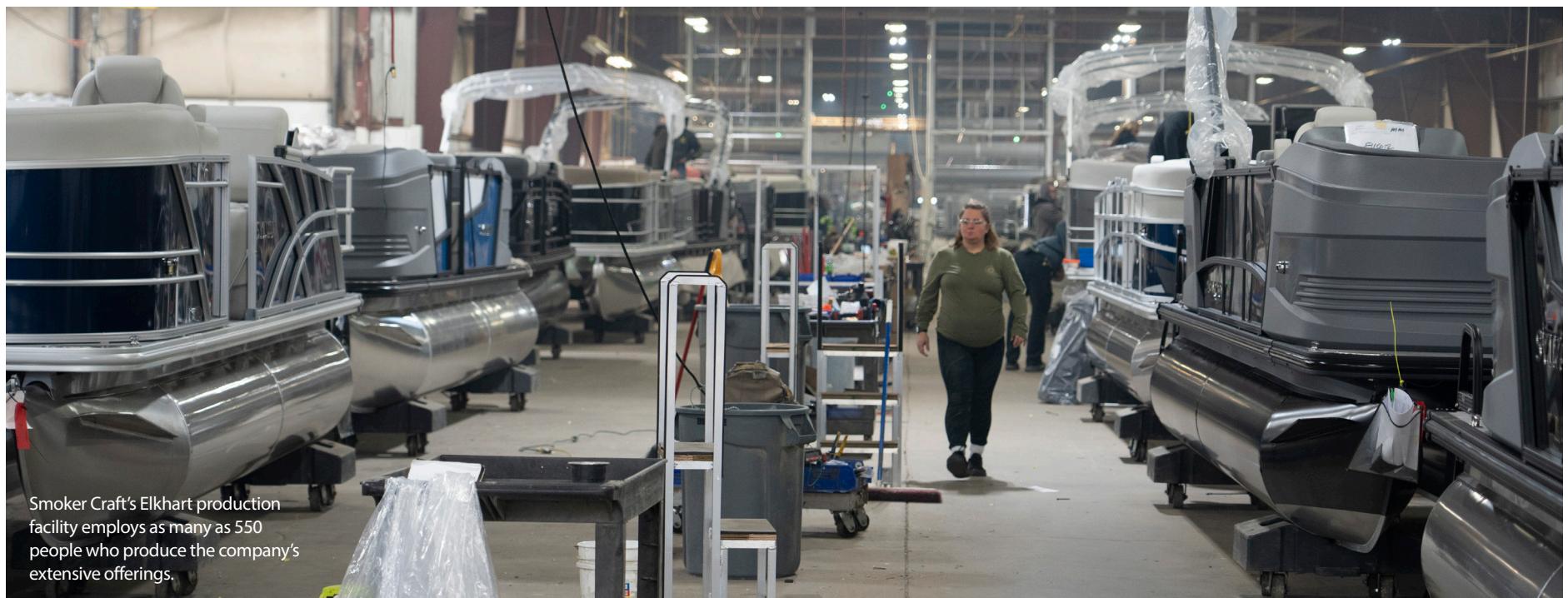
marine furniture business, part of which is housed inside Plant 91 in Elkhart. Here, the company creates tens of thousands of upholstered furniture components for pontoon and traditional boats each year.

Jose Cruz Medina Jr., general manager of the plant, walked me through the furniture-making process, where foam and plywood are covered with huge rolls of vinyl and cloth, then sewn into lounge seats, helm chairs and more. The remarkably tidy plant operates at a surprisingly frenetic pace. The factory floor is deafening. It sounds like a dozen roofing crews nailing shingles with air guns, except workers here are stapling high-quality vinyl and other fabrics to seat frames, chairs and lounges. No idle hands here — every worker appears to be on a mission.

Barletta Pontoon Boats is Lippert's biggest customer for this type of furniture. "We have builders waiting for this product, so timing is everything," Medina says. "Everyone is moving fast because orders can't be delayed, and we have production quotas to meet. If we're held up, it holds up our customers. No one sits on their hands here."

The furniture-building process starts with a fleet of sewing machines run by an army of skilled hands. Vinyl and other coverings are pieced together with great speed before moving over to furniture assembly, where workers with staple guns quickly stretch vinyl and fabrics over plywood shapes festooned with cushy foam. Lippert also manufactures furniture for RVs, but Plant 91 caters solely to boatbuilders.

Farther down the line is another furniture operation. This one builds captain's and helm chairs for boats. "We can run 175 chairs through here a day," Medina says. "The chairs



Smoker Craft's Elkhart production facility employs as many as 550 people who produce the company's extensive offerings.

can sometimes be more complex than the seating elements you just saw. There are different densities of foam, many types of fabric, and they get a lot of abuse in the end."

Walking back toward the plant entrance, I asked Medina about the numerous flags hanging from the ceiling. "We've got people from all over working here," he says, "so we want to honor people's home countries. We're a very tight family and are proud of what we do."

Fueling Industries

Only a short drive from Plant 91 is The Studio, an interactive showroom run by Patrick Industries, a manufacturer of components and accessories for the marine, RV, powersports and housing markets. Patrick Industries was founded in 1959 by Mervin D. Lung. The company began as a distributor of paneling to Elkhart's manufactured-housing industry.

Today, Patrick owns marine brands such as SeaDek, Sea-Dog, Marine Concepts, Marine Electrical Products, Taco Marine, Transhield, Wet Sounds, Betterway Products and others. A sampling of Patrick's RV brands includes Medallion Plastics, Millennium Paint, RecPro, Williamsburg Furniture and Wire Design. The company has manufacturing facilities all over the world, with many centered in the Elkhart area.

In the third quarter of 2023, Patrick reported \$3.7 billion in net sales. The RV market accounted for \$1.62 billion of that total, while marine tallied \$596 million during the same quarter.

Rick Reyenger, president of Patrick's Marine group, was keen to show me a pontoon boat on the showroom floor that highlights many of the marine brands. "You've got a Wet Sounds stereo system, SeaDek deck foam, fiberglass consoles, lounge seating, towing arch and all kinds of other components we make," he says. "The Studio is a great place to showcase what we do, and we often have manufacturers here to talk about what we can do for them."

Across from the pontoon boat is a trailer with a Patrick logo on it, designed around the same theme of showcasing the manufacturer's RV accessories and components. Jeff Rodino, president of the RV group, walked me around the display. "There's crossover with marine and RV in some areas like this trailer," he says. "There's SeaDek on the walk-up steps, Transhield wrap gets used in transport, and Betterway plastic components throughout. That diversification often takes the bumps out of the market and allows us to better serve customers."

Most notable inside the towable trailer is the overlap with Patrick's housing segment, which provides for lots of

vertical integration within the company. It makes hundreds of components that go into RVs, including flooring, kitchen cabinets and countertops, living room furniture, windows and doors, electrical components and many other bits and bobs. The company even owns a company that manufactures wire for many different industries.

"We've acquired around 25 RV-related brands since 2017, which gives us a lot of diversifications in the space," Rodino says. "You can look at pretty much any of the top three RV brands, and it's got Patrick products inside and outside. It's great being able to offer all of these solutions to our customers both in Elkhart and abroad."

Train Them Right

Nearby is the RV Industry Association's RV Technical Institute in Elkhart. It trains service techs to work on all kinds of recreational vehicles. Sharonne Lee, who has been with RVIA for 35 years, is vice president of education and operations at the institute. "We've trained about 7,000 certified techs," she says. "That's about 50% of all techs working in the RV industry right now."

That works out to 400 to 500 trainees each year, according to Lee. There are three instructors who teach lessons about propane, water and electrical systems, as well as generators, chassis and body subjects. The in-person classes are arranged by level and can be as short as a week or as long as three weeks. Hybrid classes provide the opportunity to mix study online with in-person teaching.

The centerpiece of the institute is its training area, which has a full RV and dozens of stations that mock up things like heaters, generators, and water and electrical systems that students can troubleshoot and diagnose. "Each one of those propane heaters has a card with a problem to troubleshoot. One of them might not power on, while maybe another has a fuel-delivery issue," Lee says. "Over here, we have a full RV chassis that students can work on. Students can also work on our full RV to get an idea about body repairs."

There are four certification levels that range from RV inspection and delivery to diagnostics and repair, specialty repairs and master technician. "There's a course for just about anyone," Lee says. "Whether you're just starting out or want to enhance your training and you've been in the business for a while, there's something here for just about anyone who wants to service RVs."

By the time I left Elkhart, I had a far better understanding about the many ways the RV and marine segments are similar — and plenty of ways they differ. There's a lot to like and learn here, so much so that it gives you a warm feeling — even when the temperature is a tropical 10 degrees above freezing. ■



Patrick caters to both the RV and marine industries, with some products that cross into both segments.