OFFICIAL PUBLICATION OF THE COMPOSITES FABRICATORS ASSOCIATION

April 1999

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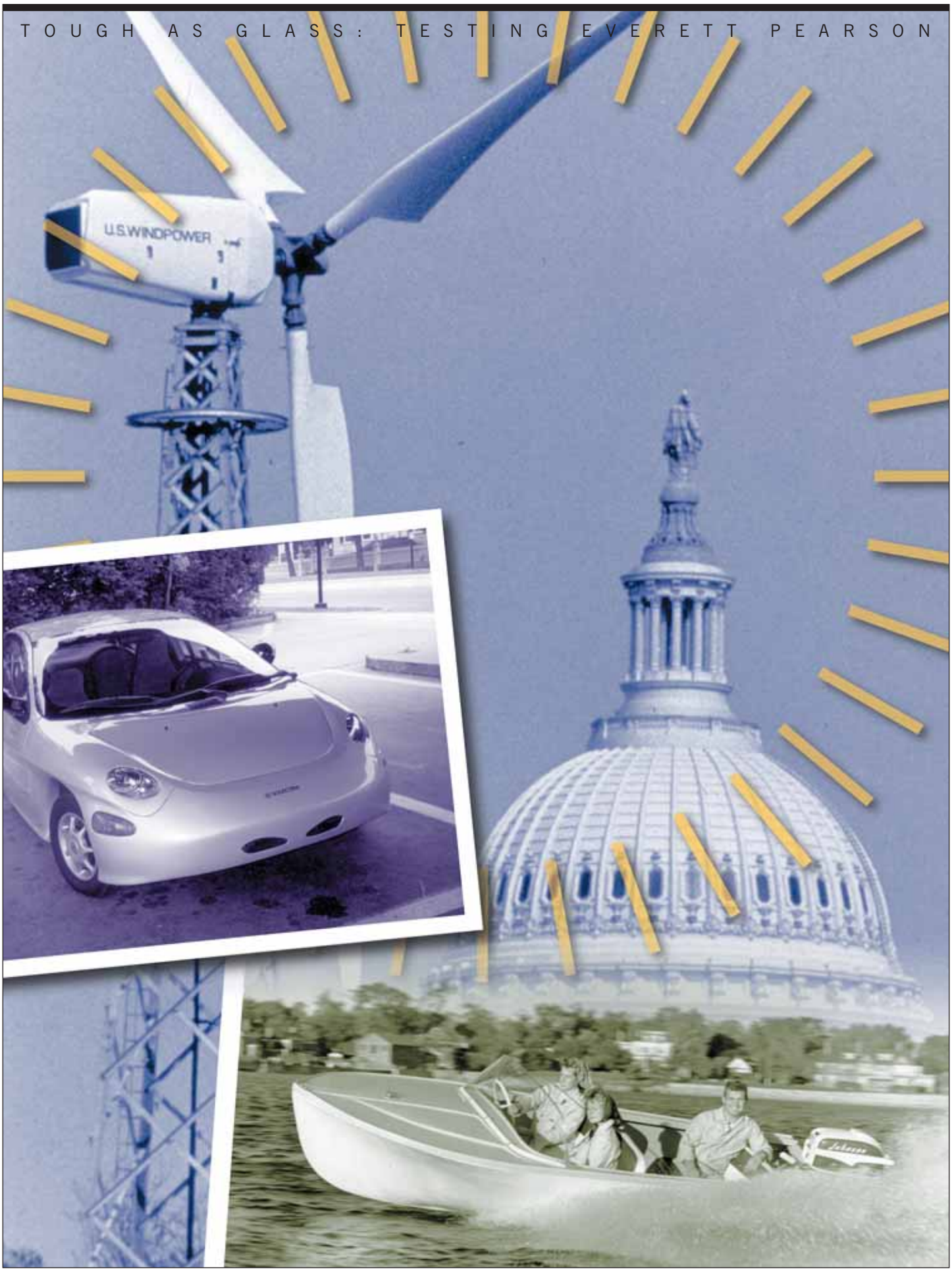
TOUGH AS GLASS: TESTING EVERETT PEARSON



Second of Two Parts

Tough as Glass

Testing Everett Pearson

By Andrew Rusnak, *Editor of Composites Fabrication*

In 1961, despite Triton's success, the God of fortuity, disguised as over expansion and cash flow problems, frowned a little on the Pearsons, and they had to sell their business to Grumman Allied Industries who moved everything to Portsmouth.

The cousins tried to adjust to corporate life as they stayed on to run the facility, but eventually felt the entreprenurial spirit tugging on their sleeves once again. Clint lasted until 1964 when he left to start Bristol Yachts. Everett resisted the pull for another two years, but when he left, signed an agreement not to compete with Grumman for three years. This put him in a bind. All he knew were boats, but he had it in mind to accept a new challenge—to found an industrial fiberglass company.

"What we immediately discovered as boat builders," Pearson says, "is that we didn't know much about fiberglass, because the resins and the reinforcements that we used in industrial products are totally different than what we require in the boat building business."

Growing pains were temporarily put on hold, however, as Captain Risk bumped into Lady Luck. When the two started to dance, the God of fortuity, this time disguised as a new business partnership, smiled once again on Everett Pearson.

Neil Tillotson liked to position himself with "unstructured entities" that take advantage of surprises. Already a multimillionaire, one day in 1967 he decided to buy a boatyard in Boothbay, Maine, hoping that a surprise would structure the business into a lucrative investment.

One of his first orders of business was to ask Don Parrot of the John Alden yacht design and brokerage firm in Boston, also a Tillotson enterprise, to find a builder for a personal 58 foot yacht, the Boothbay Challenger.

Born in 1898, Tillotson grew up in a small Vermont town. Striking out on his own after his parent's divorce, he drifted to Boston on an uncle's advice and found himself employed as a lab tech at the Hood Rubber Co. After a two year stint in the 7th Cavalry in Texas chasing Poncho Villa, he returned to Hood.

"At night, in his attic, he started dipping these balloons," Pearson admires. It was the winter of 1931."The balloon was shaped like a cat, with two big ears. Well, he packaged up an inventory, and took them to a city that was having a parade. He recruited people through newspaper ads, sold his balloons for a half-cent each, and they would go to the parade and sell them for a penny apiece. Even in the depths of the Great Depression, people'd always buy balloons for kids."

Promising orders for balloons pushed Tillotson to leave Hood and start his own business. But the Depression forced him to canvas buyers following days on Greyhound busses, and baths in rest-stop sinks. After successful expansion in rubber factories, real estate, and a number of other ventures over the years, he now sat in his Alden corporate office on Commercial Wharf in Boston, and waited for Everett Pearson to show up to be interviewed as a potential contractor for the Boothbay Challenger.

Tillotson was shrewd, but considered eccentric and taciturn. He liked Pearson's nose-to-the-grindstone work ethic. The chemistry was there, respect. Both men had made names for themselves innovating applications for new materials æ rubber and fiberglass.

Pearson built Tillotson's Boothbay Challenger, and Tillotson, unexpectedly, sold it. Pearson built another, and by the spring of '68, Tillotson asked Pearson to go into business.

But it'd only been a year since he'd accepted paychecks from corporate giant Grumman, and, ironically, he was following industrial-age advice Tillotson's father had given him: "If you can help it, never work for anyone else."

"I turned him down the first time because I wanted to run the business my way," Pearson says. "But he asked again, and I accepted."

In a 1981 *Boston Globe* article, Tillotson said, "The objective has always been to create partners. We insist on at least 50-percent ownership and never 49 percent. The reason is simple. If there's

TPI Built an all-composites car in 1998 for Solectria.

going to be trouble, it's better that the two sides have the same-sized boxing gloves."

When Pearson drew up the papers for the new business, he went to Tillotson and put them in front of him. Tillotson looked up and asked him if everything they'd discussed had been included. Pearson shook his head yes, and Tillotson signed them without reviewing a single word. Trust ensued, and the two never had a serious disagreement.

Pearson's new business became Tillotson-Pearson Inc. and he pretty much ran it his way. All 16 Boothbay Challengers he built were sold. Tillotson never sailed one.

One of Pearson's first projects on the industrial side was to manufacture a 12-foot by 14-foot fiberglass tank for the Millstone nuclear plant. Drawings called for a 42 percent resin content. Inspectors pulled a test plug when the tank was completed, found a 41 percent resin content, and rejected it.

Pearson gets excited when he talks about the challenge that goes into building quality parts. It's almost as if he's a little boy again, watching his father craft furniture with hand tools. "As we started to build industrial products, we had to optimize physical properties, so we figured out better resins, glass fabrics, and weave patterns," he says. "And we established high quality standards."

Pearson learned to approach his new line of products æ windmill blades, flag poles, truck bodies—like an aerospace contractor working for the government, fixing on layers of overriding specifications.

When the Navy scoured the country looking for a contractor to build a fleet of 44-foot sailboats for Academy training in Annapolis, Pearson's was the only yard where they found a test lab. He started putting strain gauges on laminates, developing computer programs, and flex testing parts. Crews placed strain gauges in the hulls of new boats, ran them off Newport, slammed them into the surf, and took readings.

Because of testing, Pearson now offers a 10-year warranty against blistering on his boats.

"We use a vinyl-ester resin backup," he says. "We learned from industrial product work that vinyl-esters tested in a caustic or water tank were far more reliable when it involves water penetration than normal polyesters, so we put a vinyl-ester layer on the outside. At one time, we were working with 23 different types of resins. We have rejected tanks of resin coming in to the plant because they were off spec. They would've thrown our gel times off. We have to know we'll have the right physical properties, because it doesn't do any good to do all the engineering and not attain the right physical properties..."

The way the business has evolved since the 1960s, everything was chopper guns and spraying, and this limited our options at TPI. We had a dirty, messy facility, and there were lots of emissions and odors, and workers went through lots of shop supplies. When we went to resin infusion, we took it to a whole new level. We're now more mobile, and can react quicker.

—Mark Pearson

When the Pearsons took over the old Herreshoff yard in 1959, they discovered a mold for a nine-foot, phenolic resin, autoclave-cured dinghy. The Town family, who owned the facility before them, had been conducting R&D on a new way to build boats.

Southern New England in the early to mid 1950s is where the business and sport of fiberglass boats began. Bill Dyer of Dyer Dinghies, Ben Clark and Breck Marshal (American Boat Company), the Beetle Boat Company, Thomas Scott to name a few, were all making the transition from wood to fiberglass.

"Some of the first Beetle Cat Boats I saw were molded by the General Electric Company," Pearson ruminates. "And that goes back to '46 or '48, so the idea and technology had been in people's minds. There were a lot of things happening then, and a lot of people got into the business."

"Some of the first Beetle Cat Boats I saw were molded by the General Electric Company," Pearson ruminates.

Many refer to the Pearsons as the first production boat builders. Everett has built well over 10,000 boats, and in the mid-1960s, while running the Grumman operations, he shipped approximately 58 percent of the sailboats in the country.

Lately, however, a new chapter on resin infusion is being written in the sailboat production history books. Resin infusion allows Pearson to confront the front end of the "unplanned obsolescence" equation with a "consistent, cost-effective, manufacturing process that controls

weight and resin-fiber distribution." It's a method he uses throughout his shop. Without it, several projects would've remained shelved.

"You can buy a steel beam in Rhode Island or California and they'd be the same," he says. "Before infusion, you couldn't do that with fiberglass products."

Pearson has a plan for tackling the back end of the equation too, and that's just a matter of finding more and more markets for fiberglass. By the time those market niches are exhausted with durable, lasting products, he hopes to be long retired, he says with a knowing smile.

A large part of being vaccum bagged for resin infusion.

"The greatest part of the trip was being able to be innovative," he adds. "If someone had said all I was gonna do was build boats, I would've been bored."

Everett's 36-year old son, Mark, TPI's Marine Products General Manager, will spend time exploring those markets while his father explores approach shots on the fairway.

"It's an exciting time to be in the industry," says the Hartwick College grad, confident of a future made out of more and more composite materials. "Even daily, more industrial applications can be explored. On the boating side, resin infusion is one of the greatest things we've seen. We built the one-design 48s, and with the J/125s, we got into the racing side. Although that's not our main focus, we've proven that that system can handle what everybody else thought it couldn't."

What have I learned from my father? Persistence. His entreprenurial spirit has never wavered, and when times got tough, and all of a sudden we didn't think we could do it, or everybody said we couldn't build it, he found a way to do it. That's the biggest thing anybody can say in this industry about Everett.

—Mark Pearson

Before leaving the Cross Road Pub, Pearson flags the manager, John, who hands him a brown paper bag. Inside is a jar of pickled herring, a traditional holiday exchange Pearson clearly enjoys. He can't resist a look of contentment that extends to thoughts of a family Christmas gathering.

But, as he slides into his Buick, Road Master Estate wagon and drives back to TPI, a look of fatigued, boyish wonder takes over and reveals something deeper about "testing" Everett Pearson.

"Money was never the driving factor," he says, leaning back in his office chair. "I always look back to where I came from, try to keep my head on straight, not get carried away."

Brutally honest with himself, Pearson infuses everything he does with individual responsibility, hard lessons from a self-pressured childhood. And like his legendary contemporaries in the fiberglass industry—Morrison, Rutan, Goldsworthy, Kohn—he sees money as a proportionally structured and highly recognized reward for what he craves most, to be challenged, to work hard and be tested as an inventor, creator, and barn storming entrepreneur.

Conversation shifts to sailing and hull design back in Pearson's office. Hoyt mentions the Around Alone race. Pearson perks up and pulls Rhode Island sailor and neighbor JP Mouligne's position and status up on the internet. Mouligne's clearly in the Class II, second leg lead, but fighting extreme weather south of Australia.

As Pearson reads the race report, a wistful look of concern washes over his face and he tries to temper a twinge to be out there, close to it, high winds and heavy seas. Persistence. Anyone pushing—he shares the struggle. In several weeks, he will travel to Dixville Notch New Hampshire to celebrate Neil Tillotson's 100th birthday. Although Tillotson sold his share of the business in 1993, Pearson respects and admires the man who struggled through the Depression to become a millionaire.

Everett Pearson has managed to sustain quality in a time that increasingly demands expediency. Craftsmen in the old Herreshoff yard at the beginning of the century were true artists, with unsurpassed skills that have faded to dream in history books. Good as they were, they could never afford to purchase what they were building. And as Pearson continues to engineer and innovate, to take his turn and make some of the best, warrantied sailboats in the world affordable, the rest of the industry follows, and pushes him to the test again and again.

"He's always shared information with his competitors," adds wife Virginia. "If he comes up with a good idea—and his mind is always buzzing with ideas, so much so that he gets up in the middle of the night and writes them down—as long as it's not patented, he shares his knowledge. He's a very generous man." ☆

The editor would like to thank Mary Sousa for her help with this article.

Andrew Rusnak is editor of Composites Fabrication

When Tillotson sold his share of the business the company became known simply as TPI. The aerial view of the Herreshoff yard that appeared in Part I was taken before the '38 hurricane. And although Everett Pearson built the Burgoo, the first fiberglass yacht to win the Newport to Bermuda race in '64, he didn't skipper the boat, having been called to the hospital for the birth of his daughter.