



Oliver and Sam Moore, who trained as engineers, became obsessed with boats from a young age. Today, their company leads in innovation and celebrates their skilled workers.

COURTESY, OLIVER & SAM MOORE (2)

From crafting precision components for Grand Prix racing yachts to developing prototypes of a futuristic flying ferry, building cool stuff has always been a family affair for these sibling partners at the Moore Brothers Company

WHO BUILD

It started with the Legos. Today, Oliver and Sam Moore, now 39 and 38 respectively – and the nearly four-dozen engineers, machinists, craftsmen, and support staff who comprise the Moore Brothers Company in the historic maritime community of Bristol, Rhode Island – have become leaders in the high-tech world of custom composite manufacturing. From rendering lightweight carbon-fiber masts to assembling sleek precision rudders and steering wheels for Grand Prix race boats and high-end cruising yachts – as well as a long list of other projects including drones, research submersibles, and in their grandest commission yet, a set of original prototypes for a foiling/flying

passenger ferry – Moore Brothers is a cutting-edge outfit.

Well before all that, however, Sam and Oliver were a couple of kids playing around in a chicken coop in their family's place in the coastal town of Marion, Massachusetts, building one boat after another with Legos. "Those Lego boats still inform a lot of the passion in our lives," says Sam. "Oliver and I really enjoy finding the solutions to the puzzles that end up in front of us. What are the right pieces to stack up and assemble to make something work? It's really, really fun."

Growing up on the shores of windy Buzzards Bay was the prime environment for a couple of boat-crazed boys. The brothers quickly became expert sailors, honing their skills on a variety of small boats, including Lasers, Optimist prams,

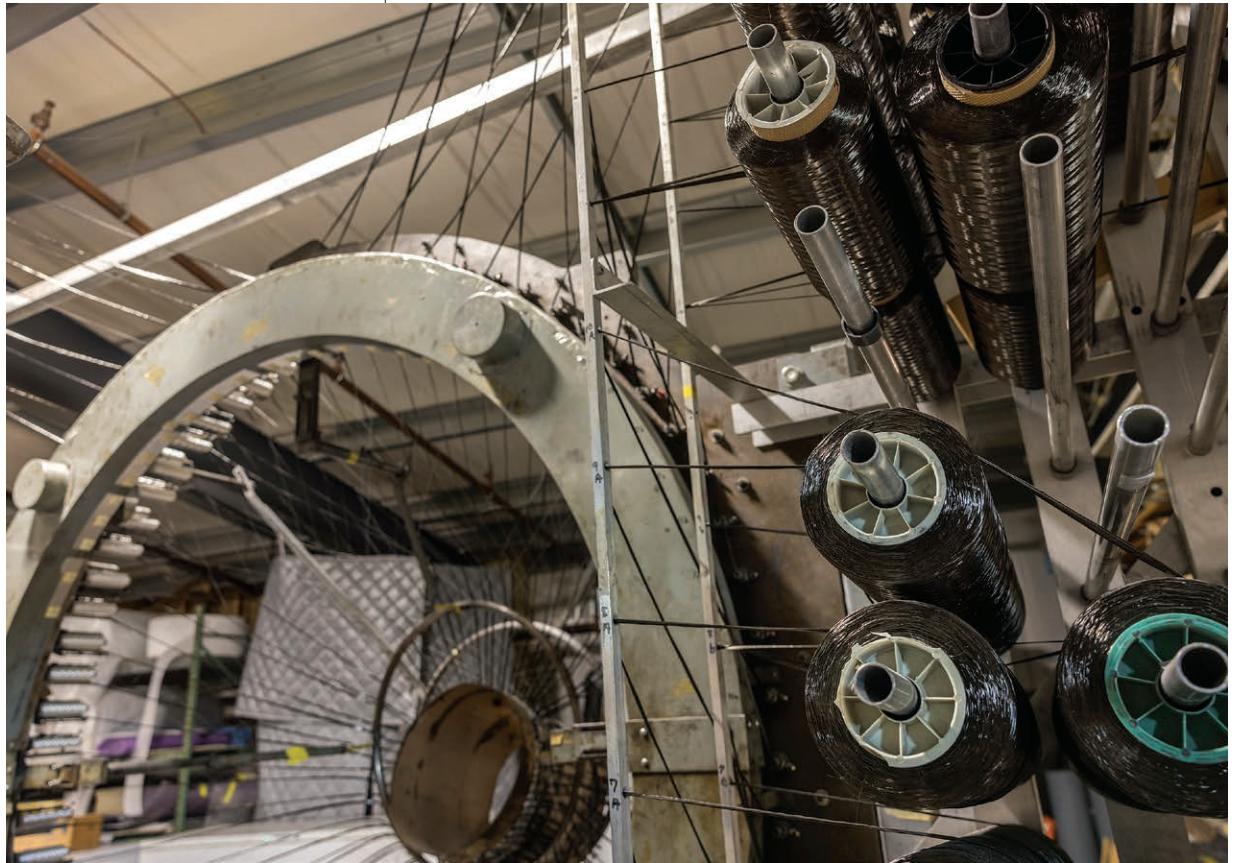
and Vanguard 15 dinghies. And that chicken coop was, in fact, a well-equipped shop where the lads got their first exposure to hands-on labor. "It's where we repaired all the skiffs and winter sticks and kept everything running relatively well in order to get by," says Sam. "A lot of traditional woodworking and some light composite work for maintaining boats and hardware."

Their dad, Michael, was a marine biologist at the nearby Woods Hole Oceanographic Institution, and by the time they were in high school, both brothers were familiar faces in the engineering and facilities departments – Oliver "pushing brooms" in the REMUS lab that developed underwater autonomous vessels, Sam in the machine shop "bouncing around" between welders and machinists.

"It's where we got our early exposure in how things are fabricated," says Sam. "The biggest thing we saw in the process was the need for direct involvement between all three parties: designer, engineer, builder. The designer and engineer are always talking to make sure the right thing gets designed. But having the builder involved in those conversations really aids in designing an efficient-to-build thing. If you can get everyone sitting at the same table, it all inevitably ends up being more robust, simpler to operate and maintain, and



The 60-foot autoclave for curing new pre-preg carbon-fiber masts can be seen protruding from their distinctive-looking plant in Bristol, Rhode Island.



To fabricate marine parts in carbon fiber, the material is fed and spun on a spool like this so that it knits and braids together for maximizing strength while reducing weight.

just better down the line."

Woods Hole had a major impact on the young brothers. Even more influential was their uncle, Steve Clark, a boatbuilder and world-class sailor who specialized in the highly technical C-Class catamaran and International Canoe classes. By the time they were in college – Oliver earned a physics degree at Williams College, Sam got his in mechanical engineering at the University of Vermont – both boys were not only racing boats with Uncle Steve, they were also working alongside him knocking out boats at his well-stocked shop in Warren, Rhode Island. For a project in his senior year at Williams, Oliver built an International Canoe in Rhode Island, shipped it to Australia, and competed in

the class's World Championships.

Following college (and after Sam spent a year in the world of aviation and helicopters, a childhood obsession on par with Legos that, he says, he "got out of my system"), the brothers found themselves back in Rhode Island, and for a time worked with their friend Lars Guck, tricking out race boats (in other words, sanding the bottoms of J/24s) in his business optimizing performance sailboats.

Eventually, Oliver left to pursue an engineering degree, then landed a job as an engineer at the prestigious Bristol mastmaker Hall Spars. There, he got his first opportunity to run a CNC (computer numerical control) machine, a centerpiece in contemporary manufacturing practices that uses software to perform machining tasks. As his responsibilities grew and he was assigned more complex technical projects, so too did his disillusionment. "If I'm going to take these kinds of chances," he thought, "I want to have my name on the door." At

a family gathering soon after, he posed a life-altering question to Sam: "What are we doing working for other people?" With that, the brothers' Moore became Moore Brothers.

A Young Company Is Born

In 2014, they hung their figurative shingle off the large garage they converted into a shop attached to the house Oliver bought in Warren, Rhode Island. With his new-found CNC skills, they purchased a couple of machines with an initial plan to manufacture custom downhill skis. That's when another in their growing list of mentors intervened. Oliver was engaged to the daughter of North Sails sailmaker Dan Neri. Danielle, now Oliver's wife, handles marketing and communication for Moore Brothers.

"Dan definitely had a vested interest in what we were doing," laughed Oliver. "He was like, 'Dude, do some math. How many skis do you have to sell in a year to take home \$100,000?' We were looking at



In addition to their bread-and-butter business of carbon-fiber parts fabrication, the Moore Brothers team has partnered with REGENT Craft to build the company's futuristic "seaglider" passenger ferry, with hydrofoils that allow it to operate on and above the water.

a customer base of maybe only a hundred people in the entire world. So, yeah, that wasn't going to be a good business."

As it turned out, fate had other ideas. A shipwright from nearby Newport, Jim Thompson, was refitting a massive tall ship called the *Oliver Hazard Perry* and required an exact mock-up model of the interior features – hull, ribs, and floor structure – so the furniture could be built offsite, then installed onboard. "On day one of having the CNC machine up and running, Jim showed up with the raw

materials, and 45 minutes later we were ripping V-grooves into PVC paneling to make the ship's interior panels," says Oliver. "We had cash in hand by the end of the day." Just like that, they were marine fabricators. Word about the talented brothers got around Rhode Island's tightly knit marine community. More work followed.

Going Big Time

After a couple of years in Warren, having outgrown the garage, they acquired

commercial property in the next town, Bristol – in symbolic ways a significant move. After all, Bristol has always been a centerpiece in Rhode Island's rich maritime heritage, being the home of legendary naval architect Nathanael Herreshoff, who dominated yacht design for 70 years until his death in 1938. Bristol remains the waterfront site of the extraordinary Herreshoff Marine Museum, and it has attracted a long list of well-regarded marine businesses and innovators, including boatbuilder Eric Goetz, the Hall brothers and their spar shop, and many others. If you're looking for experienced, skilled tradesmen, as the Moore siblings were, there are few better spots in America than Bristol.

Then, in early 2017, they got the proverbial offer that they couldn't refuse.

Oliver says, "One of our old mentors, Jeff Kent, had a company in Massachusetts called CSI Composites. He came to us with a proposal: 'I'm done sweating bullets. I don't want to be a sole proprietor anymore. But I'm not ready to retire. How about I sell you my equipment, and me and my guys come work for you?' With the business Jeff brought with him, our five-year plan happened in about four-and-a-half months." The brothers were off and running.

Entering The Fast Lane

For the Grand Prix race boat *Bella Mente*, Moore Brothers has built the steering wheels and pedestals, a series of rudders and a full water-ballast system. They've fashioned spars and other parts for the test boat of the New York Yacht Club's well-heeled *American Magic* America's Cup syndicate. They've built rudders for established sailboat brands like Hinckley and Morris (rudders are a go-to staple for the company, which has developed a tight, reliable, repeatable process for doing so). They acquired an autoclave to build lightweight cured carbon-fiber masts, and have knocked out more than a dozen. Currently, they're working on a custom 95-foot yacht being built in Maine called *Ouzel* and are fashioning its rudders, chain plates, radar mount, and other components. The list goes on and includes an ever-growing roster of clients outside the maritime realm, including the aerospace field.

Moore Brothers has the skill, team, and capacity to build yachts themselves. Currently, their in-house facilities and resources include some 21,000 square feet of shop space spread out over three buildings with a 7,500-foot climate-controlled laminating room, a 70-foot-long oven for curing pre-preg carbon fiber, a 60-foot-long autoclave for mast and spar construction, six-axis CNC routers, and a wide array of lathes and mandrels. But dedicated boatbuilding has never been a goal.

"We've always been conscious about wanting to make sure our entire book of business comes from a diversified set of industries," says Sam, rattling off a list of nonmarine projects that include drones



The community of engineers and top crafts-men – from young apprentices to experienced trades people – that the brothers have assembled has become their strength.

a 160-nautical-mile range with existing battery technology (upgradeable to 400-plus nautical miles with next-generation battery technology)." To accomplish this heady goal, REGENT partnered with Moore Brothers from the outset.

The opening salvo was in 2021. Moore Brothers supplied REGENT with production engineering support and composite fabrication of its fully functional, quarter-scale, roughly 15-foot-long prototype of the full-scale prototype. Once that was successfully completed, the Moore Brothers team built a full-scale rendering of the ferry in plywood. Now they've fabricated the wing and hull of the full-scale prototype, which recently began sea trials in Rhode Island's Narragansett Bay. The hull measures some 60-feet long with a whopping 65-foot wingspan, much larger and more complex than the average yacht of similar dimensions – for real-world testing of the concept and its systems.

One of the great and unexpected opportunities of the entire program was to incorporate the local Bristol marine



Bristol is a seafaring town with a rich history of boatbuilding dating back to the 1800s. Today, innovators such as the Moore Brothers Company are carrying on that tradition, helping to build the boats of the future.

est technology of computer-integrated control systems next to the bow of an old steamship. It was so cool. And it represented the innovation that happened in Bristol and is still here today."

Building A Community Of Trades

The brothers are all about community. Their mother, Hannah (another Williams grad), is a musician and educator. She was also one of the founding board members in the launching of the nonprofit Community Boating Center in New Bedford, Massachusetts, an organization dedicated to serving and mentoring kids by getting them out on the water on boats. Oliver still serves as the group's president. This sense of belonging and unity is a central hallmark in the goals, philosophy, and sensibility of the Moore Brothers Company.

"We've built our business through craftsmanship in the trades, where you can have a wonderfully fulfilling career.

Whether you're an electrician, plumber, or carpenter, you don't need to go to college and take on a quarter-million dollars of debt to have a rewarding, gainfully employed life. What's the goal of Moore Brothers?" he asked, rhetorically. "We

focus a lot on trying to create opportunities for people to thrive in the trades doing engaging, creative things. We get to show up to work every day with people we love and enjoy being around and solve interesting problems. And I get to do it with my brother. Like, how cool is that?"

Sam agrees, "Understanding that regardless of whatever happens, somebody's standing by your side with unconditional love, that's a powerful backstop. Through thick and thin, Oliver's had my back and vice versa. Knowing somebody's got your back is awesome."