

A 'Bottoms-Up' Approach

Dave Livingston

BY JOHN LUND AND MARIANNE VAN TOOR

Interviewing Dave Livingston is a lot like attending a college class taught by an instructor who is equal parts scientist, boatbuilder, historian, businessman, and comedian. The curriculum is basically Dave Livingston's life in North America's marine industry—with generous amounts of fluid dynamics and, quite literally, a bottoms-up approach to boat design thrown in.

For a taste of the latter, we are ushered into the women's washroom at the Ranger Tugs plant in Kent, Washington, an operation now owned by Livingston's son John. Here Dave runs a stream of tap water over the back of a plastic spoon to give us a hands-on lesson in water flow over a round hull.

Fascinated we watch as the spoon gets sucked into the stream and held there. When Dave turns the spoon over, the suction disappears.

Next, he fixes a carefully shaped piece of tape diagonally across the utensil; this minor interruption of the water stops the spoon from bouncing in the stream

and allows the flow to run freely over its surface. Voila! We just received a lesson in how running strakes, or "steps," improve hull performance and efficiency. The "professor" is a man whose early love of physics (in high school) led him to a life of developing better boats.

The iconic design bearing the family name is the Livingston dinghy, of which there are many thousands spread across the world. Other boat brands with which Dave has been involved include Reinell, Wellcraft, Regal, Fountain, and Bayliner, where he was president from 1988 to '89.

His love for boatbuilding actually started at age 14 when, collecting papers as a



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Boy Scout, he found a booklet entitled *50 Boats You Can Build Out of Plywood*. Dave decided that the 9.8-foot Mustang runabout was just the boat for him.

His parents' small house lacked a garage, so he first dug out a space *underneath* the house and set up his sawhorses. By cutting lawns and doing odd jobs Dave managed to buy boatbuilding materials—including long planks—which he carried home on his bicycle. He fixed up a rusty old 4.3-horsepower Johnson outboard (purchased for \$15) to power his new ride.

"I took my runabout to Blake Island, where I fished and learned about tides and currents by myself, without the supervision of my parents," says Dave.

In high school, he fixed cars, built more boats (including hydroplanes), and picked up an almost-new Mercury Mark 20H outboard for \$100 at a "Dutch auction." "I played in Deception Pass whirlpools at 32 miles an hour. By tuning the motor and OJ prop, I jacked my rig up to 35 miles per hour," Dave says with a smile.

After high school came military service, engineering courses at Olympic Junior College, and several engineering jobs. But it wasn't long before the young Livingston was wondering what boat he should build next.



Developed by Dave Livingston (above right) and his son John, the Ranger 25 tug has been a resounding success. Though trailerable, this pocket cruiser has a big-boat feel.

He constructed two slim hulls out of plywood and showed them to neighbors, who figured they would make good dinghies. At that time, fiberglass boatbuilding was in its infancy, so Dave learned the new techniques from library books. Armed with supplies from a Lake Union shop, he went to work in an old chicken coop at the back of his property and built his first fiberglass catamaran dinghy in 1964.

“I wasn’t thinking about the commercial aspect at the time,” Dave says. “I just liked building boats. I experimented with fiberglass on plywood because I was too cheap to buy polystyrene,” he adds. “My wife worked for an insurance company and, fortunately, had enough understanding to let me play in my chicken coop.”

Dave’s twin-hulled dinghies soon generated both interest and paying customers, so in the late 1960s he took an eight-footer to the Seattle Boat Show. There, much to his surprise, he received more than 40 orders. The Livingston Boat Company was born.

Not having enough credit to borrow money, Dave built boats in his chicken coop in the summer months and rebuilt cars in a neighbor’s spare garage during the fall and winter. Using his newly restored 1965 Corvette as a tow vehicle, he used a trailer piled high with dinghies to deliver his boats to customers.

For six years Dave built 8-, 10-, and 13-foot dinghies on his own until he got a call from Reinell Boats. The company contracted him to redesign an unstable 24-foot express cruiser, for which he developed a new bottom. Reinell ended up buying the Livingston Boat Company, which still produces the catamaran dinghies today.

Reinell’s design and tooling shops gave Dave’s creativity, curiosity, and skills free rein. There, he developed integral swim platforms, molded seats, backlit instrument panels, and new injection-molding processes.

His next foray into the corporate boatbuilding world was with Bayliner, where he worked in the design and prototype shop, eventually moving to the presidency just before Brunswick Corporation acquired the company.

During his stint, Dave worked



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Dave has put his extensive knowledge of fiberglass tooling and lamination to good use in the Ranger plant, where limited space puts a premium on efficiency.

with Doug Peterson, designer of many famous racing sailboats. This was the period when Bayliner produced the Buccaneer line of sailboats, and their job was to convert racing designs into fast cruising sailboats.

This was also when the fuel crisis hit.

“Displacement trawlers built in Taiwan were killing our industry,” Dave remembers. “When I saw one in Roche Harbor, I tried to figure out how to make it go faster without compromising fuel efficiency.” His design ideas were applied to the bottoms of the 32-, 38-, and 45-foot Bayliner motoryachts.

“The most successful project I did for the company was the Capri runabout, which came standard with a radio, canvas, and a swim platform,” says Dave. While president, he was responsible for turning out 56,000 boats a year (in 23 different plants), building trailers to fit all Bayliner boats, and developing more-efficient sterndrives.

Shortly after Brunswick’s takeover, Dave left the company and lost interest in boats altogether, turning his energy to rebuilding vintage cars and racing Lotus and Ferrari Formula Ones at Westwood (Vancouver), Portland International, and Phoenix.

“For ten years I didn’t set foot in a boat show until Bob Long, then president of Wellcraft, sent me two tickets for the one in Miami,” says Dave. “Next I went to the Chicago Design

Show, where I ran into Regal president Duane Kuck. He was looking for ways to put better value and more engine efficiency into his boats.”

Using the plastic spoon with shaped “strakes” as a starting point, Dave modified existing Regal hulls and created steps, tunnels, and chines to increase performance and give the boats a smoother ride. In his words, he used gallons of Bondo and hours of on-the-water testing to create the FasTrac hull—basically a deep-V hull with 24 degrees of deadrise and a step amidships. To this he added Laminar Flow Interrupters—a “patent pending” series of small notches between the forward strakes to improve cornering control.

After three years at Regal, Dave was itching to start building Solara boats—sleek 21-foot runabouts utilizing his latest ideas about hull design. His son John went to Howard Smith, owner of Ranger Tugs, to inquire about using his plant to build the Solara molds. Howard, who was getting on in age, had apparently been thinking of selling the company and named an attractive price. John bought the Ranger Tugs Company in 2001.

Together, father and son built 21-foot tugs on a displacement hull, 21-foot Solara runabouts with small V8 engines, plus a few small sailboats.

“We improved the tugboat,” says Dave. “We widened and stretched the



John Livingston, who owns Ranger Tugs, deeply respects his father's experience.

cabins, added to the back, made them 50 percent faster, used aluminum-framed windows instead of wood, and increased fuel efficiency to 10 miles a gallon." He

adds, "We also reduced the number of hull parts to seven, which made construction easier and more efficient."

Next, the Livingstons developed a 25-foot trailerable, tug-style cruiser that changed everything for the company. Dave explains: "Nordic Tug had dropped its 26-foot model a decade earlier, and people often asked us for a boat that size. So, we developed the 25-footer and sold 53 of them in the first six months. We got so many orders that we had to stop Solara production, which we hope to redevelop some day," he muses.

At 68, Dave looks at his involvement in his son's company as "a great retirement project," and John is happy to have his dad around. "My father is probably the most accomplished boat designer in the world," says John. "He has created thousands of models for various manufacturers, and he can boast that more people have owned one of his

boats than designs produced by anyone else," he adds.

John figures that he came by his love for boatbuilding even before his birth. "My mom was helping Dad build Livingston dinghies when she was pregnant with me, and I've been addicted to styrene ever since," he laughs.

John recalls that for the Livingstons family, boating was as much about experimenting with new boat designs as it was about recreation. But, he adds, there were lots of fun times, too, when the family explored the waters of the Pacific Northwest on weekends and vacations.

Today, when Dave is not refining and modifying his aluminum, Italian-built Admiral motoryacht, he can be found at Ranger Tugs, tooling parts, sweeping floors, going over design ideas, and helping wherever needed.

"I'm working my way down," he chuckles. ❁