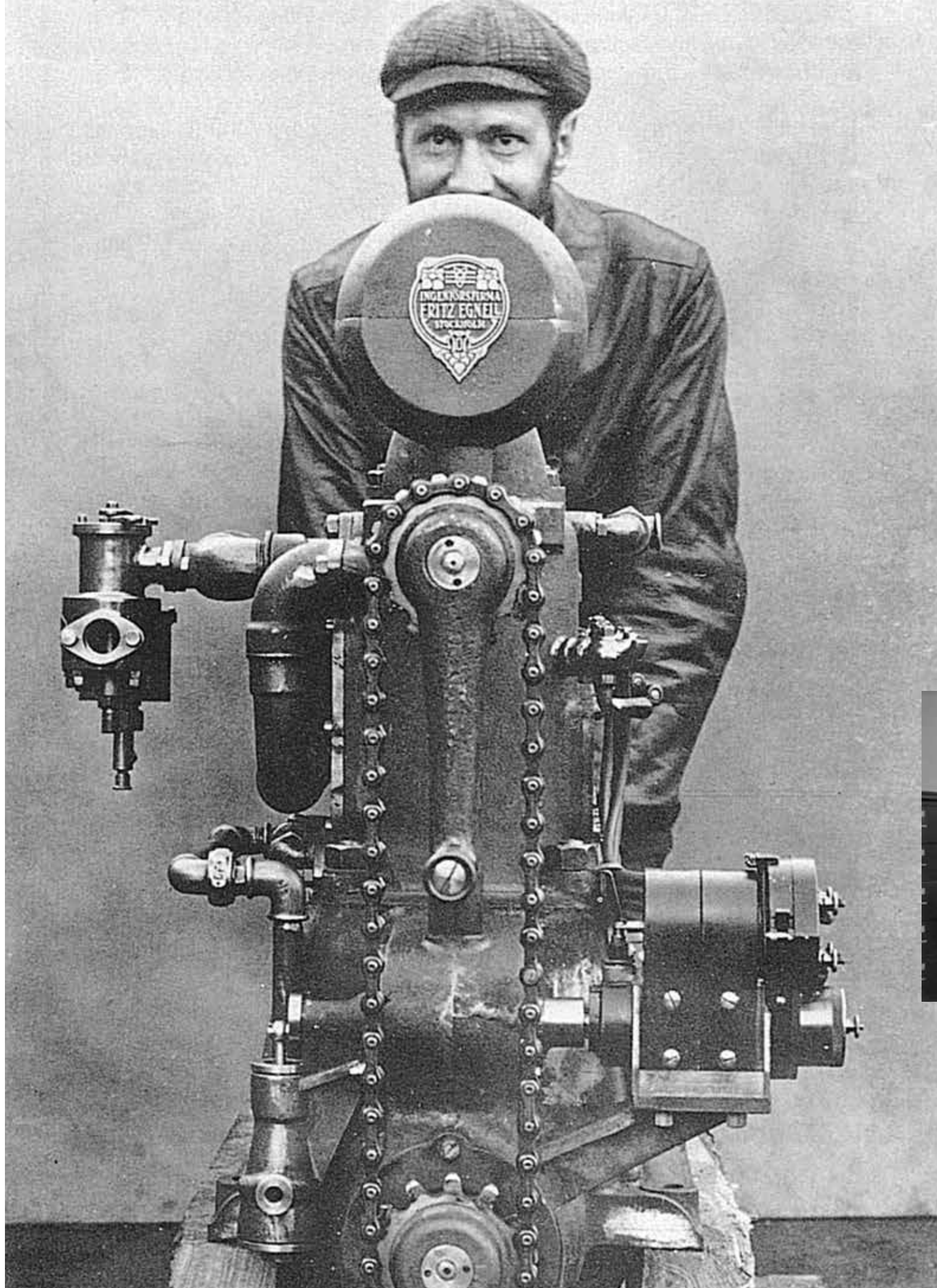


Engineer Edvard Hubendick (right) stands behind Volvo Penta's first engine, the Penta B1, circa 1907. Despite a lack of any formal design training, Ray Hunt (below) would pen award-winning sailboats and powerboats.



THE CRAZY ONES

Innovators are pioneers willing to take risks, accept all challenges and make a change for the better. Here are some dreamers who did just that.

BY THE EDITORS



Jack Hargrave ponders a design over his drafting table. Dick Bertram poses in a Rolex ad. Shep McKenney found a way to take the motion out of the ocean.



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MANY INDIVIDUALS and groups have made incredible contributions to the sport of yachting over the years, from both boatbuilding and technology standpoints. In fact, there are too many of them to cover in an article, a single issue or even a volume of text. Our team at *Yachting* is inaugurating this annual Innovation issue to look at where we started, what's current and what's coming. This year we celebrate five innovators who have made a real difference in the sport we love. Who are your favorites?

DICK BERTRAM

HERE ARE THOSE who can create and those who have vision for the creation. Dick Bertram possessed both of those qualities.

On a rough-weather day 57 years ago, the renowned sailor and yacht-brokerage firm owner witnessed a 23-foot, deep-V boat demolishing nasty sea conditions. He was not a boatbuilder, but he saw the craft's potential and asked, "What if?"

The yachtsman's curiosity led him to locate the designer, C. Raymond Hunt (read more about Hunt on page 43). Hunt soon drafted a 30-footer that Bertram built out of wood. The craft was named *Moppie* — Bertram's wife's nickname. In 1960, he raced the boat in the now-famous Miami to Nassau event, where his newly designed vessel crushed the competition.

By the time *Moppie* completed the race, throngs of enthusiasts wanted a boat just like her. So he became a boatbuilder, and the Bertram 31 was born. By 1971, 1,000 Bertrams were built. Today, countless models up to 80 feet in length ply the seas, and that 31 still enjoys a cultlike following.

COURTESY HARGRAVE YACHTS; HATTERAS YACHTS; FERRETTI GROUP



JACK HARGRAVE

TAKE A CLOSER LOOK at the picture to the left. It appears to show a rather dramatic yacht launching, but it also says a lot about yacht designer Jack Hargrave. The boat was a 70-foot steel yacht called *Seven Seas*, the first vessel longer than 30 feet for which he created a full set of drawings. It seemed the futures of the boat and the designer were linked.

During the launch of *Seven Seas*, the blocking gave out, sending the yacht hurtling toward the water. All the while, Hargrave (in the bottom right of the picture wearing a white jacket) looked on with his hands resting idly in his pockets. Now *that* is confidence.

Seven Seas earned the acclaim of the industry, accolades Hargrave used to open his own firm in Palm Beach, Florida. It flourished, and he went on to pen designs for many large and successful builders, including Amels, Burger, Cheoy Lee, Hatteras, Palmer Johnson and Trumpy.

That first yacht was also the reason an ambitious sport fisherman named Willis Slane knocked on Hargrave's door. He wanted a first-of-its-kind fiberglass boat that could handle the rough waters off North Carolina. Hargrave and Slane would accomplish this feat with the first Hatteras yacht, a 41-foot game-changer called *Knit Wits*.

That sport-fisherman (which was refit last year and even competed in several sailfish tournaments) proved not just that Hatteras Yachts was a serious builder but also that fiberglass was the boat-building material of the future.

The Hargrave name lives on today thanks to Mike Joyce, who bought the business and used its legacy to launch the renowned large-yacht company Hargrave Yachts.

In 1960, Dick Bertram (bottom, far left) built and raced this 30-foot, deep-V craft right into boatbuilding folklore. Bertram established his company's home base (center) in Miami. The first Hatteras yacht, the 41-foot *Knit Wits*, has been fully restored to her former glory and can be found on display at major Florida boat shows.

VOLVO PENTA

WHAT'S IN A NAME? If you're the 107-year-old Swedish brand Volvo Penta, it's everything. This well-regarded engine manufacturer built its first motor back in 1907 (coincidentally, the same year this magazine launched) when it was called Sköfde Gjuteri och Mekaniska Verkstad. The engine was called the Penta B1, and the name Penta came from the fact that five people were present during the engine's initial design meetings. Within two years, the company produced its first 20 motors and has been on the leading edge of propulsion technology ever since.

Volvo Penta built its first outboard engine in 1922, selling almost 8,000 units in the initial year of production. Throughout the ensuing decades, the company looked toward inboard gas and diesel propulsion, and by 1954 the manufacturer had built its first turbo diesel.

Building a better mousetrap has always been this company's forte, and that was particularly noticeable in 1959, when it matched the benefits of outboard propulsion (such as directional thrust) with those of inboard propulsion (an engine protected inside the boat) and created the Aquamatic sterndrive. In 1965 alone, Volvo Penta sold more than 5,000 of its Aquamatic packages to boaters in the United States. To this day, the sterndrive remains a popular engine option on a plethora of sport boats and cruisers.

All of these milestones led to what many of today's enthusiasts consider one of the most pivotal innovations in pleasure-boat propulsion history:



the Volvo Penta Inboard Performance System, now known as IPS and seen regularly around the docks on pod-drive boats.

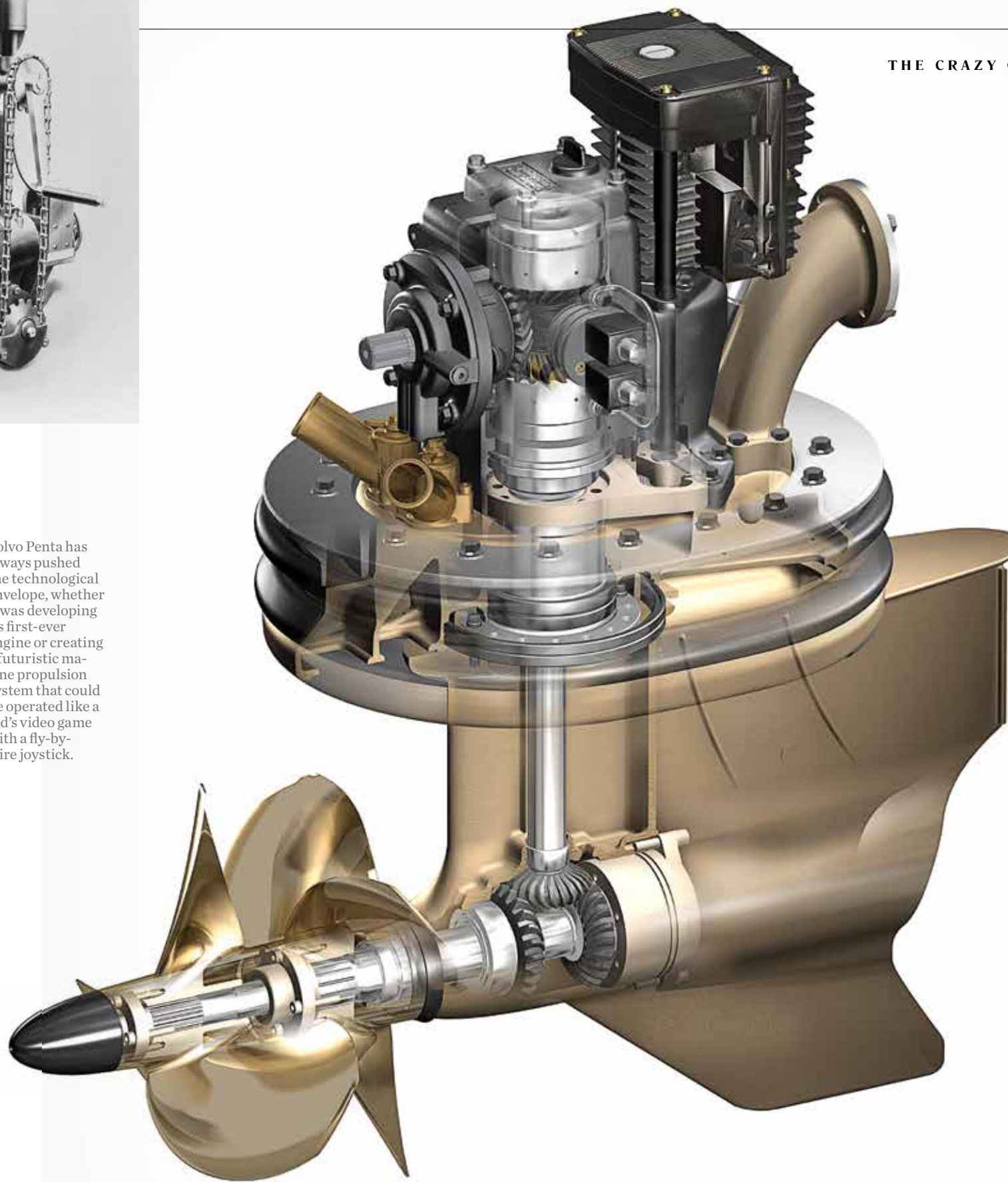
When it was introduced in 2005, IPS had people scratching their heads and trying to understand it. There was the setup's wild, forward-facing, rotating Duoprop configuration; the design required two giant holes in a yacht's hull bottom where the system's pod drives sat secured by massive O-rings; and the engines were either close-coupled to the pods or attached via jack shaft. And then there was an option to drive the boat via fly-by-wire joystick. It looked space-age. But while it appeared futuristic, IPS actually did everything Volvo Penta promised it would.

The genius of directing exhaust out and under-water through the drive made for an odor-free ride. The lack of long shafts and hull-mounted struts helped reduce boat noise overall. This setup was more fuel efficient than a straight-shaft-and-prop system. The joystick enabled a novice boater to control each pod drive individually and — in minutes — to bring a vessel confidently into a slip no matter the wind or current.

Volvo Penta's IPS has seen incredible growth, from originally propelling midsize cruisers to now moving yachts up to 100 feet length overall. Today, there are about 8,400 IPS-equipped yachts on the water. The popularity of pods has truly helped put more people on the water. The only thing left to ask is, What's next?

Volvo Penta has always pushed the technological envelope, whether it was developing its first-ever engine or creating a futuristic marine propulsion system that could be operated like a kid's video game with a fly-by-wire joystick.

COURTESY VOLVO PENTA



The IPS team: Johan Wästeräng (opposite) and (from top) Göran Gummesson, Mats Edonborg, Lennart Arvidsson, Staffan Jufors and Lars Ljungqvist.

SHEP MCKENNEY

SOMETIMES WHEN the stars align, maritime magic happens. Sometimes twice. Such is the case with Shep McKenney. He once co-owned Hinckley Yachts and brought boaters the famed Picnic Boat and the first-ever joystick helm setup. His current company, Seakeeper, produces one-of-a-kind gyro stabilizers for yachts.

Bringing stability to those who have a passion for being on the water, but are not fans of excessive motion, is his calling. And McKenney is one who finds a way to get it done. When he couldn't locate someone to help him develop Hinckley's joystick helm, he sought out hardware developers and software engineers to make it happen. Similarly, when it came time to bring his one-of-a-kind gyro concept to reality 11 years ago, McKenney found out through an industry friend that a naval architect named John Adams happened to live close to McKenney's Maryland home base and was specializing in motion control for high-speed ferries operating in the Southern Hemisphere. Call it serendipity. This dynamic duo developed the Seakeeper gyro.

Creating technology that borrows from myriad industries, including automotive, aerospace and marine, was harder than originally intended. There were failures. McKenney, who was steadfast in his belief he was on to something that could change the experience of boating forever for the better, would not be denied. Currently, there are 1,700 gyros keeping yachts on an even keel.

Seakeeper gyros were originally limited to larger vessels because of cost. Now McKenney's team has them for the 35- to 45-foot market and says the next iteration will fit boats starting at 25 feet. Let the good times roll (gently).

The iconic Hinckley Picnic Boat was the first joystick-drive vessel. Here's Hull No. 1 (right) as she looks today. Her current owner's kids certainly seem to be fond of her. The Seakeeper gyro (top, center) is an involved technology that accomplishes an amazing feat: It stops boat roll.



Sea Blitz was the first boat to have a deep-V hull. Shortly after being built, she caught the eye of Dick Bertram, and the hull shape was used in the Bertram 31.



COURTESY HINCKLEY YACHTS; SEAKEEPER; C. RAYMOND HUNT & ASSOCIATES



RAY HUNT

THERE ARE GREAT POWERBOAT designers, and there are great sailboat designers. Then there is Ray Hunt, a rare individual who was able to transcend both disciplines.

Hunt's unorthodox path toward becoming a designer and builder began when he was a boy sailing small boats in Duxbury, Massachusetts. He grew and blossomed into an accomplished helmsman, winning local races and world championships alike aboard R boats, Q boats, 8-Meters and, later, J Class yachts. While his formal education ended in prep school, that racing experience provided the groundwork upon which Hunt created dozens of the greatest design innovations of all time.

"Some say the lack of formal design experience greatly benefited Hunt," says Winn Willard, vice president of C. Raymond Hunt Associates. "He never learned the rules, which pushed him to learn more. He had confidence, courage and vision."

Perhaps his greatest innovation, still widely used today, is the deep-V hull. With a sharp entry V-shape carried from bow to transom, it yields an evenly distributed displacement that helps a vessel track straight in a variety of sea conditions. The first deep-V hull was used in his 1949 design of a boat called *Sea Blitz*. The hull shape would obtain national acclaim after its use on the Bertram 31 *Moppie*, which won the Miami-Nassau Powerboat Race in 1960 in record time. An article about that race and the unique hull ran in *Sports Illustrated*, and the rest, as they say, is history. The seminal hull shape would go on to be used in the original Surfhunter, fleets of pilot boats and military vessels alike.

Hunt would pen countless other award-winning racing sailboats and powerboats, as well as the extremely stable cathedral hull that was used in the always popular 13-foot Boston Whaler.

Today, his ingenious and unrestricted approach to modern boat design is continued by the ever-creative team at C. Raymond Hunt Associates and Hunt Yachts. ♣