

# Need for Speed

*Five approaches to satisfying that urge to go fast — really, really, really fast.*

When yacht designer Bill Lee latched on to the phrase “Fast is Fun,” he did more than label his own design efforts, he sparked a new generation of sailboats that continue to attract ardent followers. Much has changed since those early days when Lee’s Santa Cruz 27s were being built by land-bound surfers waiting for big winter swells.

Lee’s plant, affectionately known as the “Chicken Coop,” has been upstaged by climate-controlled facilities and much more esoteric building techniques, but the impact of his designs—particularly on the traditional East Coast naval architecture establishment—reverberates today. The high-performance experiments of Lee and other like-minded sailors spawned a worldwide obsession with lightweight boats that could plane on a reach, and thanks to innovations in designs and materials, that passion continues to grow today.

This fledgling group of speed enthusiasts prompted the evolution of a number of design elements and construction techniques aimed squarely at maximizing speed: planing hull forms, carbon rigs, specialized hardware, and sail plans that favor lift over drag. Add to this the innovations from C-Class catamarans, planing Aussie skiffs, and the offbeat foil flyers, each adding its own signature performance push, and it’s no surprise that sailing speed records have continued to tumble.

The legacy left in the wake of these seafaring hot-rodders has benefited the average sailor with new materials, hardware, and design improvements found in modern boats. And now, there’s a growing interest in the fleet of what Lee calls “street legal” boats that further push the envelope of the fast-is-fun philosophy. These boats are usually found in the less-trafficked corners of the boat shows, in essence a sideshow that’s well worth a closer look.

After sifting through the field of sailing sports cars on the market today, *PS* identified five very different production craft that lived up to our expectations. They all meet the “speedster” criteria, but by no means fall into the same mold. At the top end of our size and cost profile is a Lee legacy, the Santa Cruz 37, a wolf in wolf’s clothing that offers performance as priority one, two, and three on the design criteria list. Next in line is the Andrews 28, a breakaway racer/cruiser that packs performance and a Spartan minimalist’s cruising package

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*With steep sail area/displacement (SA/D) and displacement/length ratios (D/L), the Santa Cruz 37 (above left) will keep on her feet in light summer breezes long after the classic Sparkman & Stephens Tartan 37 has lost way. One of the few production boats that comes close is the J/125, which pushes the performance envelope even further.*

Photos by Ralph Naranjo



## SANTA CRUZ 37 IN CONTEXT

MODEL	SANTA CRUZ 37	J/125	TARTAN 37
LOA	37'	41'	37' 4"
LWL	34' 9"	37'	28' 6"
BEAM	10' 8"	10' 6"	11' 9"
DRAFT/SHOAL	7' 6" / 6'	7' 9"	4' 2" / 7' 9"
BALLAST	3,730 lbs.	4,646 lbs.	7,500 lbs.
DISPLACEMENT	8,662 lbs.	8,350 lbs.	15,500 lbs.
SAIL AREA (100% FORETRIANGLE)	725 sq. ft.	865 sq. ft.	625 sq. ft.
ENGINE	29 hp.	20 hp.	37 hp.
WATER	58 gal.	22 gal.	50 gal.
FUEL	26.5 gal.	20 gal.	90 gal.
SA/D RATIO	28	34	16
D/L RATIO	92	74	299
PRICE*	\$350,000	\$400,000	\$60,000

\* Median price of online search; actual purchase prices can vary.

into a 25.7-foot waterline. Hard to miss is the Open 6.50, an out-and-out go-fast sport boat with room below for little more than a cooler and a bevy of high-tech sails. For the diehard dinghy sailor, we highlight the quick planing Stealth, a 14.5-footer that redefines reaching, and in true giant-slayer fashion, can fly by most 40-footers on a power reach. Finally, we hop aboard a turbo-charged windsurfer, the Starboard Futura, which is powered by a Neil Pryde sail and runs away with the award for most speed and fun for our dollar.

While some of these boats are designed with racing in mind, we rate them here purely according to their fun-factor, the ability to deliver the exhilaration that comes from sailing a high-performance boat. We are particularly interested in boats that can offer satisfying sailing in lighter winds of about 8 knots, common in most areas of North America. If exciting racing on a weekly basis is your goal, then we would recommend also looking at more mainstream boats that are supported by large Performance Handicap Racing Fleet (PHRF) or one-design fleets in your region.

**SANTA CRUZ 37**

Lee may no longer be building boats, but his Santa Cruz legend lives on. The latest iteration of the fast-is-fun form belongs to a lightweight carbon-fiber/ epoxy-resin speedster designed by Kernan Yacht Design and built to International Standards Organization (ISO) Category A standards (designated for boats generally considered capable of offshore sailing). The hull and deck are bonded together, and carbon/PVC foam bulkheads and a carbon-reinforced E-glass grid are set in place using a methacrylate adhesive, creating a stiff, monocoque structure. There's even a hydraulic lifting option that allows the fin and bulb keel to be retracted vertically for entry into shoal water.

The specs are interesting, and they highlight that this is a boat that must be sailed to be appreciated. Like a cat that is ready to pounce, the large mainsail-dominated sailplan delivers a responsive boost to every puff that crosses the deck. The SC-37 sailplan is indicative of the performance trend toward large mainsails and smaller jibs, and with a sail area/displacement ratio of 28, there's plenty of power to be found in the sailplan. Off the wind, the options increase.

A quick look at the pointy end of the boat reveals a double-barrel set of stem projections. The smaller, well-reinforced A-frame is meant for code-sail handling and is rugged enough to take the on-the-wind loading of a close reach in oceanic conditions. The 7-foot retractable carbon sprit puts the tack of an asymmetric spinnaker right where it belongs, in clear air well away from the furled headsail.

Below is a nicely accented interior that's more than a den for sailbags. The galley, berths, and a small center-line table offer functional accommodations. The cabin ambiance may not live up to a liveaboard cruiser's expectations, but it certainly offers welcome solace for the off watch.

With one set of jib winches in the cockpit and a set on the cabintop for spinnaker handling, the helmsperson is not crowded, and there's space for every function. The main halyard is led below and clutched off on the spar itself, minimizing stretch and keeping the halyard tail well out of the way. Having to go below to blow the main halyard is not the best arrangement from a safety and convenience standpoint, but on a boat likely to have multiple crew members, it is not as much of an issue as it would be on a boat aimed at singlehanders or cruising couples. The only other problem we noticed was some rudder cassette binding when hard on the wind. By presstime, the builder had already



*The Santa Cruz 37's autoclave "baked" carbon-fiber mast (top, right), lifting cassette-mounted rudder (center, right), and 7-foot-long bowsprit reflect the advances in design, construction, and materials that have made today's high-performance sailboats faster than ever.*



OPEN 6.50 IN CONTEXT		
MODEL	OPEN 6.50	J/22
LOA	21' 4"	22' 5"
LWL	21' 4"	19'
BEAM	8' 4"	8'
DRAFT/SHOAL	6' 6" / 12"	3" 10"
DISPLACEMENT	1,168 lbs.	1,790 lbs.
BALLAST	485 lbs.	700 lbs.
SAIL AREA (100%)	425 sq. ft.	223 sq. ft.
ENGINE	Outboard	Outboard
WATER	0 gal.	0 gal.
FUEL	0 gal.	0 gal.
SA/D RATIO	61	24
D/L RATIO	54	117
PRICE*	\$60,000	\$17,000

*\* Median price of online search, actual purchase prices can vary.*



*Built to fit within the 6.50-meter box rule design, the Open 6.50 from Group Finot looks like a scaled-down Open 60. Its wide beam, light displacement, and minimal drag combine to yield planing speeds in light winds and surprisingly tight wind angles. Its deep bulb keel (6 feet, 6 inches) and nearly 500 pounds of ballast give it the stability required to carry an impressive amount of sail area (top). The drop keel design makes for easy trailering, as the keel can be raised to reduce the draft to a foot. Comparing the principal dimensions, the sports-car-like Open 6.50 makes popular one-design racers like the J/22 seem like bogged-down SUVs.*

category. If you're looking strictly for an IRC racer, there are better options out there, and in the more mainstream PHRF or one-design fleets racing, there are some Beneteaus and J/boats in this size range that may better meet your needs. However, if you want to flat out fly on a boat with modest cruising comforts, the SC-37 delivers in spades.

**OPEN 6.50**

This 21-foot sport boat has been described as “100-percent carbon and 200-percent adrenalin,” and the combination delivers hoots and smiles from all on board. With a 43-percent ballast ratio, wide beam, and a sail area to displacement ratio that redefines the concept of being powered up, this high-strung sportboat gets going while others remain stuck in the water.

Carrying the fast-is-fun philosophy to the next level, Group Finot pushes the

limits of what should be labeled “street legal.” In this miniaturized iteration of the go-fast ideal, they have merged an ultra-lightweight (1,168 pounds), carbon and foam-sandwich hull with a carbon sprit and spar. This delivers the ability to carry 425 square feet of sail upwind, and 812 square feet off the wind. Reminiscent of scaled-down 60-footers, this ultralight with a wide beam aft shows zip on and off the wind.

The Open 6.50 is an engineering masterpiece, and a clear example of how aerospace technology can be put to good use in boat building. The hull laminate and foam core are assembled dry in a closed mold and slipped into an autoclave to be baked under elevated pressure and temperature—curing like a high-tech loaf of bread. The carbon-fiber prepreg resin flows when heated, and the exacting nature of the pressure induced bond leads to laminate con-

changed the bearing engineering to eliminate this problem.

**Bottom line:** Despite its teething pains (rudder problems at this level of the game are not acceptable), the SC-37 truly ramps up the fun factor in this size

sistency and the highest of strength-to-weight ratios. Foam flotation and a sealed carbon mast provide the boat with an unsinkable ISO Category-C label and added resistance to capsizing.

Thanks to a drop-keel design, the Open 6.50 can change its draft from 6 feet, 6 inches to 1 foot for easy trailer launching and recovery. Twin rudders tame steering characteristics despite the ultra-wide beam carried all the way to the transom. All of the controls are placed at just the right points for easy trimming, and the flat-top, high-aspect-ratio main and jib deliver maximum punch. The 7-foot retractable carbon sprit adds a downwind dimension to sailing that can only be described as turbocharged.

Optimum crew size varies with conditions and how hard the throttle will be kept down. Two can have plenty of fun sailing the boat, but to squeeze out maximum performance, three to five seems to be the right number, and the range depends upon a tally of size and skill.

The Open 6.50 is an all-Harken hardware platform, and both the deck layout and choice of gear fit the job at hand. The boat's light-air ability is astounding, and in only 10 knots of breeze, the crew can coax bouts of planing. Hiking is optional, and remains a legs-in effort, but when the true wind and boat speed start to look the same, it's amazing how far forward the apparent wind moves, another reason that a sprit-set, reaching asymmetric spinnaker is favored over a fuller-cut, deep reaching sail.

**Bottom line:** The Open 6.50 revs up the fine art of daysailing, but the big downside is the price tag, about the same as a well-appointed BMW. With it comes no bunks, diesel auxiliary, or potential for overnighting—just the pure enjoyment of having one of the fastest and most fun sailing machines to be found on any local bay, lake, or other inshore estuary.

**ANDREWS 28**

Alan Andrews has introduced a new breed of racer-cruiser, and there's good reason to see it as a break-through boat. Gone is the gingerbread trim of



*Comparing the Andrews 28 to one of the more nimble classic plastics of similar length reflects how advances in composite technology has allowed builders to drastically reduce hull weights. Despite carrying almost the same working sail area, the Andrews weighs in at less than half of the Pearson 30, one of the "faster" boats reviewed in our April 2008 issue that looked at 30-footers from the 1970s.*

tradition and the excess weight that creates increased wetted surface, skin drag, and all the other drag issues that give many cruisers a chronic case of the slows. In its place is a minimalist approach—simple but functional basic cruising amenities, a compact diesel auxiliary and an obvious emphasis on the rig, sailplan, and deck layout—the stuff that sailing is really all about.

The foam sandwich hull is created through a resin-infusion process that minimizes void content and maximizes core adhesion. Carbon fiber is used in key high-load areas to achieve the necessary strength with the least amount of additional weight. A grid is molded into the bilge and loads from the deck-stepped spar are transferred via a compression post to the grid.

An innovative lifting keel retracts into a centerline slot, masquerading in the cabin as a convenient table. With just a quick hoist, the 7-foot deep-draft foil and bulb keel morphs into a 2-foot, 8-inch gunkholer that's trailerable, a feature that opens up North America's most appealing cruising destinations.

A high-aspect ratio, carbon fiber, tiller-steered rudder can be easily pulled out of its transom-mounted cassette. The combination keel and rudder adjustability make the Andrews 28 much

ANDREWS 28 IN CONTEXT		
MODEL	ANDREWS 28	PEARSON 30
LOA	28	29' 9"
LWL	25' 9"	25'
BEAM	9' 10"	9' 6"
DRAFT	7'	5'
DISPLACEMENT	3,750 lbs	8,320 lbs.
BALLAST	1,290 lbs.	3,560 lbs.
SAIL AREA (100%)	466 sq. ft.	444 sq. ft.
ENGINE	10 hp.	30 hp.
WATER	5 gal.	23 gal.
FUEL	10 gal.	20 gal.
SA/D RATIO	31	17
D/L RATIO	98	238
PRICE*	\$89,153	\$12,000

*\* Median price of online search, actual purchase prices can vary greatly.*

more than just another reincarnation of a Midget Offshore Racing Club (MORC) boat.

When it comes to weekend adventure or a weeklong summer cruise in a remote trailer-sailing destination, there's much going for the A-28. Its accommo-



*Representing the latest evolution in sailing dinghies, the Stealth 14.6 allows sailors to either set or douse the gennaker with just one double-ended line (above). Some 80 pounds lighter than the conservatively canvassed Club 420, the Stealth has car-top potential and offers a huge sail-area to weight advantage.*

dations, though far from sumptuous, are adequate for the job at hand. With a sink, one-burner stove, ice box, and enough space to prepare a simple meal, the mini galley rates an adequate score. The berths are comfortable, and there's a small but welcome nav station. Tankage is minimal, but with an enclosed head, albeit with a shade-like faux door, the boat qualifies as a pocket cruiser.

The real appeal of this boat is found underway, when its thoroughbred handling characteristics and efficient sailplan come into their own. The carbon sprit allows a sizable asymmetric spinnaker to be handled by a shorthanded crew, and the sail area is enough to keep things moving even when the breeze isn't much over 5 knots. The tiller-steered helm is a delight, and Andrews' legacy rings through loud and clear.

**Bottom line:** Sylvana Yachts has delivered a boat built to a performance standard. They have kept the weight in check, and the result is reminiscent of when Porsche built its original speedster, a vehicle that rekindled the fun of driving. Like the German auto icon, Andrews and Sylvan have come up with a sensible price point for their redefined pocket racer/cruiser. At just shy of \$90,000, the boat is in the same price

point as Hunters, Catalinas, and Bene-teaus with similar waterline lengths.

### STEALTH 14.6

Some sailors see dinghies as child's play while others revel in a chance to hold onto a bit of youth. In truth, the Stealth is more Aussie skiff than traditional 420 or Flying Junior. From above, it's shaped like a pizza slice, and the hard chines, high-aspect ratio alloy blades and substantial carbon sprit allude to an elevated level of performance. Conceived by the crew at Kernan Yacht Design and built by CL Sailboats of Fort Erie, Ontario, the Stealth injects rocket fuel into the sport of dinghy sailing.

Perhaps the biggest surprise in this little speedster is the sensible blend of materials that have been used to deliver performance at an affordable price. The hull and deck are comprised of a hand-laid E-glass sandwich structure that is joined with a methacrylate adhesive called Plexus. The combination of good workmanship and mainstream materials delivers a stiff, durable hull that weighs in at 150 pounds, making it capable of car-top transport. By avoiding esoteric materials and costly molding procedures, the builder is able to add carbon spars and North Sails canvas

### STEALTH 14.6 IN CONTEXT

MODEL	STEALTH 14.6	VANGUARD C420
LOA	14' 6"	13' 9"
LWL	24' 2"	5' 5"
BEAM	5' 8"	5' 5"
DRAFT/SHOAL	3' 6" / 5"	3' 2" / 6"
WEIGHT	150 lbs.	230 lbs.
SAIL AREA	92 sq. ft.	110 sq. ft.
SA/D RATIO	16	17.3
D/L RATIO	316	238
PRICE*	\$10,000	\$7,400
* MSRP		

to the package and still keep the boat price just shy of \$10,000.

One of the most interesting attributes of this little skiff is the asymmetric spinnaker that can be set and doused with one set of lines. In 15-knot conditions, a singlehander simply bears off a tad, puts the breeze on the beam, and pops the chute, adding a warp-speed boost. Instead of launching into chaos, the chine digs in, and the boat climbs on top of the water. Sailing takes on a definite surfing overtone, and the positive control of the helm keeps things under control. When it's time to reign in the excitement, there's no need for any white knuckle gymnastics, just uncleat the double-ended set-and-douse line, and retract the asym into its turtle. Caging the beast has never been so easy.

**Bottom line:** Kids growing bored with nudging a conventional dinghy through the water will gain a new perspective about sailing the moment they set off on a double-digit plane, and the Stealth brings that goal within easy reach. If a bargain-priced, plane-on-a-reach performance will make your day, the Stealth is bound to hold appeal.

### STARBOARD FUTURA

The irony in this David-and-Goliath quest for speed under sail is that the smallest, lightest, and less expensive gear often goes the fastest. And no-

STARBOARD FUTURA

VOLUME (LITERS)	111 liters
LENGTH	240 cm / 94.5 in.
WIDTH	68 cm / 26.7 in.
TAIL WIDTH	43.1 cm / 17 in.
WEIGHT	6.9 kg / 15 lbs.
SAIL RANGE	5-8 sq. meters/ 53-86 sq. feet
FIN TYPE	Drake-Freeslalom Swift 380
FIN RANGE	30-42 cm/ 11 to 16 in.
FIN BOX TYPE	Tuttle
PRICE*	\$2,000

\* Median price found in online search.



From a dollars-per-knots perspective, modern sailboards like the Starboard Futura run away with first prize. A far cry from the shapes and forms of early iterations, today's windsurfers make getting up on a plane and staying there easier than ever.

where is the sail area/displacement ratio as telling as it is with the last of our speedsters, a Starboard windsurfer and a Neil Pryde sail.

This stand-up sailer has no cockpit, rudder, standing rigging, or hint of creature comfort beyond padded footstraps. But it can leave all of the other boats reviewed here in the dust. The downside of going 25 knots-plus on a windsurfer is the need to spend a couple of seasons developing the skill to access this planing phenomenon. Today's wide, light boards and high-aspect sails make this learning curve much easier than it was during the dawn of the sport when narrow, longboards weighing as much as an elm tree were propelled with tablecloth-like sails.

Test pilot Tara Mitchell (photo above) tried out a 111-liter-volume board powered with a 53-square-foot Neil Pryde sail, one of many designs the company has pioneered. The "Combat" sails are highly reinforced and often used in heavier winds. Carbon masts and booms also fit the strong-and-light theme, and when it comes to shaping up the innovations of sailmakers like Neil Pryde, stiff carbon spars are a big plus. Interestingly, innovative full-batten design sails with fat-head high-aspect ratio shapes were seen on windsurfing sails well before America's Cup syndicates caught on to their advantage.

**Bottom line:** Companies like Starboard manufacture a wide range of boards that are light, stable, and fast. The new Futura model is a responsive, highly maneuverable board that's easy to plane and perfectly at home in a wide range of conditions.

CONCLUSION

Fast, light boats are fun to sail, but there are a few tradeoffs that boat buyers should keep in mind. The first is that all the performance is contingent upon keeping the boats as light as possible, and if you're a person that brings gear to the boat but never takes anything home, beware of what's happening to the waterline. Just as multihulls bog down when overloaded, so do these nimble go-fast monohulls.

There's also a need to visualize these boats as sports cars, not pickup trucks, and while letting an old Westsail pound against a pier will usually result in more damage being done to the pier than the boat, these new hulls with their stiff, thin skin, sandwich structure aren't built to take such non-sailing point loads.

Although Technical Editor Ralph Naranjo, an avid windsurfer, favors the stand-up side of performance sailing and points to the knots-per-dollar advantage the windsurfer offers, he agrees

that among our test field, the Andrews 28 is the best all-around performance cruiser/racer for our general readership. It's a boat that can be club-raced by a shorthanded crew and can serve as an excellent pocket cruiser for those who rank voyaging under sail higher than dockside entertaining. This little sloop has been designed to be easily maintained and quick to get underway—features that definitely deliver more hours under sail. ▲

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