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Practical Sailor Reviews the Hanse 400

Designed by German firm Judel/Vrolijk & Co., this racer-cruiser offers good performance and is easy to sail.

The Hanse 400 is a cruising boat for those who love to sail, and a club racer for those who enjoy a summer cruise. Its construction quality and price point qualify it as a cost-effective alternative in the 40-footer marketplace. In comparison to mainstream production cruising boats, the Hanse 400 is an absolute performance standout, not only in its ability under sail, but in its ease of operation.

The Hanse 400 presents the image of a well-trained athlete—strong, capable, and legitimately deserving of its billing as a "crossover" sailboat. In keeping with Hanse's performance-oriented design philosophy, the 400 has been exactly engineered to deliver a blend of performance attributes and cruising comfort. The result is an easy-to-handle, spirited racer-cruiser that packs plenty of cabin space and amenities into its beamy hull.

Design

Designer Judel/Vrolijk & Co. is a cutting-edge firm that opened its doors in 1978. With America's Cup winner *Alinghi*, Admiral's Cup victories, Volvo Ocean Race designs, and a pet project for the King of Spain on the roster—not to mention its mega-yacht design business—Judel/Vrolijk's star has risen. Part of its success has been linked to the company's embracing modern computer-design technology, using both 2-D and 3-D CAD programs. Spending time 3-D modeling a new design keeps unwanted shop floor surprises to a minimum. Things like locker doors, engine room space, and table heights end up with the clearance that they need in order to function according to plan.



With a flat sheer, low cabin top, teak deck, and a high-aspect rig, the Hanse 400 bears all the hallmarks of a modern, European-styled racer-cruiser. A modest keel appendage reins in 952 square feet of sail area.

The team at Hanse conceived the interior design of the 400 and worked with Judel/Vrolijk designers to define a sailboat with comfortable accommodations and the sailing ability that Hanse production boats have become known for. At the heart of the

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success is a canoe body shape with a clean entry, full beam, and flat sections aft that make the boat look more like a racer than a cruiser. When the modest keel appendage is attached, the race-boat theme is greatly subdued, however, with 952 square feet of working sail area, this modern racer-cruiser plays well at both games.

The logic behind choosing an easy-to-sail performance cruiser makes perfect sense for many sailors. Considering the soaring price of diesel and the light winds that prevail along much of the U.S. coast during the summer sailing season, there is a distinct advantage to having a boat that can turn 6 to 8 knots of true wind speed into a fun sail.

The Hanse 400's wide beam, carried well aft, delivers plenty of initial stability, allowing the vessel to stand up to the heeling moment induced by its sizable sail plan. The ballast—iron keel and lead bulb—is listed as weighing 6,426 pounds. The low placement of lead also lowers the boat's center of gravity (CG), increasing its secondary righting moment. Those looking to maximize stability can shave 1,000 pounds by ordering the epoxy-resin laminated hull along with the deep-draft (6 feet, 5 inches) configuration. This combination provides a positive-stability limit of over 120 degrees. The boat is certified to ISO Category A "Offshore" standard and built to Germanischer Lloyd GL Yacht Plus standards, giving the buyer confidence in the quality of construction and design.

A major factor in designing wide-transom boats is to keep the stern from submerging, which causes drag to increase. Many sailboats achieve this at anchor but once sailing to weather, the infamous transom gurgle reveals that the hull has dug a hole in the water and drag has dampened performance. The Hanse 400 leaves a nimble wake, and the slightly elevated transom stays clear of the surface even as the breeze increases. Its long waterline and flat run aft generate a minimal amount of wave making, another sure sign of an efficient hull shape.

On Deck

One of the most noticeable deck features on the Hanse 400 is the sculpted deck plates that cover halyards, self-tacking jib sheet, topping lift, and other lines led aft. This arrangement keeps the coach roof clear and unencumbered. The self-tacking, 90-percent blade jib is easy to handle, and its single sheet means that there's no sheet swapping during a tack. The ability to set 952 square feet of working sail area and not have to deal with an overlapping genoa is a big plus for those who sail shorthanded. The 562-square-foot mainsail may seem daunting, but with lazy jacks or a Dutchman sail-flaking system, and appropriately run reefing lines, the mainsail handling routine becomes very user-friendly.

The deck, cockpit, and cabin house work together to provide an ergonomic sailing platform. Absent is the feeling that the deck configuration is a result of excess emphasis on accommodations crammed belowdecks. The Hanse we sailed had attractive teak side decks, but a nonskid gelcoat finish is also available. The nonskid option—which *PS* highly recommends—saves the buyer about \$8,000, lessens maintenance, and has about twice the longevity of teak.

Accommodations

Hanse believes that one interior design doesn't fit all, and consequently provides different cabin configurations. The 400 is divided into three cabin segments—fore cabin, saloon, and aft cabin—and there are mix-and-match alternatives for each area. For example, in the forward owner's cabin, you can swap extra locker space for a second head and move the centerline double berth more to port. The main saloon can be set up with a dinette to starboard and a settee/sea berth to port, or an owner can eliminate the sea berth and opt for two built-in arm chairs and a small side table in the same location. The aft configuration allows for either small side-by-side cabins or a single cabin and a storage area.

The Hanse 400 is not a long-term liveaboard sailboat, but it is fine for summer cruises

or participating in yacht club point-to-point races or cruises. The tight turn of the bilge and open layout leave less room for storage. The two-burner stove and modest tankage volume are in keeping with the theme of a racer-cruiser that won't be bogged down by too much gear and equipment. This doesn't mean that a run to Bermuda or a fast trip to Hawaii are out of the question; in fact, this is a boat that would take such summer passagemaking in stride and get the crew there in a hurry.

The woodwork is computer-cut, finished, and nearly completely assembled prior to placement in the boat. Flat, smooth surfaces coated with spray-applied, matte-finish urethane offset the white gelcoat and Corian countertops, adding an open and spacious feel to the cabin. The L-shaped galley has all the basics—stove/oven, sink, and refrigerator—and is nicely finished, but counter space may be a little lacking for the seagoing gourmet. Again, this is in keeping with the boat's lean-and-mean mission statement.

The cabin sole is a faux teak-and-holly plastic veneer that's visually appealing and quite durable. There's a Euro minimalist design that balances form and function and eliminates wood trim and complex, costly joinery work. The engineers and designers seem to have collaborated on how to build an aesthetic yet cost-effective interior, and it's offered it in either a dark mahogany or a light birch finish, both of which are appealing.

Performance

In comparison to mainstream production cruising boats, the Hanse 400 is an absolute performance standout, not only in its ability under sail, but in its ease of operation. On the boat we sailed, setting sail was simplified by the Dutchman flaking system, a set of control lines attached to an adjustable topping lift that guides the sail efficiently from its boom-stowed position to full hoist and back down again. The 390-square-foot furling working jib rolls up and unrolls effortlessly, and it's self-tending nature makes tacking a breeze.

All it takes is a simple turn of the wheel to test how ruggedly a sailboat has been built, and whether or not an effective monocoque structure has been achieved. By tacking through the eye of a 15-knot breeze, the momentary flail of the mainsail causes some boats to shake like a wet terrier, and as they settle onto a new tack, all types of squeaks and groans punctuate the silence. The Hanse 400 neither squeaked nor groaned, and while heading into the wind with the large mainsail enduring a momentary flutter, the vessel showed no sign of telltale twisting or bending.

The semi-balanced spade rudder offers finger-tip steering thanks to a large wheel and the smooth, Jefa drag-link design steering system that nests just under the cockpit sole. This design allows for watertight integrity to be maintained between the upper and lower rudder-stock bearings, preventing water from seeping into the accommodations. The downside is the exposure to seawater that the drag-link system and autopilot drive must endure. These components are either well-sealed or made of corrosion-resistant metal, mitigating the effect of occasional dousing.

One of the big plusses is its sailplan. The tall mast, with a big mainsail and a small blade jib, delivers good all-around sailing ability without the need to wrestle a massive genoa on the foredeck. When the breeze goes from 12 to 18 knots, a reef is easily tucked in the mainsail and the inefficiency of a partially rolled up, bulky genoa is eliminated. The resulting wide wind range in which one headsail can be used is a plus, but the crew needs to make sure that they are well practiced in mainsail reefing. For those craving responsiveness in light air and ease of sail handling, there's a neat retractable stem head extension that serves as a tack for a code zero or asymmetric spinnaker, which can also be roller-deployed for convenience. Add well-planned sheet leads and a cockpit set up for efficient shorthanded sailing, and it becomes clear why the boat is so enjoyable to sail.

A 40-horsepower saildrive Yanmar diesel is neatly tucked in a box beneath the companionway steps. With the assistance of a couple of gas cylinders, the ladder, and sound-dampened engine box easily lift out of the way. This lift-the-hood look at the engine affords great access to key components, not always the case aboard sailboats in this size range. The three-cylinder diesel runs smoothly, and the saildrive eliminates all shaft rumble noise. The trade-off is the need to pay close attention to zincs, and to take care to avoid introducing stray current or galvanic corrosion when installing any electrical equipment.



Conclusion

The Hanse 400 is a cruising boat for those who love to sail, and a club racer for those who enjoy a summer cruise. Its construction quality and price point qualify it as a cost-effective alternative in the 40-footer marketplace. The vessel has the right set of attributes for the light-air conditions of the bays and sounds of the Northeast, Southern California, and Gulf Coast, but will feel right at home on the more blustery bodies of water such as San Francisco Bay. In short, this is a capable performer that offers a lot of bang for the buck.

A fractional, self-tending “blade” jib characterizes the Hanse 400’s easy-to-manage sailplan. The “A” package, with two staterooms and an open saloon, is one of four optional interior layouts. Comparing published specs with a trio of 40-footers old and new, the Hanse’s generous sailplan puts it close to the race-oriented C&C 121 in terms of SA/D. Its DL ratio lies between the Dufour 40 and the classic Cal 40. It should be noted that the Cal’s counter stern presents a deceptively short static waterline.

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HANSE 400 CONSTRUCTION DETAILS

Hanse hulls are molded at a facility in Szczecin, Poland and completed at the Baltic coast facility in Greifswald, Germany. More than 500 boats are built each year.

HULL: The hull comes in two styles of construction, the higher-tech option being an epoxy prepreg laminate cured under vacuum pressure. Epoxy resin is the gold standard of thermoset resins, providing better adhesion and elasticity, as well as more resistance to hydrolysis and other deterioration caused by water intrusion. Vacuum bonding the Corecell core material is a big plus, and Hanse's epoxy option hull is the same approach to boatbuilding used by top-of-the-line custom builders.

DECK: Like the hull, the deck is Corecell laminate with solid laminate in all areas of deck penetration. The builder adds an FRP grid or strongback to the Corecell hull and tabs in all bulkheads, better link the hull and deck elements.

HULL-DECK JOINT: The hull-deck joint is made using Plexus adhesive between the deck and the hull's inward-turning flange.

SPARS AND RIGGING: A massive stainless steel compression post transfers the rig loads from the deck to the hull skin, and the welded elements of this structure are exemplary. Anchors for the chainplate tie-rods are bonded to the hull skin and the core is in-filled with solid glass where this attachment occurs.

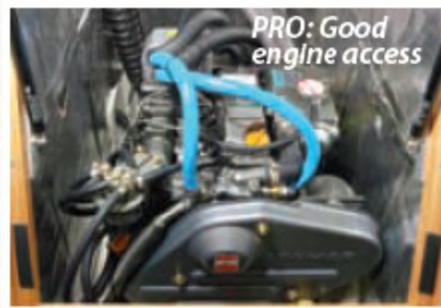
KEEL AND RUDDER: The iron keel with lead bulb and stainless steel keel bolts are a well-engineered choice of materials, and thanks to modern epoxy coatings, rust problems associated with the iron will be greatly diminished. The rudder is a foam FRP blade, and the tapered aluminum stock has been well-designed and constructed, but it remains a galvanically active metal, and this is a concern. As with the corrosion-vulnerable aluminum sail drive, a wise owner will check sacrificial zincs often and pay heed to potential problems such as stray dockside DC current arising from other boats and/or marina wiring.



Tie-rods connect chainplates to massive FRP gussets, transferring rig loads to the hull.



INTERIOR NOTES: HANSE 400



Using computer-assisted design allows Hanse to offer a variety of interior layouts to suit a wide range of preferences. The one pictured above might be considered the club-racer version, lacking in good sea berths but provided with a

spacious saloon for post-race socializing. The Hanse 400's limited stowage and builder-grade galley is not well-suited for liveaboard sailing, but its interior is perfectly comfortable for summer cruising.

CRITIC'S CORNER: HANSE 400

PROS

- *Wide side decks.*
- *Spacious cockpit.*
- *Molded cover keeps control lines out of sun and away from feet.*
- *Uncovered lifelines allow for inspection.*
- *Teak deck offers excellent non-skid.*
- *Divided anchor locker.*
- *Fittings mounted on molded deck flanges.*

CONS

- *Too-short handrails on cabin top.*
- *Teak deck adds maintenance chores (non-skid gelcoat is an option).*
- *Low clearance between anchor roller and jib furler.*
- *Control-line cover makes line replacement at sea difficult.*



Mid-boom sheeting puts the mainsheet out of reach of the helmsman, but the jib sheet on the self-tending jib, led to a primary winch, is within easy grasp.

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Chainplate



Running light



Bow roller



Anchor locker