

## DESIGN FORUM

# Impulse 21

## Relaxed Racing at Last

**M**aybe you grew up racing 470s or Thistles, and you really loved dinghies. But the toils of family and job have taken you away from the planing hull scene in favor of crewing on friends' "bigger boats." Now you're ready for your own boat, and doublehanders and triplehanders are calling you back. Perhaps a Soling? Can your back take it? A 505? Might your heart give out?

Here's a new happy medium between high performance and general sailability—a 21-footer from Impulse. First they came out with a high-tech, Bill Cook-designed 26-footer that got high marks as a sport boat. Now they have another Bill Cook design with less emphasis on the physical, and more on the practical. The new design can be sailed by two or three people without putting a strain on anyone. The non-overlapping jib is self-tacking, on a Harken traveler track mounted on a lip that doubles as a spray deflector. The jib tacks so easily that an adequately directed beginner could manage the front end of the boat. Virtually all control lines are led under the deck to a center-mounted panel sporting a sharp-looking battery of Harken controls. The deck is extremely simple and clean; no spaghetti here. The spinnaker is launched from a below-deck tube, "Fireball style."

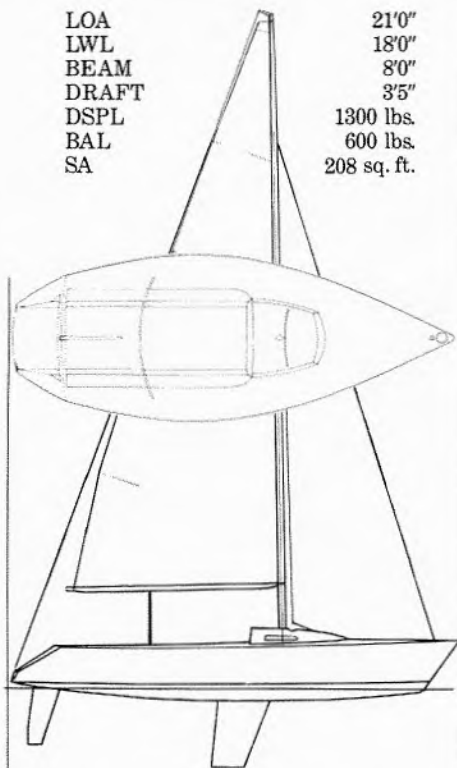
The fractional deck-stepped rig, sup-

ported by a belowdeck strut, is plenty powerful, as it carries 208 square feet of sail—in the same ball park as the J-22 (230 sq. ft.), and Holder 20 (198 sq. ft.). She is also lighter than the J and Holder. On the other hand, she does not have any pocket-cruising aspirations. She is strictly a daysailer, with only enough room in the cuddy for a cooler and a lot of gear.

As a daysailer, the 21 has many dinghy-like attributes. The lack of stanchions on deck and the rolled cockpit lend to the dinghy feel; visually one gets the impression of sailing an overgrown 470, without the trapeze or hiking. The feel is so dinghy-like, the temptation is there to roll-tack. But most dinghy-like is the 21's ability to ramp-launch. Though she draws 3'5", she will slide off a slightly modified trailer with ease. Undinghy-like is the small platform on the stern. It's there for those who want to cool off after a hot light-air race.

Also undinghy-like is the absence of hiking straps in the cockpit. The 600-pound keel takes care of stability for you. With the emphasis taken off the grueling aspects of smallboat racing, the

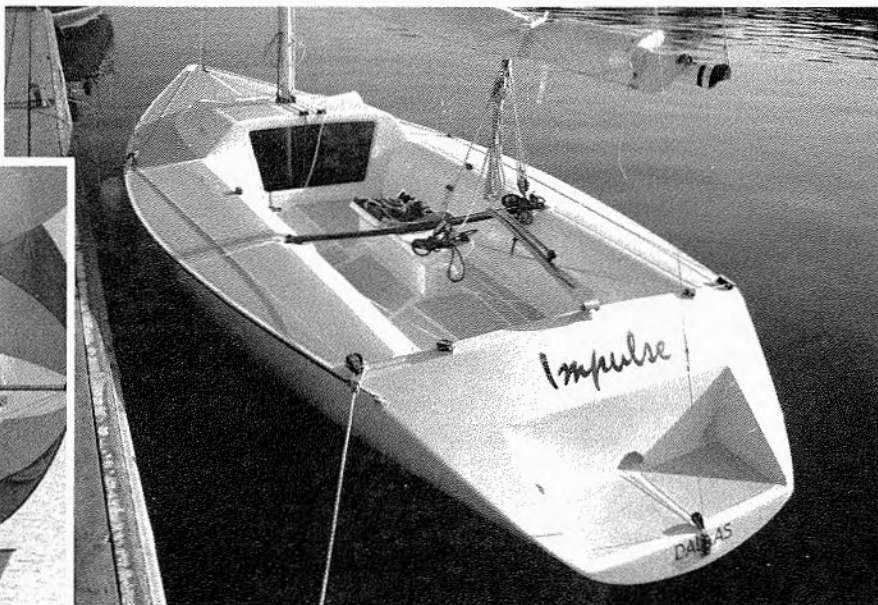
|       |             |
|-------|-------------|
| LOA   | 21'0"       |
| LWL   | 18'0"       |
| BEAM  | 8'0"        |
| DRAFT | 3'5"        |
| DSPL  | 1300 lbs.   |
| BAL   | 600 lbs.    |
| SA    | 208 sq. ft. |



Impulse 21 is nearly ideal for sailors at either end of the spectrum—both up-and-coming juniors, and those stepping down from larger boats. —John A. Glynn

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George Middleton photo



John A. Glynn photo



A trunk-like control pod houses most of the sailtrim functions, and the stern platform makes life easy for swimmers. The spinnaker controls mount next to the mast, and the chute comes out of a bow tube.

**To** good to be true, the jaded reader might mutter about a boat that promises top-flight performance yet demands only a minimum of athletic effort. "The responsiveness of a dinghy, the stability of a swimming float, and the comfort of a lawn chair!" Right!

However, in reality the Impulse 21 is sailboat enough to make claims like these seem almost modest. Bill Cook designed her. His International Off-shore Rule designs have been in and around major winner's circles during the past decade and have helped blaze a trail to the top for that lightweight, fractionally rigged, dinghy-hulled style of ocean racer that is today's boat to beat. It may not seem strange, then, that the key ingredients in the Impulse 21's performance under sail are light weight, a controllable fractional rig, and a shallow-rocker hull with a gradual run aft and a modulated fore-and-aft distribution of waterline beam.

But the Impulse 21 is neither an IOR racer nor a racing dinghy. She is the answer to Impulse Marine president Harris Clark's commission: "fast and sophisticated, yet very stable and easy to sail." Cook's stab at turning that impossible dream into a boat began "not by sitting in my office and being clever, but by talking with sailors, racers, builders, designers, and club officials." From this quest came a smoothly self-tacking jib, a dinghy-style spinnaker launcher, and some clever innovations like her cockpit console (which works beautifully to centralize and simplify controlling sails), the back porch transom, plus a commitment to making her ramp launchable from her trailer. "I made her weather deck as comfortable as possible (with a radiused and clean curve for your legs), but I've found that sitting on the cockpit sole is pretty



comfortable, too," Cook says.

And then Cook made her stable. He gave the 21 "something like twice" the form stability of many boats her size, primarily by extending her waterline beam. He flared her topsides somewhat to increase the holding power of crew weight from the weather rail. And he gave the boat a 600-pound keel (40 percent of her total displacement) and made it thicker at the bottom than at the top to get as much lead as low as possible. Class rules prohibit hiking, but racing or not, the 21's great reserves of stability add a great deal to the pleasure of sailing her. Still, she is far from being a "lead mine."

Four generations of Johnsons have built sailboats near the Johnson Boat Works in White Bear Lake, Minnesota, and the craftiness and pride that have helped them turn out blue ribbon scows are focused now on the Impulse 21. Nyltex and Divinycell foam are the materials; remarkable uniformity, mirror fairness, and sailorly innovation

(as in the 21's no-rasp nonskid) characterize the results. The tiny cuddy might house a sleeper in a pinch, but it is intended only to offer lockable onboard stowage. Without sails the Impulse 21 costs \$9,950.—R.R.

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|--------------|-----------|
| LOA          | 21'       |
| LWL          | 18'       |
| Beam         | 8'        |
| Draft        | 3'5"      |
| Displacement | 1,300 lbs |
| Ballast      | 600 lbs   |
| Sail area    | 208 sq ft |

