

# The Hatteras 31' Sport Cruiser



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Newest member of Hatteras fleet lives up to firm's high standards in performance, liveability, and construction.

WHEN ONE of the nation's top boatbuilders secretly develops a new model, then springs it on the trade and the public at the Miami International Boat Show, the boat is bound to attract attention. When that builder is AMF Hatteras, long identified with larger power boats (until February, the line ranged from 36' to 70'), a new 31-footer will attract even more attention. And when the new boat features an unusual hull designed by Jim Wynne with the propellers turning in a pair of mini tunnels, count on a crowd crawling under the boat as well as through the accommodation.

During a trade day at the boat show, after some two dozen people had said, "Hey, did you see the new Hatteras?", we repaired to the Hatteras exhibit for a look. There she glittered, looking rakish by comparison to the other Hatteras models on display, and she was aswarm with knowledgeable looking types talking earnestly with company salesmen. We contented ourselves with a look at her underbody, and were soon joined by some of the knowledgeable looking types.

"I tell you, I think those tunnels will rumble," grumbled one.

"No reason why they should," said his companion.

The tunnels in question are just barely tunnels at all, being about 40" long, but only about 3" deep at the after end, where they are hooked slightly to impart lift to the stern. Their purpose, obviously, is to reduce draft somewhat and make for less shaft angle. We doubted that they'd rumble. (They don't.)

Earlier Jim Wynne had told us that there were two 31s afloat at a nearby dock—a Sport Cruiser with a pair of Caterpillar diesels, and an Express Cruiser with twin gasoline engines—and that either or both could be made available if we'd like to make some test runs. We sought out Hatteras's Chuck Kauth and arranged to test the diesel-powered Sport Cruiser.

On the appointed morning the weather wasn't cooperating—overcast skies, strong winds, and intermittent rain ruled out photography—so we spent a few hours examining the Sport Cruiser's details. Stepping from the dock to the side deck, then down the two molded-in steps into the cockpit, our first impression was that the cockpit is much bigger than it looks. It checked out to 10' 4" long, 8' 4" wide, but a good part of this is hidden by the raked flybridge/cabin coaming when the boat is viewed in profile. In any case, there's plenty of room for deck furniture and/or fishing chairs.

Upon stepping aboard, one's natural tendency is to seek a hand hold, and there's the grab rail along the side of the flybridge, but as one steps down into the cockpit there's nothing to grab except the raked coaming itself. We'd install another rail along the inboard face of this coaming, port and starboard, particularly for crew members going from cockpit to foredeck in rough weather.

Otherwise, safety provisions are excellent; a solidly bolted liferail with intermediate lifeline extending from the bow almost back to the cockpit, excellent nonslip pattern in the fiberglass decks, and the aforementioned grab on the sides of the flybridge. The teak and s.s. ladder to the flybridge, on the starboard side of the cockpit, is a stout piece of work, fitted with grab rails at flybridge level.

The bridge seats up to six people, on three pedestal seats and a bench, and an all-around grab rail behind the tinted acrylic venturi-type windscreen makes it possible for every passenger to hang on when necessary.

The 31's deck hardware includes an 8" cleat with chainpipe forward with a pair of 4½" chocks which may prove a trifle small for husky mooring lines, a pair of 8" spring line cleats amidships, and a pair of 8" stern cleats mounted outboard of the molded cockpit coaming. Good hardware, properly

through-bolted. Running lights are International—a combination port/starboard light right in the bow, a combination anchor/bow light on a retractable staff forward of the flybridge windscreen, and a 12 pt stern light in the transom.

Our test boat had the standard flybridge controls and no lower station, hence her accommodation provides sleeping space for six—two in the forward cabin's V-berth, two in the convertible dinette, and two (upper and lower) in the starboard lounge-bunk arrangement. Owners who opt for dual helm positions will have to give up the starboard lounge-bunk arrangement, along with the \$1500 for the lower helm.

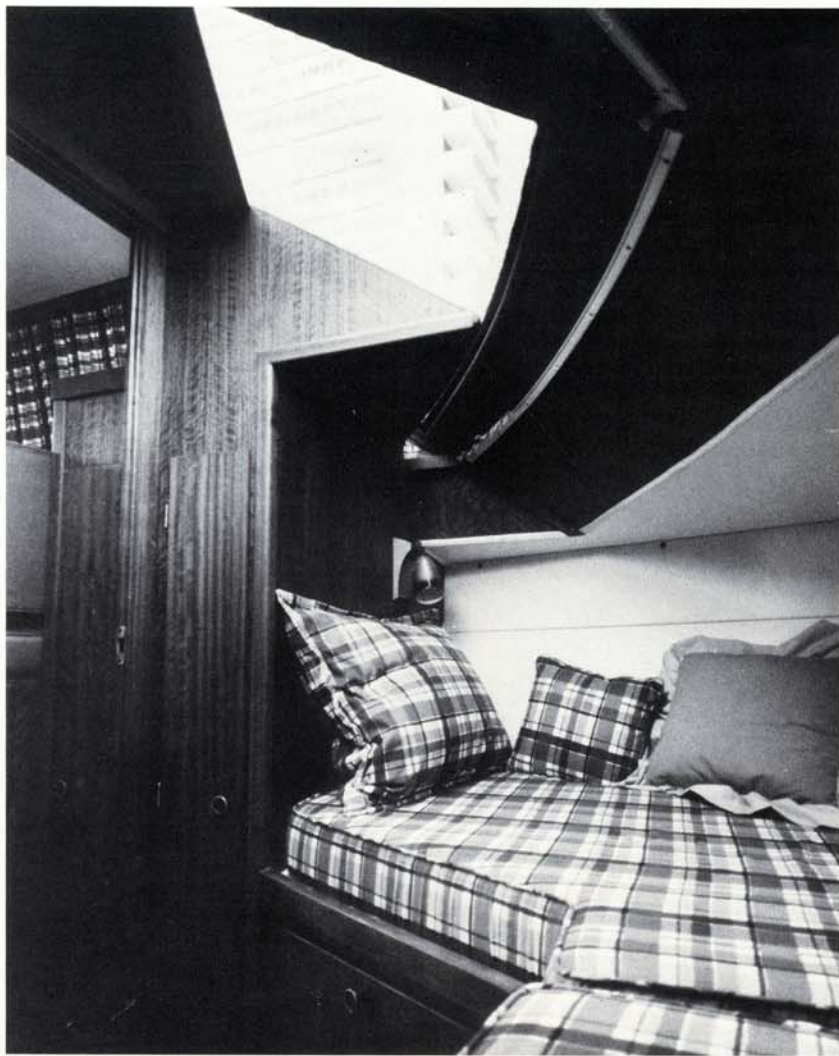
An innovative bulkhead separates the forward and main cabins: an accordion fold door is framed by a structure that extends up to just about meet the raked windshield. The result, when the door is closed, is that the forward cabin has a most effective skylight (its portion of the windshield), but still remains private from the rest of the accommodation.

Good ventilation, at least in dry weather, is supplied by a large screened aluminum hatch, fitted with two dogs for buttoning up tight in foul weather. Stowage space abounds—the rope locker forward of the V-berth (with a bitter end fitting for the anchor rode), two drawers and two bins under the V-berth, a large centerline bin, and a hanging locker to port.

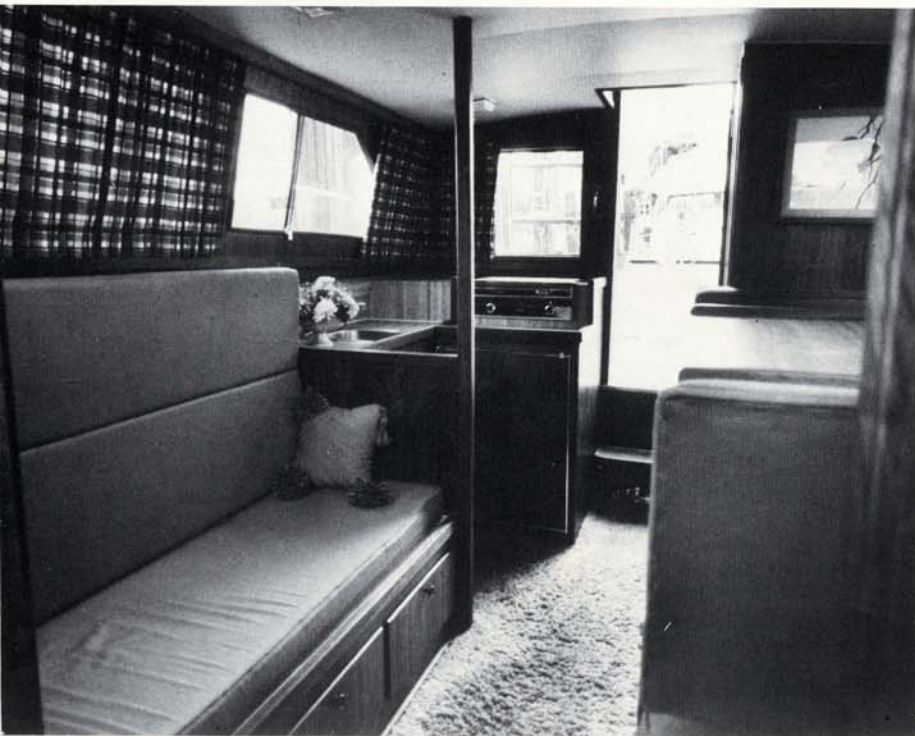
The main cabin is similarly supplied with stowage space: hanging locker to port, drawers and bin under the lounge, and lockers under the dinette seats. Laminated maple-finished formica on the dinette table and galley counter is an elegant touch, and it's hardly distinguishable from real wood. When the dinette must be converted to a berth, the table top stows on the sole and the two seats slide on tracks to make up the berth—one of the best convertibles we've seen. The table, by the way, has sea rails on its fore and after edges, but not on its in-



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Left: Unique location of forward bulkhead gives skylight effect from windshield. Folding door provides privacy. Lower left: Main cabin looking aft with settee to starboard and dinette opposite. Enclosed head is abeam of L-shaped galley. Right: Tinted windows and windscreen add to boat's sleek appearance. Wrap-around s.s. rail is standard equipment.



board edge, so with a good roll it might be hard to keep food on the table, so to speak. We'd add the inboard rail.

To starboard of the companionway, the L-shaped galley features a 3' 4" counter with s.s. sink discharging overboard above the waterline. A single lever mixing faucet delivers hot and cold water under pressure (hot water comes from the 110v hot water heater, which requires either shore power or an optional AC generating plant). A Princess two-burner 110v electric/alcohol stove and a 110v 6.5 cu ft refrigerator complete the galley equipment. (These too require shore power or generator for 110v operation.)

To port of the companionway, the head is fitted with a molded fiberglass vanity with sink, a manual w/c properly fitted with sea-cocks, a telephone-type shower draining to a sump pump, a large mirror, and even a spring-loaded clothesline. For owners in holding-tank-only waters, Hatteras has thoughtfully provided a 25 gallon holding tank in the bilge, and either the manual or the optional (\$125) electric w/c can be plumbed to this holding tank.

In all, the 31's accommodation is comfortable, cheery, and practical. And being geared, as Hatteras is, to first-class workmanship on the larger boats, they've simply applied the same techniques to this baby of the line. The result is a boat that would be easy and satisfying to live with.

Early the next morning it was still blowing, but the weather had cleared. With Hatteras's Wes Dickman and Ralph Stevens, we cast off and headed down the Intracoastal to the measured mile in Government Cut. The view from the flybridge is excellent for docking or close-quarters maneuvering, the dual-lever controls are precise and reliable, and the Hynautic hydraulic steering system





## HATTERAS 31' SPORT CRUISER SPECIFICATIONS

### Dimensions:

Length overall	31' 9"
Waterline length	26' 9"
Beam	11' 10"
Draft	3' 1"
Freeboard forward	3' 10"
Freeboard aft	2' 9"
Bridge clearance*	10' 4"
Cabin headroom	6' 6"

\*Waterline to top of windscreen.

**Hull Form:** Modified V-bottom with sharp entry and about 20° deadrise at transom. Two running strakes that terminate just aft of amidships and wide horizontal chine flats that act as planing surfaces. Twin mini-tunnels aft improve shaft angle and reduce draft.

**Displacement:** 15,000 lbs (estimated).

**Accommodations:** Sleeps six in two cabins, two in A-berth forward, two in main cabin convertible dinette, and two in lounge converting to upper and lower berths. Enclosed head with marine w/c, lavatory and shower. L-shaped galley with electric refrigerator, s.s. sink with pressure water system, electric/alcohol range.

**Standard Equipment:** Complete International Rule navigation lights; dual electric horns; fog bell; six adult life preservers; life ring; three 2¼ lb dry chemical fire extinguish-

ers; FiQuench Halon automatic fire control system with remote control for engine room; engine and fuel compartment ventilation in accordance with Coast Guard recommendations; two exhaust blowers; manual and electric bilge pumps; 13 lb Danforth anchor; 200' nylon anchor line, ¼" dia; four 35' dock lines, ¼" dia with eye splices; s.s. bow and side rails with intermediate lifeline; s.s. bridge ladder with teak treads; s.s. flybridge rails; tinted acrylic venturi-type windscreen on flybridge; s.s. and chrome on brass deck hardware includes twin 4½" chocks, 8" mooring cleat, chainpipe, two 8" quarter cleats; all deck hardware through-bolted; 16¼" x 17½" aluminum foredeck hatch w/screen; fixed, curved windshield and sliding side windows in cabin—all of scratch-proof DuPont Abcite acrylic; completely instrumented flybridge steering station with 15½" dia s.s. automotive style wheel—4¼ turns hard-over to hard-over; Hynautic hydraulic steering system; double lever engine controls; 120v and 12v electrical systems; 120v 30 amp ship's service with shore line; control panel with 120v and 12v circuit breakers; voltmeter; dual 12v batteries with paralleling system; battery condition meter; 180 gal fiberglass fuel tank, 50 gal fiberglass fresh water tank; 24 gal holding tank, plumbing optional; water pressure system with water heater; seacocks on through hull fittings; self-bail-

ing cockpit with molded-in boarding steps; non-slip deck surfaces.

**Construction:** Molded fiberglass hull and deck/deckhouse structure. Hand lay-up of fiberglass mat and woven roving. Nine-ply hull bottom—average thickness .40" (two plies 1½ oz mat plus alternate plies of 24 oz. roving and 1½ oz mat). Five-ply topsides—average thickness .23" (two plies 1½ oz mat plus alternate plies of roving and mat). Bottom stiffened by four foam-filled, hat section fiberglass longitudinals that double as engine bearers. Additional plies of fiberglass materials added in way of strut pads and propeller tunnel.

**Propulsion and Performance:** See chart.

**Price:** With above equipment and twin 235 hp gasoline engines, \$31,300 FOB plant. Test boat with a number of extras including diesel engines, reverse cycle air-conditioning, and diesel generator, had a retail value of about \$51,700 FOB plant.

**Designers:** Hull by Wynne Marine, Inc; styling and accommodations by Fred L. Hudson.

**Builder:** AMF Hatteras Yachts, 2819 Kivett Drive, High Point, N.C. 27261



# Hatteras 31' Sport Cruiser

## PROPULSION and PERFORMANCE

Standard Power: Twin 235 hp Chris-Craft V-8 gasoline engines with 350 cu in displacement; 4.0" bore x 3.5" stroke. Optional Power: Twin 300 hp Chris-Craft V-8 gasoline engines with 454 cu in displacement; 4.25" bore x 4.0" stroke.

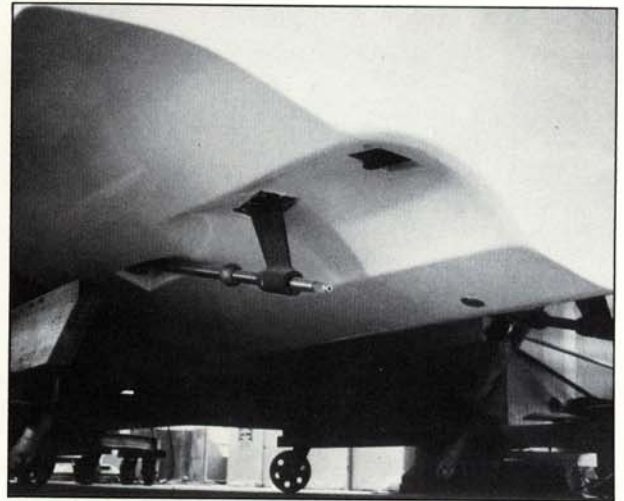
Twin 225 hp Caterpillar V-8 diesel engines with 636 cu in displacement; 4.5" bore x 5.0" stroke; 1½:1 reduction gear.

Test Boat Power Plant: Twin 225 hp Caterpillar diesels.

### Performance\*

rpm	mph	Knots	running angle
1500	10.83	9.40	3.25
1750	14.07	12.22	4.00
2000	17.82	15.47	5.00
2250	22.88	19.86	3.50
2500	27.11	23.53	3.50
2850	31.31	27.18	3.50

\*Speed based on clocked times over measured course with four persons aboard and full fuel tanks. Speeds timed with Rolex Cosmograph timepieces.



Sport Cruiser's twin mini-tunnels reduce shaft angle and draft.

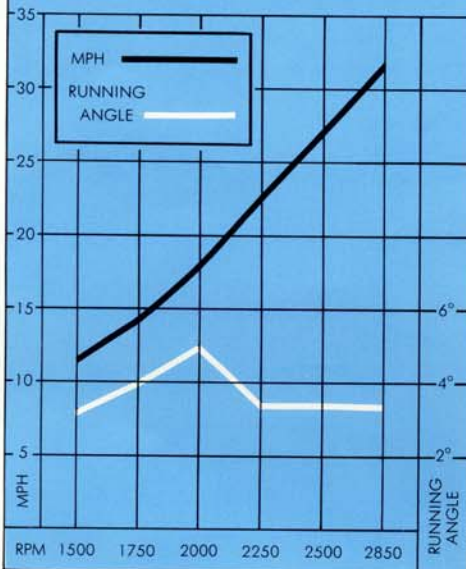
## PERFORMANCE CURVES

Boating Test No. 223

HATTERAS 31 FT SPORT CRUISER

TWIN 225 HP CATERPILLAR V-8 DIESEL ENGINES

18" x 23" THREE-BLADED PROPELLERS

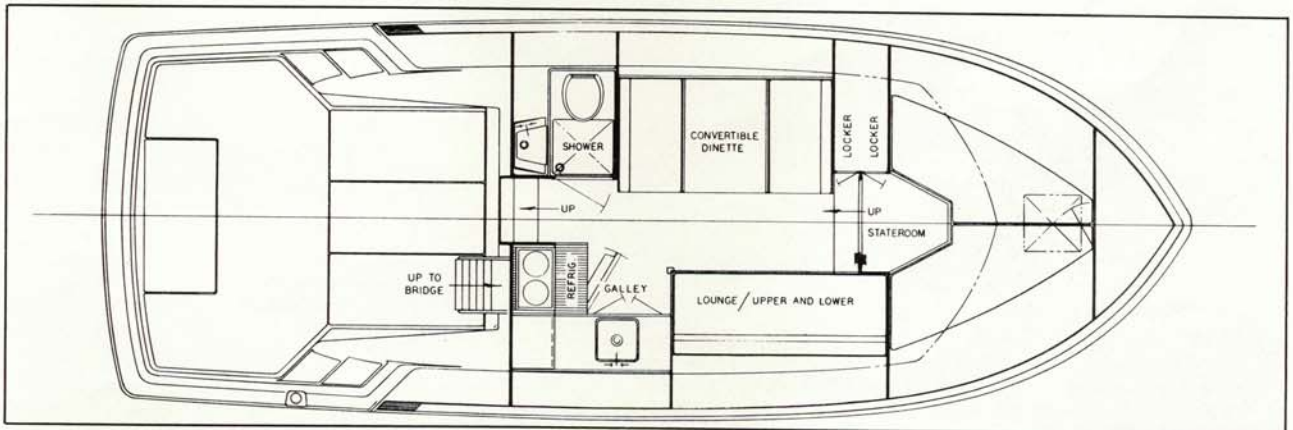


## MAJOR SAFETY FEATURES RECOMMENDED BY ABYC\*

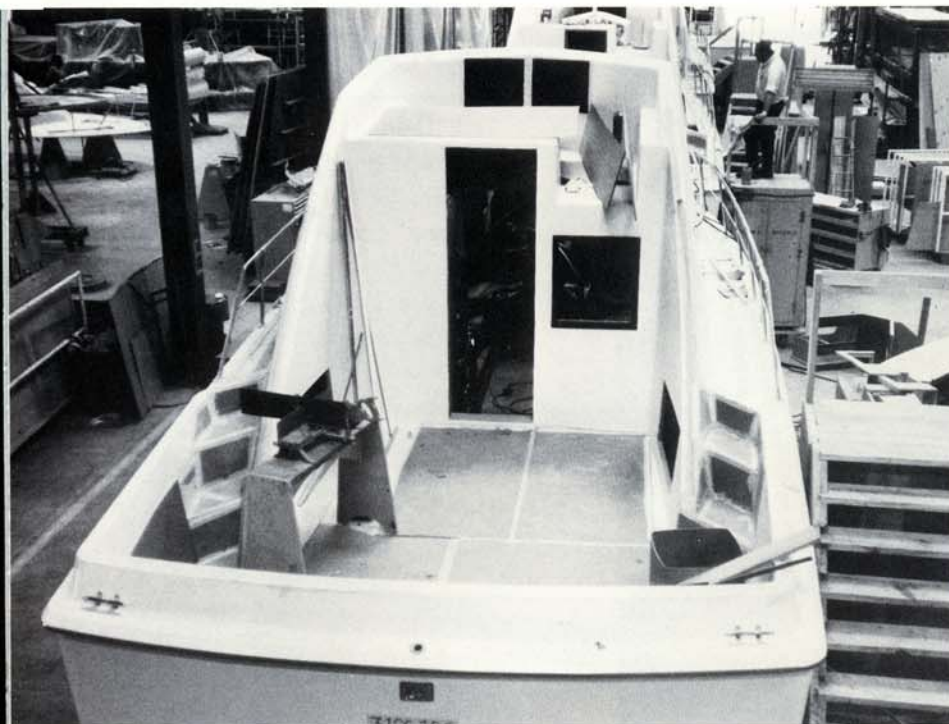
### Hatteras 31' Sport Cruiser

Item	Standard	Optional
Bilge blower	✓	—
Hand bilge pump	✓	—
Electric bilge pump	✓	—
Seacocks on through-hull fittings	✓	—
Nonslip weather decks	✓	—
Grab rails	✓	—
Fuel shut-off valves	✓	—
Grounded fuel system	✓	—
Battery secured and covered	✓	—

\*This list does not include U.S. Coast Guard required equipment but reflects key recommendations of the American Boat & Yacht Council, Inc., the industry's standards-making body.







*Unique, one-piece fiberglass molding incorporates deck, deckhouse, and cockpit.*

is a joy. The two big Cats are pleasingly quiet.

Speed trials showed the Cats had plenty of muscle, however: She topped out at more than 31 mph—very good speed for a stout, diesel-powered 31-footer. Our inclinometer revealed a moderately high running angle at 2000 rpm—5°—but from the flybridge helm, where the helmsman's view is not restricted by the rising bow, the running angle did not seem to be this high. It would, no doubt, be more noticeable from the optional lower station.

An occasional wake in the cut gave us some idea of the 31's rough water department, and it seemed superb. As soon as our trials were completed we pointed her nose seaward, to see how she'd like the rough water outside.

She loved it. She'll do anything she's asked to do in a rough sea, and while she may occasionally toss a dollop of spray up over the bridge, she's a generally dry boat. Dry, and soft riding. When she comes down off the top of a big one she does it with a reassuringly solid feeling, never one of those rattling crashes that makes the helmsman wonder how the bottom laminate is holding up.

Steering upwind, downwind, or crosswind is excellent, thanks probably to hull form and hydraulic steering. If you had to be 25 miles out in the Gulf Stream in a 30-knot nor'easter, it would be hard to imagine a better 31-footer to be in. None of this came as a surprise, of course—having spent some time at sea in larger Hatterae, we frankly expected the 31 to be as good as she is, and we weren't disappointed.

Back at the dock, we packed up our test gear, had a look through the more conventional 31' Express Cruiser, and made a date with Wes to see him at the Hatteras plant a few weeks hence. It would be interesting to see how this solid piece of seagoing machinery is put together.

Spring comes early in North Carolina and it was indeed a rare day in April when we arrived at the High Point airport on our way to the nearby Hatteras plant. Marketing Services Manager Ken Krantz was on hand to drive us to the plant and see to it that we met the engineering types in charge of the 31-footer program.

As is our custom, we started our tour in the molding area to get some idea of basic construction. The Sport Cruiser is assembled from six basic fiberglass parts, hull, deck/deckhouse, and hull longitudinals. The hull is fairly straightforward, a combination of fiberglass mat and woven roving (see Specifications for lay-up schedule) with four foam-filled, hat-section fiberglass longitudinals that double as engine bearers.

The deck/deckhouse section is something else—a complex part that includes flybridge, cockpit, molded-in cockpit steps, aft cabin bulkhead plus smaller details such as the foredeck hatch. The mold for this part is a good six feet deep from deck to top of flybridge and has several deep, narrow areas that would seem to require the services of a lay-up man with arms like an orangutan. We glanced about furtively, but everyone in the area seemed to be equipped with normal appendages.

After the unit is fully cured, it is removed from the mold and openings are cut for win-

dows, hatches, and cabin door and the weather deck surfaces are given a non-slip coating consisting of polyurethane paint mixed with fairly fine molder's sand—an excellent walking surface. Prior to installation on the hull, the unit is fitted with through-bolted deck hardware. Stanchion bases are bolted to drilled and tapped steel plates affixed on the underside of the deck with fiberglass tape.

Along the line we came across a boat, as yet undecked, with some of her interior joinerwork in place and fitted with engines, tanks, some wiring, and piping. We were impressed by the neatness of the wiring and piping runs—each line was properly supported and fitted with chafing gear. Wiring was color-coded and fuel lines and hydraulic steering lines were copper tubing.

The Sport Cruiser is fitted with three fiberglass tanks, a 50 gal fresh water tank, 180 gal fuel tank, and a 25 gal holding tank. Both fuel and holding tanks are molded to Underwriter's Laboratories standards with fire-retardant resin, fire-retardant exterior paint coating, and pressure testing.

We asked why the holding tank is built to UL specs—the answer was somewhat surprising. We were told that some owners convert it to a fuel tank. If this conversion is done in plant, fine. But if it is tackled by the owner or an inexperienced yard hand, it could be a potential source of danger. Since the holding tank is located on centerline between the engine stringers, and the main tank sits atop the stringers, hydrostatic pressure would be exerted on the lower tank by a cross-connection line. The safest installation would be to consider the holding tank as a separate entity with its own fill, vent, and supply lines plus valved cross-connection lines to be used when the large tank is nearing empty.

In our opinion, the holding tank should be used for its intended purpose only and so labeled.

The Sport Cruiser is the first production boat that we have come across with a built-in automatic fire control system for the engine and fuel tank compartment. Hatteras uses the FiQuench system which utilizes Halon 1301, a colorless, odorless, non-corrosive, and electrically non-conductive liquefied compressed gas. This UL and USCG approved system is wired to the boat's ignition and operates from the 12v electrical supply. By pressing a button on the FiQuench control panel, a five pound charge of Halon is discharged in a fraction of a second. The system will discharge automatically if engine room temperature exceeds 160°.

Clearly, there's only one way to build a first-class boat: the right way. And that's expensive—at \$31,300 for the gasoline-powered version, the Sport Cruiser is not exactly bargain-basement merchandise. But the man who buys one and, a few years later, decides to move up to a larger boat, is probably likely to go see his Hatteras dealer. We rather suspect that's just what Hatteras has in mind. ⚓