



ENDURANCE, 78'

NATURAL INCLINATIONS

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THE TOWN OF ANACORTES OCCUPIES THE NORTHWEST CORNER OF WASHINGTON STATE'S SKAGIT COUNTY, FACING EAST TO THE CASCADE MOUNTAINS AND WEST TOWARD THE STORIED CRUISING GROUNDS OF THE SAN JUAN ISLANDS. PUGET SOUND WITH ITS MANY PORTS, BAYS AND SCENIC SPLENDORS LIES TO THE SOUTH; AND NORTH, AS FAR AS THE UPPER REACHES OF ALASKA'S INSIDE PASSAGE, NUMBERLESS FJORDS CLEAVE THE COASTAL MOUNTAIN RANGES TO OFFER PRISTINE ANCHORAGES SHARED BY A RICH MIX OF MARINE WILDLIFE.





The traditional appeal of cherry joinery keynotes an interior notable for its practicality and ease of access

These gifts of nature help explain Skagit (pronounced SKA-jit) County's popularity among cruising enthusiasts, and its emerging status as a hub of recreational boat building. Several of the industry's best-known brands are found here, within minutes of each other: Nordic Tug in nearby Burlington and just down the road in LaConner, Pacific Mariner. In Anacortes itself, San Juan Composites builds its high-end Maine lobsterman-style craft, and just across the street lies Northern Marine.

Founded by partners Bud Lemieux and Cliff Rome, Northern Marine opened its doors in July 1995, establishing its reputation with a succession of burly composite expedition-style yachts in the 55' range. The yard's most recent launch is the 78' 3" *Endurance*. Third in the builder's 8000 series, *Endurance* and its two predecessors, *Zeus* and *Meander*, are eminently capable of—and destined for—long-range voyages. The owners of these three yachts have

known each other for some time, and compared notes frequently during the respective builds, yet each boat in the series reflects its owners' individual experience and priorities.

Northern Marine attributes *Endurance's* 4,000-plus nautical mile range and seagoing capability to a 4,200-gallon fuel capacity, and more than a few design elements. Popular opinion notwithstanding, the most noticeable of these, a bulbous bow projection, has relatively little to do with speed or range, according to chief designer Stuart Archer. "While the bulb does yield fractionally more hull speed," Archer says, "its primary benefit is to dampen the hull's pitching moment and provide a smoother ride in a sea-way."

Archer and his 11-person design team tank test every new hull design at the University of British Columbia campus across the border in nearby Vancouver. "We test a computer-milled scale

Endurance's elevated sheer forward has allowed raising the foredeck to accommodate a main-deck master suite

model, typically in simulated 14' sea conditions," he says. "Post-launch tests on finished hulls have proven that the tank test provides a reliable and cost-effective model that gives our clients a clear idea of what they can expect of their boats."

Northern Marine also is aggressively applying new technologies in the fabrication of composite parts. Production teams here use infusion, a vacuum-assisted process that achieves full saturation of the fiber matrix with less resin compared to conventional open-mold lamination. The result is considerably less weight with no loss of strength in the finished part. As a fully-contained process, Archer says, infusion also reduces volatile emissions to a level that is years ahead of federal environmental standards.

Endurance's main engine, a 600 h.p. Cummins diesel, has been de-tuned to deliver continuous power well within its operating parameters, to trim fuel consumption, reduce engine load and prolong service life. A radically-skewed 52" X 46" five-blade wheel provides maximum thrust at a sedate rpm, extending range yet more.

Other performance criteria include a dry ride, achieved by raising the sheer forward, and stiffening aft sections to improve performance in a following sea. A substantial keel extends under the



Dining table and chairs repeat cherry tones of interior woodwork. A granite-topped counter serves as a pass-through from the galley



TECHNICAL SPECIFICATIONS

| | |
|---------|---------------------|
| Length | 78'3" |
| Beam | 21'6" |
| Draft | 6'10" |
| Engine | Cummins K19M |
| Tonnage | 118 lt, 264,320 lbs |
| Fuel | 4,200 U.S. gallons |
| Water | 1,000 U.S. gallons |
| Range | 4,000 nm + reserves |



The master suite offers copious storage in dressers, wardrobe and under the king-sized berth. The bow's pronounced flare produces extra space within

bustle to enhance directional stability and, with a cast-iron shoe, to protect the propeller. Bow and stern thrusters and stabilizer system, all by American Bow Thruster, contribute to ride comfort and maneuverability.

Endurance's owners borrowed a few ideas from their cruising friends and much of their own experience to create a remarkably functional arrangement. That raised forward sheer line has produced a commensurate elevation in foredeck height, which in turn allows placing the forward owners' stateroom at main-deck level.

Visitors entering the saloon walk past the dining area to the starboard-side galley, then continue forward via a port side companionway to the owner's suite without so much as a single step up or down. Topside, it's the same story: Exit the pilot house through either side door, then pass forward to the starboard wing station, through a coaming door in the Portuguese bridge to the foredeck, or head aft to the boat deck. Same level, no steps, with quick access for handling docklines or ground tackle.

Movement between levels is similarly convenient. From a single point amidships on the main deck, access up to the pilot house or down to the guest foyer is immediate and direct. After a few weeks

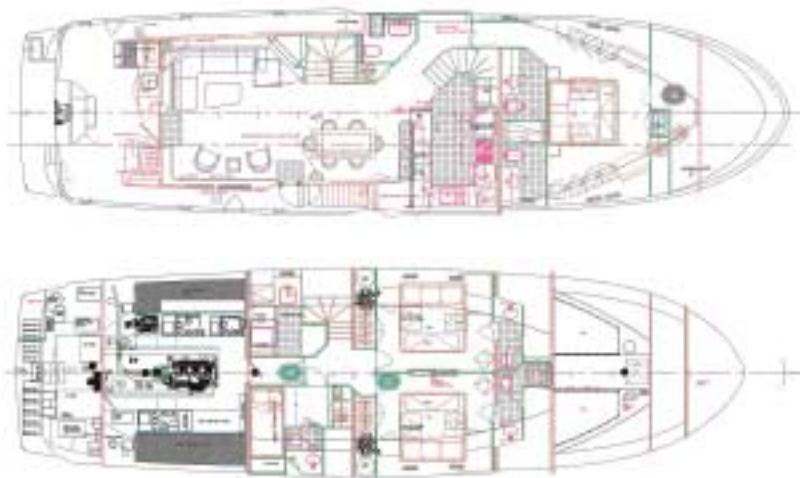
In the wheelhouse, three helm chairs, pilot berth and settee facilitate proper watchkeeping. High forward sections hint at owners' seagoing ambitions

on board, little conveniences like these begin to add up.

The décor, largely the creation of the owners themselves, is rich, traditional and comfortable, with muted fabrics and dark mahogany tones. Aware that substantial cruising time likely will be spent with only themselves on board, the owners focused on the master suite, with a carved headboard in a seashell/sunburst motif repeated in a headboard mirror just above. His-and-hers baths just aft share a common tub with shower, and storage includes built-in dressers, luggage-sized drawers under the king-size berth, and a walk-in cedar-lined wardrobe.

Overhead beams in the saloon extend above a built-in portside settee opposite two occasional chairs and table. A corner cabinet just forward of the settee and aft of the day head encloses a stereo system and flat-screen TV. A serving bar separates the dining area and the efficiently arranged galley.

A curved staircase rises from the galley entrance to the pilot house. Here, three Stidd helm chairs face a wraparound console with five flat-screen monitors that display virtually any mix of navigation and systems data. Just aft on the starboard side, a raised settee with table seats four or five onlookers, and behind that, a watch berth ensures a properly-rested crew on round-the-clock



Endurance's massive signal mast supports an array of antennae and lights. Just aft, the ambidextrous, centerline-mounted davit handles both tenders



A sweep of integrated displays serves up complete navigation data

passages. A compact navigation center on the port side and aft includes a computer and weather instrument group.

The boat deck aft of the pilot house accommodates an 18-foot Grady-White center console fishing boat and a RIB shore boat, both powered by Honda four-stroke outboards. An electric davit located on the centerline handles both boats with equal aplomb. The base of the signal mast conceals washdown equipment and fuel service for the tenders.

To starboard is a cabinet with hot/cold sink and electric grill. Portside, a stairway leads to the flybridge, with three additional helm chairs at the topside console, a sunning lounge and settee with table. Looming above, the mast supports radar and communication antennae, satellite receivers, spotlights, horns and nav lights. A hydraulic hinging mechanism reduces bridge clearance to 23 feet for negotiating inland waterways.

From the boat deck, a stairway aft and to port descends to a partially covered cockpit equipped to indulge the owners' passion for fishing. Flanking the saloon door are a cabinet/bait station with sink and washdown, and a large aerated bait/crab tank with plexi-glass panes on two sides. To starboard, a docking station facilitates close-quarters maneuvering.

A transom door opens to the swim platform, where removable stanchions and fold-down cleats allow securing tenders. Electric warping capstans provide muscle for docking chores.

Endurance accommodates up to six adults. A king-size berth, large wardrobe and ensuite head await guests in either of the midship lower-deck staterooms. A third guest stateroom to starboard



offers upper/lower bunks, head and wardrobe. All staterooms include stereo and television. Opposite the third guest stateroom is a utility room with over-and-under washer and dryer, deep sink, a good-sized freezer and cabinet for storing provisions.

Just aft through a watertight door, the engine room provides good access for hourly checks and servicing the main engine and three Onan generators, two delivering 21.5 kw and one weighing in at 9.0. A 180 h.p. "pony" motor on the port side powers the hydraulic systems. Mounted on the forward engine room bulkhead, a control panel manages fuel flow from two saddle tanks and two forward tanks. Because *Endurance's* owners plan to visit remote destinations where fuel quality is not always a sure bet, all engines are fed through an Alfa Laval fuel polisher and Racor water separators.

Acknowledging that ease of service often is directly proportionate to mechanical reliability, Northern Marine's design team has put the lazarette to good use, arranging systems to allow quick access for monitoring and maintenance. These include a 1,200 gallon per day Sea Recovery watermaker, a/c chiller, diesel water heater, shore power panel, inverters, transformer, steering pumps and battery charger. On a shelf tucked under the transom platform is a bank of ten 8D batteries. A 10 h.p. electric motor provides power for the davit and anchor windlass.

Initial cruise plans for *Endurance* include pottering around the San Juans for a while, then a few weeks in Alaska's Inside Passage before departing for more distant shores. This sturdy yacht's hull design, construction, equipment list and deck plan ensure the means to get there and back, wherever the "there" may be. ■

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