

GoldStandard

Arguably the most sophisticated motoryacht ever built in America,
Arson Bell has raised the bar for U.S. builders...



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DAWN IN NANTUCKET. A THICK FOG HAS SETTLED ON THE HARBOR, CLOAKING THE ANCHORED YACHTS AND WORKBOATS IN A BLUE-GRAY SHROUD. ALONG THE WHARF, GAS STREETLAMPS APPEAR AS FIREFLIES, HOVERING ABOVE THE BRICK SIDEWALKS, THEIR SOFT GLOW REFLECTED OFF COBBLESTONES POLISHED SMOOTH BY COUNTLESS LEATHER SOLES, WAGON WHEELS AND TIRES. IN THE METICULOUSLY KEPT CLAPBOARD AND CEDAR-SHINGLED BUILD-

ings that line Main Street, only a few curtained windows show signs of life, but the seductive aromas of fresh coffee and warm baked goods signal that the lovely town is coming awake as it has each day for the past three hundred years.

Several hours later, as the summer sun burns off the last of the mist, Anson Bell comes into full view. The 161-foot yacht is an imposing sight. Built entirely of aluminum alloy by Palmer Johnson, of Sturgeon Bay, Wisconsin, she was conceived under a mandate by her owner that she be equal or better in all respects to the finest European motoryachts. The boat's pedigree is enhanced by a number of factors: the reputation, knowledge and expertise of each member of the design team, the high level of specification, and the reputation and capability of the builder.

The design team included several companies. The Dutch firm of Vripack International was commissioned to draw

the vessel's lines and provide structural engineering for the hull. Styling, technical consulting and the development of the yacht's general arrangement were provided by Sparkman & Stephens under the guidance of that firm's chief naval architect, Greg Matzat and chief designer Bruce Johnson. Acoustic engineering and consulting were provided by Joseph Smullin of J&A Enterprises, one of the world's leading experts in this special discipline. Interior design was performed by Laura Ramsey Engler, who had worked with the owner's family on a number of projects.

CLASSED BY LLOYD'S REGISTER of Shipping for use in unrestricted ocean service, Anson Bell holds a letter of compliance from the United Kingdom's Maritime and Coastguard Agency (MCA) under the agency's Code of Practice for Safety of Large Commercial Sailing and Motor Vessels. To provide a more comfortable environment for passengers and crew, measures were taken to attenuate noise throughout the boat.

"We took special care related to the mounting of the engines, the design of the isolation system, the shafting," Smullin said, noting that the noise and vibration signatures of the vessel's engines and generators, the propellers and the characteristics of the couplings and thrust bearings were reviewed.

Other potential sources of noise and vibration, such as pumps and compressors,



The American-built *Anson Bell* was conceived under a mandate by her owner that she be equal or better in all respects to the finest European motoryachts.

MAKING WAY: The classic arrangement provides several exterior seating options. The lounges on the after portion of the main deck can be enclosed with glass side panels and transparent curtains.

The interior design is a very personal statement with a classic, clean, contemporary feel. There is not as much solid wood, and the overall style is streamlined and compact.



FEAST FOR THE EYES: Luxurious joinery, tasteful furnishings and a subtle blend of textures provide a tasteful ambience for formal dining. Extraordinary contemporary art pieces infuse color and add vitality into the surroundings.

were also investigated. In addition, the vessel's exhaust system and intake air system were designed to provide optimal flow and temperature exchange with low noise. In the vessel's accommodation spaces, such machinery as the air handlers for the HVAC system were analyzed and specially treated where required.

Through the use of a variety of methods, including the soft-mounting of vibration-producing machinery, the introduction of specialized noise-absorbing materials and construction details designed to isolate the accommodation from the vessel's structure, Smullin was able to achieve levels that rival those of a well built house.

"The insulation was engineered and

done with great care in detailing," Smullin added. "Floors are mounted on Sylomer, there are good details for the isolation of the linings around the windows, and all of this had to be integrated with the fire protection system. There is acoustic padding under the carpets, and joiner bulkheads are isolated. This achieves low noise and privacy from one cabin to the next.

"The doors are fully gasketed and have dropped sills, which meant that the [air conditioning] system had to have special passages for ventilation; it couldn't be taken under doors. But the most important work was in the mechanical areas, [where measures were taken] to isolate and quiet things at the sources.

"In addition to the care we took in the calculation of the dynamics of the engine mounting and the calculation of the dynamics of the shafting system to assure that things would be right, we took care in FEA (finite element analysis) studies of deck structures as well as foundations. It was a pretty thorough design job that we did related to noise and vibration."

As to the overall result, Smullin noted, "The noise levels are very quiet...indeed, they're excellent."

In designing a vessel of any kind, naval architects calculate stability in two categories: intact and damaged. The first deals with the vessel in her various ordinary seagoing conditions and is the most com-



monly understood by laymen. The calculations for intact stability are addressed during the vessel's design and take into account the vessel's righting moment and a number of other factors related to weight distribution and the location of structure and equipment.

Damaged stability, on the other hand, deals with the vessel in a condition in which the hull's buoyancy has been compromised in some way. The MCA Code requires that a vessel be designed for one-compartment damaged stability, meaning

A HOME AT SEA: Each space has been designed to maximize utility and liveability. The galley (top left) is equipped to handle the normal complement of passengers and crew or large numbers of guests for parties. Guests enjoy spacious sleeping accommodations and cozy public areas. A passageway (bottom left) evokes images of an undersea reef.

that she is able to survive an event in which one of her watertight compartments becomes flooded. *Anson Bell* is designed for two-compartment damaged stability, exceeding class regulations and the MCA Code by a factor of two.

Aboard most yachts, the subject of fire safety is generally addressed in a relatively simple manner by providing

portable extinguishers in various spaces and a fixed fire suppression system in the engine room. Under the MCA Code, the subject of fire protection is expanded to the same level as that required aboard a large passenger ship while being refined to permit a yacht finish. To accomplish this, the movement of passengers and crew between decks is accomplished via a "stair