Story By Steve D'Antonio

THE Fleming 65

Seaworthy, Well Engineered, Continuously Refined, And Ready To Venture Forth

Traditionally, the boat tours I conduct for *PMM* are lengthy and detailed affairs. When reviewing a boat, I try to put myself in the shoes of a typical owner, using as much of the gear as I can in real-world conditions. If possible, I like to spend a night aboard, because that's the only way I can authoritatively share my experience with readers.

Thus, when I received an offer from Tony Fleming, founder of Fleming Yachts, to conduct an extended sea trial—really extended, from Scotland to Iceland—aboard his own Fleming 65, I accepted without hesitation. Truth be told, because I have a weakness for high-latitude cruising destinations, it would be fair to say I invited myself on the passage, and Tony was gracious enough to accept my "offer."

There's an advantage to making a long passage with the founder of the company that builds the boat you're reviewing, although it's probably not what you think. Many would say the advantage is the founder's, as he extols the virtues of his creation while holding the reviewer captive.

In this case, the tables were turned, but in a good way. Spending three weeks aboard *Venture II* with Tony gave me plenty of time to pepper him, and at times pester him, with questions about the origins of the company and his own history, both in and out of the marine industry. (Tony, now retired, describes himself as Fleming Yachts' "ambassador at large," offering advice to the company but holding no official position.) At times I'm sure he regretted ever having agreed to allow me to set foot aboard as I asked him question after question, but if he did, it certainly never showed.

DESIGN FEATURES

It's only appropriate that a review of a vessel of this sort begin by focusing on the yacht's design. Before assessing a vessel's construction and ability to live up to the purpose for which it's been built, it's extremely important to determine just what type of cruising the boat is designed for. Most of the features and details described below apply to all Flemings—55s, 65s, 75s, and now 78s.

The bar for the Fleming 65—and all Flemings, for that

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matter—is set high, thanks to its IMO CE (International Maritime Organization European certification) Category A "ocean" rating, the highest for recreational craft. Vessels that meet this certification are "designed for extended voyages where conditions may exceed wind Force 8 [on the Beaufort scale; 34–40 knots] and wave heights of 4 meters [13 feet]." However, to me the implication is much greater. When a builder goes to the length of designing and building a vessel that meets such a lofty standard, it is making a statement about where it expects the vessel to cruise, how the vessel may be used, and what the expectations of the owners might be.

Fleming yachts have met CE guidelines since 1998, long before doing so was chic or well known on this side of the Atlantic. When I signed on for the passage from Scotland to Iceland, a region notorious for its tumultuous sea conditions, knowing the vessel was built to an ocean A rating only served to increase my sense of confidence in the vessel. Simply put, Flemings are built to be used in harsh conditions without undue concern; they have made transatlantic and West Coast-to-Hawaii transits, and not one has suffered weather-related damage under way.

While all Flemings yachts are capable of receiving CE approval, it's not "standard equipment" per se. (*Venture II* is CE rated and also is built to European specs, with a 230-volt, 50Hz electrical system.) CE guidelines dictate everything from the type of wire used, visibility from the helm, and resin composition to cockpit drainage speed and fuel tank flame resistance, for which the boatyard must perform flame testing. However, the critical aspects of vessel design, hull construction, and scantlings and equipment selection that afford Fleming yachts CE certification—and provide stability and seaworthiness—are, for the most part, retained aboard every Fleming that leaves the factory, which means they all benefit from the certification process. This process requires inspections that occur during construction, as well as extensive documentation for virtually every product installed. However, other than voluminous documentation and a few other minor differences, there's very little that distinguishes a Fleming that's CE certified from one that's not.

Photos by Steve D'Antonio

Above: The entrance to the lazarette and engine room. The hatch and integral rail provide support for those entering the space as well as preventing those stepping past from falling into the open hatch. A curved ladder with comfortably wide treads provides ample footing. Right: Tony Fleming is intent on making sure that all design and construction decisions are based on sound engineering and not fads. He's seen here sitting between *Venture II*'s 800hp MAN engines.

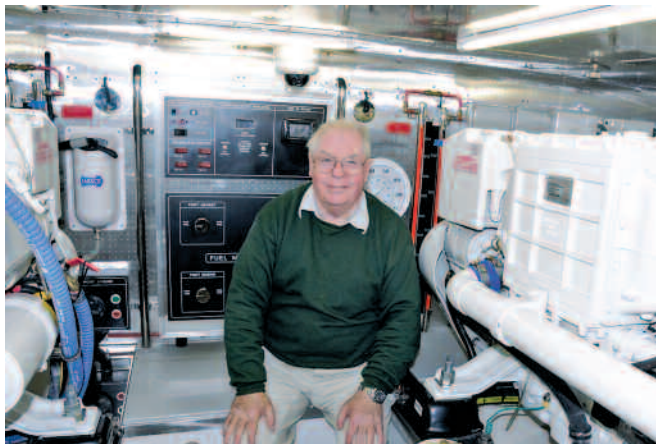
Furthermore, all Flemings built for the U.S. market now comply with the NMMA/ABYC Certification Program that evaluates vessels based on 42 ABYC standards. I've routinely given accolades to the few builders in our niche that have taken the admirable step of joining this voluntary program. Fleming Yachts also meets ISO 9001:2008 and 14001:2004 standards for quality management and environmental management.

FORM FOLLOWS FUNCTION

I enjoy walking the docks at marinas and boat shows and critiquing boats with regard to what their designers and builders do, both right and wrong. It's interesting how much one can discern about a design by a seemingly casual observation of this sort. One aspect of a design that's very easy to appraise is the ability to board. A pet peeve of mine is being forced to board via the swim platform. The F65 is equipped with four bulwark boarding gates at two different levels—two amidship that access the generously wide side decks, and two at the pilothouse level—along with another gate in the transom. This offers the boat owner a variety of boarding options, including boarding from a dinghy. (The crane on the 65 is designed to set the dinghy precisely alongside at the starboard gates.)

While we were docked at a floating pier in Stornoway, Scotland, we boarded using both the transom and midship gates. At a stone quay in Tórshavn, in the Faroe Islands, it was easiest to board at the midship gate alone (and the locals did so with regularity, at all hours of the day and night and in varying states of revelry, if we left it open). When we docked alongside a huge steel barge at a commercial pier in Reykjavik, Iceland, we took advantage of the upper gate's higher elevation.

Another important design component that's often overlooked is the ability to reboard a vessel from the water. Let's face it—folks fall overboard, and such mishaps can be fatal, especially when the water is cold. While crew



members can and do fall overboard at sea, more frequently it happens while dockside. The Fleming 65 is equipped with a boarding ladder on the swim platform that is designed to be deployed easily from the water. While it seems like common sense, many vessels lack this necessary component that is a requirement for CE and NMMA/ABYC certification.

Engine room air intakes are yet another design feature worthy of scrutiny. Air that's laden with spray, mist, and salt often wreaks havoc on engines and generators, as well as all of the gear in this space. Fleming's approach to this problem is creative—air is drawn in through vents located inboard and under the transom bulwark, where it is much less likely to carry spray and salt.

Because Tony's background is in engineering, when it comes to design, his first consideration is always functionality. This is a concept with which I wholeheartedly agree, but I suspect it has cost Fleming Yachts a sale on occasion. In contrast with other builders, no matter how many potential buyers ask for a

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Access to critical gear in the 65's engine room can be described as nothing less than excellent. Equipment is laid out in a manner that makes it easy to service, while critical gear such as fuel filtration is front and center where it can be casually inspected each time the space is entered.

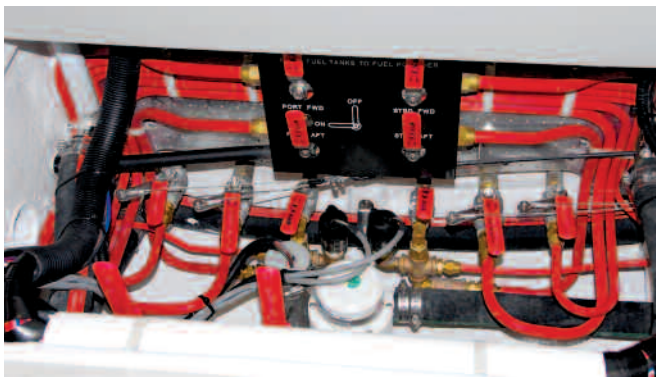
feature or change, if it doesn't make good sense or if it compromises the seaworthiness or functionality of the yacht, Fleming simply won't accede. The folks at Fleming Yachts unabashedly point out that they do not follow boatbuilding fads.

For example, Tony and I had several conversations about the cabin layout on the 65. He assured me that there's a reason for every layout decision and that nothing has been left to chance, from the bull-nose fiddles on the countertops, which are rounded on the outside to be more comfortable to lean on, to the design of an accommodations space passageway. Because of the latter feature, the saloon becomes the thoroughfare for folks trying to get to the pilothouse or the accommodations spaces. Three easy steps, all of the same height and width, allow those aboard to reach either of these spaces. This means that, while under way, the bridge watch isn't disturbed by people transiting the area and, more importantly, night vision isn't impaired by work in the galley or saloon. (An optional door can be installed between the pilothouse and the saloon to completely separate the two spaces when desired.)

While some builders tout the galley-up design, and many cruisers prefer it, from a functionality point of view, and in Tony's view, it makes no sense. It means a meal can't be prepared while under way at night without distracting the watch-keeper. Having cruised aboard *Venture II* for several night passages, I can attest to the value of the Fleming 65's design. The person going off watch could make a snack or cup of coffee for the oncoming watch-keeper without disturbing his night vision.

There's a saying in the cruising community: if you haven't touched bottom, you haven't cruised. While there's a trade-off in increased drag, Flemings have always relied on full, deep-draft keels that afford improved tracking and a large measure of protection in the event of a grounding. The keel design on all Flemings extends well below the running gear and includes a stainless steel abrasion shoe, making most groundings nonevents; even in a hard grounding, the vessel maintains watertight integrity. Tellingly, there is no hardware protruding from the Fleming's keel—nothing to get hooked or sheared off in the event of a hard grounding. There is a story of a Fleming 55 that ran hard aground on the concrete remnants of a defunct bridge, losing a third of its keel in the process. Because the keel was filled with closed-cell foam and capped from the inside with multiple fiberglass laminates, it didn't leak, and the vessel continued back to its home port under its own power—albeit with a slightly shallower draft.

Building a deep keel in this manner is a complex,



Photos by Steve D'Antonio

Top: Fuel distribution valves, pumps, and associated plumbing are easily accessed through a hatch at the forward end of the engine room. Above: The electrical system is well designed, functional, and reliable. It's often the things one can't easily see that have the greatest impact on a vessel's reliability and operation, exemplified on the backside of this pilothouse electrical panel.

time-consuming, and comparatively expensive process because it requires a two-piece hull mold, and molds represent a significant portion of the expense of building a boat. Still, it is worth it, considering the payoff, and there's another advantage: when a hull is built using a split, two-piece mold, protrusions such as rubrail and spray-rail bases can be molded into the hull, rather than fastened to it. This makes for a structure that is stiffer overall and better able to absorb and disperse impact loads.

While no design does all things universally well, the Fleming 65's low profile, fine entry, moderate 9-degree transom deadrise, round bilges forward, generous flare, soft forward sections, and hard chine make it an all-around good sea boat and one that cruises comfortably at 8 or 18 knots. I tested this design functionality in a variety of sea conditions. While we were docked in Tórshavn and in various Icelandic ports, countless residents were intrigued by the boat, the likes of which they had never seen in their home waters, and stopped by to chat. Many were convinced that *Venture II* was of Scandinavian design, and several described her as "a good sea boat"—high praise coming from folks who are descendents of Vikings and who live and fish in a region where seas are known for their unforgiving tumultuousness.

I've often thought that there are two elements about a boat that make it "right"—those you can see, and those you can't see. First, regardless of what the numbers say, the boat has to look good and well proportioned. Second, there are all the build aspects that, once complete, you can't readily inspect (although I certainly try). "It's what you don't see that is going to keep you safe, even though it may be the looks and fit and finish that attract you in the first place," says Tony, concisely summing up the importance of well-thought-out design and sound construction techniques.

HISTORY

For a boatbuilder, Tony is refreshingly self-effacing. In the three weeks I was aboard his boat, I never heard him utter a disparaging word about his competitors; on the contrary, he often complimented them. Don't get me wrong—he has strong opinions. But he freely admits having made mistakes in his career and in the boats he's built, and it's clear that he has learned from his mistakes. I've been crawling through and working on Flemings for many years, and having closely examined and lived aboard Venture II, I can say without reservation that the changes and improvements are obvious. This boat represents the best Fleming has ever offered.

The stories of the Fleming 65, Fleming Yachts, and Tony Fleming are inextricably intertwined; it's impossible to tell the story of one without telling the stories of the other two. As a boy, Tony attended a boarding school in Scotland, which he says was both academically and physically challenging. The windows in the dormitory were kept open year-round, Tony recalls, and in spite of this, failing to bathe daily was a punishable offense. Tony and his mates figured a way around the requirement by dampening the bath towels and fooling the staff into thinking they had bathed. Tony's childhood was heavily influenced by the cataclysmic events of World War II; he was 10 years old when the war ended. His father was a career RAF officer, so the family moved around the U.K. constantly. By the time Tony was 16, he had lived in 26 houses.

After finishing secondary school, Tony had little interest in university. Seeking more of a hands-on education, he enrolled in a five-year aviation engineering apprenticeship administered by the British aircraft

Photos courtesy of Fleming Yachts

Top: The saloon is comfortably set up for lounging, watching TV, snoozing, or even the occasional sleep-over guest. An optional dining table on the starboard side doubles as an excellent "journalist's work station." Above: Fleming's trademark warm and inviting accommodation spaces are not only visually appealing, they are also logically laid out. The saloon, rather than the pilothouse, becomes the thoroughfare for crew heading to the berthing area and the galley can remain active even during night passages without distracting those on watch.

Photos courtesy of Fleming Yachts

Top: The pilothouse layout is the window to the soul of every vessel's designer/builder. If the vessel is easy to operate from here, if visibility is good and equipment platforms are ample and properly angled, then you can bet the vessel is used by those who built her. Above: The master stateroom incorporates a walk-around queen berth, and includes closets, drawers, and hanging lockers galore. For CE compliance purposes, and just common good sense, a deck hatch and hide-away ladder provide the berthing area with an alternative means of escape.

manufacturer De Havilland. After graduating, he moved through a succession of jobs while satisfying a wanderlust that took him from working in a mica mine in Rhodesia to a sales position in Hong Kong, where, he quips, he peddled everything from sandpaper to X-ray machines.

Tony completed a full, ground-up restoration of a 1934 BMW 319 when he was in his early 20s. I restored a 1974 Triumph TR6 at the same age, and our shared interest on this topic spawned several discussions about the importance of attention to detail and mechanical systems in the world of boat building and design. Tony's passion for things mechanical, fostered during his aviation apprenticeship and honed during the BMW restoration, prepared him well for the world he was about to enter.

No stranger to travel and adventure, when Tony was 22, he hitchhiked from Salisbury, Rhodesia, to Dar es Salaam, Tanzania, then boarded a ship to Bombay for 5 pounds sterling, which included food. He planned to travel to Singapore by way of India to see a girl (naturally), but he ended up getting off in Mombasa, Kenya, and stayed for a year to work as a police reservist. In 1961 an opportunity came along to work as a sales representative for a British company in Hong Kong, and he took the job. While there, Tony met a fellow at the Hong Kong Yacht Club who worked at American Marine, builder of Grand Banks (which, in those days, were all wood). Tony stayed on with American Marine until 1985, moving with the operation from Hong Kong to Singapore.

In 1986, at the age of 50 and with a significant amount of experience in Asian production boatbuilding under his belt, Tony and a partner, who passed away seven years later, started Fleming Yachts. After a great deal of research, they settled on the Tung Hwa yard in Taiwan for construction, and that's where every Fleming yacht—more than 250 to date—has been built since. Tony credits his and his staff of six employees' close working relationship with the yard, which now builds only Flemings, for the very high standard of workmanship and attention to detail found in all Flemings. To date, the yard has built 11 F50s, 17 F53s, 187 F55s, 27 F65s, and 14 F75s, and two F78s are now under construction.

Tony lived in Taiwan for nearly 20 years, overseeing construction details, until he moved to California in 2005. Since then, as an advisor to Fleming Yachts, he has traveled extensively aboard two of his own Fleming 65s. His first boat, *Venture,* cruised from Nova Scotia to Juneau, Alaska, via the Panama Canal and to the Galapagos Islands from 2006 to 2008, logging more than 20,000nm. Then, he purchased *Venture II,* which was specified for use in Europe,

traveling the south coast of the U.K., across the North Sea, and up the Elbe for the Hamburg boat show. From there, *Venture II* cruised back to the North Sea and through the river and canal system to the Düsseldorf boat show. Next, it was back to Southampton, U.K., and on to Iceland during the summer of 2010.

When I stepped aboard last August, *Venture II* had logged more than 6,500nm. Between the two *Ventures,* Tony has traveled a distance greater than the circumference of the Earth. His goals: to continue offering suggestions toward refining the product, as well as indulging his passions for history, photography, cinematography, ornithology, and wildlife.

CONSTRUCTION DETAILS

In my time on Venture II, I took every possible opportunity to review and discuss the systems aboard. In some cases, if I asked a question that Tony couldn't immediately answer, he would relay the query to Duncan Cowie, who handles operations, sales, finance, and service at Fleming. (The folks at Fleming Yachts eschew titles; no one on staff has an official title.) Within a day I would receive a very detailed response, exemplifying another aspect of Fleming's approach toward boatbuilding and the firm's relationship with the yard. When I query a boatbuilder on a technical detail, the response I often receive is, "That's the way the yard does it." During the Scotland-to-Iceland passage and in preparation for writing this article, I posed more than 250 questions to those at Fleming Yachts. Despite the fact that they were probably tired of hearing from me, every response was detailed, accurate, and authoritative, and it always came from Fleming employees. Not once did I hear, "That's the way the yard does it." As far as I'm concerned, the Fleming 65 is built by Fleming Yachts, not by "the yard."

While it would be impossible to cover every aspect of the build details for a Fleming 65, I'll highlight those that are of the greatest interest. Previously, I mentioned Fleming's philosophy of continuous improvement. Earlier Flemings that I worked on as a mechanic and boatyard manager utilized steel fuel tanks encased in insulation. This approach was less than ideal because the tanks sometimes rusted, and because they were covered, the rust was difficult to detect. For the last 15 years, Flemings have been built with fiberglass fuel tanks and sanitation system tanks. Fiberglass is about as close to "forever" as one can get when it comes to tanks, and Fleming Yachts goes a step further by meeting CE flame-resistance requirements, thanks to a fireproof coating. But the improvements don't stop there: each tank is built over a male mold, making the interior extremely smooth, which discourages the accumulation of debris, and baffles and a sump for water and detritus removal are incorporated into the design.

The rest of the fuel system, because it meets NMMA/ABYC standards, is both reliable and safe. If I could change one thing, it would be the exposed nature of the fittings mounted outboard of the engines and on the bottom of the fuel tanks. It seems a misplaced foot

FLEMING 65

LOA	71' 3"
LWL	59' 2"
BEAM	18' 8"
DRAFT	5'
DISPLACEMENT	133,500 lb.
BRIDGE CLEARANCE	22' 11"
FUEL	1,700 U.S. gal.
WATER	400 U.S. gal.
HOLDING TANK	330 U.S. gal.
GRAY WATER	165 U.S. gal. (optional)
GENERATOR	21.5kW Onan eQD (standard); 19 and 11kW Onans (optional)
ENGINES	Twin 800hp MAN R6-800 CRMs
MAXIMUM SPEED	19 knots
CRUISE SPEED	9–10 knots; 16-knot fast cruise
RANGE AT CRUISE SPEED	1,700nm at 9 knots; 1,300nm at 10 knots
DESIGNERS	Tony Fleming & Doug Sharp
BUILDER	Tung Hwa/Fleming Yachts
BASE PRICE	$2,800,000
PRICE AS TESTED	$3,100,000

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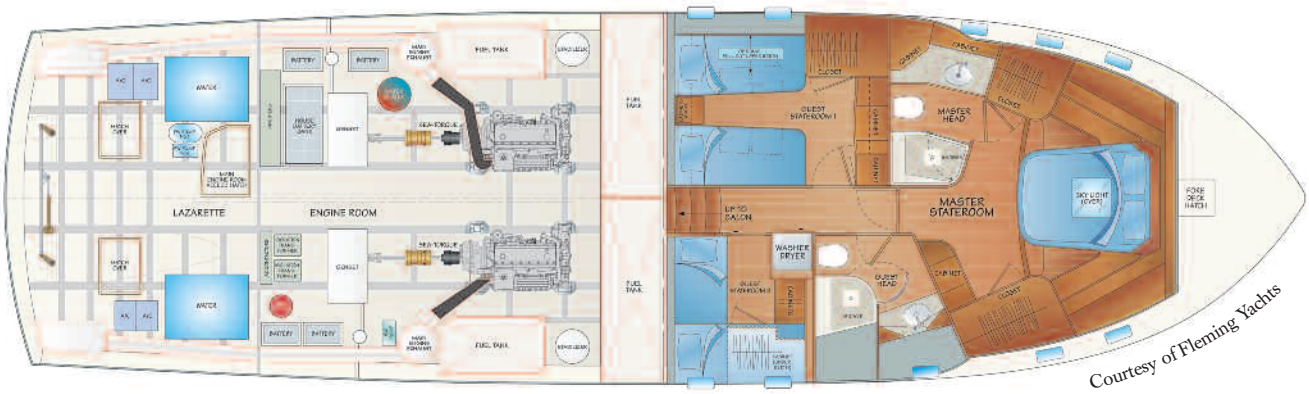

Courtesy of Fleming Yachts

could damage or break one of these fittings, causing a fuel spill. Placing a step or guard over the fittings would eliminate this risk.

Water tanks on Flemings used to be made of stainless steel. Because of the potential for crevice corrosion, slight though it was for 316L stainless tanks, Fleming switched to roto-molded polyethylene. The potable water system plumbing also utilizes NSF-approved proprietary polyethylene tubing. Also worth noting on the topic of potable water: the hot-water plumbing aboard the 65 is insulated, and it incorporates a circulation system, which means hot water is available at any tap almost instantly. This reduces water consumption (and the wait for hot water), thereby limiting the time that the watermaker needs to operate.

All Fleming hulls are solid polyester fiberglass with a skincoat of vinyl ester (VE) resin for protection against osmosis. Skincoating requires some explanation: When it was discovered in the 1980s that polyester resin was susceptible to osmotic blisters, boatbuilders and resin manufacturers realized a solution was needed. It was found that resin based on vinyl, rather than polyester, was essentially blister resistant. (VE resin is similar to epoxy in that it is stronger or more resilient than polyester). Because vinyl ester is more costly, many builders simply apply it to the outer two or three layers of the hull below the waterline, which is a valid approach. Fleming, on the other hand, uses VE resin on the exterior of the entire hull, thereby adding strength, and six full laminates are applied, rather than two or three. The area below the waterline is also protected with an epoxy barrier coat, which affords bottom paint an excellent primer, as well as providing yet another layer of protection from osmosis. In describing the application process, Duncan noted that the antifouling paint is applied before the barrier coat has fully cured, thereby achieving the all-important chemical bond between the two coatings.

While the F65 hull is solid fiberglass, the decks and cabin sides benefit from composite cored construction, which yields lighter, stiffer forms. Fleming's hull warranty is impressive by any standard—one year overall on the entire vessel, five years for structural components, and five years of coverage against below-the-waterline osmotic blistering. Fleming has used synthetic core material, which resists water absorption and is impervious to decay and rot if it becomes wet, in all major molded parts since 2003. Timber is no longer used as a core material anywhere aboard a Fleming yacht.

STURDY AS SHE GOES

While making the passage from the Faroes to Iceland, *Venture II* experienced the most unsettled conditions to date, or at least the worst I had seen. I have a clear recollection of the 44-hour passage, roughly 10 hours of which were simply horrendous. Reviewing my notes, I see the conditions ran the gamut from glassy calm and foggy to 30-knot winds and 10- to 12-foot seas. My journal simply says "EXTREMELY ROUGH." Having made many sea passages, that's a statement in itself.

As I lay during my off-watch period in my midship cabin bunk (a good place to be in rough weather, especially if you suffer from seasickness, as I do), I clearly recall thinking, and having enough time to do so in flight, "We have to land in this wave trough eventually." Each and every such landing—and there were scores during this stretch—was a stupendous, bone-jarring, filling-rattling crescendo. Every light bulb aboard *Venture II* is an LED, save for those in the reading lamps. While the reading lamp bulbs themselves didn't break, each and every one of the filaments parted. When I emerged from my cabin, I expected to find chaos. But the damage toll, aside from the bulbs, consisted of a single broken wine glass and a burst bottle of Berserker Scottish beer (our last one) in the saloon fridge.

While all of this was happening, I made a mental note

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Venture II leaves Reykjavik Harbor. Because it's manufactured in a two-piece mold, the F65 is able to incorporate such features as a deep keel and molded-in, rather than screwed-on, spray rail.

to ask Tony about the yacht's hull-to-deck joint. If ever there were a time when the joint would fail, this was it. However, the joint on the F65 is secure indeed; a union between the hull and deck is made in two locations, both at the top and the bottom of the bulwark, using fasteners and polyurethane adhesive, and then it is fiberglassed.

The Fleming 65's engine room includes a series of unique and interesting features. Among these is a system pioneered by Fleming more than two decades ago—internally reinforced engine bed stringers capped with stainless steel, which ensure that the engines remain well supported and aligned. However, engine alignment isn't an issue aboard Flemings, because the running gear takes advantage of the universal-joint-equipped Seatorque system, a recent change for the company. The Seatorque incorporates an enclosed, oil-lubricated shaft that eliminates the need for a stuffing box or cutless bearings while acting as a thrust bearing. Such a shaft also reduces drag, thereby increasing efficiency and fuel economy. The thrust bearing enables the engine to be supported with especially resilient, flexible mounts. This represents a huge leap forward in the design and installation of running gear, and it offers a variety of advantages over conventional shafts, cutless bearings, and stuffing boxes.

Some have lamented that the engine rooms aboard Flemings, particularly on the 55 but also on the 65, are not "stand up," in contrast with those in other vessels of the same length. At 5-foot-7, this is not a big deal for me; still, I wish there was more headroom. As mentioned earlier, though, there's a reason for every design decision aboard a Fleming, and the engine room is no exception. In order to maintain the vessel's desirable stability characteristics, the center of gravity must be kept low. Part of achieving this involves keeping the saloon sole low, and the saloon sole forms the overhead of the engine room. In short, there's no free lunch. If you're tall, you will have to hunch in the engine room, but you will do so secure in the knowledge that

you're stooping for a good reason. The engine room is extremely well lighted, and access to virtually all important machinery and electrical equipment is excellent.

The F65 is equipped with hydraulic fin stabilizers and electric thrusters (all hydraulic gear is an option). About two hours after departing Scotland for the Faroe Islands, a journey anticipated to take about 24 hours, an alarm sounded on the bridge, indicating that the stabilizer hydraulic fluid was starting to overheat. This meant that, in addition to losing the use of the stabilizers (not a welcome prospect), there was a risk that the fluid would eventually overheat to the point of damaging the hydraulic pump, which could cause the engine to become damaged and stop working. The captain and I investigated and determined that the stabilizers' raw-water pump had failed. Unfortunately, it had done so in an especially undesirable manner: The pump's flexible impeller had been designed to run dry for a limited period of time. Apparently, we had exceeded that time, at which point the impeller had melted into a glob of resinous plastic that defied easy removal. We scavenged a centrifugal pump from the hot-water circulation system and used it to cool the hydraulic fluid; it remained in service and worked well until we reached Iceland. Given the choice, I'd prefer to see pumps used in such applications rely on a centrifugal design, rather than a displacement design with a flexible impeller. The former is more reliable and doesn't suffer from impeller failure when run dry. Should the pump ingest air, it merely needs to be bled, at which point it will begin pumping again.

Electrical systems often are a weak link aboard production cruising vessels, so I carefully reviewed the one installed aboard the Fleming 65. The yacht's main engines are equipped with twin alternators, one a stock 55-amp, 24-volt unit that supplies charge to each engine's own AGM starting battery and a second 140-amp, 24-volt Balmar alternator with an external regulator for charging the house battery bank, which is made up of Lifeline AGM batteries (900Ah is standard; *Venture II* has the optional 1,200Ah). This is a robust arrangement that's well suited to a cruising vessel. However, the stock alternator would benefit from being equipped with a regulator designed for charging AGM batteries; in its present format, over the long term, it's likely to overcharge the starting batteries. A welcome sight was seeing the bank of battery switches *outside* the engine room, in the lazarette—where they are safely and easily accessible in the event of an engine room fire.

Because *Venture II* utilizes 230-volt power throughout, she relies on twin Outback 3,500-watt inverters, each designed to supply this voltage and frequency. In addition to running the conventional house AC loads, the inverters also can supply power to the pilothouse air conditioning while under way, negating the need to operate a generator. For vessels built to U.S. specs, the same two inverters are used in a conventional 120-volt, 60Hz format, and they, too, can operate the pilothouse air conditioning.

A variety of generator options are available for the F65. *Venture II* is equipped with twin Onans (the only brand offered by Fleming) in 19 and 11kW at 50Hz. U.S.-spec yachts are furnished with a single 21.5kW Onan standard, and an optional second genset.

Flemings are equipped standard with UL Marine-approved and ABYC-compliant Charles isolation transformers, ensuring that the polarity aboard remains correct, regardless of shorepower issues. Isolation transformers also prevent damaging galvanic-corrosion current from traveling aboard via the shorepower ground. The aft inlet's transformer includes a boost function to supplement low incoming voltage.

Overall, the design and execution of the onboard electrical system ranks among the best I've seen. It's neat, rugged, and ABYC compliant, and it functions well. The only flaw I could find was in the battery box lids—they aren't ventilated at their highest point, but that deficiency is easily rectified.

Two other interesting systems worthy of mention are the electronic "fly-by-wire" steering and the Böning vessel-monitoring system. The Electronic Command Steering, from the U.K. manufacturer Hypro Marine, essentially does for steering systems what electronic controls have done for shift and throttle control. Until venturing into the tiller flats area, I never would have known *Venture II* was equipped with this system. The feel and function are indistinguishable from conventional power-assist hydraulic steering. The advantages, however, are many: the installation is much simpler; long plumbing runs are eliminated, along with the need to bleed the plumbing; and leaks also are eliminated. In addition, it's truly plug and play—multiple stations can be easily installed. (*Venture II* has two, but others could be added to the cockpit or boat deck stations.)

While it doesn't speak, the Böning is a bit like HAL from *2001: A Space Odyssey*. It's a complete monitoring system that, using a vast array of sensors, monitors a variety of systems aboard Venture II, from shorepower inlet voltage and current to bilgewater and tank levels, battery condition, and navigation light status, along

with many other items. It also includes an "events log" and video cameras. The system is viewed and controlled via an extremely sharp touch-screen display located in the pilothouse. I found the text a bit too small and the screen somewhat cluttered; however, this was a beta test model, and subsequent installations will utilize a larger, 15-inch screen. The technical price for this monitoring nirvana is relative small: a hefty wiring bundle, lots of sensors, and an array of junction boxes. A few of the sensors—those for raw-water inlets, in particular—seemed somewhat vulnerable to me. They looked as if they could be stepped on and broken, and some were rusting slightly. My understanding is that different sensors are now being used and that they've been moved to out-of-the-way locations.

LAYOUT

The interior layout of the Fleming 65 is both comfortable and functional. There are five layout options for the accommodations area and two saloon layouts. In the case of Venture II, there's a main V-berth cabin with a private head and shower, and two twin guest cabins that share a head/shower. The cabin I used had two bunks and Pullman berths, so four could sleep there, but storage was designed for two people. In order to comply with CE regulations, there are two exits from the forward accommodations spaces: the primary exit and an overhead hatch with a ladder above the V-berth. A full-size washer and dryer are installed in the accommodations deck passageway. In the head compartments, showers are generous and full size, as are the Headhunter toilets. (Because of the elevation, the day head in the pilothouse utilizes a Tecma.) Potable water pressure, supplied by a 230-volt, AC-powered pump, or a 24-volt backup, is ample.

It's been said by some that all forward cabins are uninhabitable while under way. Thanks to her fine entry, in the Fleming 65's case, that's not true. While I was aboard, with just one night's exception (during our galumphing run to Iceland), Tony used this cabin continuously.

The saloon is large and comfortable, and its trademark flawless, satin-teak veneer and large windows make the space at once warm and bright. Venture II's layout includes a dining table and coffee table, twin settees, and four chairs, so there was never a shortage of places to sit and work. I camped out at one end of the dining table and Tony at the other, and we routinely ignored each other while we pounded away at our keyboards for hours at a time. There's a wet bar and refrigerator housed in the port aft saloon cabinet.

The portside galley is a practical rectangle that provides ample support for the cook under way, along with an opening window, tons of cabinet and drawer space, an induction electric cooktop, and a disposal. As previously mentioned, all galley counters and other countertops are equipped with comfortable fiddles to prevent cookware and dishes from ending up on the sole. The main refrigerator is located on the starboard side, across from the galley. This makes good sense, since it doesn't usurp valuable counter space in the galley proper. The Fleming-made hardware that secures the refrigerator doors is a sight to behold, as is most of the custom stainless steel hardware throughout the 65.

Access to both the engine room and the cavernous lazarette is afforded by a cockpit hatch just aft and outboard of the saloon's double doors. The hatch incorporates a handrail and a curved ladder that provide easy, safe access. Ingeniously, the handrail also prevents folks exiting the saloon from stepping into the open hatch.

In the pilothouse, the central Stidd chair—onto which I clung during our über-rough transit to Iceland—affords a commanding view that encompasses more than 180 degrees. The windshield mullions, thankfully, are no wider than necessary, reducing the troubling blind spots I encounter aboard many vessels. Stepping slightly to port and looking aft from the helm, you can see through the saloon, beyond the aft double sliding doors, to the cockpit and beyond—that is, when you back up, you can see where you're going.

Thanks to the high-latitude weather, I didn't have an opportunity to use the flybridge on the Fleming 65, but it's as well equipped and thoughtfully laid out as the rest of the boat. In addition to the helm station, it includes a U-shaped settee with table, and a fridge, freezer, ice maker, and sink. A crane, dinghy storage, and barbecue, along with a full control station, are located on the boat deck. An arch and mast support the standard complement of antennas. Interestingly, ample room is provided for twin open-array radar antennas and twin satellite domes, without the latter being in the swept beam of the former.

The Fleming 65 clearly is the culmination of a lifetime of commitment to high quality, solid engineering, and practical design. I have every confidence that she will take her owners and crew wherever they choose to cruise comfortably, safely and reliably.

Steve owns and operates Steve D'Antonio Marine Consulting (www.stevedmarine.com), providing consulting services to boat buyers, owners, and the marine industry.