

A SOUTHERN BOATING MAGAZINE SUPPLEMENT

# HAUL-OUT<sup>®</sup> GUIDE

Planning Resource For Your Annual Boat Maintenance  
2017

## INSIDE:

- First, prep your boat
- Spring cleaning products
- Refits worthy of awards
- All about zincs
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- Surprise yard costs

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## PREP FOR HAUL-OUT



# First, Do Your Part

## Complete these eight tasks before your annual haul-out.

It's that time of year again, and your baby needs to go to the spa. Remember that being prepared is not only your responsibility to the yard, but it will also save you time, money and frustration and leave you in full control of your own boatyard experience. Before you schedule any yard time, think through what needs to be done, how much you want to spend and when you'd like to have your boat back in its slip.

**1) Make a list.** A detailed list of what you want done will help the yard understand the scope of the project, which will lead to a better initial time and cost estimate. Write down everything that must be done while the boat is out of the water when it will be more expensive. Once all is in writing, the project becomes more real and you can estimate the effect on your wallet and your time off the water.

Categorize those wish list items that you can drop if the budget or timeframe are exceeded. Prioritize your list before work starts or suffer the consequences later. Be disciplined about your project from the outset, because last-minute additions can get expensive.

**2) Do your homework.** Compare yards online to identify the services you need. (Remember that websites tell only part of the story.) Then, ask around. Do they have a good reputation for work, timeliness and cost-effectiveness? Take the time to visit the prospective yards in person. Walk around, meet the people, evaluate their skills and helpfulness, and introduce yourself. Ask for examples of their work, which can come in the form of a boat currently in the yard or photos of work done on past projects.

**3) Communicate.** The more information you give a yard about a particular problem (with engines, A/C, pumps, electronics, etc.), the better they will be able to find fixes. Just telling someone there is a problem with the engine doesn't give him or her much to go on. Does it smoke? Make funny sounds? Vibrate at a certain RPM? Is there water ingress or a bad smell? Time spent diagnosing a problem is expensive, so the more information you relate, the faster and cheaper the solution will be.

If you don't know exactly what you want to get out of your boatyard experience, you can't expect the boatyard to guess. If you want to work on small projects yourself, ask for



## PREP FOR HAUL-OUT

an information sheet that outlines what you can and cannot do on your own. Over-communicating and under-assuming is the best course of action. Expect to hear from your yard with some frequency over the course of the project. Any changes to the scope of the work should be done in advance and with your knowledge. A yard should communicate what they've discovered, what needs to be done, how much it will cost, and any additional time needed to complete the work. All this should be provided in writing.

**4) Estimate and negotiate.** Whether the yard has all in-house staff, subcontracts work out or expects you to hire contractors yourself, you'll need to dust off your estimating and negotiating skills. First, get an estimate in writing. An estimate protects both you and the yard. New cruisers often underestimate costs. Remember that it's not so much about price as value, so don't inquire about cost for a bottom job before you decide whether you'll be using bottom paint at \$100 per gallon or \$300 per gallon.

Keep in mind that estimates are only educated guesses. Yards do not have a crystal ball that will give you a precise cost over the phone on work before they see your boat. Don't push the edges of your budget, and make sure to keep some funds in reserve if only for the inevitable taxes that are added at the end.

**5) Prepare the boat for work.** Take out all perishables, turn off the icemaker, shut off systems, dry the bilges, and clean the bottom. Ask your diver about what's going on below the waterline, including the condition of the props and struts. You may need to remove and plug the speedo, although some yards will do this for you. Put away deck furniture, carpets or interior rugs that may be damaged by workmen. If applicable, remove all on-deck toys, barbecues or other attachments that could get damaged (or borrowed). Remove high-value portable items from the interior, and cover any special furniture

(glass tables) or artwork.

**6) Educate the lift operator.** If possible, provide a schematic of the boat bottom or have markers on the hull that indicate where to put the Travelift straps. If it's a rail system, make sure the operator knows what appendages are on the bottom (such as stabilizing fins). The more a yard knows about the vessel's haul-out points the safer the haul-out will be.

**7) Manage your own expectations.** Understand what you want done, how much you want to spend and what amount of time the boat can be out of commission. A project that begins in March but drags into July will cut

into your boating season. Keep in mind that projects may grow once the yard gets into the crux of the problem. That damaged rub rail may need more than replacing if rot is found underneath. You can expect a boatyard to stand behind its work and warranty its services for some amount of time after you leave.

**8) Be prepared to get involved.** If you plan to drop off your boat at the yard and pick it up

a month later all done, clean and ready to go without interim communication, you may be sorely disappointed. Do inspect all work prior to signing off on the bill. It will be more difficult to contest the work a month later when you finally look at that set of drawers you had made or run the genset that was serviced. Collaboration is key. You don't need to be a project expert, but you do need to hold up your end of the relationship. The yard should see you not only as a customer but also as a knowledgeable partner.

Forearmed is forewarned, and the time you spend on the front end of your boatyard adventure will come back to you in spades. You'll feel like both you and your boat spent a little time at the spa. 🛥️

— By Zuzana Prochazka



## SPRING CLEANING



# Clean as a Whistle!

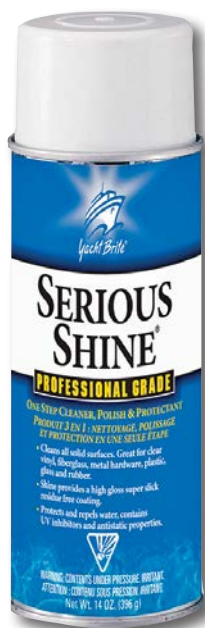
## Spruce up your boat—and everything on it.

Glidecoat's Nano Polymer technology produces the Glidecoat Top Coating Kit engineered to virtually restore the boat's original color while retaining the gloss and protecting the gel coat for up to 18 months from UV damage, acid rain, fish blood, and salt. Well suited for all sizes

and style of boats, Glidecoat's Top Coating is a practical choice for retrofitting or regular maintenance, which is far less expensive than repainting. (MSRP \$395) Glidecoat Smart Fabric Protector makes ordinary fabrics and vinyls waterproof, stain resistant and easy to clean. The product will help prevent soaking, swelling and rotting on any fabric, boat cushions, marine mattresses, canopies, and awnings. Treated surfaces will be 99.9% bacteria-free eliminating mold and mildew due to the anti-bacterial technology. (MSRP \$29.95-\$245) Glidecoat Inflatable Kit protects inflatables against damage from UV and heat by reflecting UV

rays and making the rubberized fabric more resilient to expansion from heat. Independent lab results show that after one year of high intensity UV, Glidecoat Inflatable reduced color and gloss fading by 45 percent along with eliminating drying, cracking and adhesive separation. By filling in the pours, Glidecoat Inflatable stops moisture from absorbing into the boats rubberized fabric material and eliminates mold and stains. Now you can cover and store your inflatable boat without the concerns of mold and moisture damage. (MSRP \$199.95-399.95) [glidecoat.com](http://glidecoat.com)

Over time, salt spray, grime and fingerprints build up on your electronics and touchscreens and may lead to premature deterioration. Shurhold offers products and tips for detailing these valuable electronics. (First, check the manufacturer's manual for any recommended cleaning techniques.) If the device is all-



## SPRING CLEANING

weather rated, a light misting of water will remove dirt and salt residue; never use a hose with full pressure. Use a synthetic chamois to wipe the surface clean and remove the contaminants. For large dashes, work from the top down and in sections. The key is to dry the device quickly before water spots form.

Next, lightly spray the area with Shurhold's Serious Shine (MSRP \$17.98), which will clean, polish and protect almost any surface without leaving oily, artificial residue. Then lightly buff the surface with Serious Shine and a clean Microfiber Towel. Next, flip the towel to its dry side and polish everything to a high sheen. (MSRP 3-pack microfiber towels \$18.98) [shurhold.com](http://shurhold.com)

Until the right cleaning agent is found, people can spend a lot of money trying this and that and then are left with an array of large opened bottles that take up space. This convenient Iosso Sampler four-pack of 4-ounce trial sizes is perfect for the consumer who wants to tackle a tough cleaning job without investing in a large quantity. The four-pack includes Odor Buster that neutralizes and eliminates common odor problems. Vinyl and Leather Cleaner & Conditioner is a spray-and-wipe solution that restores and protects. Water Repellent is perfect for Sunbrella, WeatherMAX and other solution-dyed acrylic fabrics. Mold & Mildew Stain Remover mixes to 1 gallon of solution and cleans 150 sq. ft. on a wide range of surfaces; it takes care of bird droppings, tree sap, dirt, grease, and of course, mold and mildew. (MSRP \$19.95) [iosso.com](http://iosso.com)

TRAC Ecological Products offers



Barnacle Buster®, a safe, non-toxic and biodegradable marine growth remover specifically formulated for a fast, safe and cost-effective alternative to mechanical cleaning of seawater-cooled equipment. With minimal dismantling required, Barnacle Buster® can be safely re-circulated through seawater cooling systems, dissolving barnacles, zebra mussels, calcium, rust, lime,

and all other mineral deposits. Most applications can be completed within 4 hours for a fast and efficient cleaning solution. Barnacle Buster® can safely be used to remove marine growth from A/C & refrigeration cooling systems, engines' seawater cooling systems, heat exchangers, bow thrusters, watermakers, sea strainers, propellers, seacocks, pumps, piping, and hulls. Concentrate mix ratio is 4:1. (MSRP quart \$27.76; gallon \$77.16) [trac-online.com](http://trac-online.com)

Whether for spring cleaning or routine maintenance, boats usually need sprucing up before returning to the public eye. Davis Instruments' Fiberglass Stain Remover (FSR) is a unique stain absorbing gel that serves a variety of purposes both ashore and afloat. Ideal for removing oil, rust, exhaust, waterline, and transom stains, FSR also works with stainless steel

stanchions and railings. It's excellent for getting rid of rust bleeders from the hull or deck, and it eliminates these smudges from clothing, sail cloth and other fabrics, too. This blue gel can be used anywhere fiberglass imperfections appear, including in shower stalls, spas and on furniture. It's safe to use on white painted surfaces as well as on gel-coat. (MSRP 16 oz. \$10.99; 67.8 oz. \$29.99) [davisnet.com](http://davisnet.com)





# Don't Ruin Your Refit

## If you're not a master craftsman, hand over your refit project to a team you can trust.

Don't risk your refit project ending up in the scrap yard. If you're not a pro, hire your local or preferred yard to take on the task. If you're unsure of their experience, it's not out of line to ask for examples of their projects with before and after photos. It's also a good sign if they've received awards



*The team at Bluewater Yacht Yard ensured Cuttin' Up owner Steve Jones can use his boat but also get to and from it easily with adaptations to his vehicle.*



for their work such as these yacht refit professionals who received recognition for their accomplishments in January at the second annual Refit Excellence Awards in Fort Lauderdale, Florida. The award winners were selected based on the finished yacht and also the teamwork, problem solving and efficiency of everyone involved in the refit, including the boatyard, captain, owner, designer, surveyor, and management.

### Best Poweryacht Refit 50-100'

#### Jarrett Bay Boatworks

The owners of the 66-foot custom sportfish *Reel Steel* started her refit in November 2015 with the intention of reconfiguring her cockpit for more functionality and adding two Seakeeper units. Interiors were also renewed and reconfigured to accommodate updates to the salon, galley and three staterooms. Crystal Coast Interiors and Triton Marine consulted and installed new soft goods, fixtures, lighting, and A/V equipment.

### Best Poweryacht Refit Over 100'

#### Bacchus Yacht Consultancy

The 2012 147-foot motoryacht *Scout* designed by Ron Holland saw many upgrades and improvements from 2014 through 2016. *Scout* recently saw engineering, deck and cosmetic work at Rybovich in West Palm Beach, Florida, and also HVAC upgrades and electrical improvements including cosmetic rope lighting,

deck lights and underwater light replacements. The entire refit was performed over a 12-week period.

### Best Accomplishment for a Yacht Refit

#### Bluewater Yacht Yard

This award acknowledges a standout project and was awarded to the 2005 Viking Yachts 52-foot Convertible *Cuttin' Up*. The exemplary refit team at the Hampton, Virginia-based yard made this boat more accessible to an avid angler with a progressive form of muscular dystrophy. The owner has continually refit the boat as his disease advances so that he can still run the vessel himself and fish off shore without assistance. The master stateroom now allows better motorized chair movement and access to the bed from a seated position. Bluewater Yacht Yard also customized the owner's Cadillac Escalade for improved access.

Additional winners and previous nominations can be seen at [refitshow.com](http://refitshow.com). 

— By L.N. Evans



# Save Your Back

## Add installing a hatch lift to your haul-out list.

**E**ngine hatches are heavy and awkward to handle under the best of conditions but even more so in rough seas. Adding an engine hatch lift is one of those rare upgrades that covers the holy trifecta of boat-project goals: added convenience, increased safety and easy installation. If your haul-out budget has some wiggle room, ask your yard to install one for you. Otherwise, here's a look at the basics of selecting and installing one yourself.

### Types of actuators

The first step in selecting a linear actuator (a fancy term for the hatch ram) is determining which type best suits your needs. While electric actuators are probably the most popular, you can also choose from mechanical, pneumatic and hydraulic units. Electrical actuators convert rotary motion to linear motion using an electric motor, which can be internal or external to the unit. They're the simplest actuators to install and also one of the cleanest since they don't require oil or gas to operate. Mechanical actuators also convert rotary to linear motion. However, unlike electromagnetic units, they do so using mechanical means such as gears, screws, chains, etc. As a result, mechanical actuators tend to be more powerful than electrical units and a better choice for high-torque installations.

Pneumatic actuators utilize pressurized gas or oil. The cylinders used in pneumatic and hydraulic actuators inherently produce linear motion. Pneumatic actuators provide rapid raise, lower, start, and stop capabilities making

them a good choice for installations requiring high-speed operation. On the downside, they're less efficient than mechanical or electrical units and require more space. They're also noisy and prone to leaks.

Hydraulic actuators utilize oil and are primarily used for applications where high force and output is required. They provide more precise control than pneumatic units giving them an edge for projects requiring precise operation. However, the cons of hydraulic actuators include oil leaks, slower operation speeds and the need for ancillary equipment (pumps, fluid reservoirs, etc.) as well as the extra space required to install them.



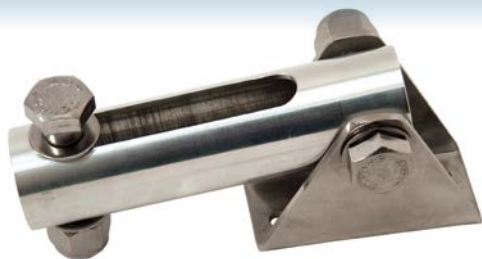
*Actuators featuring stainless steel tubes (such as this 12-volt severe duty unit) offer excellent corrosion resistance.*

### Sizing the actuator

The weight of your engine hatch determines how much force the actuator has to provide. The most accurate way to determine this is to remove the hatch and weigh it. If that's not possible and you have to estimate the weight, be sure to err on the side of caution and go heavier rather than lighter. Installing a slightly larger actuator is preferable to choosing

PHOTOS COURTESY OF HARDIN MARINE

## ENGINE HATCH LIFT



*This actuator mounting bracket is adjustable, providing even more installation flexibility.*

one that's too wimpy to get the job done.

Next up is determining the length of the actuator you'll need. With the hatch closed, measure the distance between where the actuator will be mounted in the engine compartment (typically on centerline or close to it) and where it will attach to the hatch. This number is your compression length. Now open the hatch to the desired position and measure the distance between the above points again. This measurement is the total length of the actuator needed when extended. Subtracting the first measurement (compression length) from the second measurement (extended length) provides the minimal "stroke length" or range of required operation.

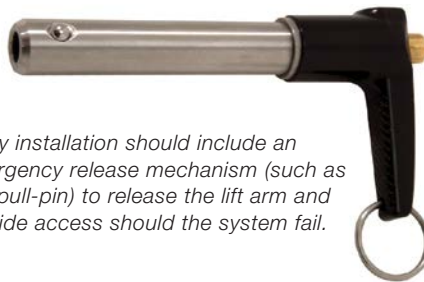
With the above information, the manufacturer or distributor of the actuator you have in mind can easily help select the appropriate model. Actuators are rated by the pounds they can push. Go larger where appropriate keeping in mind the goal is to choose a unit that's robust enough to safely handle your hatch both at the dock and while underway in less than ideal conditions.

As for what to look for in an actuator, make sure it's constructed of marine-grade materials. (Stainless steel is a good example.) Another good feature is a slip clutch to protect the actuator against overloading. The clutch is preset at the factory to slip should the unit's rated load be exceeded.

### Installation considerations

Follow the manufacturer's installation instructions along with these general tips common to most any installation:

- Install the actuator in a dry location that's protected from spray and located above the normal accumulation of bilge water.
- Ensure the actuator unit and hatch attachment are firmly mounted and that all mounting hardware is robust enough to withstand the loads placed on them. Mount the actuator base to a structural surface that can support the weight of the unit and hatch.
- Position brackets and actuator so that the weight load is carried along the center axis of the actuator since off-center loads can cause binding and/or premature failure.
- Install brackets so that the actuator arm rises high enough to lift the hatch to its fully open position.
- Use correctly sized wire for power runs to electrical actuators. Wire gauge that's too small can cause premature motor failure due to voltage loss. You'll also want to ensure power is provided using a properly sized fuse or circuit breaker.
- Unless it's labeled as such, don't install the actuator control switch in an area that requires equipment to have ignition protection (such as a gasoline engine or fuel storage compartment). Locate the control switch where it can be easily reached with the hatch in the open or closed position.
- Make sure your installation includes an emergency



*Every installation should include an emergency release mechanism (such as this pull-pin) to release the lift arm and provide access should the system fail.*

release or some other fail-safe to access the engine compartment in the event of a failure. Most units have a pull-pin to release the lift arm should the system fail. Hopefully, an existing deck plate will provide access to the pin. If not, another option may be to rig it with a length of heavy fishing line so you can pull it remotely. Remote battery jumper posts allow engine access in the case of dead batteries. However, these won't be of any use if the lift itself experiences a failure.

- Every engine hatch should have a backup strut, regardless of the type of actuator used. If the actuator fails while the hatch is open, cracked heads or lost digits can be the result. The design doesn't have to be anything fancy as long as it's sturdy enough to hold the hatch in place once open. One option is a kickstand-type unit similar to those found under older car hoods—one that unclips from the underside of the hatch, pivots down and rests solidly against the deck or hatch drain channel.

— By Frank Lanier





# Sacrificial Anodes

If your anodes are due for replacement, consider these alternatives to zinc.

Whenever a cruiser says, "I'm putting new zincs on my boat," I'm reminded of the times we used to say, "Let's go for a beer," even though almost no one in the group drank beer; it was merely an expression. (Scotch or rum was preferred!) Unfortunately for cruisers, when many of them have sacrificial anodes installed they are, in fact, made of zinc, even though there are sacrificial anodes manufactured out of other materials that will likely do a better job.

Sacrificial anodes are necessary to combat galvanic corrosion in metal structures. As cruisers, we most often think of galvanic corrosion and the problems it causes in relationship to boats only. But, in fact, pipelines and most other metal infrastructure projects also have problems with galvanic corrosion.

Galvanic corrosion comes about when two dissimilar metals are immersed in an electrolyte, and

seawater is a strong electrolyte. Fresh and brackish water also act as electrolytes but not with the same vigor as salt water. When the two dissimilar metals are immersed in salt water, a flow of electrons moves from one to the other. Without getting into the eye-glazing electro-chemical details, this flow results in corrosion.

A continual push by environmentalists has created a mindset among many that the metallic zinc, when dissolved in water, is not environmentally friendly. In large amounts, zinc has been found to be harmful to marine life. These findings have led to pressure in some jurisdictions to ban the use of sacrificial zinc. Some zinc anodes also contain cadmium, a heavy metal that can be a serious health hazard.

The U.S. Environmental Protection Agency (EPA) has a regulation in place that requires sacrificial anodes on all commercial vessels shorter than 80 feet be environmentally friendly "... to the extent technologically feasible and economically practical and achievable". While the wording of the regulation is legally nothing more than a suggestion, it does indicate the likely direction the matter of sacrificial anodes is heading. This regulation, however, does not yet apply to pleasure boats. The EPA also notes that "...magnesium is less toxic than aluminum and aluminum is less toxic than zinc."

Generally speaking, sacrificial anodes made of



aluminium (left) can easily be mistaken for zinc (right)

## YOUR BOAT'S ZINCS



*The general rule of thumb for replacing zincs is when they're approximately 50 percent corroded.*



zinc work well in salt water. Magnesium anodes work best in fresh water while aluminum anodes work well in salt, brackish and fresh water. It appears that the use of aluminum sacrificial anodes satisfies both the environmentalists and boat

operators, something one rarely sees. The aluminum anodes are alloyed—often with very small amounts of zinc, iron and indium—so they are more negative on the galvanic scale than zinc anodes. Therefore, they provide better corrosion protection.


In terms of longevity, an aluminum anode lasts between 30 percent and 50 percent longer (depending on the manufacturer) than an anode made of zinc. A magnesium anode will last only about one-third as long as a similarly sized zinc anode. In some markets the aluminum anodes cost a bit more than those made of the more traditional zinc material, but because they have a longer lifespan, the overall cost is about the same or even less.

The aluminum anodes now on the market are considered by many to be the best type of sacrificial anodes available for a number of reasons:

- They do a better job of protection than traditional zinc anodes.
- They are accepted by various stern drive manufacturers as the best material to use.
- They last longer.
- They can be safely used in salt, fresh or brackish water.

- They are more environmentally friendly than the alternatives.

Aluminum sacrificial anodes are readily available, but anodes made of zinc continue to hold on because cruisers and many small service yards have simply not kept up with sacrificial anode technology. Another reason for this trend is that the manufacturers of sacrificial anodes have not properly informed the boating public of changes in the technology. Most of them make anodes of both aluminum and zinc. They make as much selling one as the other, so they are not financially motivated to spend money on advertising or marketing.

The world's largest manufacturer of sacrificial anodes for pleasure vessels is Canada Metal (Pacific) Ltd., based in Richmond, British Columbia, a Vancouver suburb. Their anodes are sold under the Martyr brand name. Canada Metal's Vice President of marine sales Tyler Seebach maintains that more cruisers are becoming aware of the advantages of sacrificial anodes made of aluminum. As a result, sales of pleasure boat sacrificial anodes made of aluminum have steadily increased 10 percent per year over the past six years. 

— By Roger McAfee

## HAUL OUT SURPRISES



### 5 Boatyard Costs That Can Sneak Up On You

So you've chosen your yard carefully, made your project list, communicated clearly about your product and paint choices, set a date, and cleaned the boat. Your annual trip to the yard should be smooth sailing. But these five unexpected costs can ruin your budget—and your attitude upon checkout.

#### Lay days

Last-minute decisions add up, and soon you may be hip-deep in project creep. Not only will the extra work cost you, but the days you spend in the yard (especially if it's on the hard) will ding your wallet. If it's not on your original list, you may want to rethink its importance before you agree to more time. Even if someone is working on your boat for four hours, you could get charged a full lay day. Lay days range from \$45-\$100 per day depending on the yard, the size of your vessel and if it has been there more than a certain number of consecutive days already. If extra time is completely necessary for additional work that was uncovered as the project progressed, you may want to knock off some of those nice-to-haves in order to keep the budget contained.

#### Thru-hulls

Often overlooked, these vital safety features need to be kept in good shape, so exercise them regularly or be prepared to replace them when hauled. Insurance surveys sometimes require the replacement of thru-hulls before coverage is available. Work the thru-hulls (open and close) before you bring the boat to the yard. These large holes in your boat are your responsibility and if one fails, it'll be on you, not the yard. If the thru-hulls are frozen or show signs of corrosion, put them on the replacement list.

#### Shaft logs

Shaft logs, cutlass bearings and packing glands can get expensive quickly, so understand their condition before you go into the yard. Also, shop around for the best solution for your vessel: dripless or traditional packing glands, shaft log structures, etc. Consider at least an inspection of the shaft log if you hear rumbling or vibration, see any movement of the shaft that signals a lack of alignment, or have an unusually large gap between the shaft and the bearing surface.

#### Electrolysis

Propellers and running gear that have been affected by electrolysis can put a significant dent in a budget. It's best to start with your diver. Ask him about the condition of your propeller, shaft and zincs. You may end up having the yard pay special attention to a potential problem like a shaft with crevice corrosion. Getting a diver to give you snapshots of the bottom and running gear will remove any surprises if the yard brings you a prop of paper-thin, rose-colored metal that's been eaten away.

#### Blisters

Again, start with your diver to minimize surprises. Serious hull blisters can throw a wrench into what should have been a quick, bottom paint job. Blisters can precipitate the need for expensive paint scraping, grinding, drying, and filling followed by an epoxy barrier bottom before the first coat of antifouling coating is applied. It's better to know in advance.

Surprises can be fun but not when they blow up your budget. Prepare thoroughly so that your boatyard time will be more productive—and also more predictable.

— By *Zuzana Prochazka*