



## Pre-purchase Surveys

The purpose of a pre-purchase survey is to provide you with sufficient information regarding the condition and value of the boat, its machinery and equipment, to make an informed purchase decision. Our surveys include a signed, written report of the surveyor's observations, recommendations and opinion as to current market value and replacement cost. Insurance underwriters and lenders can also rely upon these survey reports when making financial decisions.

Our company policy requires that boats undergoing a pre-purchase survey be hauled out of the water for inspection of the hull bottom. A test run of the boat, sometimes called a sea trial, is strongly recommended. If a test run is conducted, the owner or the owner's authorized agent must operate the boat so the surveyor can concentrate on the inspection at hand. If no test run is requested, and the owner or the owner's authorized agent is present, operation of propulsion and auxiliary machinery and the steering system will be observed in static mode only. Please note that our insurance liability restrictions preclude us from starting machinery or igniting combustible fueled appliances such as stoves, heaters, etc.

Pre-purchase inspections are conducted in a thorough and professional manner with due care and diligence. No assurance can be made, however, that every deficiency will be discovered. The facts as discovered and presented in our written report should not be deemed a guarantee or warranty, either expressed or implied, for the boat, its machinery or equipment. All observations are strictly in the nature of opinion and may be subject to further qualification.

Given today's complicated marine systems, few surveyors can be considered experts in all matters. Qualified specialists should be consulted when circumstances dictate. Expert inspections of rigging, machinery and electrical systems, independent from the primary survey, may be in your best interest.

*Prior to the survey, you should request full disclosure from all parties to the sale to include, but not be limited to, the boat's title status, service history, damage experience, records of maintenance and repairs, engine logs, owner's manuals, etc.*

Preparing the boat for survey is the owner's responsibility. Specifically, the owner should take any actions necessary to ensure reasonable access to the boat's machinery, tanks, thru-hull fittings, and steering, electrical (including batteries) and other systems. In sailboats, this may require temporary relocation of gear stowed in lockers (sails, anchors, inflatable boats, cleaning and maintenance products, cushions, etc.) In powerboats, access to machinery spaces is often limited by carpet or heavy furniture that must be moved. If the boat's owner lives aboard, he or she must be present during the survey inspection; the surveyor will not move personal effects to gain required access.

Pre-purchase surveys entail additional preparations, to include ensuring both AC and DC power availability (as applicable) during operational testing. Equipment (e.g., radios, depth sounders, etc.) to be inspected and/or tested should be available and properly installed. Bilges should be as dry as possible. Failure to make these provisions may force the surveyor to bypass inspection of a critical system or component, and additional expense will be incurred if the surveyor must revisit the boat to complete the survey inspection. *Please pass a copy of this letter along to the boat's owner or your broker to minimize potential problems in these areas.*

We survey year around, however, severe weather conditions limit our effectiveness. We reserve the right to adjust the inspection schedule due to high winds, drenching rains, snow, ice, or temperature extremes that may affect personal safety, restrict visibility, or interfere with our normal field testing methods. Whenever practicable, we will perform those parts of the inspection that are feasible, and then complete the process when adverse conditions abate. Boats in a state of winter lay up preclude operation of winterized systems.

You are encouraged to attend the survey. We think you will find this a valuable experience. During the survey, our first priority is the inspection process. An on-site post survey consultation will follow the inspection to address your questions and visually qualify important findings. Other interested parties (owners, brokers, etc.) may attend the survey. As necessary, we will politely but strictly limit any activity by onlookers that may inhibit the surveyor's inspection. Our obligation is to your interests, and our discoveries and opinions are reserved for you. A high-risk discovery, however, will also be reported immediately to the boat's owner or his/her agent.

Please review the attachment titled "Survey Fees" for applicable costs. *Payment for our services is due at the time of the survey and must be received prior to transmittal of the survey report.*

As a prospective buyer, you will normally be responsible for making arrangements for yard services such as haul out and/or launch, and bottom washing. Barnacles and slime must be cleaned from hull bottoms and underwater gear to enable proper inspection. *Payment for yard services should be made directly to the boatyard or marina, and is normally required prior to launch.*

Survey reports are normally completed within two to three working days, depending on our workload. While we recognize the appeal of some surveyor's advertised 24-hour turnaround, and in some cases "instant" reporting, our reports are written in a narrative style, not as a checklist. Each boat deserves thoughtful consideration of inspection findings and the research necessary to support technical and valuation opinions. If you have an e-mail address, an Adobe Acrobat PDF copy of the survey report will be forwarded to you. You can then print as many copies of the report as needed and/or fax copies to your lender or underwriter at no additional cost. A bound copy of the report will also be sent to you via US Mail.

*We strongly recommend that you read the surveyor's report carefully and obtain reliable estimates for any essential repairs before you sign an acceptance for the boat.* This report is designed to assist you in post survey negotiations, scheduling required repairs, completing deferred maintenance, and making upgrade decisions. It also contains valuable reference detail that should become part of your boat's permanent records.

Please review the enclosed information carefully. We want you to know what to expect from the survey process and, just as importantly, what not to expect.

## Survey Fees

Marine Associates specializes in pre-purchase surveys of fiberglass boats, both power and sail. We also do insurance, maintenance and other special purpose inspections when scheduling permits. We bill our services at \$65 per hour, plus expenses (mileage, tolls, airfare, and accommodations) if applicable.

The table below reflects the average number of hours needed for a thorough pre-purchase or insurance inspection of a boat of the indicated length. The table also includes the average number of hours required for development of an informed opinion as to market value, report preparation and transmission, and related administrative tasks.

### ***Pre-purchase Surveys***

Length	26-29'	30-33'	34-37'	38-41'	42-45'	>45'
Inspection/Test Run	5	6	7	8	9	10+
Report & Valuation	5	6	7	8	9	10+
Total Hrs	10	12	14	16	18	20+

### ***Insurance Surveys***

Length	26-29'	30-33'	34-37'	38-41'	42-45'	>45'
Inspection	3	4	5	6	7	8+
Report & Valuation	3	4	5	6	7	8+
Total Hrs	6	8	10	12	14	16+

*Insurance surveys are performed only for the registered owner of a boat. They are less comprehensive than pre-purchase surveys and should not be used when making a purchase decision. Insurance surveys do not include hull bottom inspection (unless the boat is hauled at the time of survey), a test run, or the operational testing of installed equipment other than seacocks, bilge pumps, navigation lights and communications equipment.*

The actual number of hours needed for a given survey may be more or less than the average listed above, depending on the boat's condition, equipment inventory, and housekeeping. A boat encumbered with personal possessions or gear that restricts ready access to the hull and installed systems will take longer to inspect. Conversely, the time needed can be reduced if you are able to assist the surveyor in emptying and re-stowing gear in lockers. The boatyard's efficiency – or lack thereof – in hauling, power washing and launching will also impact the total time required.

Marine Associates enjoys a reputation for thorough survey inspections and well written understandable reports. Client references and sample reports are available on request.

## Scope of Survey

The purpose of a survey inspection is to determine - insofar as possible within limitations of visual and physical accessibility, through non-invasive and non-destructive means - the condition of the boat's structure and installed systems and equipment, and their compliance with applicable federal law, voluntary industry standards, and commonly accepted marine practices. The survey is based on a careful visual inspection of accessible portions of the boat's structure and available equipment.

Many parts of a boat's structure, systems and equipment can be inspected only after removing the cabin sole, flats, decking, bulkheads, headliners, tanks, joinery, etc. This would be destructive in nature, prohibitively time consuming, and costly to restore. For this reason, structural, system and equipment components requiring access with tools or by disassembly will not be inspected. If dirt, marine growth, coatings buildup, or corrosion obscures the surveyor's ability to inspect, this limitation will be noted in the report's text. Conditions suspected or discovered by non-destructive methods may be further subject to invasive testing for confirmation. No destructive or invasive testing will be conducted during the inspection without the expressed permission of the boat's owner or the owner's representative.

Complete inspection of machinery and systems can be made only by disassembly or by continuous operation. This will not be done, however, it may be recommended. No mechanical tests, e.g. cylinder compression checks, will be performed nor will fluid samples be drawn on propulsion or auxiliary generating machinery. Only the installation and external condition of machinery and accessories will be inspected. A survey inspection should not be considered a complete mechanical inspection. Qualified marine mechanics experienced with the specific machinery installed should be employed to survey engines and auxiliary generators. Propulsion and rudder shafts will not be drawn for inspection, however, the surveyor may recommend that this be done. The inspection of flexible piping, where readily accessible for visual inspection, will be limited to the condition of its external casing.

Absent documentation to the contrary, the boat's standing rigging will be presumed to be original equipment. Spars and rigging are inspected from deck level only. Masts and rigging should be struck periodically for inspection and routine preventive maintenance. If open water voyaging or extended cruising is contemplated, a qualified marine rigger should be employed to go aloft to inspect the rigging.

Sails, bimini tops, dodgers, awnings and winter covers will not be laid out for inspection. Sails may be hoisted during the test run but are not hoisted or unfurled otherwise. Used sails are accepted to have conditions of normal wear and tear for their age. Meaningful evaluation is best carried out by a qualified sailmaker laying out sails in a loft.

Electronic and electrical equipment will be tested by powering up and observing function. No calibrations or adjustments will be made. Batteries will not be load tested. Only the external condition of electrical wiring, connections, and system installations will be visually inspected. No attempt will be made to perform a complete analysis of electrical systems.

Generally it is our experience that few boats surveyed meet all applicable standards for marine electrical system fabrication and installation. This situation may be further aggravated by the wet and corrosive marine environment, some owners' tolerance for poor installations and do-

it- yourself add-ons, and a general lack of preventive maintenance. When our surveyor's limited visual inspection of an electrical system raises significant concern regarding standards compliance, a recommendation will be made to employ an ABYC-certified marine electrician for an in-depth inspection. Compliance with ABYC and NFPA electrical standards is critical to avoiding conditions that may lead to fires, explosions, personal injury or death.

A boat's systems and component parts have a limited useful life and must be considered perishable. Conditions affecting "useful life" include original material specifications, fabrication and manufacturing techniques, atmospheric exposures, history of use, etc. These systems and component parts may give no readily detectable external indication of deterioration or impending failure.

Where relevant, the surveyor's recommendations will be based on the Federal Rules and Regulations for Recreational Boats, as excerpted from the United States Code and Code of Federal Regulations and published by the American and Boat and Yacht Council, as well as ABYC's voluntary Standards and Technical Reports for Small Craft, and NFPA 302: Standard for Pleasure and Commercial Motor Craft, published by the National Fire Protection Association.

The foregoing commentary on the scope of the survey process and its limitations is provided to give you an understanding of what can and cannot be expected from the survey inspection. Since records of the boat's history of use and past maintenance are normally not available to the surveyor, reported observations will be limited to the boat's condition at the time the inspection is performed.

Further qualifying remarks may be found in the text of the survey report as may be required with reference to a specific condition observed.

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## **Marine Experience**

- Independent marine surveyor since 1993. Member of the National Association of Marine Surveyors (Certified Marine Surveyor) and the Society of Accredited Marine Surveyors (Accredited Marine Surveyor)
- Navy surface warfare officer. Served onboard vessels up to 645 feet LOA. Former US Naval Academy navigation and seamanship instructor.
- USCG licensed master (50GT Near Coastal) with sail and towing endorsements
- Fifty years of recreational boating experience, both power and sail. Boat owner for more than 30 years; lived aboard for 10 years

## **Technical Training**

- Apprenticed with Pat Kearns, a NAMS certified marine surveyor
- Attended and later taught *Marine Surveying for Professionals* with Paul Coble, a naval architect and NAMS certified marine surveyor
- ABYC-certified Master Marine Technician: Composite Boatbuilding, Marine Corrosion, Marine Systems and ABYC Standards

## **Related Activities**

- Instructor since 2000 for *Surveying Fiberglass Boats*, a five-day introductory course offered by WoodenBoat School, Brooklin, ME; [www.woodenboat.com](http://www.woodenboat.com).
- Instructor for *Marine Surveying for Professionals*, a five-day course offered by Marine Associates for marine underwriters and claims personnel.
- Freelance writer for marine trade and mass-market magazines, e.g., *Professional Boatbuilder*, *Chesapeake Bay*, *Offshore/Northeast Boating*, *Sea*, *BoatUS* and *DIY Boat Owner*.
- Member of ABYC's Gas Detectors project technical committee.

- Speaker at various trade and recreational marine events, e.g., International Boatbuilders Exposition (IBEX), Sail Expo, and Cruising World/West Marine's Safety-at-Sea Seminar (Annapolis, MD)
- Author, *Sewage Holding Tank Systems for Recreational Boats*, a 40-page booklet produced for the American Boat and Yacht Council under a joint grant by the U.S. Fish and Wildlife Service and Maryland's Department of Natural Resources

### **Formal Education**

- University of Michigan (BS Education)
- National War College, Washington, DC