

Insurance Surveys The purpose of a marine survey inspection for insurance underwriting is to determine, within the limitations of visual and physical accessibility, through non-invasive and non-destructive means, the condition of the boat's structure, systems and levels of compliance with currently applicable federal law, marine industry standards and commonly accepted marine practices. Since records of the boat's history and past maintenance are typically not made available to the surveyor in advance of the inspection, reported observations are necessarily limited to the boat's condition at the time the inspection was performed. Certain parts of the boat's structure, systems and equipment can be inspected only after removing flats, bulkheads, joinery, headliners, tanks, etc. This would be prohibitively time consuming, potentially destructive and costly to restore. Therefore, unless noted otherwise, components requiring access with tools or by disassembly are not inspected. Where dirt, marine growth, coatings buildup or corrosion restricts the surveyor's ability to inspect, this limitation is noted in the report. Conditions suspected or discovered using non-destructive methods may be referred for invasive testing to assess and/or confirm the extent of suspected problems. Invasive or destructive testing or observation methods are never utilized during the inspection without the explicit permission of the boat's owner or the owner's authorized representative. Hull and deck moldings are subject to close visual inspection, random percussion sounding and GRP, Protimeter Aquant and/or Skipper Tramex moisture meter readings. Meter readings may not always be practical if the boat was afloat immediately prior to the haulout as residual moisture can render the readings unreliable. The use and purpose of moisture detection equipment in marine surveying is often misunderstood. These instruments and their readings are subject to expert techniques and interpretations. There are no absolute readings and readings taken are considered as relative and are taken and recorded within that perspective. It is our opinion that moisture detection equipment should never be relied upon exclusively or out of the context of other usual and customary marine survey observation practices and field-testing methods, some of which are invasive and/or destructive. Complete inspection of machinery, plumbing, electrical systems and available equipment can be made only by disassembly or by continuous operation. No mechanical tests are performed on propulsion or auxiliary generating equipment and no machinery is started. No fluid samples are drawn. Only the installation and external condition of machinery and accessory equipment are inspected. This should not be considered a complete mechanical inspection. Qualified and preferably certified marine engine technicians, experienced with brand specific propulsion and auxiliary generating equipment, should be employed to survey engines. Propeller and rudder shafts are not drawn for inspection but this may be recommended. The inspection of flexible piping is limited to the condition of its external casing, connections and clamping and only where readily accessible for visual inspection. Only the external condition of readily, visually accessible electrical wiring, connections and system installations is inspected. No attempt is made to perform a complete analysis of the boat's electrical systems. To do so would require disassembly with tools, removals, etc. to gain access to components. It has been our experience that few boats surveyed today meet all of the currently applicable standards for marine electrical system design, fabrication and installation. This situation may be further aggravated by the wet and corrosive marine environment and often by an owner's tolerance for poor installations, do it- yourself add-ons and a general lack of preventive maintenance. Therefore, for example, when the surveyor's limited visual inspection of an electrical system raises significant concern regarding standards compliance or symptomatic conditions of potential high risk hazards, the recommendation will be made to employ a qualified, preferably certified, marine electrician for an independent in-depth inspection. Attention to compliance with electrical standards is critical to avoiding conditions that can lead to fires, explosions, personal injury or

death. Sails, Bimini tops, dodgers, awnings, winter covers, etc., are not laid out for inspection. Absent documentation to the contrary, "canvas" (the vernacular for sail covers, dodgers, Biminis, awnings, and weather cloths regardless of the material used) can be presumed to be original equipment. Only a qualified sail or canvas maker can provide meaningful evaluation of canvas and/or sails. 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, exposures in the marine environment, service history, etc. These systems and their component parts often give no readily detectable external indication of deterioration or impending failure. Where relevant, the surveyor's recommendations are supported by 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 Boat and Yacht Council, as well as the voluntary Standards and Technical Reports for Small Craft, also published by the ABYC, and NFPA 302: Standard for Pleasure and Commercial Motor Craft, published by the National Fire Protection Association. It should be noted that, with the exception of requirements for boat hull identification number requirements, safety equipment, accident reporting and pollution control, current federal law has a very limited applicability and is imposed solely on the manufacturers of new boats and equipment and excludes boats with diesel engines. Compliance with these standards is, however, often a prerequisite for obtaining insurance coverage. We urge compliance because these standards represent the established minimums for safe boats and safe boating.