

Information for Vessel Owners & Purchasers

The following information has been provided to explain what a marine surveyor is looking for, and to help vessel owners and prospective purchasers prepare for a vessel inspection.

General Information Regarding Marine Surveys

Condition & Valuation surveys are commonly performed on most used boats 16 feet in length or larger, and are usually required to obtain insurance, especially on boats older than 10 years. A survey can save a prospective buyer thousands of dollars by advising them of possible defects and by determining the fair market value of the vessel. The seller of a boat may also request a survey to determine the fair market value before placing the boat on the market. If a vessel is damaged, the owner's insurance company will require a survey to be performed to determine the cost of repairs.

It is strongly recommended that all gasoline and diesel engines be surveyed by a qualified engine surveyor or marine technician to determine the condition of the engines, gears, and pumps, heat exchangers, coolers, etc., and that a sea trial be performed and evaluated by a competent marine surveyor. It is further recommended that the vessel be hauled out for dry dock inspection of the wetted surfaces area of the hull and underwater machinery.

The report will be prepared after a thorough visual examination of the hull, machinery, rigging, hardware and equipment. The report will be submitted in good faith, without prejudice and constitutes a description of the condition of the vessel at the time of survey. The report will not express or imply warranty, nor guarantee the condition of the vessel. PLEASE NOTE THAT A MARINE SURVEY IS NOT A GUARANTEE OF INSURABILITY.

Clients should not sign-off on a condition of purchase related to a marine survey or sea trial until after the written survey report has been received. Significant costs may be necessary to address some of the findings in the report. The vessel should not be considered a safe risk based on a verbal briefing alone following the vessel inspection, whether a survey is commissioned for pre-purchase or insurance purposes.

Pre-Purchase Surveys

At Marine Surveys Canada we specialize in pre-purchase surveys, most often including out of the water (hull bottom and underwater gear), in-water inspection (dockside testing of all onboard systems), and Sea Trial (a test run where the vessel is evaluated while underway).

Pre-purchase surveys are very thorough and are acceptable documents to submit when a survey is requested by an insurer. Expensive repairs are often identified during all three portions of a full pre-purchase survey; in the water, out of the water, and during Sea Trial. Pre-purchase surveys include a valuation, or appraisal, of the vessel's fair market value. The value may not reflect extreme fluctuations in value caused by unusual market conditions.

Insurance Surveys

Insurance surveys are typically completed out of the water when an insurer requests a survey for a new insurance policy, or for renewal of an existing policy. An insurance survey is a basic survey designed to establish the soundness of a vessel, condition of onboard systems and equipment, and suitability for intended use, so that an insurer can determine if issuance of an insurance policy is an acceptable risk. An insurance survey is not a guarantee of insurability, as the final decision will ultimately rest with the underwriter. Insurance surveys include a valuation, or appraisal, of the vessel's fair market value. The value may not reflect extreme fluctuations in value caused by unusual market conditions.

Insurance surveys may be partially completed in the water; however, this is generally an interim measure for mid-season renewals (to avoid the cost of a mid-season haul out), and a bottom survey is typically required after fall haul-out. This approach may satisfy the insurer in some situations. Vessel owners should verify with the insurer as to which approach is acceptable.

Sea Trial

The Sea Trial is an often-overlooked service where the surveyor attends the vessel during a test run away from the dock in open water. The surveyor does not captain (or operate) the vessel but spends time onboard inspecting structures and machinery. The benefit to the boat buyer is that a surveyor will evaluate the vessel in a dynamic state, in the water while underway. Deficiencies are often identified during a Sea Trial that cannot be seen during an out-of-water inspection or while moored. The Sea Trial is also an excellent opportunity for the seller or broker to provide the buyer with a helpful orientation to the vessel.

A sea trial is included in a full pre-purchase survey but may be scheduled as a separate service if requested.

Hull Bottom Survey

An inspection of the hull bottom, transom, topsides, underwater gear, and thru-hulls from the exterior of the vessel only, with the vessel hauled out of the water. A bottom survey is typically conducted when an in-water inspection has already been completed or may be scheduled at a future date. The surveyor does not board the vessel during a bottom survey. All inspection work is completed from the ground. A valuation is not included as a part of a hull bottom survey.

Oil Analysis

Oil samples are optional and can be extracted from propulsion engines, generators, transmissions, and other gearboxes, to help in evaluation of component condition. An oil analysis will provide information on contaminants such as fuel, coolant, and foreign debris. Oil condition can provide insight into existing or developing problems, or wear, within an engine or gearbox. Oil analysis is commonly performed on diesel engines, but can be beneficial with gasoline engines, transmissions, and gearboxes as well. Oil analysis is conducted by an independent laboratory.

How To Prepare

Removal of Gear from Cabin/Cockpit/Storage Lockers

Time and additional expenses can be saved by preparing the vessel for inspection by clearing miscellaneous equipment from lockers and cabin areas, to dismantling of interior ceilings, headliners or flooring in order to gain access to suspected areas. Fasteners on wood boats may need to be inspected for corrosion. Removal and re-installation of these parts are the responsibility of the owner of the vessel and should be done by qualified persons.

Required safety gear should remain onboard or with the vessel for inspection.

For all survey types, additional equipment, such as dinghies, auxiliary outboard motors, trailers, cradles, and other equipment that may add value to the vessel, should be present if these items are to be included in the survey or appraisal.

Electrical Power

Critical safety equipment (such as bilge pumps and navigation lights) is routinely tested during all marine surveys, where power is available to do so. For insurance surveys, electrical power is not a requirement because systems such as heating and cooling systems, complex navigation systems and entertainment electronics are not routinely tested as part of an out-of-water insurance survey.

During pre-purchase surveys, every reasonable effort is made to test all onboard systems. Such testing is typically undertaken with the vessel in the water. It is requested that batteries are fully charged and connected, and that shore power be provided to the vessel prior to the surveyor's arrival.

What To Expect

Structural Inspection

The vessel structure is evaluated using only non-destructive testing, such as percussive soundings and external moisture readings. Compartments are opened up where readily accessible (without the use of tools), and in some cases where fasteners are easily removed for inspection (such as electrical panels or fuel system inspection plates). Extensive disassembly is not undertaken as part of a marine survey, nor will any destructive testing be performed without written consent by the owner. Rigging surveyed on sailing vessels above eye level (aloft) must be arranged in advance, and will depend on the vessel's equipment condition, availability of qualified personnel and weather.

Vessel Appraisal

All marine surveys include a valuation, or appraisal, of the vessel's fair market value. The value may not reflect extreme fluctuations in value caused by unusual market conditions.

The value is established based on several factors, including what is currently advertised for sale, what has been sold in the North American market within the past few years, and valuation services that the insurance industry uses as a guide for vessel appraisal. Consideration is given to the vessel's condition and equipment, including propulsion, navigation systems, and additional upgrades.

The Day of Inspection

Depending on the size of the vessel, complexity of onboard systems, and the number of findings (deficiencies), a vessel inspection may take anywhere from two hours (in the case of a small runabout) to more than a full day (in the case of larger yachts upwards of 40' in length).

It is helpful if the surveyor is left alone to inspect the vessel. The best time for questions is either prior to, or after, the physical inspection. Discussions and interruptions during the inspection can distract the surveyor and slow the process considerably.

Sea Trial

A sea trial provides an opportunity for the surveyor to evaluate the vessel while underway. A sea trial is usually performed as part of a pre-purchase survey. The surveyor's role at sea trial is inspection only. The surveyor should not be expected to captain the vessel, operate the vessel (except in case of emergency), or participate as a working member of the crew. The surveyor will make certain operational requests of the captain during the sea trial, as a part of the inspection process. Such requests should only be executed where the captain deems it safe to do so.

A captain should be selected well in advance of the sea trial. The vessel is often captained by the current owner of the vessel, or by another designate in their absence.

The surveyor will supply their own personal flotation device and personal protective equipment for the sea trial. A review of safety gear for other crew members and guests should be undertaken by the captain prior to departure.

Inclement weather may require re-scheduling or cancellation of the sea trial, at the discretion of the surveyor or the captain.

Other Considerations

Deficiencies identified in the Marine Survey Report are based on the knowledge & experience of the Marine Surveyor, along with accessibility at the time of the physical inspection. Lewis Martin & Associates Ltd. (Marine Surveys Canada) shall not, under any circumstances, be held liable for deficiencies not identified due to limited access, as a result of either vessel design or equipment installed on or in the vessel after manufacture.

Lewis Martin & Associates Ltd. (Marine Surveys Canada) will not, under any circumstances, divulge information to a third party without the written consent of our client.

Signed,

A handwritten signature in black ink, appearing to be 'TJM', with a large loop at the end.

Timothy J.S. Martin
Director, Eastern Operations

A handwritten signature in black ink, appearing to be 'TL', with a long horizontal stroke at the end.

Tyler Lewis
Director, Western Operations