

Findings

Hathaway Marine Services, Inc.
Marine Surveyors

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Insurance Surveys – Times Have Changed

Thirty years ago Insurance surveys were duck soup. I had one done on my sailboat and the surveyor spent no more than a half-hour aboard. The form was the “check-the-boxes” type and was only two pages at most. The surveyor looked at the ground tackle, PFDs, my flare kit, fuel tank, and not much more. The report stated that my boat was an “acceptable marine risk” and off I went with \$12,000 worth of insurance. This type of survey is still in existence. Although quick and easy, it is of minimum value to anyone who is seriously interested in the determining the insurability of any boat other than a canoe or dinghy.

Times have changed. Today’s skippers are not as involved in their boat’s upkeep and maintenance as they were many years ago. This is somewhat understandable given that today’s boats are often crammed with systems and gear where maintenance and repairs are beyond the skills of most owners. Small yachts of the 1960s and ‘70s seldom had pressured water systems, showers, sewage systems and refrigeration, and few, if any, had propane stoves or shore power electricity. To make matters worse, there is the myth that today’s fiberglass boats are “maintenance free” and, along with the notions that

“if it ain’t broke, don’t fix it” and “if you can’t see it, it’s probably fine”, often allow potentially dangerous conditions to exist.

We’ve found leaking propane systems, navigation lighting wired with lamp cord, wasted engine exhaust components, corroded/leaking fuel tanks, and many other items that clearly put the vessel at risk.



Rusted-Thru Exhaust



Leaking Propane Tank



Corroded/leaking Fuel Tank

Very often we find structural problems and areas of deterioration that negatively impact the vessel’s fair market value

As with other surveyors, our insurance survey is primarily focused on the vessel’s structure, machinery, systems and equipment that directly or indirectly affect the safety

of the vessel and its passengers. Secondly, our assessment of the vessel’s overall condition is used, in conjunction with database information (comparables), to prepare a sound estimate of its fair market value and replacement value.

This isn’t a “quickie” activity with a check-off form. It can take several hours aboard followed by 4-6 hours preparing the report with supporting photographs.

We organize deficiencies into four categories so that the insurance underwriters have a clear understanding of the problem areas in order to properly assess the vessel’s insurability.

1. Items that require immediate action. These are liabilities that impact the safety of the vessel and crew.
2. Items that are not in compliance with USCG & CFR rules.
3. Items that are not in compliance with NFPA & ABYC voluntary standards.
4. Items that are non-critical maintenance issues requiring future attention for the long-term preservation of the vessel.

Although required for continuing insurance coverage, the insurance survey also serves the vessel’s owner by highlighting certain problems and conditions that can be rectified before they become major issues.

Shaft Logs & Stuffing Boxes – Out of sight..Out of mind

If you have an inboard engine that isn't an inboard-outboard, you'll have a shaft log and a stuffing box to seal the shaft and keep water out of the boat. These things have been around since the first propellers were used in the middle 1800s.

On many boats, they are not easily seen and, unfortunately for many skippers, are out-of-mind.



The photo above shows a typical shaft log and stuffing box that is in acceptable condition. The shaft, from the engine (top of photo) goes through the bronze stuffing box and then through a length of flexible rubber hose that is clamped to the stuffing box and then (at bottom) to a molded fiberglass tube that leads out of the hull.

The hose clamps are at the extreme ends of the hose section. This allows the hose to flex and absorb engine vibrations. The stuffing box is "packed" with several rings of waxed flax material that provides a seal around the shaft. The stuffing box, when properly adjusted, should not leak when the shaft is idle and then leak 5-10 drops/minute when turning. The leakage is needed to cool the packing in order to reduce shaft wear and packing failure due to frictional heat.



In the photo above, although on a fairly new boat, the flexible hose section is too short to allow the hose

to flex. This could eventually lead to early hose failure if not corrected.

Adding more clamps gains you nothing. The center clamp (below) guarantees the inflexibility of the hose section and probably indicates that there is not sufficient space between the fiberglass tube and the aft nose of the stuffing box. By the time that we saw it, the hose had begun to crack.



High quality marine-grade clamps are an absolute necessity. Those below were probably sub-grade when installed and clearly have not improved with age. Look for items like these.



Stuffing box leakage can become excessive if not properly adjusted. The leakage was so great, in the photo below, that salt spray seriously damaged the aft areas of the reverse gear and engine. The owner had never noticed anything except that the bilge pump ran often.



We were impressed with the attempt at electrical grounding shown below. The wires, with the red crimp covers, were clamped to the flex hose preventing the wires from carrying any current to anyplace. It looked hi-tech but did nothing. Upon removal of the clamps, the flex hose was found to be deteriorated and required immediate replacement.



None of these are isolated cases. We see them all the time and find it hard to believe that they would go so long without being noticed.

Rubber hoses deteriorate over time. The constant act of flexing will eventually break down the material. Although there are no set rules, probably 5-8 years would be a prudent replacement cycle.

Flax packing, whether the traditional wax or the newer Teflon filled, is not "forever". When the hose section is being replaced it would be a good time to change-out the packing. And don't scrimp on hose clamps. Use only marine-grade 316 stainless steel. The stainless steel clamps at the hardware store are generally not suitable for critical marine applications.

Adjusting a stuffing box for the correct drip rate is easy, but you'll need two large wrenches. Wrenches specifically made for this purpose are sold at chandleries and should be part of your onboard tool kit.

Although not particularly pretty and definitely low-tech, shaft logs and stuffing boxes are critical components of an inboard engine drive system. When they fail, there can be serious consequences or, at best, some exciting times.

Have you looked at yours lately?

General Stuff – Quiz

1. You see an anchored boat flying this flag. What's happening?



- a. The boat is standing by for a pilot vessel.
- b. Diving operations in progress.
- c. The boat is being held by law enforcement officers.
2. Type B:C fire extinguishers are least suitable for fighting:
- a. Oil & gasoline fires
- b. Electrical fires
- c. Wood, paper, and fabric fires
3. The approximate compass variation for Casco Bay is:
- a. 17 degrees east
- b. 17 degrees west
- c. 10 degrees south
4. The Nylon twisted line is used for anchor rodes generally because:
- a. It doesn't float
- b. It coils without kinking
- c. It stretches under load
- d. It is chafe resistant
5. One of the symptoms of low-level Carbon Monoxide poisoning is:
- a. Itching extremities
- b. Shortness of breath
- c. Sore/raspy throat
6. Stainless steel will not rust if its surfaces are in contact with:
- a. Atmospheric ozone
- b. Sea water minerals
- c. Oxygen
7. The "Golden age" of piracy lasted for approximately:
- a. 125 years
- b. 50 years
- c. 25 years

Answers: (Don't peek!) 1-b; 2-c; 3-b; 4-d; 5-b; 6-c; 7-b

Up from the Bilge

New for 1951

Deckgrips – A smart yachting shoe with soles that are kind to deck finishes. \$5.95 Beacon Falls Footware, Ct.

Guy-Ro Pilot – The "Spare Hand" at the wheel. Steers better than you can. Hand-somely encased in mahogany.

The Dreadnaught 23 – Fast, Modern Plastic Cruiser. Seaworthy & Economical. Call for summer delivery. Dreadnaught Boat Co. NY

Fluid Heat – The only marine heater that burns either kerosene or gasoline interchangeably and independently of engine. Easily installed. Anchor Post Products, Inc. Baltimore, MD (Ed. Note: That has "Kaboom" written all over it!)

Surveyor's Terms

Hatched!! – Generally bel-lowed on a cell phone, it is a call for help indicating that the surveyor has had a lazar-ette cover inadvertently close locking him or her into very close quarters.

Speedo – Used by surveyors who can't spell "knotmeter" or when the client is a land-lubber.

Tranny – Another surveyor's "salty" term that generally refers to an engine's reverse gear. Same reasons as for "Speedo" above.

Ancillary Gear – General term for useless equipment cluttering lockers.

Close up in Good Order – An innocuous comment directing the proper re-assembly of something that was dis-assembly'd ... or something like that.

From Long Ago

Poppets – The supports in a cradle or slipway (1700s) or the wood supports for oarlocks or thole pins on a pulling boat (1600s).

Stern Sheets – A seat in the stern of a small boat (1700s). From the Old English *skeat*, a platform or shelf.

Regatta – An occasion of boat racing. From the Italian *rigattari* meaning to wrangle or hassle c. 1700.

Neap Tide – An extremely low tide. From the Old English *nep* meaning aground.

A-1 – Lloyd's best insurance rating for ships. "A" referred to the hull and "1" referred to rigging and gear. Initiated in 1756, Lloyd's ratings were a World standard by 1833.

File & Forget

Barge – Term used when pointing out an insurance agent's power boat.

Slab – Term used when pointing out an insurance agent's sailboat.

Scupper – Term used in addressing an insurance agent when aboard his/ her boat.

Abaft – Direction that something is in when it's aft of something that is forward of it...I think.

Abarf – Action due to over-indulgence in food and/or drink.

AARRGGH – Pirate's cry of pain.

AAARRRR – Pirate's indication of agreement.

Moon Tide – An unusually low tide rendering a beach inappropriate for skinny dipping.

Coast Guard Safety Package?

We often see this term on yacht broker's listings but the meaning is somewhat obscure.

Some believe that the "package" contains a selection of "vessel appropriate" safety items, e.g. PFDs, a fog horn, fog bell, emergency flares, fire extinguishers, ground tackle, etc. that meet USCG requirements in both quantity and type for that particular boat.

It appears that there are no clearly defined criteria for SPs and essentially you're on your own. The USCG does have specific requirements for PFDs, fire extinguishers, flares and sound signaling devices but there is no definition of a "safety package".

Some of these items vary with the size and type of boat. It is up to the owner to assure that all required safety equipment is aboard and operable whether they be "packaged" or not.

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Technical Tip #8 – Shake ‘em Up, Baby!

Dry chemical fire extinguishers are filled with a powder and a pressured gas propellant. When the powder contacts the fire, it gives off carbon dioxide that smothers the fire.

With an extinguisher hung up on your garage wall, it requires nothing other than to pull the pin and squeeze the handle.

Aboard a boat, things get a bit complicated. The

boat, even dockside, is moving up and down and, while underway pounding into waves, the motion can get quite severe.

Constant vertical motion can compact the powder onto the bottom of the cylinder and, consequently, it may not be in the best state to do the job when the time comes.

The normal range of an extinguisher is around 8-10 feet. With compacted

powder, that distance can be seriously reduced.

We recommend that dry chemical extinguishers be “shaken-up” periodically.

Just remove it from its mount and tip it upside down and shake it up and swirl it around a few times.

It only takes a few minutes but could make a big difference in your ability to effectively fight an on-board fire.

About Hathaway Marine Services...

Background

Brian M. Hathaway NAMS-CMS, President, is a graduate of Maine Maritime Academy and has been involved in the marine industry for more than forty years as a ship's officer, instructor of technical nautical subjects and marine surveyor (since 1973).

He is a member of the National Association of Marine Surveyors, Certified Marine Surveyor (NAMS-CMS),

a member of the Portland Marine Society, and a U.S.C.G. licensed Unlimited Master Mariner.

S. Merrill Hall SAMS-AMS, spent over forty years as a design and manufacturing engineering consultant in the development of automatic machinery and computer peripheral equipment.

He is a member of the Society of Accredited Marine

Surveyors, Accredited Marine Surveyor (SAMS-AMS).

During slack times he restored several fiberglass cruising sailboats, founded Mobile Boatyard Services, and delivered yachts along the East Coast. He has been doing marine surveys and inspections since 1996, has sailed since childhood, and only sank one boat (at the age of twelve).

Condition & Value Surveys For:

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