Avoiding accidents at the working place

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As marine surveyors, we are exposed every single day of work to many different risk situations.
The environment where we developed our day to day job is, by itself, abnormal and represents a great diversity of hazards to our physical integrity. Health and safety is everybody's concern and each individual has a duty to ensure they not do something that deliberately puts them or others in a dangerous situation.

It is important that appropriate consideration is given to the surveyor's personal protection, to protect others and preserve the environment. Common sense plays a key role in the prevention of accidents. Before we commence any inspection, we should carefully examine the place and the surroundings evaluating possible risks, a checklist would be very helpful in order to do so. Remember that survey conditions are not always perfect. For instance, a surveyor can be asked to carry out a survey in a modern boat yard where the yacht has been lifted ashore and chocked in a purpose built cradle. Alternatively, a surveyor could be asked to survey a vessel on a semi-tidal, semi-soft mud mooring miles away from anywhere. Weather also plays an important role, when you become absorbed in a survey, it is possible to lose track of time. Both sunburn and hypothermia are progressive and only become apparent once it is too late and the damage has been done. Or what about performing a survey underneath a vessel while blocked ashore when the wind is blowing above 30 knots.

Here are four typical situations that briefly describe the risks involved:

1. **Working in closed spaces with machinery involved (engine rooms).**

Ventilation is vitally important, especially if the surveyor intends to operate any of the equipment on board the yacht. Lack of oxygen and a build up of carbon monoxide kills several people every year, sometimes from leaking exhausts and sometimes from faulty appliances and heaters.

Risks

● Propane or butane gas in the bilges can lead to a serious explosion with a little source of ignition.

● CO2 system is used to release CO2 in the vessel's engine room during fire emergencies only after all the crew has left the engine room. But accidental release of CO2, when the crew members are still present in the engine room, would lead to instant and tragic death.

Prevention

●Make certain that the vessel to be surveyed has been properly ventilated before entering into an enclosed room.

●Always wear ear protection when you are planning to start the engine while inspecting the engine room.

●If you are testing engine room CO2 alarm, make sure the CO2 pilot bottles are properly isolated. In any case, the testing should be made by a certified authority.

2. **Climbing to the masts for rigging inspection (aloft)**

In order to feel comfortable going up the mast you need to reduce the risks of accident and complete the task in a safe manner.

Con't

Before we head up the mast, we need to come up with a plan of action that describes the tasks we want to complete. Make a checklist of the things to be inspected and get the equipment and tools ready. It is also very important to organize the crew and assign a job to everyone involved. Make sure the people that are helping you are completely reliable and have some experience.

Risks

- Halyard breaking
- The person hoisting makes a mistake or gets distracted and releases the halyard.
- The person
- Boat motion.
- Spreaders, shrouds and fittings represent a hazard to the surveyor while aloft.

Prevention

- Communication is a key factor, however with the distance between the parties and lack of visual contact, communication might not be very effective. It is advisable to utilize radio communication with headsets.
- Make sure that the hoisting halyard is in good condition.
- Inspect your Boson´s chair.
- Always have a backup line.
- Wear a helmet.
- Use a secure tool belt to hold all the tools you may need.
- Use protective footwear.
- Try to use a manual winch and not an electric winch. Using an electric winch reduces the ability to communicate effectively, and will hoist at a rate of a foot every couple of seconds. Using a manual hoist reduces the chances of injuries.
- Never go aloft while the boat is at the yard.

3.Walking on high decks while the vessel being surveyed is blocked ashore.

Just imagine a situation when you are performing an inspection on the deck, on a 65 ft sailboat with 14 ft draft, which is blocked at the shipyard. Under this scenario, the surveyor would be walking on a narrow deck on a total high of almost 26 ft.

Risks

- Improper use of catwalks and slippery deck could lead to an accidental fall.
- Missing grating, railings and stanchions

Con't

● Improper personal protective equipment (PPEs) especially safety shoes and safety harness could cause direct injuries to the surveyor.

Prevention

●Cleaning up after work and maintaining the deck free from oil and other slippery substances.

●Follow designated catwalks and correct passages on main deck and avoid shortcuts.

●Using proper non-skid safety shoes on deck and use of safety harness while working on heights.

●Safety and situational awareness.

●Analyzing the hazards and risks that are associated with the job, and understanding the nature of possible accidents prior commencing the job.

4. Inspecting the hull bottoms while the boats are suspended by slings in a travel lift (lift & hold inspection)

Working underneath a 50 tonne yacht suspended from a crane or straddle carrier when the lifting slings are damaged or worn brings with it other types of risk. As a surveyor, do not be tempted into the false belief that the boat yard or crane operator will check the equipment, just because the boat yard has a good reputation, this must not be assumed. Always check for yourself that, wherever the yacht is, the surrounding environment is safe and appropriate to work in.

Risks

●The slings could break letting the vessel fall, while the surveyor is beneath the vessel inspecting the hull bottom.

Prevention

●Safe Working Load (SWL) of the lifting gears must be compared to the load to be lifted.

●Always double check the stressed points of the slings and make sure they are in good condition.

●Slings should be securely attached to their loads.

●Slings shall be protected from sharp edges.

●If a wire rope sling shows any sign of significant deterioration, that sling must be removed.