

## Do I need an Insurance survey?

### Preparing your vessel

Simple economics suggest that the more risks you can remove, the less chance of a claim. As insurance companies are profit making organisations it is in their interests to ensure a vessel is maintained to certain standards and is operated as safely as possible.

Many insurance surveys have saved lives by revealing shortcomings in equipment and construction. Insurance companies are looking after your interests as well as their own.

Generally the requirements of the insurance survey are to ensure the vessel is not likely to:

Sink underway or at its mooring for preventable reasons,

Catch fire or explode

Suffer from foreseeable mast or rig failure.

Lose control of the vessel due to steering or mechanical failure.

Endanger any crew member or member of the public unnecessarily because of gear failure.

Founder in extreme weather conditions.

Poor varnish work, scratched hulls, limited osmosis etc. are not factors that most insurance companies feel take precedence. Cosmetic condition has to be considered only when it seriously affects the insured valuation.

Although the following list is not fully comprehensive, every item in this list would normally be checked during an insurance survey. The majority of competent owners should have no difficulty checking their own vessel for these points.

### Fire Fighting equipment

If a gas system is fitted, ensure cylinder storage is such that any escaping gas from the cylinder or regulator can easily find its way over board without risk of entering the accommodation or bilges. This usually means fitting the gas cylinder or cylinders in some type of container which can be secured which has a drain fitted at a low point to direct gas over board. Ensure that any flexible lines are less than five years old and of the correct specification

### Calor Gas tubing

Calor Gas tubing will have the date of manufacture stamped on the outside of the tube along with the BS number. Check the copper tube and fitted gas taps are well clipped and gas connections are sound. Make sure the cooker is secure and the surrounding joinery is protected from the burners. Calor Gas supply a booklet on gas installations on boats, get one free on 0345 661111.

A fire blanket and In-date fire extinguishers should fitted in the galley area. The larger the vessel the more extinguishers required, as a guide a 24 ft vessel will require a minimum of two. On modern extinguishers the date of "replacement due by", is stamped on the outside of the extinguisher, older designs will have a date of manufacture which may suggest the extinguisher is no longer reliable. Those fitted with pressure gauges are self-explanatory. All extinguishers should be mounted in permanent positions.

### Seacocks and Skin Fittings

When should a seacock be fitted?

Check all seacocks for operation, make sure all handles are permanently attached and in good condition. Confirm attached pipework is secure, in good condition and where possible double clipped. Skin fittings below the waterline and most within about 30cm above the waterline should have seacocks fitted. No plastic or nylon fittings should be fitted below the waterline. (These can fracture)

### Pipework: fastening and routing

#### Bilge pump/s

All pipework should be double clipped where possible, the clips should be in good condition.

Occasionally pipes are required to be looped above the waterline, these include the WC outlet pipe and in some cases, the engine cooling water inlet pipe. This is to prevent back siphoning flooding the

vessel or engine in exceptional circumstances.

Ensure the vessel is fitted with at least one manual bilge pump even if an electric pump is fitted. Larger vessels will require at least two pumps. In the case of electric pumps ensure that the outlet pipe is looped above waterline or a one-way valve is fitted. These can occasionally flood the bilges when the vessel is severely heeled.

## **Fuel systems : petrol and diesel**

Check all engine fuel pipes for security and condition and material suitability, in particular ensure that pipes cannot touch moving parts.

Fuel systems petrol

The filler pipe must be in a position where spillage cannot run into the bilges or accommodation. The tank vent pipe must vent overboard.

## **Electrics and power supply**

All batteries must be secured, along with all loose wiring particularly around the engine.

## **Heavy stuff**

This includes fuel and water tanks, marine WC s, cookers etc. all permanently fitted items have to be well secured.

## **Propellers**

Check propellers for signs of damage and if the propeller nut has not been removed for several years consider removing it for checking as the hidden threads on this can often deteriorate and allow the propeller to run off if put hard astern.

## **Underwater metalwork**

Scrape small areas of paint off all underwater bronze metal fittings including the propeller, to check for signs of dezincification. These areas show as irregular areas of coppery colour blotches and when scraped, severely affected areas are quite soft and powdery.

## **Rigging (fittings) and masts**

Check bottle screws for obvious cracks, distortions, missing split pins or faulty clevis pins. Check any rigging straps, U bolts, and stemhead fittings for signs of distortion or failure.

## **Deck fastenings**

A common fault is deck - distortion at the stemhead fitting due to the use of inadequate backing pads or fastenings.

## **Rigging wire**

Stainless steel rigging is not easy to visually assess and generally insurance companies require replacement after ten years. Occasionally electrical conductivity testing may be suggested. This test can identify hidden corrosion in terminals, which causes increased electrical resistance. Galvanised rigging on the other hand may last several decades before replacement is required, visual inspection is usually all that is required, as corrosion is visually obvious.

## **Masts**

Check all mast fittings for security. Carefully look at any rigging attachment points as quite often-small cracks may be found in alloy masts at these points. Also look for any signs of corrosion close to stainless steel fittings on the alloy spars. Significant wall damaged can weaken the mast, small scuffs and abrasions are not important structurally.

## **Deck fittings**

On deck check all stanchions for security, all guardlines for condition and security and check all deck fittings particularly mooring cleats for damage and security.

## Deck structure

At areas of high stress, i.e the rigging U bolts, mast base, mooring cleat positions etc. check the moulding for signs of cracks or distortion. A professional opinion should be sought if there is any doubt

## Side deck distortion

Lay a straight edge over the line of the rigging points on the side deck, often you'll find humps at each attachment point. Now check below to see what has allowed this to happen . Minor distortion is probably acceptable, severe distortion should be investigated.

## Rudders and steering gear

What's left to check?

On fibreglass rudders look for signs of corrosion leaking from rudderpost at the entry point. Look for signs of cracks at the top forward leading edge of the rudder where two parts of the moulding are joined. This may indicate failure of the bond, which could allow seawater to enter the rudder moulding and cause internal corrosion problems.

## Wheel steering

Check steering gear or signs of wear, particularly steering cables where they run around turning blocks or sheaves this is where steel cables will start to fray.

On hydraulic systems a degree of oil leakage is not uncommon but check hydraulic pipes and hoses. Ensure full port and starboard rudder movement is available.

## Tiller steering

Often, wooden tillers will decay close to the stock fitting, check this area.

This obviously varies from vessel to vessel and might include keelbolts on one vessel but not on another, concern about possible hull cracks on one or dismissed as gel coat scratches on another. Experience can help determine serious problems.

A vigilant owner should be able to identify most of the common failures from the aforementioned without any difficulty.

When is a degree of deterioration considered to be excessive?

If you find something you're not sure of seek the advice of a shipwright or a surveyor.

There is a degree of structure inspection in any survey or report. I have not included this in the above list, as it is indeed these areas where opinions often differ and GREY enters the equation!

## Contact details Telephone +44 01308 868681

John Lilley Associates

25 Fair Oak Way

Mosterton

Beaminster

Dorset DT8 3HG