







FOREWORD

The Club has supported the yacht market for over 25 years and has a dedicated Yachtowners' syndicate. Part of the Yachtowners' offering is the value added service offered by the Club's Loss Prevention department which has a wealth of seafaring experience and knowledge of many on board operations for a variety of vessel types. This pack of yacht specific information has been developed on the back of claims experienced by the Club and concerns raised by our Members, with the aim to assist all operators insured with the Club to learn from each other's experiences in the hope of preventing future occurrences.

If you require any further information please contact:



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MEET THE LOSS PREVENTION TEAM

The Club's Loss Prevention team delivers initiatives and services that are bespoke to each Member, assisting them to reduce their exposure to risk

SHIPOWNERS





seagoing & relevant educational backgrounds







...is split between the London and Singapore branches and operates as one consistent service delivered to Members around the clock

...provides value added services to Members at no extra cost





Louise Hall



Carri Woodburn



Bhaskar Nigam Loss Prevention Manager Singapore



Charlie Cooper





lan Grainger



Jennifer Aw



valid in current operating environments but also offers



Bespoke in-house training sessions



For Members based on individual claims trends or those occurring in their industry.



The Condition Survey Programme



A pro-active look at the condition of Members' ships to ensure that they are of a condition considered as a mutual benefit to all.



Management **Audits**



To assist our Members indentify areas for improvement in the ship / shore interface.



Secret Shoppers



Enabling our passenger vessel operators to have a true view of passenger care on board their vessels.

The team is associated with and supports a number of industry bodies and charities to promote a joint and collaborative stand on important issues, including:



















BULLETIN

Yacht fire safety awareness while docked in a marina

In the past year, several high-value yachts have caught fire while docked inside a marina. Fortunately, so far, no casualties have been reported. However, some of the yachts were either a complete loss or suffered thousands of Euros in damages.

When any yacht catches fire inside a marina there is a very high risk that the fire will spread rapidly to adjacent yachts. Therefore, fire safety awareness and the mindfulness of crew on board should not only be limited to their own yacht but also to surrounding yachts while docked inside a marina.

What are the risks?

During the winter season most yachts will scale down in crew size or some yacht owners will decide to leave their yacht in the marina without crew. This reduction in manning level should always be carried out in conjunction and with the approval of the vessel's certifying authority. Yachts docked without any crew on board are left without any regular fire safety watch. In addition, some of the older and smaller yachts might not have automatic fire suppression systems (e.g. high fog, FM-200, Novec) and therefore are at high risk of catching fire.

Causes of yacht fires can come from numerous places, some of the major causes include:

- Defective or overloaded electrical wires/circuits equipment.
- Burning cigarettes
- Defective fuel/gas fired boilers-heaters
- Leaking fuel or gas lines
- Overloaded laundry dryers
- Hot surfaces like portable electrical heaters, halogen lamps, cooking equipment, laundry irons in combination with flammable, combustible or explosive materials, liquids or oily rags
- Arson

Recommend precautions

Detailed below are some recommended practical precautions that owners, managers and crew should follow to prevent fires:

- Crew members or an external care taker should keep a regular fire safety watch on board.
- Keep an eye on surrounding yachts for any signs of smoke or fire.
- No smoking should take place on board and a dedicated smoking area should be set up outside of accommodation.
- Follow safe fuel oil bunkering procedures.
- Regular visual inspections and maintenance of electrical wires and equipment, lighting systems, galley and laundry equipment, fuel and gas systems and auxiliary machinery should take place.
- All electrical circuits should have protection against overload and short circuit.
- All outboard electrical switches, wires and fuses should be protected from rain or water spray.
- Charging lead-acid batteries must be stored inside well ventilated areas and protected from accidental arcing and explosive gasses.
- After use, close off and properly store all flammable liquids (e.g. paint, thinner, chemicals) inside ventilated lockers, preferably outside of living spaces.
- Turn off all electrical, oil or gas appliances after use (e.g. galley, laundry).
- Always keep engine rooms, engine room bilges, machinery spaces and galleys clean.
- Regular inspection and maintenance of fire detection systems (smoke, heat detectors) should take place.



► BULLETIN

Yacht fire safety awareness while docked in a marina

Preparing to respond in an emergency

Yacht owners, managers and crew should always be prepared to respond adequately to fires while docked in a marina;

- Have contact details at hand of local emergency services, the marina manager, dock master, yacht manager / owner.
- Have a sufficient quantity of portable fire extinguishers on board, in accordance with flag / class requirements.
- Regular inspection and maintenance of all portable and / or fixed firefighting equipment and systems, as per flag / class, requirements should take place.
- Conduct regular in-port crew fire drills.
- Always have sufficient crew members on board while docked in a marina; for large yachts, it is recommended to have sufficient crew on board to fight a fire, or to cast off and sail out of the marina when an adjacent yacht is on fire.

The Club would like to thank Mr. B. Maaswinkel, Independent Marine Consultant for Dutch Swiss Marine, for contributing this bulletin.



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► YACHT SAFETY ENJOY YOUR TIME ON BOARD







YACHT FAQS

HOW ARE MINIMUM SAFE MANNING LEVELS ESTABLISHED?

Assessment criteria will vary between Flag States and the Club recommends that the applicable Flag State should be consulted for their particular requirements. Assessments may consist of, but are not limited to:

- Operational elements of the vessel, duties, workload and responsibilities of personnel on board.
- Consideration of how many personnel are required to safely operate the vessel with due regard for the safety of life at sea, protection of the environment and property and including emergency scenarios.
- The required competence and qualifications of personnel.
- Trading limitations, the maximum period of continuous watchkeeping, length and nature of voyages and frequency of port calls.
- Consideration of the Flag State's basic manning requirements.
- Vessel size and design, facilities and internal communication systems.
- The amount of machinery/equipment on board and any unmanned machinery space (UMS) systems fitted.
- Consideration of any applicable conventions such as the Maritime Labour Convention (MLC) or STCW 95 and codes such as International Ship and Port Security (ISPS) Code.

WHAT SHOULD THE MANNING LEVELS BE FOR A COMMERCIALLY OPERATING YACHT?

The Flag State should be contacted to arrange for an assessment of the minimum safe manning levels for commercially operating vessels, including yachts. Each Flag State will have specific criteria to assess when establishing the appropriate safe manning levels and may require the Owner to submit an assessment of the minimum safe manning level.

HOW SHOULD THE MANNING LEVELS OF A PRIVATE YACHT BE ASSESSED?

The applicable Flag State may require minimum safe manning assessments/documents on privately registered vessels but put the onus on Owners to carry out their own assessments. Assessments made by Owners should be in line with the manning assessment practices of the applicable Flag State. For further guidance, the Club recommends that Members contact the applicable Flag State.

AS AN OWNER, HOW DO I PROMOTE COMPETENCE AND GOOD SEAMANSHIP OF CREW AND PREVENT INCIDENTS?

The Club knows that Members are committed to operating safe ships with capable crew. For owners of smaller/private vessels, good seamanship and practices on board can be developed with the incorporation of a Competence Assurance Scheme (CAS). These schemes, which incorporate skill and knowledge development through the means of tasks and goals for crew, promote good practices on board and can be used as a tool to measure progress of personnel and identify training requirements, supporting the implementation of a Safety Management Systems (SMS).

Although implementation of an SMS may not be mandatory for all owners, the provision and use of standardised company procedures and policies which offer guidance to crew for on board operations, contributes greatly to the reduction of accidents and incidents.

WHAT GUIDANCE CAN BE PROVIDIED TO CREW TO ENCOURAGE GOOD PHYSICAL AND MENTAL HEALTH ON BOARD?

The Club has been working with International Seafarers' Welfare and Assistance Network (ISWAN) collaborating on a campaign to raise awareness and provide guidance to seafarers on their health and wellbeing whilst on board vessels. All publications can be viewed and downloaded from the Club website and further information can be sourced from the ISWAN website:

www.shipownersclub.com

www.seafarerswelfare.org

WHAT OTHER GUIDANCE DOES THE CLUB PROVIDE FOR YACHT OWNERS?

The Club has produced a number of publications which cover a wide range of maritime topics and may be of particular use to Members operating yachts:

Learning from Passenger Vessel Incidents booklet: www.shipownersclub.com/lossprevention/learning-from-passenger-vessel-incidents/

Yacht Safety poster: www.shipownersclub.com/lossprevention/yacht-enjoy-time-board/

Passenger Safety poster: www.shipownersclub.com/lossprevention/passenger-safety/

Caution is required in reduced visibility case study: www.shipownersclub.com/lossprevention/caution-is-required-in-reduced-visibility/

All publications are freely available to view and download from the Club's website: www.shipownersclub.com/shipowners-publications/



SAFE MEANS OF EMBARKATION AND DISEMBARKATION YACHTOWNERS

The Club would like to thank Bart Maaswinkel (B.Sc. / B.Eng.), Founder & Owner / Management Consultant RMI and P&I approved Yacht Surveyor at Dutch Swiss Marine, for his invaluable contribution to this article.

The Club has recently dealt with several claims involving access to vessels, some of which have unfortunately resulted in injuries and even fatalities.

Promptly after a ship has been secured, the Captain must at all times ensure that there is a safe means of access between the ship and quay, pontoon or another ship alongside, to enable people to access the berth or another vessel.

In view of their size, the majority of Members' vessels tend to utilise gangways or passerelles for this purpose. These are favoured over accommodation ladders which tend to be constructed for larger vessels. Approved gangways are normally required on ships of 30 metres in length or over, and approved accommodation ladders on ships of 120 metres in length or over. However, Members should clarify with their local regulations what is required for their specific operation. Where means of embarkation and disembarkation are fitted, other than those specifically covered by these guidelines, an equivalent level of safety should be provided.

CONSTRUCTION REQUIREMENTS

Gangways or passerelles should always be manufactured to a recognised international standard such as ISO 7061:2015, *Shipbuilding – aluminium shore gangways for seagoing vessels* or applicable national standards such as:

- The UK standard BSMA 78:1978, Specification for aluminium shore gangways.
- The European standard EN 14206: 2003, Inland navigation vessels Gangways for passenger vessels.
- The European standard EN 526:1996, Inland navigation vessels. Gangways with a length not exceeding 8m:
- Or other equivalent requirements.

Where gangways, passerelles or ladders do not comply with such national or international standards, a manufacturer's load test certificate should always be provided. Alternatively, practical tests may be carried out to the satisfaction of the Flag Administration or Classification Society. In all cases the maximum design angle, number of persons, and total weight should be clearly marked and gangways, passerelles or ladders are to be used in accordance with the manufacturer's instructions. Side screens or handrails should be provided on both sides, along their entire length, with a minimum height of 1 meter.

ON BOARD INSTALLATION

Location and positioning

As far as is practical, the means of embarkation and disembarkation should be sited clear of potential hazardous areas and should not be placed where suspended loads may pass overhead. Gangways should be properly secured and, unless designed for the purpose, should never be secured to a ship's guardrails. If

positioned through an open section of a bulwark or railings, any remaining gaps should be adequately fenced. Gangways should not be placed on a bulwark or side rail of the vessel, unless the bulwark or side rail is of sufficient strength to bear the weight of the gangway and persons using it. If the inboard end of a gangway rests on the top of the bulwark, a bulwark ladder should be provided. Any gap between the bulwark ladder and the gangway should be adequately fenced, to a height of at least 1 meter.

Local tidal conditions should be monitored by the appropriate personnel with the use of tide tables and the position of the gangway adjusted as necessary. The angle of inclination of a gangway should be kept within the limits for which it was designed and should not be used at an angle of more than 30° from horizontal (unless specifically designed and constructed for use at greater angles). Care should be taken when several persons are standing still on the gangway (e.g. on passenger ships). The maximum capacity of the gangway should never be exceeded!

Lighting and markings

Adequate lighting should be provided to illuminate the means of embarkation and disembarkation, including the positions on deck and ashore. Side edges of the gangway should be marked by a brightly- coloured strip. Gangways must be clearly marked with the manufacturer's name, the model number, the maximum designed angle of use and the maximum safe load, by numbers of persons and by total weight.

Lifebuoy

A lifebuoy, equipped with a self-igniting light and a buoyant lifeline, should be available for immediate use in the vicinity of the embarkation and disembarkation arrangement when in use.

Safety Net

On seagoing ships, where it is possible that a person may fall from the means of embarkation and disembarkation or between the ship and quayside, a safety net should be mounted in way of the gangway.

Watchman

Even if it is not always required under local regulations for some ships to comply with the ISPS -Code, it is good practice to have a member of the vessel's crew permanently stationed at the gangway for safety and security purposes. A watchman is able to assist persons transiting the gangway and monitor any dangerous practices.

MAINTENANCE

Gangways (e.g. stanchions, hand rails, ropes or fittings) should be properly maintained and inspected at appropriate intervals as required by international or national regulations and in accordance with manufacturers' instructions. Crew should make additional checks each time the gangway is rigged - and look out for signs of distortion, cracks or corrosion. Bent stanchions should be replaced or repaired and guard ropes should be inspected for wear and renewed where necessary. Where rope handrails are fitted they should be taught at all times, with any excess slack taken up as required. Moving parts should be free to turn and should be greased as appropriate. Also, the underside of gangways should be visually inspected at regular intervals. All inspections, maintenance work and repairs of gangways should be recorded to provide an accurate maintenance history. The information to be recorded appropriately on board should include the date of the most recent inspection, the name of the person or body who carried out that inspection, and the due date for the next inspection.

For ships sailing under SOLAS regulations, the following parts should be thoroughly examined during annual class surveys and checked for satisfactory condition of the gangway:

- Treads
- Side stringers, cross-members, decking, deck plates, etc.

- All support points such as wheel, roller, etc.
- Stanchions, rigid handrails, hand ropes
- Any other relevant provisions

At every five-yearly class survey, the gangway(s) should be operationally tested with the specified maximum operational load of the gangway.

GENERAL GANGWAY SAFETY

To further ensure the safety of passengers, appropriate signage can be erected to notify the person boarding the gangway of any dangers or problems that may occur when transiting or alighting onto the vessel or quay.

Additional signage can also highlight connected safety procedures such as:

- Maximum number of persons permitted on the gangway at one time.
- The good practice of not carrying too much whilst on the gangway.
- To always leave a hand free to hold onto the handrail whilst transiting the gangway.

The Club has published a Passenger Safety poster an information booklet on Learning from Passenger Vessel Incidents and a series of Risk assessments for passenger vessel operations which Members' may refer to for guidance.

GANGWAY SAFETY ON PASSENGER SHIPS

It is imperative for crew to remember that they are the first point of contact for boarding passengers. Passengers often form lasting impressions on how the ship is managed based on this first encounter. Those boarding may not be familiar with the ship and its potential dangers, therefore it is essential that a designated crew member is standing by at the boarding area to assist, advise and instruct. Prior to the commencement of embarking and disembarking operations it is important for the Captain and the assigned crew member(s), standing by at the gangway, to assess the boarding area for any potential risks. The Captain and crew Member should consider:

Is the gangway properly secured?

- Is the Vessel properly secured, are the mooring lines tight?
- Are there prevailing weather conditions, such as wind and rain?
- Are there high waves from passing ships with large wake?
- Are there gaps between gangway and ship / shore?
- Are there any slip, trip, bump or fall hazards when stepping on and off the gangway?
- Are the stanchions, hand rails, ropes etc in place and properly secured?
- Is there sufficient lighting available during dark hours?
- Are the non-slip surfaces in good condition?
- Does the gangway comply with the maximum recommended slope (< 30 degrees)?
- Is there any congestion on the gangway?
- Is extra assistance required for people with limited mobility?

Crew members standing by the gangway should remain on duty throughout their watch and not leave their position until relieved by a fellow crew member. Responsibilities of the crew members should be included in the vessel's safety management system and/or working procedures and be referred to as necessary.

SUMMARY

It should be noted that flag states, governing authorities and ports may differ to the advice given in this publication, but the issue of ensuring safe access onto a vessel is a combination of exercising common sense and by managing all safety risks with due diligence by the ship owner, operator and the Captain.

EXAMPLES OF HAZARDOUS GANGWAYS

Example A: Gangway not manufactured by recognized national, or international, standards.



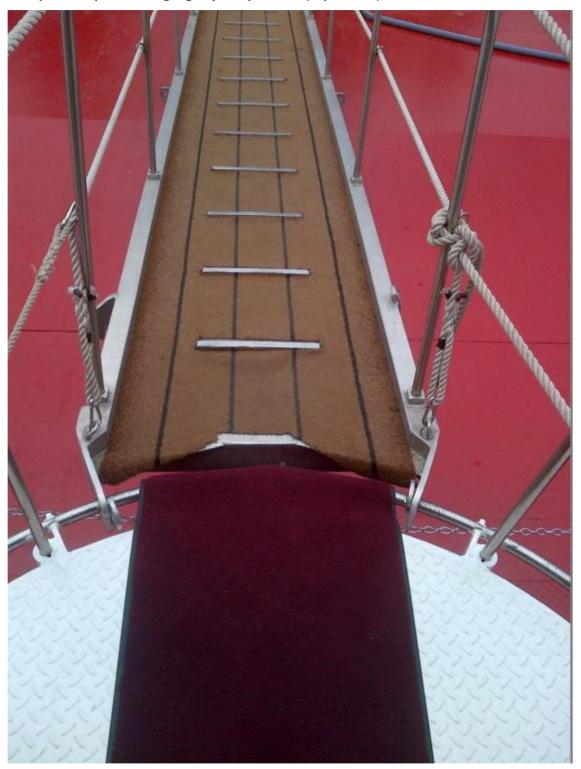
Example B: Gangway not manufactured by recognized national, or international standards, not properly secured and slope > 30 degrees.



Example C: Gangway not manufactured by recognized national, or international standards, not properly secured, no side screens or handrails provided and not well lit.



Example D: Gap between gangway and platform (trip hazard).







Carbon monoxide poisoning results in fatalities

A summer holiday on the Norfolk Broads on board a 15-year-old motor cruiser ended tragically when a couple and their dog were killed by carbon monoxide poisoning. At the time of the accident the boat was moored at a quiet river island location.



The motor cruiser's 5.7 litre petrol-driven inboard engine had been left running at 3000rpm while it was moored alongside, mostly likely to charge the batteries. A slight wind blowing from the stern caused exhaust gas, emitting from below the aft transom, to enter the canopy covering the aft deck from where it spread down into the accommodation area forward.

Observations

The Marine Accident Investigation Branch (MAIB) identified that:

- occupants of vessels without carbon monoxide (CO) alarms will have no warning if the lethal fumes are present in habitable areas. It is essential that CO sensors are fitted in areas where CO could accumulate and pose a risk to health (such as the accommodation areas).
- the use of canopies can lead to the accumulation of CO within an enclosed space and potentially increase the risk of poisoning, even when a boat is making way. It must be ensured that all spaces, including those under a canopy or an awning are always well ventilated
- CO is a silent killer and it is important to recognise that the symptoms can be similar to colds, flu or hangovers - headaches, dizziness, nausea, vomiting, tiredness, confusion, stomach pain and shortage of breath, are warning signs of its presence. If CO poisoning is suspected, it is important to stop the source, access fresh air and seek medical attention.
- CO may not always originate from internal sources or even from your own vessel. The occupants of neighbouring boats are at risk when moored near vessels emitting high concentrations of CO.

This case study has been extracted from the MAIB Safety Bulletin 2/2016 & the MAIB Accident Report no 9/2017.

