

SANI SWAN

Marine Emergency Procedures



Sani Swan Scorpion Yachting MCPY

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Marine Emergency Procedures

1.Introduction

Please keep in an easy accessible place the following information:

- Ship Owner:
- Ship Name:
- Captains name:
- Phone number of Ship Owner Company:
- Phone Number of Local Port Authority:
- Telephone number of destination port authorities:
- Useful Numbers:

2.General alarm

The general alarm which consists of seven short blasts followed by one prolonged blast, is usually given in a distress situation such as a collision, fire on board, abandon ship, etc.

According to the occurring disaster, every crewmember must strictly follow the instructions as they appear on the boat muster or fire muster or as they are given by the master or the officer in charge.

3.Abandon Ship

In the event you have to abandon ship, the following actions, amongst others, must be taken:

- Sound general alarm
- Follow muster alarm list
- each crewmember should have their lifejacket on
- each crewmember should immediately join his emergency station to prepare the lifeboats or to start to clear away the inflatable life rafts.
- The responsible officers employed on damage control duty should report regularly to the master
- Update vessel's position, in radio room, Satellite terminal and other automatic distress transmitters (GMDSS)
- Send distress message / alert other vessels
- Check if all crewmembers and passengers (if any) are present
- Search for missing personnel (especially in the engine room and at night in accommodations)
- Activate EPIRB's
- Manoeuvre vessel in proper position / stop engine
- If possible, prepare ship's documents (especially the log book)
- After rescue, inform company

4.Beaching

Beaching (by own will)

Sometimes, in case of emergency, the master may decide, by his own will or in agreement with the Insurance Company and/or the P & I Club, to run his ship aground, in order :

- to save what can be saved
- to avoid a dramatic collision
- to avoid to be caught on the lee shore in very bad weather (e.g. engine breakdown or when the engines are not powerful enough to ride the storm)
- to avoid the ship from stranding where salvaging would be too difficult or even impossible (rocks, breakers, heavy current)
- to avoid the ship from sinking in deep water (which would make the salvage of the crew, ship and/or cargo easier and less costly)

Take at least following actions:

- Engines stopped
- Sound general alarm
- Watertight doors to be closed
- VHF watch maintained on channel 16
- Broadcast to other vessels
- Sound signals, Light / Shapes to be exhibited
- Deck lighting switched on
- If necessary, use anchors
- Sound bilges, tanks and overside around vessel (see also Stranding)
- Evaluate risks of pollution
- Inform company and any third parties if relevant
- Update if necessary vessel's position in radio room, satellite terminal and other automatic distress transmitter (GMDSS)
- Consider danger of the situation and if possible take pictures
- Consider further actions with consideration for:
 - salvage
 - risks of sinking (emergency message, EPIRB's, abandon ship)
 - secure position (change of tide, weather, stream, stress risks, stability)
 - assistance, port of refuge, oil spills
- Keep the Company always informed
- Enter every action taken in the log book

5. Boat drill

Boat drills should be held :

- In port, just before the departure of the ship (especially if new crewmembers have embarked).
- At sea, at least once a week.

During the boat drills, attention should be paid:

- in showing the location of all lifeboats, life rafts, lifebuoys and lifejackets on board
- in showing where the EPIRB is located
- in properly explaining the working of the life saving equipment
- in demonstrating the proper use of the life saving equipment
- showing where the NC signalling flags are located
- showing where the marine pyrotechnics are located

From time to time, when in port, exercises should be held with the life saving equipment, such as lowering a lifeboat in the water, rowing, testing of the engines in the lifeboats, testing of the emergency radio equipment in the lifeboat, showing of video's about the use of life raft, demonstrating the use of marine pyrotechnics, etc.

Enter the boat drill in the log book

6. Boat Muster

7. Collision

Imminent Collision / Collision

- Emergency alarm (internal) to be sounded
- Give sound and/or light signals as prescribed in the Collision Regulations
- Manoeuvre ship so as to minimize effects of collision
- Close watertight doors
- Switch on deck lighting
- Keep VHF on Channel 16

If collision occurred:

- consider and analyze situation (if possible, take pictures)
- establish contact with other vessel and exchange all relevant information
- hold other vessel responsible for the collision
- if possible, offer assistance to the other vessel
- collect all facts about occurrence

- make sure the log book has been properly kept
- do not erase any information on the working chart (times, positions, courses steered, logs, etc.)
 - ensure that the movement book is properly kept in ink
 - collect the course recorder printout and the printouts from telegraph recorders and the engine room
 - take particular note of the exact time of the collision, the heading of the vessel at the time of the collision, the angle of blow by or to the other vessel, the speed of each vessel at the time of the collision, any alteration of speed and course prior to the collision

- Update if necessary vessel's position in radio room, satellite terminal and other automatic distress transmitters (GMDSS)
 - Evaluate risks of pollution
 - Sound bilges and tanks
 - Check stability
 - Inform Company
 - Notify other vessels in the vicinity if required
 - In case of fire, refer to fire check list
 - Evaluate possibility of abandoning the vessel
 - Injury and damages to be taken care of

Note :

See also "The master's Role in Collecting Evidence" which gives an extensive checklist in case of a collision.

8. Damaged Stability

Loss of stability can occur for a number of reasons :

- Too much weight in the upper part of the vessel due to:
 - bad distribution of cargo in the holds (e.g. during loading)
 - fuel and/or water consumption in double bottom
 - heavy seas on deck due to adverse weather conditions
 - in winter, forming of ice on deck
- Slack tanks due to fuel and/or water consumption
- Wrong internal transfer of fuel or water in the double bottom tanks
- On tankers, tanks that are not sufficiently filled
- Shifting of the cargo on ships carrying bulk cargoes (e.g.; heavy swell)
- Seawater infiltration due to hull leakage
- Pipeline leakage in the holds
- Shifting of general cargo due to very bad weather
- Very bad weather with vessel laying across the waves
- Extreme condensation of cargo

What to do

- Inform Master
- Reduce speed
- Exhibit "Not under command" shapes or lights
- Use minimum rudder angle
- Manoeuvre ship according to the weather and external situation
- Update vessel's position in radio room, satellite terminal and other automatic distress transmitters (GMDSS)
- Check reason of the loss of stability
- Sound bilges and tanks
- Consider distress call
- Consider abandon ship
- Inform Company and, if necessary, any third party
- Once condition is improved, inform all parties contacted
- Duly enter all decisions actions taken in log book.

9. Death

- Inform Company / Local authorities / agent
- Check if death was not caused by an epidemic sickness
- Death body to be stored in a cool place (not below 0,5° C)
- If in port, a certificate of death has to be issued by a doctor
- Enter all information in log book
- Inventory of personal effects with witness
- Fill in documents

NOTE

Usually it is better to send a specialized and experienced person to the family of the deceased to inform them of the lost of their dear one.

10. Distress

A vessel is said to be in distress when she is in a state of danger or necessity hindering her to continue her voyage , as due to fire, collision, stranding, heavy weather damage, machinery failure, provision shortage, etc.

The first action a vessel in distress and in need of assistance must take, is to exhibit either together or separately, the distress signals prescribed in Annex IV of the International Regulations for Preventing Collisions at Sea (Colregs):

Distress Signals

1, The following signals, used or exhibited either together or separately, Indicate distress and need of assistance:

- a gun or other explosive signal fired at intervals of about a minute;
- a continuous sounding with any fog signalling apparatus;
- rockets or shells, throwing red stars fired one at a time at short intervals; a signal made by radiotelegraphy or by any other signalling method consisting of the group · · · — — — · · · (SOS) in the Morse Code;
- a signal sent by radiotelephony consisting of the spoken word "Mayday"
- the International Code of distress Indicated by N.C.;
- a signal consisting of a square flag having above or below it a ball or anything resembling a ball;
- flames on the vessel (as from a burning tar barrel, oil barrel, etc.);
- a rocket parachute flare or a hand flare showing a red light;
- a smoke signal giving off orange-coloured smoke;
- slowly and repeatedly raising and lowering arms outstretched to each side;
- the radiotelegraph alarm signal;
- the radiotelephone alarm signal;
- signals transmitted by emergency position - indicating radio beacons.

2. The use or exhibition of any of the foregoing signals except for the purpose of indicating distress and need of assistance and the use of other signals that may be confused with any of the above signals is prohibited.

3. Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual and the following signals:

11.Engine Breakdown

- Inform Master
- Use rudder and Bow thruster
- Exhibit "Not under Command" shapes or lights
- Prepare anchoring if in shallow water
- Broadcast vessel in the vicinity (When OK, don't forget to cancel the message)
- Enter all decisions and actions taken in log book

NOTE
Breakdown (black-out)
If necessary, use emergency radio
Reset all navigation equipment

NOTE
Steering failure
Inform Master / Engine room
Engage emergency steering
ref. : Main engine failure procedure (Shipboard Manual)

12.Epidemics

- Isolate the patient
- External contact
 - the Company
 - ROMA Radio Medical
 - AMVER
 - Radio Medical (check for radio station in Admiralty List of Radio Signals)
 - any third party

With all relevant information (age, sex, breath, temperature, treatment, vessel name, position, weather, possible rescue).

- Check with vaccination certificate
- Consider evacuation of the patient
- Record in logbook

13.Extreme Weather

Extreme weather is often the cause of distress situations. Many disasters could have been avoided by reducing the speed and by heaving-to in time.

- Inform Master and crew
- Reduce speed
- Close watertight doors
- Secure all loose items on deck, in the accommodation and in the engine room
- Manoeuvre vessel in view to prevent damages and ensure seaworthiness (vessel and cargo)
- Observe weather conditions and log any changes
- Inform Company and if necessary any third party
- Contact radio station for further details on weather evaluation
- Inspect regularly
 - doors
 - cargo lashing
 - equipment
 - cranes
 - lifeboats and life rafts
 - etc.
- Good care has to be taken not to be alone, to be secured and to be on continuous radio (e.g. walkie-talkie) contact once outside the accommodation
- Consider stability of the vessel (e.g. : fill up slack ballast tanks)
- Record in logbook of all measures taken and inform regularly the Company about the situation

14.Fire at Sea

- Sound alarm (advise Master and officer on watch)
- Muster alarm list to be followed, and operation order to be established
- Close doors and stop ventilation
- Localize fire and notify personnel concerned with the scat of fire
- Identify cargo, dangerous cargo and substances in the vicinity

- Analyse method or extinguishing
- Analyse development of the fire and limit it by cooling
- If necessary consider evacuation of the vessel and prepare all documents to be saved
- Message to be sent to Company and if required, to other third parties
- Once extinguished, cancellation message to be sent to all parties concerned
- Enter all measures and actions taken in logbook

COMMENT

The best protection against a fire-casualty is the prevention and a vessel should dispose of a well trained and disciplined crew, disposing of adequate good working fire fighting equipment.

It is therefore recommended that during the weekly boat and fire drills, attention should be paid in properly explaining the working of the equipment and the proper use demonstrated.

Also from time to time a simulated fire-drill should be organised such as:

- an engine-room fire fighting
- a cargo hold fire fighting
- an accommodation fire fighting
- a galley fire fighting etc.

When a fire originates in the engine room, a boiler room or a hold, the first step will be to turn off all fans, to close all ventilator flaps, skylights, openings, entrances etc. and to keep the burning compartment(s) sealed in order to make it as airtight as possible.

A very efficient fire fighting agent is CO₂ but careful attention must be paid to risk of suffocation and should not be used as long as human life is present in the area where the fire is developing.

Usually fires in a general cargo hold are more difficult to extinguish with CO₂ than fires in an engine room and it may not be possible to completely extinguish a deep seated fire at sea by the only use of CO₂ (or halons). However, by working on one or two the elements of the fire triangle i.e. by seating of the hold and using CO₂, which reduces the amount of oxygen, and by cooling off, it may be possible to keep a burning cargo hold under control until the vessel reaches a port.

Please note that CO₂ should be released gradually and that the instructions for the CO₂ total flooding should be followed, taking into consideration the volume of the burning compartment. Calculate the approximate free air volume in the compartment and compensate for the air volume contained in the cargo depending on its composition.

About 50 lbs of CO₂ are required for each 1000 cub feet of air in a compartment (equal to 0.7 kgs of CO₂ for 1 m³ of air) in order to obtain the extinguishing 40 % gas air mixture. As the gas is heavier than the air, the gas tends to sink down to the lowest parts of the compartment.

It has however to be borne in mind, that a fire in nitrates, chlorates and other substances rich in oxygen cannot be extinguished with CO₂ but only by water. When water is used extensively the vessel's stability must be closely watched.

It is important to localise as soon as possible the seat of the fire., e.g. by means of measuring the temperature at decks, bulkheads and in air and sounding pipes; if the seat of

the fire is close to a bulkhead, steps must be taken to prevent the fire from spreading to the other side.

It should also be reminded that water must not be used for fighting fires involving vessel's electrical and / or electronic equipment.

It usually takes quite some time to totally extinguish a fire by means of CO2 (up to 8-10 days). During such period hatches etc. must be kept closed and not opened for inspection until the temperature at the seat of the fire is again normal. Any premature opening for inspection could rekindle the fire.

Fires in accommodations and storerooms present an additional hazard on account of the use of modern materials such as polyvinyl chloride, polyurethane, polystyrene, polypropylene, acrylene, nylon, etc.

Real dangers are:

- its capability to blaze up a fire
- the generating of dense toxic and / or poisonous gases.

Blaze up Capabilities

In spite of the fact that all materials have been threaten with a fire retarding component, the material remains flammable.

The calorific contents of the various materials are mostly as follows:

Polyurethane	4.158 cal / kg
Polyvinyl chloride	2.311 cal / kg
Nylon	2.520 cal / kg
Polyester	2.520 cal / kg
Wood	2.106 cal / kg
Coal	3.258 cal / kg
Rubber	4.284 cal / kg

Following elements will be of importance in case of a fire:

- the thermic capacity: (chemical composition and method of application)
- the form of the material : (whether foam or solid)
- the nature of the material:(thermoselting or thermoplastic).

Of course the fire triangle must be complete for generating a fire, i.e.:

- oxygen
- flammable material
- energy (e.g. heat, flame, etc.)

Generating of toxic / poisonous gases

Each material when on fire will generate fumes and gases. Plastic material however, at the time of thermic decomposition, will at the same time generate extensive fumes. These fumes and gases are dense and also toxic / poisonous to a greater extent than normal material.

Hereafter you will find the toxic products that may be obtained from combustible materials:

Toxic gas or vapour	Source Materials

Carbon Dioxide Carbon Monoxide	All combustible materials containing carbon celluloid
Nitrogen Oxides	Polyurethanes
Hydrogen Cyanide	Wool, silk, plastics containing Nitrogen
Formic Acid Acetic Acid	Cellulosic materials, plastics, rayon
Acrolein	Wood, paper
Sulphur Dioxide	Rubber, thiokols
Halogen Acids Phosgene	Polyvinyl chloride, fire retardant plastics, fluorinated plastics
Ammonia	Melamine, nylon, urea, formaldehyde resins
Aldehydes	Phenol formaldehyde, wood, nylon polyester resins
Phenol	Phenol formaldehydes
Benzene	Polystyrene
Isocyanates	Foamed plastics
Antiryan compounds	Some fire retardant plastics
Iso-cyanates	Polyurethane foams

Plastic materials which have been treated with fire retarding components will generate more fumes than those which have not been treated.

Great care must be taken when polyurethane foams have been used as this generates the very poisonous / toxic isocyanate gas.

Also Acrylic Fibre (such as used in some mooring ropes) generates very poisonous gases such as Prussic Acid.

1 milligram Acrylic Fibre when on fire generates 0.297 milligram CO and 0.260 milligram Prussic Acid. The use of CO₂ will therefore be of no use as a fire fighting agent.

Hereafter you will find the quantities of Carbon Monoxide and Hydrogen Cyanide generated for 1 milligram of each original material on fire.

Material	Toxic gases produced	
	<i>Carbon Monoxide</i>	<i>Hydrogen Cyanide</i>
Polyurethane foam	0.505 – 0.590	0.031 – 0.041
Acrylic fibres	0.297	0.260
Nylon	0.436	

Wool	0.232	0.116
Cellulose (cotton)	0.500	0.124

All the above demonstrates that the best protection against such fumes is **PREVENTION** and the observation of all safety instructions.

It is obvious that all safety equipment should be kept in a perfect working condition.

Fire Fighting

The fire fighting agent together with the tactics to be used will certainly depend on the concentration and the types of the materials present, the free surfaces of such materials and the air circulation.

Several areas in the vessel will contain more plastic materials than others (radio-rooms, engine -control rooms, accommodation, etc.)

A fire can be successfully coped with, at the initial stage, using the classic means and methods. An important fire will have to be dealt with by inert methods. Protein and synthetic foams will be used. When using water it is recommended to use the spray method (use spray gun).

Protection

The fumes of plastics have a characteristic smell such as Acid and / or Formic Acid. They are irritating the skin, by inhalation or to the eyes.

Therefore an individual oxygen mask should be used during fire-fighting.

It is of importance to know if the generated gases are heavier or lighter than air. You will find this information at the end of this chapter where the vapour density is given.

The use of such breathing apparatus must be trained at the occasion of the weekly fire and boat drills. There should be sufficient spare oxygen bottles on board.

By smaller concentrations, lighter masks could be used, i.e.
the use of air masks and / or air caps
filter masks with absorbent partridges

The last ones can be safely used for evacuation of an invaded area. It will however be required to use the appropriate filter. Therefore the ships command must be informed about the nature of possible gases in case of a fire.

There are normally about 6 types of filters.

The German normalisation (Drager etc. types) are as follows:

Filter A:	brown:	Organic vapour and solvents
Filter B:	grey:	Acid gases such as halogenated hydrocarbons and nitrous gases
Filter C 0:	black centering:	Carbon Monoxide
Filter E:	yellow:	Sulphuric Acid gases

Filter K:	green:	Amonia (small concentration) and hydrogen sulphid
Filter J:	blue/brown:	Hydrocyanic gas

When "S.t" is added it means that a dust filter is applied to the cartridge.

The table also indicates the IMO and UNO number of the Dangerous Goods Code where all required information can be found.

In an emergency a wetted handkerchief or towel could be used for escape purposes. At the initial stage of the fire, one can mostly make use of a remaining oxygen layer on the bottom, so crawling could save your life. However, if the density of the gases is heavier than air, this safety area could be quickly invaded by toxic gases.

All possible techniques in life preserving and fire-fighting drills will be a great help in case of a real emergency.

VAPOUR DENSITY TABLE					
	Vapeur dense (air = 1)	Type Filter	IMO	UNO	Characteristics
Carbon dioxide	1.52	CO2	2B 2024	1013	Suffocating in concentr. 12 – 20%
Carbon monoxide	0.97	CO	2B 2027	1016	toxic flammable
Nitrogen oxide	1.50	B	2B 2099	1067	oxidizing
Formix acide	1.59	E	8 8092	1770	toxic acid
Acetic acide	2.07	A	3/3 3116		acid flammable
Hydrogen cyanide	0.90	B	2B 2075	1051	toxic flammable
Acrolein	1.94	A	3/1 3021	1092	flammable
Sulphur dioxide	2.26	E	2B 2113	1079	toxic flammable
Phosgene	3.42	B	2B 2016	1076	toxic acid

Ammiona	0.60	K	2B 2017	2073	toxic flammable
Aldenydes	1.52	A	3/2 3084 3142	1988	flammable
Phenol	3.24	A	6/1 6148/1	1671	toxic flammable
Benzine	0.70	A	3/2 3098	1115	flammable
Iso-cyantates	6.00	B.St. A	6/1 6053/1	2206	toxic flammable

15.Fire Drill

Fire drills should be held:

- In port, just before the departure of the ship (especially if new crewmembers have embarked).
- At sea, at least once a week.

During the fire drills, attention should be paid:

- in showing the location of all fire equipment on board
- in properly explaining the working of the fire equipment
- in demonstrating the proper use of the fire equipment.

From time to time, a simulated fire-fighting drill should be organised in :->

- a cargo hold
- an accommodation
- the engine room
- the galley
- several store rooms
- etc.

Enter all drills and exercises in deck logbook

16 .Fire in Port

In port, most of the actions taken at sea also apply.

- Sound alarm (advise Master and officer on watch)
- Stop cargo operations
- Muster alarm list to be followed and operation centre to be established
- Notify terminal, and if relevant, request external extinguishing help
- close doors and stop ventilation
- Localize fire and notify personnel concerned with the seat of fire
- Identify cargo, dangerous cargo and substances in the vicinity
- Analyse method of extinguishing
- If necessary consider evacuation of vessel and prepare all documents to be saved

- Message to be sent to the Company and if required to any other third parties (e.g. the P & I Club, Hull underwriters, receiver of cargo, etc. If the Company hasn't done so yet)
- Once extinguished, message to all parties contacted
- Enter all measures and actions taken in logbook

NOTE
See also the comment on Fire at sea.

17.Hull Damage

Hull damage can occur at sea due to a number of reasons :

- collision with an object that is adrift and which could not be observed (especially at night)
- touch and go
- very adverse weather conditions
- abnormal stress on the vessel (e.g. cargo badly divided, fuel and/or water in double bottom tanks badly divided, etc.)
- bad maintenance of the hull and other structures of the ship
- etc.

In case of hull damage, at least following actions should be taken:

- Sound general alarm
- Exhibit "Not under command" shapes or lights
- Reduce speed
- Close watertight doors
- Update Vessel's position in radio room, satellite terminal and other automatic distress transmitters (GMDSS)
- Sound bilge, tanks and check leakage
- Consider change of trim
- Check result on stability
- Consider necessity of assistance
- Inform vessels in the vicinity
- Consider emergency call / message
- Consider beaching / port of refuge / abandon ship
- Prepare lifeboats
- Inform Company and if relevant, any third party (such as P & I Club, Hull underwriters, agents, etc. (if the Company hasn't done so yet)
- If relevant, contact AMVER
- Once condition is improved, inform all parties contacted
- Enter all relevant information and actions taken in logbook.

18.Injury/Illness

- Inform Master
- Start first aid
- Consider treatment (ref. : medical booklet & Safety Manual)
- External contact
 - the Company
 - ROMA Radio Medical
 - AMVER
 - Radio Medical (check for radio station in Admiralty List of Radio Signals)

- any third party (eventually the P&I Club but preferably via the Company)
- with all relevant information (age, sex, breath, temperature, treatment, vessel name, position, weather, possible rescue)
- If relevant, take pictures of the place of accident
- Record in logbook

19.Man Overboard

Name of ship, Position, Course steered, Time, Man overboard, Please keep sharp look-out.

- Inform bridge immediately with side of the ship (starboard or port or after)
- Sound general alarm / inform Master
- Release lifebuoy with light, flare or smoke signal
- If possible, keep person in sight / post several look-outs
- If person is not visible, apply the Boutakoff method
- Inform engine and start manoeuvring
- Position of life buoy and vessel noted with time of start search
- Alert other vessels
- Send following radio message:
- Sound signals (three long blasts) exhibit flag O
- Prepare rescue boat
- If relevant, inform AMVER
- Prepare treatment
- Inform Company
- When rescued, inform all parties
- Enter all relevant information and actions taken in log book

20.Reporting and Alerting

Emergency Notification

In case of an emergency, external notification should be made as soon as possible in order to inform anybody who may be able to assist the ship. The extent of notification depends on the situation, the criticality and the time available, as evaluated by the ship's management.

Beside the Company, the following organizations may also have to be notified either directly or from the Company office :

- Ship owner (especially if the ship is in management)
- Local vessel agent
- Port authorities
- Local rescue centre
- USCG
- Local authorities
- P&I Club local agent
- Classification society
- Hull underwriter
- etc.

IMPORTANT NOTE

Always inform your company of the local organizations you contacted, so that the Company may inform the organization's head office. In practice it has been experienced that the head office was not informed (or informed too late) of a casualty by their local agent.

If a casualty occurs after the company's office hours check for who to be contacted in their private home and if arrangements have been made with a radio station in or near the company's head office.

Radio stations may be contacted via different ways:

- directly
- via other coastal stations (check Admiralty List of Radio Signals)
- by Satcom
- by phone, fax, telex if available, e-mail if available.
-

Most radio stations can connect the vessel with the shore staff of the company.

The vessel has to indicate the correspondent request and will pass immediately following information:

- name ship
- local time o/b
- name captain (or representative)
- position
- next port of call
- eta
- vessel's way of calling
- possibilities to re-contact the vessel
- message

REPORTING REQUIREMENTS

On Board Rescue Actions

For any accident, one will have to rely on the board resources in the initial phase of bringing the condition back to normal. Provided an efficient on board emergency preparedness, these resources may prove sufficient, e.g. for minor fires, personnel injuries, rescue actions in tanks or holds, etc.

Initial Check list

- Emergency alarm sounded?
- All concerned notified of site of accident ?
- Ventilation, fire doors, watertight doors closed ?
- Deck lighting switched on ?
- Vessel position available in radio room ?
- Satellite terminal and other distress transmitters (GMDSS) updated ?
- References
- IMDGC-Manual
- Shipboard Management Manual
- Emergency Contingency Plan
- Fire Control Plan
- Safety Manual
- ICS Bridge Procedures Guide
- Safety Poster regarding enclosed holds
- Any other relevant and useful literature

Even when the situation may appear controllable, alerting and communication with external resources should be initiated.

Reporting

Reporting to the company should be performed at earliest convenience, to the extent as described previously.

Distress alerting / search and rescue

When the ship is in distress, when difficulties are not mastered without assistance, and when conditions occur which may constitute a danger to others, distress alerting should be given.

Initial check list

- DF bearing of distress message taken ?
- Distress message re-transmitted ?
- Continuous listening watch on all distress frequencies maintained ?
- Merchant Ship SAR Manuals (MERSAR) consulted ?
- Communication established between surface units and SAR aircraft on 2182 kHz and / or Channel 16 ? (Check also for local distress frequencies and/or channels)
- Position, courses and speeds of other assisting units plotted ?
- Radar made available for locating survival craft transponder signal ?

References

- Merchant Ship SAR Manual
- Shipboard Management Manual
- ICS Bridge Procedures Guide
- Safety manual
- Muster alarm list
- Emergency Contingency Plan, Chapter 7.

Reporting

In a distress situation, the Company will be notified by, and stay in communication with the Rescue Centre.

Valuable if not necessary information to be given to the Company include weather conditions, extent and means of evacuation, missing or injured personnel, ship's course, speed etc., other vessels involved, organisations notified, as well as any assistance required by the company.

We insist on the fact that all measures and/or actions taken MUST be recorded in the log book

21Rescue Action in Tanks/Holds

- Notify officer on duty / Master
- Sound general alarm
- Prepare for rescue operation
- Rescue team to be advised
- Prepare for treatment
- Record in logbook

NOTE

22.Stranding

Stranding can occur for a number of reasons:

- Bad navigation
- Faulty navigation instruments
- Bad weather
- Engine breakdown
- etc.
-

In case of stranding, take at least following actions:

- Stop engines immediately (it happens that a ship runs aground with very little speed on a very soft bottom with very little slope) and that nobody on the bridge or in the engine room has felt it)
- Sound general alarm
- Watertight doors to be closed
- VHF watch maintained on channel 16
- Broadcast to other vessels
- Sound signals, Light / Shapes to be exhibited especially important in case of fog)
- Deck lighting switched on
- Check position on chart
- Take note of any valuable information (time, course steered, speed, log, eventual manoeuvres, etc.)
- Sound bilges, tanks
- Immediately take overboard soundings around vessel to check on what type of sandbank the ship is lying.
- If the ship is on top of a flat sandbank the danger of breaking in two is minimal. If the ship lies on a mountainous sandbank the risk of breaking is real and the stress on the ship enormous. In that case urgent action must be taken:
 - try to free the ship by giving full astern (or full ahead) with successively the rudder to hard starboard and hard port (a lot depends on the type and size of ship)
 - call the assistance of tug boats
 - consider jettison of cargo (to throw cargo overboard). Be careful of risk of pollution
- Evaluate risks of pollution
- Inform Company and any third parties if relevant (P & I Club, Hull underwriters, Port authorities, etc)
- Update if necessary vessel's position in radio room, satellite terminal and other automatic distress transmitter (GMDSS)
- Consider danger of the situation and if possible take pictures
- Consider further actions with consideration for:
 - salvage
 - risks of sinking (emergency message, EPIRB's, abandon ship)
 - secure position (change of tide, weather, stream, stress risks, stability)
 - assistance, port of refuge, oil spills
 - Keep the Company always informed

- Enter every action taken in the log book

Overboard soundings

When a ship has ran aground, it is of good practice to take the overboard soundings in a well defined pattern and to send these soundings together with other relevant information to the Company and other rescuing parties. This will allow them to assess the situation properly with regard to the ship's stability, stress on the hull and allow them to take the right measures to refloat the vessel or take any other rescuing action if the master hasn't done so yet.