



DOMESTIC SAFETY MANAGEMENT POLICY

CRUSADER COMMUNITY BOATING

GRAND UNION CANAL (no locks)

INTRODUCTION

The Domestic Safety Management Policy (DMS) was developed as part of the formal requirement when Mountbatten was operating under a Passenger Certificate issued by the MCA (Maritime & Coastguard Agency).

Although Mountbatten is no-longer subject to MCA regulations, the Trustees decided to maintain the DSM which contains much valuable information and good practice principles.

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EMERGENCY ACTION GUIDELINES

EMERGENCY	Initial Action	Dealing with Incident	Evacuation
FIRE	1. Shut off any music 2. Inform Emergency Services 3. Steer vessel to safety 4. Co-ordinate action by crew & passengers with regard to firefighting & evacuation 5. Switch on all lights 6. Take logbook (passenger numbers)	1. Identify source of fire 2. Assess extent 3. Shut of air supply 4. Shut of source of ignition 5. Fight fire if safe to do so	1. in an orderly manner 2. Evacuate to shore well away from boat 3. Retain logbook 4. Check for injuries
COLLISION or GROUNDING	1. Shut off any music 2. Take vessel safety to towpath if possible 3. Co-ordinate action by crew & passengers consider evacuation 4. Switch on all lights 5. Deliver emergency announcement if required. 6. Initiate search & Rescue Plan if required	1. Identify if spaces below deck are flooding 2. Assess severity 3. Start backup bilge pumps	1. Control passengers using carers to assist 2. Evacuate able bodied passengers first 3. Evacuate in an orderly manner 4. Evacuate to shore well away from boat 5. Retain log book. (passenger numbers) 6. Check for injuries. 7. Call emergency services if required

BODY OVERBOARD	1. If possible turn vessel towards person in the water 2. Propeller must be kept away from the person in the water 3. Consider use of thrusters (be aware thrusters will draw person into or push them away from the end of the tube.	1. Deploy life ring with line 2. Deploy rescue ladder from external tube at rear 3. Keep watch of person overboard 4. Prepare rescue sling 5. Recover person at SIDE / STERN of the boat if possible	1. Remove wet clothing 2. Treat for shock. 3. Pack of dry clothing available. 4. Consider calling for ambulance.
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UNDERSTANDING EMERGENCY PROCEDURES

Always be alert to the causes of an evacuation.

Train to deal with these causes.

Anticipate what will be required regarding a particular group on any given day, e.g. are they partially sighted / hard of hearing / wheelchair users.

The most common reasons for evacuation are:

- Fire.
- Aground.
- Collision.
- Engine / steering failure.
- Passenger illness.

Evacuation can be essential or precautionary. If in doubt — **EVACUATE.**

Consider use of PA system and/or fire alarm to alert the passengers as appropriate

ALWAYS EVACUATE IF THERE IS A FIRE

Ensure all your actions comply with the training given on your Fire Marshal Course.

Persons to notify:

- The crew.
- Emergency services. (999 / 112 / (What3Words details in Search & Rescue folder)
- Passengers.
- Designated person ashore.

ACTION

Assess the danger:

- Fire – Can it easily be extinguished?
- Collision – Can the boat still be motored to safety?
- Aground – Can the vessel be re-floated?
- Leak – Is the leak repairable?

Inform:

- Calmly sound the alarm to inform the crew & passengers.
- Contact the emergency services.

Deploy:

- Crew to deal with the emergency and passengers.
- Use carers to assist with passengers.

Exit:

- Use the safest emergency exit (take the log book if possible)

Recount:

- Passengers & crew must be re-counted to re-establish if anyone is missing if so; initiate a search if safe to do so.

Taking the vessel to safety:

- Steer the vessel to the bank or mooring.
- Tie the boat up securely, use mooring pins if necessary.
- Keep engine running if safe to do so.
- Investigate the cause.

Evacuation into the water:

- Calm passengers and give clear instructions of what is intended. Deploy life belts. ***Be aware on all sections of canal covered as part of our regular route, the water is less than 1 metre deep.***
- Always use the safest and most obvious exit.
- Ask passengers to remove heavy clothing (overcoats etc. :) which may become waterlogged and hinder the rescue.
- Enter the water without jumping or diving.

- If passengers are able – get them to enter the water carrying a life belt (each belt will support two persons)
- Encourage persons in the water to walk to the bank.
- Keep clear of the propeller if engine is still running.

Running aground:

On narrow sections of the canal there is a chance of grounding the vessel. Prevention is better than cure so get to know your sections of water particularly the location of shallows & silting.

If the boat has grounded bow first put the engine into neutral to assess the situation. The important thing is to ensure there is no serious damage to the boat. It is no use reversing back into deep water if a seam has split and water is pouring inside! **CHECK THE BILGES!!!**

If everything is intact reverse off the obstruction, if other boats are around let them pass as their wash may lift the boat off the obstruction. Gradually increase the power until the bow slides off.

It may help if you move the crew and / or passengers to the deep water side of the boat. Do not rock it.

Collision:

- In the event of a collision; are the passengers and crew alright?
- Is first or emergency aid required?
- Is the boat serviceable and can the trip continue?
- Check the bilges in case of a water leak (this is why bilges should be kept clean & dry)

Engine failure or loss of power:

If the engine is regularly maintained and regularly checked failure is a rare occurrence. More likely the problem will be the power train.

If the engine stops whilst the boat is in mid channel, use any forward momentum to steer the boat towards the bank. Use poles if necessary. Is it possible to use Hybrid drive?

- Has the propeller fouled?
- Is the linkage from the engine to the propeller functioning?
- Is the engine working?
- Were there any unusual noises or smells prior to the event?

Propeller fouling:

- The engine may labour or stall; there may be a noticeable drop in revs.
- Engage neutral.

- Gently reverse.
- Try this several times.

If this fails check the weed hatch. **(The person checking the weed hatch MUST take the ignition key out of the ignition and carry it with them at all times) (If using Hybrid Drive switch of at control box)**

- Ensure the hatch is fitted correctly and secure before moving off.
- Do not put any removed rubbish back in the water.

Rudder failure:

This can be caused by collision or grounding when the rudder jumps out of the stock and jams in one position. It may be possible to re-locate the rudder in its stock by moving from lock to lock, if not contact boat manager who will arrange for an engineer to visit.

Serious Water Leak:

All boats take on water into the bilges through drainage/condensation/worn stern glands. An incorrectly fitted weed hatch can result in sufficient water ingress to sink a boat.

Part of the daily check list is to ensure the bilges are clean and dry and the bilge pumps are tested. This regime of cleanliness will make it possible to check if the boat has a leak or not.

Collision damage or a neglected stern gland or badly fitted weed hatch can result in a serious leak and will require immediate action.

Signs of a leak:

- The trim of the vessel alters.
- The automatic bilge pumps and alarms on rear deck activate.
- There is excessive water in the bilges.
- Passengers report something unusual.
- Alteration in the way the boat handles e.g. pulls to one side.
- The engine note changes under the heavier load. (This will not occur if using Hybrid drive)
- History of previous collision.
- Sound of slopping or running water inside the boat.

Once a serious leak is discovered, the boat **MUST** be steered to safety, even run aground and passengers evacuated.

Action:

- Steer for the bank.
- Tie the boat up securely.
- If possible keep the engine running.
- Establish the cause of the leak.

- Repair the leak if possible.

Leak on the waterline:

By moving the passengers to the opposite side of the leak the point of leakage may be raised out of the water. The vessel must be moved slowly to prevent wash over the waterline. The boat must still be taken to safety and passengers evacuated.

- Keep the passengers informed in every emergency. Put them at ease; they need to know why the boat has stopped suddenly.
- It is important that they know everything is under control as they will respond to the crew more readily if trust has been established.

Person Overboard:

If someone falls overboard it may be the source of some amusement but you must be aware of the dangers – any delay in rescue could be the difference between life and death.

- The victim may be a non-swimmer. They may be sucked into the propeller. They may be unconscious, ill or injured.
- The water will be cold even in summer. Cold water shock or hypothermia can soon set in.
- Immediate calm and co-ordinated action is essential.
- Keep the person in sight at all times and point them out to the helm.
- Throw a life belt with line attached to them taking care not to hit them with it.
- Keep the propeller away from them.
- Engage neutral to stop the propeller turning but leave the engine/Hybrid running.
- Drift at the same speed as the person trying to keep leeward to give the flow and wind a chance to wash them closer to the boat.
- Do not put the boat between the casualty and the wind.
- Pull the casualty on board from the side of the boat using the rescue ladder.
- A secondary rope ladder is accessible from outside the rear deck on the right hand side.
- Be wary of using thrusters as there will be considerable force and/or suction at the tube.
- Consider using a rope to attempt rescue.
- **Be aware on most sections of canal covered as part of our regular route, the water is less than 1 metre deep.**
- A pack of dry clothing is stored in the locker above rear steps.

Shock is a killer:

- The person in the water may not understand the instruction on how to grab a line or lifebelt – get them out quickly.
- Clothing rapidly gets waterlogged – this makes the victim tired and will hinder rescue efforts.
- A pole, rope loop, mop, boat hook, jacket or blanket may be sufficient to pull them to safety.
- On canals it is most likely the casualty will be able to stand but deep silt may prevent them from walking to the bank.
- Under no circumstances should a rescuer enter the water.
- Seek medical attention in all cases, particularly for shock, hypothermia, any injury - consider Weil's disease.

Pre-Trip Preparation

Preparing the boat:

- Never work on the engine, weed hatch, prop shaft, without having the ignition key in your pocket.
- Do not remove any guards or cowling whilst the engine is running.
- Never use flammable liquids as cleaning agents.
- Do not smoke near fuels or batteries.
- Dispose of dirty cleaning rags, grease cartridges, empty oil cans etc. safely and appropriately.
- Loose objects in the engine room could vibrate towards moving parts and cause damage.
- Before every trip you must follow and complete the on board checklist. Any faults or concerns must be recorded at the time you find them.

Before setting off:

- Unplug any electrical connection to the bank.
- Start the engine out of gear.
- Leave it to warm up for a few moments.
- Listen for any unusual noise or vibration.
- If you suspect there is a problem, stop the engine and investigate. Use professional help if you cannot fix the problem yourself.
- Ensure all controls, gauges and cables are operating correctly. When underway keep an eye on instruments.
- If using Hybrid System this is ready to go immediately

The Safety Talk:

- The talk must be given prior to leaving on every trip.
- The talk can be given by any crew member.
- Remember passengers will not listen to someone rambling on for several minutes, keep it clear and concise and to the point.
- Use humour to get your point across but ensure you emphasise the important elements.
- The announcement should contain a description of the emergency signal or instruction to be used.
- It must give a description of the lifesaving aids and their usage.
- State the location of all exit points and any assembly point.

The embarkation & disembarkation of a boat is covered by the Merchant Shipping Means of Access Regulations 1988.

It is essential that ALL access points on the boat, even for crew only, are properly supervised. The boat must be secured to the bank, quay, pontoon or any other non-movable structure. The access steps or lift must be in position after the boat has been secured and remain whilst the boat is tied up. The access equipment must be secured and deployed and be safe to use. The equipment may need to be adjusted from time to time so safe access is maintained. The equipment must be fit for purpose and properly maintained. No other points of access should be used except in emergencies.

Boarding passengers with reduced mobility:-
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| <ul style="list-style-type: none">➤ Passengers should access the boat via the side access points only. (Consideration can be given to trips with fully mobile passengers who may be able to access from the rear crew deck.)➤ Crew positions for loading should be one person on shore, one person for receiving the passenger and one trained person operating the lift controls.➤ When disembarking, one crew at exit point on the boat and one on shore to receive the passengers.➤ Wheelchair users should be assisted by a carer if it is required, but under full supervision from the receiving crew.➤ Do not grab or hold any passengers unless asked by the passenger to do so.➤ If required offer the passengers assistance if they appear to be nervous or unsteady.➤ Maximum one wheelchair user + one carer on lift platform only. |
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Points to consider:

- Wash from passing boats can make access hazardous.
- Changes in water levels can cause problems with ropes which may need adjusting as necessary.
- Remember ALL access must be supervised.

Lifts:

- The person on shore at the point of access is responsible for allowing passengers access with liaison with the lift operator.
- The lift operator is responsible for ensuring safe access of passengers to or from the lift platform only qualified crew should operate the lift.
- Ensure corresponding roof hatch is fully open or lift will not operate.
- Roof hatches **MUST** be closed when underway.
- Ensure all brakes on wheelchairs are activated before operating a lift.
- Ensure all passengers and crew are well away from the lifting platform before operating.

- Be aware of safe weight limit of the lift. (400kg)
- Only one wheelchair and one helper should be on a lift at any time.
- Only two passengers on the lift at any time.
- Only one electric wheelchair on the lift at any time.
- No crew members wearing 'open toe' footwear are authorised to operate the lifts.

Passenger Counting:

- This must be done before leaving on all trips and a record made in the daily log book. The passenger count and crew number should be forwarded to someone on shore along with the time of departure.
- If passengers disembark at lunchtime, a head count must be made before departing.
- The maximum number of passengers is recorded on the passenger certificate. A copy of this is displayed on the noticeboard.
- The same person on shore should be informed of the time of return when the boat is returned to its regular mooring and all crew have disembarked.
- All crew should know how many passengers are on board.

Crew responsibilities during the trip:

Our minimum requirement is three however for operational ease up to two more may be used; Boatmaster, qualified steerer and Lookout are required for all trips.

The Boatmaster is responsible for operating the boat in accordance with the Domestic Safety Management Certificate. The Boatmaster will allocate the crew to the duty positions and rotate them through these positions to ensure that tiredness or boredom does not affect the operation of the boat.

When not involved with their primary duties, Boatmasters may take any duty position but must be prepared to take charge immediately in case of any emergency.

Trainee crew members may be allocated to any duty position but must be under the direct supervision of an experienced crew member, until a Boatmaster assesses them as competent for that duty.

The duty positions are: steerer, lookout/cabin, stern.

- **Steerer** - Steers the boat under the general directions of the Boatmaster and takes charge in any emergency until relieved by the Boatmaster. Only authorised crew are allowed to take the helm when passengers are on board.
- **Lookout/Cabin** - Acts as forward lookout; communication with the steerer is via hand held radios Liaise with and monitors passengers inside the cabin area.
- **Stern** – Assists with steering duties if qualified and looks after stern / side rope when mooring.

Boat Equipment

Boat Shaft:

- This must only be used for pushing away from a stationary solid object.
- Never use a shaft as a lever.
- Do not put the tip of the shaft in the pit of your stomach. A slip can cause serious injury.
- Hold the shaft to one side of your body and pull backward down the shaft.

Boat Hook:

Use for picking up ropes, buoys and other light objects in the water.

- Never to be used for fending off any boat.

Supplying the Boat

Pumping Out:

- Secure the boat.
- Wear Gloves. Remove the cap on the left side gunwale and insert the nozzle ensuring there is a good seal. Note: there are two holding tanks and both may need emptying.
- Insert token then open the valve on the hose following the instructions indicating the direction of travel.
- When finished shut off the valve and remove it from the fitting. (The connection may be firm following the pump out) replace the hose ensure that it does not enter the water.
- Put the requisite amount of toilet fluid into the tank, (use blue formaldehyde based only)
- Clean up any spills.
- Wash hands thoroughly.

Refuelling:

- Switch off engine, electrics, generator, mobile phones, and radios.
- No smoking.
- Close windows, doors, hatches to prevent fumes entering the boat.
- Open filler cap and ensure any vent is clear.
- Check the gauge to ensure there is sufficient capacity for the amount being delivered.
- Clean up any spillage

Drinking Water:

- Care must always be taken to ensure that canal water does not contaminate the water tank, hose or inlet.
- The area around the filler cap must be kept clean to avoid contamination.
- Moor the boat securely.
- Unscrew the filler cap and take the hose to the opening, making sure the removable end section or the end of the hose does not make contact with the ground or the canal.
- Once the nozzle is secure in the tank filler turn on the supply ensuring air can escape.
- Only fill tank to 50% mark.
- If water spills on the deck ensure this is cleaned up.
- Remove the detachable end connection from the hose.
- Replace the tank filler cap **hand tight only**.

Closing down post trip:-

- Ensure boat is securely tied to the bank using the **WHITE** rope.
- Stow all external equipment inside the cabin.
- Connect shore line.
- Turn down stern tube greaser until resistance is felt.
- Check bilges under stern gland for water ingress and empty if required
- Lock all flaps & lockers.
- Remove all rubbish.
- Give toilet a final check.
- Turn **OFF** all marked electrical master switches.
- Close all emergency exits.
- Leave all hopper windows **OPEN**.
- Lock rear doors.

Boat Handling

Rules of the road:

- When practically possible navigate in the centre of the waterway, this should keep your vessel in the deep water channel.
- This position changes due to anything from oncoming boats, moored boats, and obstructions to the channel, currents and overhanging foliage.
- Always keep to the **RIGHT** when passing approaching boats.

Overtaking:

- If there is a need to overtake a moving boat then overtake on the **LEFT HAND** side.
- If passing on the **RIGHT** is the only option make sure the intention is fully understood by the other skipper or do so when invited.
- Do not overtake near bridges, bends or moored boats.
- At all times ensure that the other craft knows what your intentions are.
- Use the correct horn signal (be aware that the other boat helm may have no knowledge of the correct horn signals so back up your horn signal with hand signals)
- Do not overtake purely to reach a mooring ahead of the other boat.
- Overtake decisively but not at an undue speed. (The more throttle you use the less forward momentum you will have and you may draw both boats together)

Approaching bridges or narrows:

- Slow down well in advance to assess the situation. It may be practical to move over to the 'wrong side' of the navigation to gain a better view.
- If an approaching boat is nearer, then wave it through. **(The steerer only must make the decision to wave a boat through, NOT the lookout)**

Speed:

The canal has a 4 MPH limit. This is not to say the maximum speed must be aimed for at all times. The displacement of Community Spirit means 4MPH is usually too fast. Be aware the boat has been built with a low wash hull and may be traveling at a faster speed than you think. Common sense must prevail.

- **IF THERE IS A BREAKING WAVE ALONG EITHER BANK - YOU ARE TRAVELLING TOO FAST.**
- **IF PASSING MOORED BOATS AND THEY ARE STRAINING ON THEIR ROPES OR CHAINS – YOU ARE TRAVELLING TOO FAST.**
- **IF THE BOAT IS RATTLING OR VIBRATING - YOU ARE TRAVELLING TOO FAST.**
- **IF YOU HAVE A ROLLING BOW WAVE – YOU ARE TRAVELLING TOO FAST.**

When a boat is travelling too fast the stern is sucked downwards and efficiency is lost. The boat starts to vibrate and debris may be lifted up from the bottom of the canal and get entangled on the propeller or rudder.

SPEED ACROSS THE WATER:

ALWAYS! Slowdown in the following circumstances:

- Passing moored boats.
- Travelling out of necessity close to the bank.
- Poor or restricted visibility.
- Passing dredgers / weed cutters etc.
- Approaching bridges.
- Approaching narrows.
- Approaching bends, particularly when your forward vision is limited.
- Meeting rowing or sailing craft.
- Approaching tunnels, aqueducts & locks.

The 'bank effect' is a potentially dangerous situation where boats pass too closely or too fast or both. The water in between is displaced and the boats are sucked sideways towards each other. The steering can be seriously affected and a collision is the most likely outcome. A similar situation arises when travelling too fast or too close to the bank.

REMEMBER: NO GEAR = NO STEER

Rowing boats & canoeists:

Rowers and canoeists may have their backs to you so horn signals are essential. SLOW DOWN.

Casting off:

- Before leaving a mooring there are several assessments to be made.
- Is the water deep enough with no obstructions to be able to 'drive' off the mooring?
- Will the wind and current complicate or assist matters?
- Are there boats moored close by?
- Are the crew ready for the manoeuvre?
- Are there other craft approaching or passing?

The crew must all know what is expected of them and how the boat is expected to leave the mooring. The only way to do this is by discussion 'at the time' as conditions will vary from trip to trip.

Hand signals between the steerer and the crew are vital – shouting and waving will only create tension but will amuse passengers and spectators.

- The steerer controls all aspects of casting off.
- Check the mooring lines are ready for casting off.
- Remove all mooring pins or piling hooks.
- At the steerers signal - cast ropes off and give a gentle push to start the inertia of the boat moving off the bank.

- Consider use of thrusters but be aware of sucking rubbish into the tubes when close to the bank.
- Bring ropes on board and stow them ready for further use.

Bow first:

Where there is plenty of water under the boat, push the bow clear and motor out if there is sufficient depth at the stern.

Stern first:

Where there is shallow water or debris under the stern (danger of damage to rudder or propeller) push the stern out and reverse into mid channel then bring the bow round in forward gear. Take care not to leave any crew behind.

Paddle wheel effect:

This is the sideways movement of the boat caused by the rotation of the propeller. It occurs because the top of the propeller is nearer to the surface and the water is less dense – the thrust at the top is less efficient. The bottom of the propeller being deeper in the water and therefore stronger pulls sideways as well as moving the boat forwards and backwards. This effect can be put to good use when reversing the boat as the effect is more pronounced in reverse gear.

The boat has a 'right handed' propeller – i.e. one that rotates clockwise in forward gear.

If you are coming into moor on the LEFT, head into the bank at 30° when your bow is 1 - 2 feet away from the bank, engage reverse gear and the transfer thrust will pull the stern in. If approaching a mooring on the RIGHT, the effect will be to push the stern away from the bank, however by using the rudder to swing the bow to the left (stern to the bank) the effect will be to balance the boat and assist to bring the boat parallel to the bank. You will still need to be aware of current and wind direction.

Horn Signals:

There is a standard system of horn signals that apply to every waterway in the world. You should use these signals and avoid shouting and wild gestures.

Always bear in mind that not every boater uses or understands these signals so when you use them wait for a reaction that is appropriate to the signal that has been given – if there is no appropriate response then take care and use hand signals if necessary.

- I am turning to the right – one short blast.
- I am turning to the left – two short blasts.
- I am reversing – three short blasts.
- I am turning around to the right – four short blasts followed by one short blast
- I am turning around to the left – four short blasts followed by two short blasts.
- At blind bridges and bends – one long 5 second blast.

- International emergency signal – seven short blasts followed by one long blast.

Communication with other crew should be done in normal tone and volume so as not to alarm the passengers. The lookout should use the hand held radio for all communication with the steerer.

Turning:-

Wide points have been purpose-built along canals for turning boats. They are often referred to as 'winding holes' a throwback to days of horse drawn boats to use the wind to assist with tuning.

Do not attempt turning at intersections of streams and by washes etc.

Always enter a turning point bow first otherwise damage could be caused to the rudder or propeller.

Technique:

- First check for other craft.
- Turn the bow into the hole and aim for the 'V' or centre.
- Gently approach the bank using reverse as a cushion.
- With the bow resting against the bank apply forward gear to maintain contact.
- **Never use the bow thruster whilst the bow of the boat is in 'the V' of the turning point**, this is likely to suck debris and mud into the thruster tube. Wait until the bow is well clear of the centre of the 'V'.
- Point the rudder to take the stern in the intended direction.
- Apply sufficient power to overcome effects of wind or current and the boat will come round.
- At about 45°, reverse off the bank into the deep water. Consider use of thrusters to help counteract wind etc.
- It may be necessary to repeat the above manoeuvre again to turn sufficiently to move in the opposite direction.
- When clear select forward gear and bring the bow around.

The boat will turn tighter one way or the other when rudder and paddlewheel affect combine. At high revs a boat will turn tighter than at low revs.

Turning on open water:

One point turn: Note: There are limited places on the canal to execute a one point turn.

- Slow down virtually to a stop and check for other craft.
- Put the rudder hard over and steadily apply forward power. The boat will turn efficiently with the minimum of forward movement. Use thrusters to assist.
- Vary rudder angle and revs to determine turning circle.
- Short bursts of throttle and maximum rudder angle will make a tighter turn.

Turning hard around:

- First check for other craft.
- Move the boat close to the bank (left bank for right handed propeller and vice-versa)
- Slow right down virtually to a stop and check for other craft.
- Put the rudder hard over and apply medium revs to get the bow swinging.
- Apply short burst of reverse – this keeps the bow swinging with paddlewheel effect.
- Keep the rudder hard over.
- Consider use of thrusters.
- Use forward gear to complete the turn.

Holding the boat on station:

Keep the vessel straight by use of forward and reverse gear with minor rudder movements, not forgetting paddlewheel effect and bank effect.

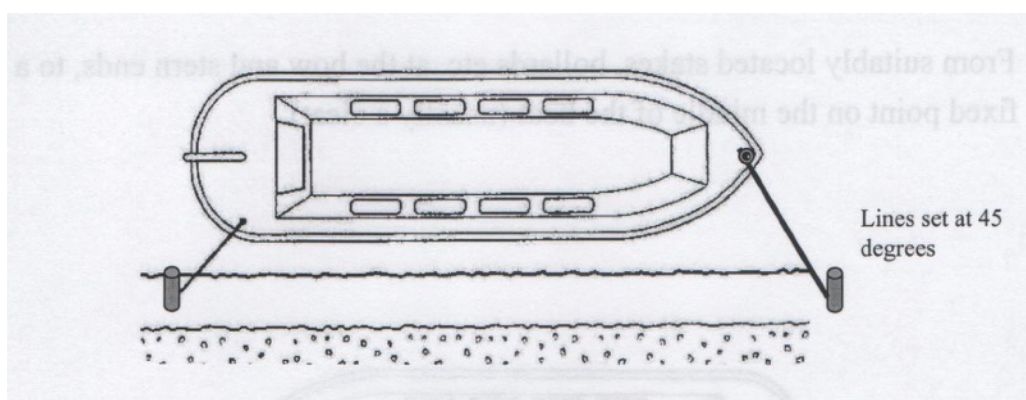
Reversing:-

- There is no propeller flow over the rudder in reverse therefore there will be no steering benefit apart from minimal deflection. The use of the rudder will have very little effect and the boat will tend to go its own way with the influence of paddlewheel effect.
- Use thrusters to assist keeping the boat in a straight line but do not keep them active continually.
- Keep the boat in mid-channel (watch for other craft)
- Apply gentle reverse.
- Check the swing of the bow and correct by use of forward gear, rudder and thruster.
- It may be practical get a crew member on to the bank with a rope to assist with control, or have someone ready with a pole to push off.

Ropes

- When tying up always tie back to the boat, not to the mooring.
- Never shorten a rope by making lots of turns around a bollard or pin.
- Inspect rope regularly for wear or damage and report any chafing or weakness.
- Always store ropes coiled and ready for use

Mooring to pontoon: 30 - 45 degree angle of mooring lines to the bank.



In addition to all previous sections Crew should be familiar with The Code of Safe Working Practices for Seafarers and in particular **MCA directive MSN 1823** all available on MCA website. Copies of both have been sent to all crew as a pdf file.

OPERATIONAL FLOW CHART (LOCAL LEVEL)

