



CLYDEPORT MOORING GUIDELINES

June 2021



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INTRODUCTION AND BACKGROUND

1.0 General Overview

The mooring and unmooring of vessels is potentially a hazardous activity. It is also an operation which demands a high degree of teamwork. To be both efficient and safe, all involved must be properly trained and equipped, and must have a clear understanding of the contribution made by others, as well as their own role and responsibilities.

These Guidelines describe established good practice for the safe and efficient mooring and unmooring of vessels and is published for all involved, be they Line Handlers, boatmen, tug crews, ship's staff, masters, pilots or berth operators.

Organisations should make reference to the legal background and industry guidance references detailed in Appendix A and B to this document.

2.0 Harbour Authority Responsibilities

The Harbour Authority's responsibility for mooring falls under Regulation 5 of the **Dock Regulations 1988** which states that "Dock operations shall be planned and executed in such a manner as to ensure so far as is reasonably practicable that no person will be exposed to danger" (1988).

Further, the Port Marine Safety Code places an obligation on harbour authorities to ensure that mooring parties meet the industry's competence standards and have access to appropriate training including mooring processes and procedures referenced in their Marine Safety Management System.

Clydeport, as Statutory Harbour Authority (SHA), may license line handlers under the terms of the Clyde Port Authority Confirmation Act 1965, as amended.

3.0 Risk Assessment

Risk assessments form the basis of safe harbour operations, both ashore and on water. Organisations are required to prepare risk assessments for mooring operations, involving those carrying out the task. All activities taking place within the harbour area should be risk assessed to ensure risk is reduced to ALARP (as low as reasonably practicable). Those involved in mooring of vessels should be aware of the content of such risk assessments relating to the work they are carrying out.

Dynamic risk assessment (DRA) is undertaken when carrying out a form of activity – whether routine or unusual. This process assists the individual to effectively assess the unfolding situation. Responses can be altered moment by moment to meet the risk. Examples of using a DRA and dealing with the unexpected might be;

- Handling an emergency situation
- Reacting to a change in conditions
- Equipment failure







4.0 Communications

It is essential that good communications are established between all those involved in mooring/unmooring of vessels within the port. All participants should be aware of their individual role.

VHF communication is considered to be the primary means of communication and is a vital component of safe mooring operations. However, berth operators not employing Clyde Pilots may use an agreed alternative means of communication between the vessel and the mooring supervisor. It is essential that those on board the vessel, in the mooring boats and on the berth (both fore and aft of the vessel) are able to communicate effectively. Once communications have been established and tested, mooring personnel should keep transmissions to a minimum and should normally only call when in doubt, or in an emergency.

Berthing operations should be conducted on one dedicated VHF channel. VHF communications should be established early with all involved in the mooring operation. Line Handlers, Coxswains, Tug Masters and the Berth Operator should all be briefed on the mooring/unmooring plan and their role in it.

Hand signals can also be useful when conducting mooring.

	
An outstretched arm with hand open and flat being waved downwards means "slack off".	A sharp upward movement of the arm with the hand cupped towards the signaller means "let go" or "cast off".
	
Crossed arms in front of the body means "make fast" or "is made fast".	A circular movement of the hand above the head means "heave away".
	
Both hands raised above the shoulders, with open hands facing forward means "stop".	A raised hand with the fist being clenched and unclenched means "heave or hoist slowly" (inching).

5.0 Training

All persons engaged in work must be trained and assessed as competent for the role they are required to perform by a competent person. These persons must have the physical capabilities required for each task being undertaken.

Line Handlers must, through appropriate training, be made fully aware of the dangers of the quayside environment and the task.

Supervisors should be trained, competent and experienced in the areas of work that they are supervising, and/or have access to relevant competent advice and assistance.

The basic requirements of training for mooring personnel should include:

- Safety, communication and environmental protection
- General geographical knowledge of the local working area
- Characteristics of ships

Trainee Line Handlers require a high level of supervision until their competence is proven.

In addition, mooring personnel working on board mooring boats should have knowledge, as appropriate, of mooring boat handling and machinery.

Refresher training is recommended at appropriate intervals to ensure all personnel involved in mooring operations maintain currency of knowledge and are updated with any changes to procedure.

6.0 Personal Protective Equipment (PPE)

PPE for line handlers should be determined following risk assessment. As a general guide, PPE should be fitted properly to the individual and may include a lifejacket or buoyancy aid, safety helmet (with chinstrap worn), safety footwear (non-slip sole is recommended), hi-visibility clothing and gloves (providing a good grip). Consideration should be given to waterproof clothing for all weather conditions. Some terminals may require additional PPE, e.g. eye protection in dusty environments or where fuel or chemicals are handled. In particular, lifejackets should always be worn and maintained in accordance with the manufacturer's instructions.

Line Handlers should be encouraged to check each other's PPE is worn correctly.



Thorough Risk Assessment and Training reduces the likelihood of incident within the port environment. However, working alongside an open quay remains an inherently dangerous task. Emergency procedures and Drills are therefore recommended to ensure that all involved are familiar and practised with how to respond in the event a Line Handler falls into the water or is injured during mooring or un-mooring operations. Records of drills should be maintained and a debrief with participants is helpful afterwards to discuss what went well and where any improvement could be made.

The importance of wearing a lifejacket correctly cannot be understated. The RNLI have produced a short video to show what happens when the crotch strap is not worn. In the event of entering the water, crotch straps that are tightened correctly stop the lifejacket from riding up.

<https://www.youtube.com/watch?v=m-CmyKdy3MU>



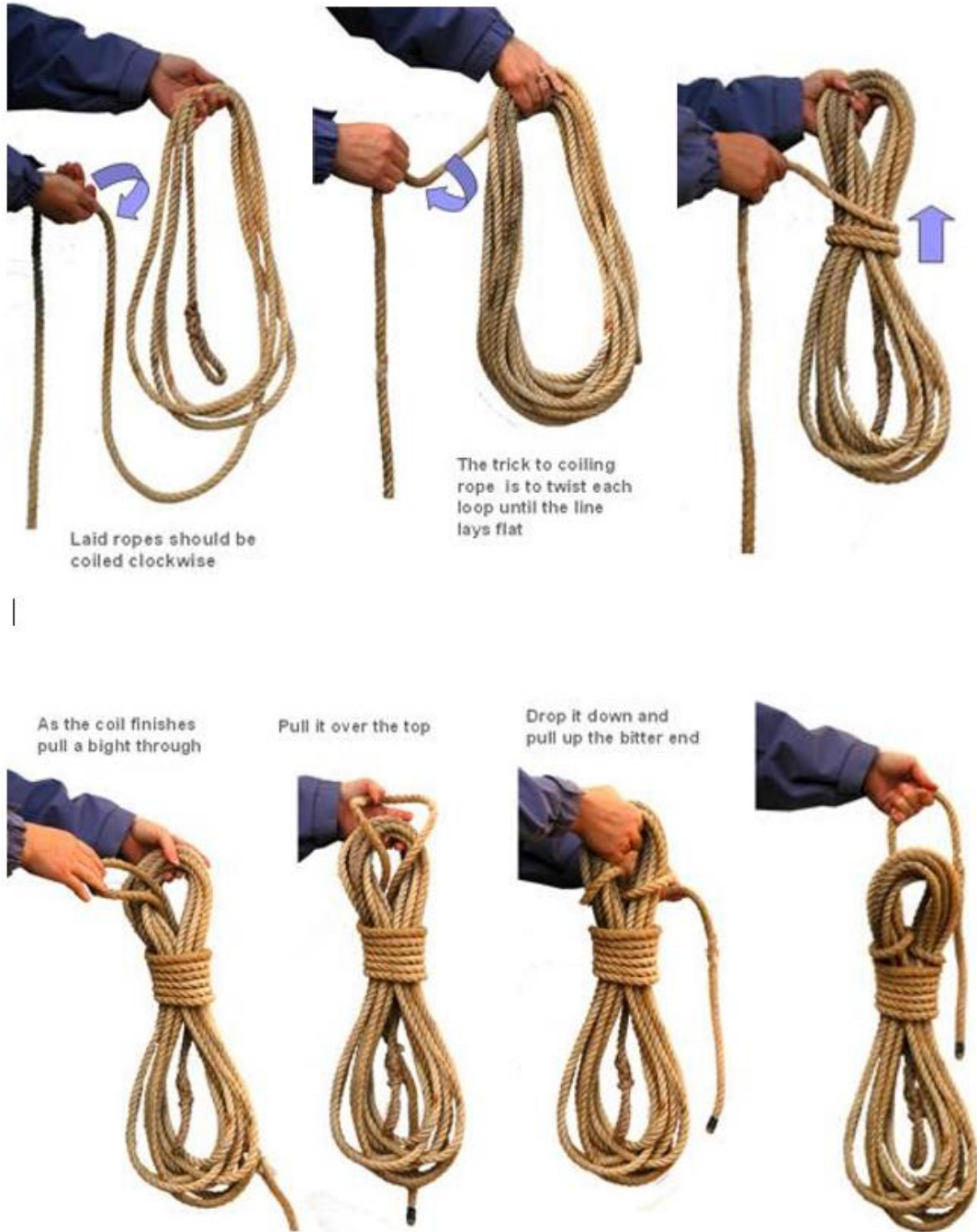
	<p>ADJUST THE LIFEJACKET TO FIT</p> <p>A PROPERLY FITTED LIFEJACKET KEEPS YOUR HEAD ABOVE THE WATER</p> <p>THE WAIST BELT AND CROTCH STRAP WILL ADJUST</p> <p>IF THE LIFEJACKET HAS A CROTCH STRAP; WEAR IT!</p>	
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Regular servicing of lifejackets is vital and should be carried out in line with the manufacturers recommendations. Service records should always be retained by the organisation.

7.0 Rope Handling

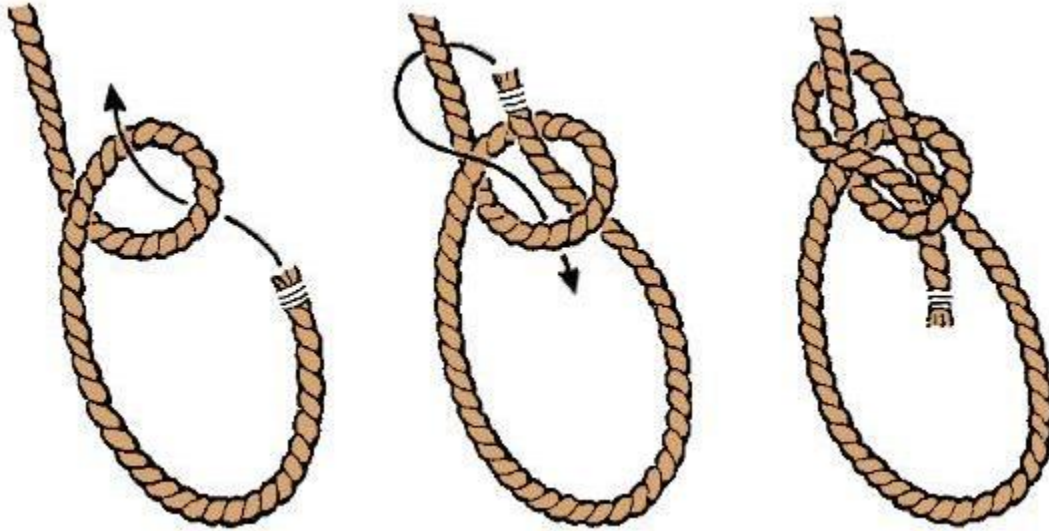
Line handlers must be proficient rope handlers. The following illustrations show how to coil a rope correctly and describe useful knots. These are key skills which should be incorporated into training plans for Line Handlers.

By coiling rope properly, you can easily pick it up and use it as a heaving line quickly without having to wind it up. A coil of rope is also less likely to snag, knot and cause injury.



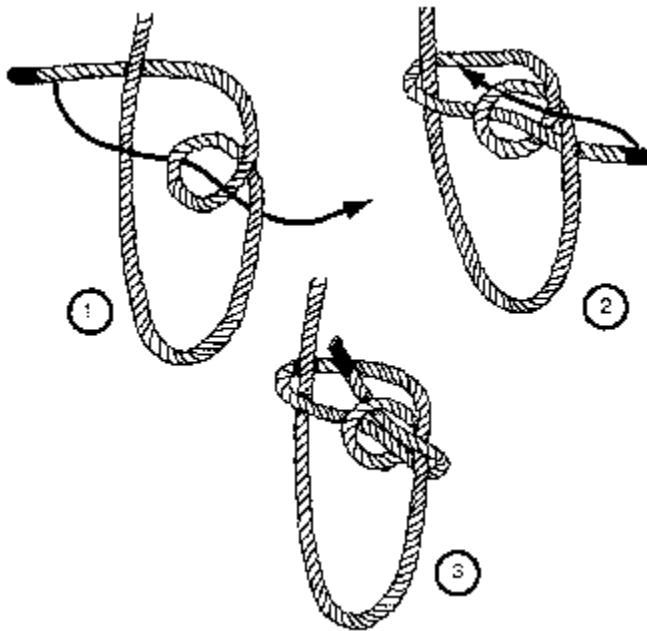
1. BOWLINE

A bowline creates a very secure loop in the end of a piece of rope or line. When under load it does not slip and is difficult to untie.



2. RUNNING BOWLINE

The running bowline is simply a bowline, tied as above but around its own standing part, thus forming a noose as in Image 3.



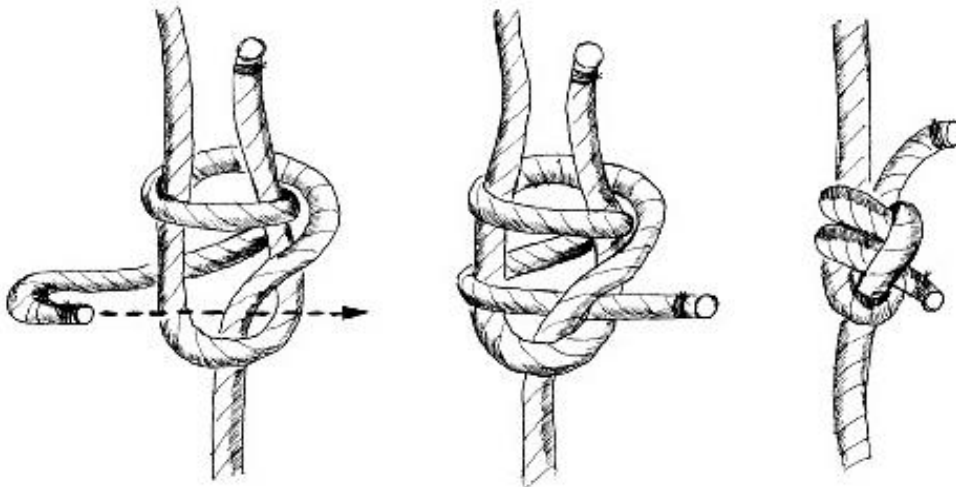
3. SINGLE SHEET BEND

Usually used to tie a heaving line to a mooring rope tail or any smaller rope to a thicker rope.



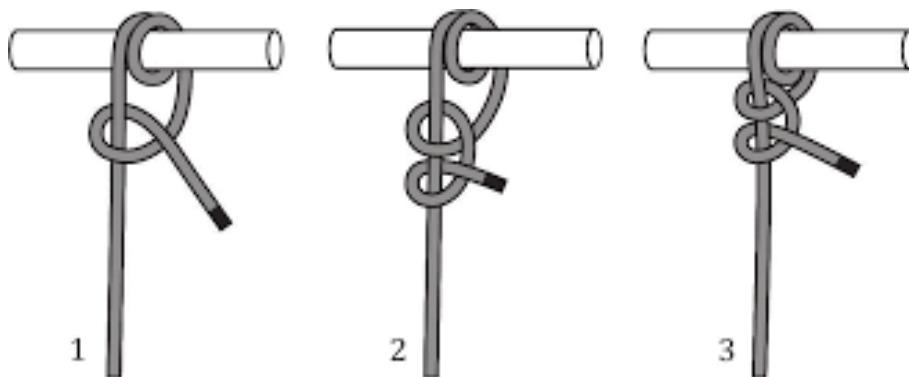
4. DOUBLE SHEET BEND

Usually used to tie a heaving line to a mooring rope tail or any smaller rope to a thicker rope.



5. ROUND TURN AND TWO HALF HITCHES

Useful knot to make something fast such as securing a coiled heaving line when not in use.



RESPONSIBILITIES AND EQUIPMENT/INFRASTRUCTURE

Berth Owners and Operators

8.1 Responsibilities

Mooring is a “dock operation” as defined in the Health and Safety Executive Approved Code of Practice and Guidance for Safety in Docks. The responsibility for planning mooring operations lies with the Berth Operator.

The Berth Operator of a jetty or mooring buoy is also responsible for conducting a formal risk assessment of the mooring operation at the berth and for ensuring that all equipment provided is fit for purpose and well-maintained. In addition, good housekeeping of operational berths is vital with work areas kept clear of hazards.



Where a **large, new or unusual vessel** is expected, careful planning should be carried out in advance. This exercise should consider the following:

- If the quay or berth can withstand the forces generated
- Vessel arrangement plans in relation to the berth – bollards/tugs/cargo and service connections
- Tidal conditions
- Weather and environmental conditions for the duration of the vessel’s call
- Freeboard – vessels with a larger freeboard may cause a greater uplift on bollards in addition to expected horizontal forces
- Limitations on quay space – vessels may overhang
- Loading on mooring lines which may change throughout cargo operations

A risk assessment and plan for mooring the vessel should be developed in conjunction with and agreed by all parties. The berth operator should also conduct its own risk assessment for the mooring operation.

8.2 Shoreside Infrastructure

The Berth Operator, as the owner/operator of the fixed mooring infrastructure is responsible for the condition of the berth, equipment and the need to ensure its suitability for the intended use. All infrastructure and equipment is required to be of sufficient strength and assured accordingly. Such mooring equipment includes but is not limited to:

- Bollards
- Fenders
- Quay/berth infrastructure
- Quick Release Hooks
- Pontoons
- Quay Ladders
- Capstans
- Mooring Buoys
- Swing Moorings/Buoys
- Any other equipment used to facilitate mooring

The berth operator should ensure that an appropriate, and documented, inspection, monitoring and maintenance regime is in place to ensure that all mooring components are in a serviceable condition. It is advisable to keep under review the safe capacity of existing mooring equipment, bearing in mind that commercial vessels are generally increasing in size. Older bollards for example may no longer be fit for purpose for modern vessels due to additional forces and it is advisable to test them to determine their current SWL.

8.3 Mooring Arrangements



















Berth Operators should ensure an appropriate person or supervisor is available on the jetty to oversee the mooring operation.

The number of personnel employed in any mooring operation should be determined with due regard for the size of the vessel, the prevailing operational circumstances, the weather, and the state of tide.

In all circumstances, sufficient personnel should be provided to ensure that individual Line Handlers or Boatmen are not exposed to undue risk, and that the operation can be conducted safely and efficiently. Due regard should also be given to the size, weight and scope of mooring lines to be handled. The practice of mooring/unmooring using a single Line Handler ashore is strongly discouraged, except where the size of the vessel and weight of mooring lines are such that the person concerned is not at risk.

The following table is a guide to the number of line handlers required for mooring/unmooring large vessels.



	Making Fast			Letting Go		
	AFT	Bridge Position	FWD	AFT	Bridge Position	FWD
0-120m	 2 Man team	 1 Supervisor	 2 Man team	 1 Man team	 1 Supervisor	 1 Man team
120-190m	 3 Man team	 1 Supervisor	 3 Man team	 2 Man team	 1 Supervisor	 2 Man team
190m or greater	 4 Man team	 1 Supervisor	 4 Man team	 2 Man team	 1 Supervisor	 2 Man team

Mooring Boat Crew and Line Handlers should be ready for work with mooring boats fully manned and equipment checked in good time. Communications should be established with the vessel or Pilot. Equipment requiring testing includes but is not limited to the following:

- Heaving lines and messenger ropes appropriate to the task
- Winches on the jetty for heaving in lines
- Shore wires or lines provided
- Quick release hooks
- VHF radios
- Mooring boats and associated equipment

The mooring party supervisor should confirm, with the Berth Operator, the required mooring plan, and any specific positioning requirements. VHF contact should be established with the vessel in good time to check communications and confirm the plan and timings. The berthing arrangements should also be agreed including any non-standard arrangements from the Pilot or Master. In complex situations, it may be necessary for the supervisor to board the vessel in order to discuss arrangements with the Pilot/Master.

It should be ascertained in advance whether fibre or wire moorings are to be used in order to ensure that sufficient persons are available ashore to facilitate mooring.

Any specific requirement in respect of vessel position should be made known to the Mooring Supervisor, who will relay the information to the Master or Pilot.

All equipment at the berth required for mooring should be checked before the operation commences. Defects should be reported to the Mooring Supervisor and, if appropriate to the vessel Master or Pilot.

Jetty fendering should be checked prior to berthing. Where an obstruction is identified on the jetty face, it's location and the nature of the obstruction should be reported to the vessel Master/Pilot and the berth operator. Any fendering or berth equipment out of service due to being under repair should also be reported to the vessel Master/Pilot.

Shore cranes must be in the correct position for vessel berthing, ensuring that booms do not protrude beyond the jetty. Cranes not required for loading/discharge, and other potential obstructions, should be moved well clear so as not to obstruct bridge wings and bow flare.

Shore cranes should not be moved during berthing/unberthing operations, nor as the vessel is approaching the berth.

Bridge position signs or manifold connection flags (prominent and illuminated at night) should be used on the jetty to assist in positioning a vessel before landing.

Consideration should be given to provision of rope guides or running bars (where small ships are led to lie alongside over low water) to reduce the risk of chafed lines.

8.4 General Safety – Berths

Safe access to and from the berth should be provided.

Ladders on jetties and dolphins should be properly maintained and checked regularly.

Mooring dolphins should be provided with appropriate safety rails and safety equipment.

At night and during poor visibility, the work area should be adequately lit.

Mooring bollards not available for use should be boxed over or painted red. Bollards which become unusable for whatever reason should be reinstated to full serviceable condition as soon as possible and should be clearly identified as out of service.

All persons engaged in the mooring operation should wear appropriate PPE.

A means of de-icing jetties and dolphins should be available for use as required.

Lifesaving equipment, capable of being used at all states of the tide, should be positioned at appropriate intervals on a jetty.

Disposition of bollards should be such that not more than 2 moorings have to be placed on a bollard at any one time. Recommend that berth owners make an assessment of the adequacy of the bollards to deal with loads arising from more than 2 lines per bollard if required.

9.0 Commercial Operators

9.1 Responsibilities

Responsibility for co-ordinating a mooring operation lies with whoever has the conduct of the vessel, be that the Master or the Pilot. It is not the task of those providing mooring assistance.

When berthing and un-berthing, it is the duty of the Master and Pilot to ensure that the vessel is handled in a safe and controlled manner, having due regard to the safety of those on the berth, in mooring boats, and the vessel's crew. Care should be taken that undue strain is not put on springs or other mooring lines and consideration should be given to the use of tugs over and above the recommended requirement in adverse weather conditions.

9.2 Self-Mooring

Self-mooring is potentially a very dangerous activity and, in general, self-mooring and berthing of commercial vessels is discouraged.

Regulation 4 of the Merchant Shipping (Means of Access) Regulations 1988 requires that access to and from the shore be provided in a safe manner. The Merchant Shipping Act 1995 (Part IV) is also relevant in this regard.

The mooring of vessels using members of the crew only, is considered to be potentially dangerous and thus not an approved practice on the Clyde for vessels over 24 metres LOA. Shore Line Handlers should normally be employed to undertake the mooring operation.

In only very exceptional individual circumstances will self-mooring be approved by the Port Authority, and will require a full Risk Assessment and Method Statement from the vessel operator as required by the Management of Health and Safety at Work Regulations 1999.

Masters are advised to note their obligations under the various regulations applying to this practice. It must be stressed that that Master of a vessel who authorises self-mooring, remains personally responsible for the safety of its crew.

9.3 Vessel's Mooring Equipment

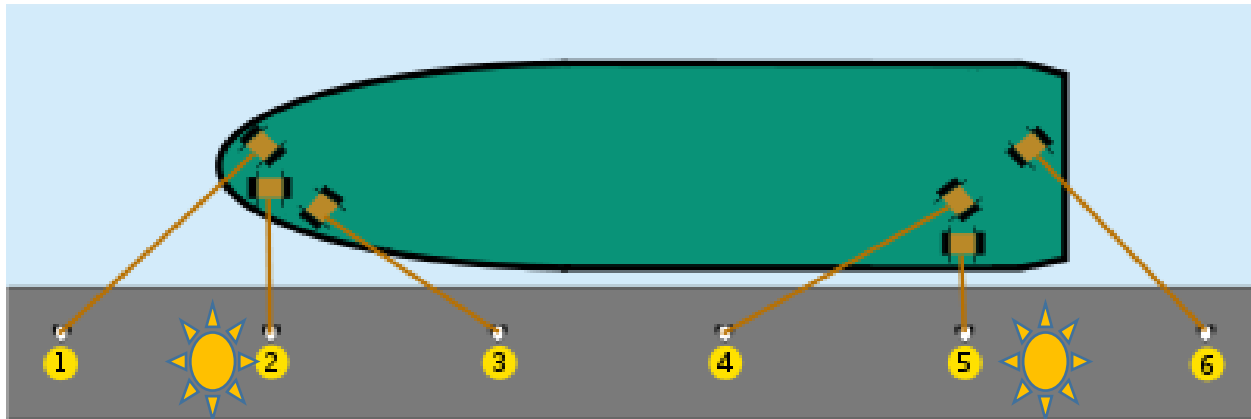
The Master should ensure that all mooring equipment is tested and ready for use ahead of arrival into port. This includes but is not limited to winches and capstans and mooring lines to be prepared and ready for use. Ship's crew must be trained and competent to conduct mooring operations.

9.4 Mooring Plans and the Master/Pilot Exchange

A copy of the ship's General Arrangement plan and availability of ship's lines should be provided in advance to the port. A mooring plan generated by the port is then shared with the ship or its agent prior to arrival.

The plan should have lines numbered in the order that they are to be sent ashore. This plan will be used by shoreside mooring teams, tugs, and mooring vessels and is confirmed by the Pilot during the Master/Pilot Exchange.

Mooring plans should define breast, spring, head and stern lines. Where adverse weather is expected consideration should be given to placing additional lines.



Number	Name	Purpose
1	Head Line	Keep forward part of the ship against the dock
2	Forward Breast Line	Keep close to pier
3	Forward or Head Spring	Prevent forward movement
4	Back or Aft Spring	Prevent back movement
5	Aft Breast Line	Keep close to pier
6	Stern Line	Prevent forwards movement

Line arrangements are crucial when securing a vessel against a structure such as a quay or berth. They should be arranged in such a manner that it reduces the vessel's movement against the berth, allowing for tidal and wind forces whilst alongside.

MOORING GUIDANCE

10.1 Heaving Lines

The weighted end of a heaving line is usually formed into a knot known as a “monkey’s fist”. It is this knot which gives weight to the line, but other knots or small sand bags can be used. The weight of the monkey’s fist should be sufficient to allow the line to be thrown into the wind but should not be heavy enough to cause injury should it inadvertently hit someone.



Occasionally, a ship may try to increase the weight of the heaving line by attaching things such as shackles, bolts, metal bars etc. There have also been numerous reports of additional weights being placed inside the monkey’s fist, such as heavy bolts. This practice **is not acceptable** and if these are found the linesman should NOT accept the line and should report it immediately to their supervisor.

Dangerously weighted heaving lines are a serious hazard. Ship’s crew and Line Handlers should be aware of the dangers.

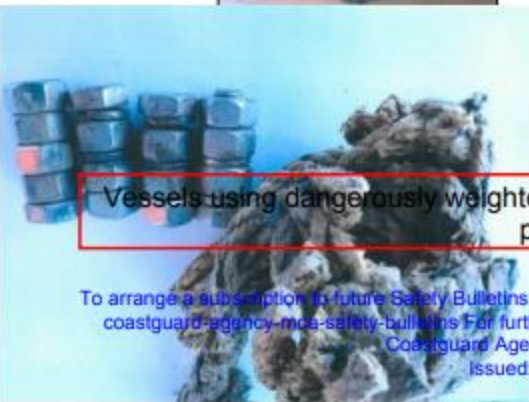
The MCA has produced the following Safety Bulletin on Dangerously Weighted Heaving Lines and this should be shared with all Line Handlers.

SAFETY BULLETIN

No. 2

DANGEROUSLY WEIGHTED **SHIPS HEAVING LINES**

There have been several instances where dangerously weighted heaving lines, including the use of monkey's fists with additional weights inserted into them, have been used resulting in serious injury. Further guidance is contained in Ch 26 section 26.3.5 in the 2015 edition of the Code of Safe Working Practices for Merchant Seafarers.



Vessels using dangerously weighted heaving lines in the UK may be subject to prosecution

MSF 5029 Rev 10/1

To arrange a subscription to future Safety Bulletins go to <https://www.gov.uk/government/publications/maritime-and-coastguard-agency-mca-safety-bulletins> For further information please contact Ship Safety Branch, Maritime & Coastguard Agency Tel: +44 (0) 2380 329 100
Issued: 28 September 2015

10.2 Damage, Incidents and Near Misses - Reporting

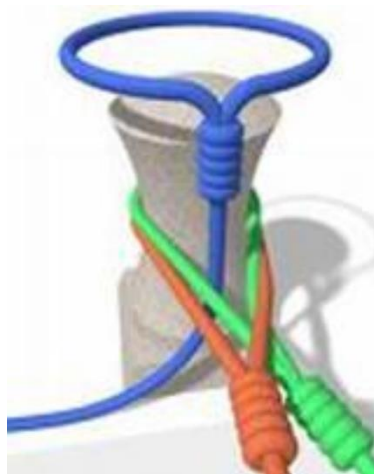
Any defects or damage to a berth or its infrastructure found before or occurring during the berthing operation should be reported as soon as possible to the Berth Operator, the Master or Pilot of the vessel, and to Clydeport via Estuary Radio.

Mariners are reminded that incidents or near misses should be reported to Clydeport, using the Marine Incident Report Form available at <https://www.peelports.com/marine-information?port=clydeport> (Publications and Forms folder).

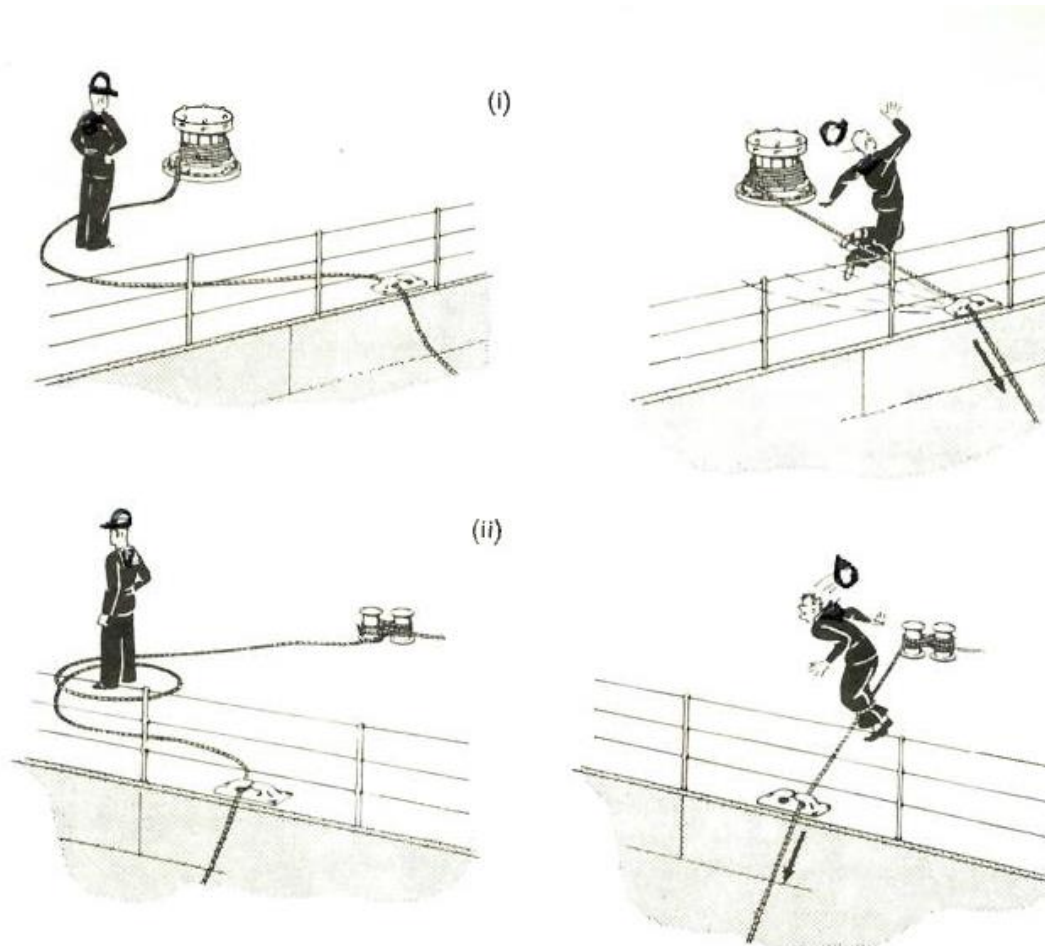
10.3 Mooring and Unmooring – Best Practice

Following consultation with experienced Line Handlers on the Clyde, the following has been identified as best practice for line handling:

- Some vessels are occasionally using dangerously weighted heaving lines, which can cause injury. A weighted line should not be accepted. Line Handlers should wear safety helmets, including wearing chin straps at all times. Ship's crew should be warned before heaving lines are thrown back onto a ship.
- Badly maintained or defective mooring lines can be dangerous and should not be used. Where a Line Handler sees that a defective line has been supplied, the situation should be reported immediately to the vessel, which should provide a replacement.
- Line Handlers should keep clear of the jetty edge when hauling lines ashore. Lines under tension should not be walked along a jetty. The weight should always be taken by one person whilst another walks a slack line up the jetty. Line Handlers should be alert to the dangers posed by vehicles and cranes moving in the vicinity.
- All mooring lines on a bollard should be "dipped" to facilitate prompt and easy release. Lines should only be dipped when slack, and when the weight of the line is held by another person or stopper. Where two Line Handlers are so engaged, careful co-ordination between them is essential as the weight of the line is transferred to the bollard. Once a line has been placed on a bollard, slack should be taken in order to keep the line clear of the water. Lines should only be tensioned on the specific instruction of the Master or Pilot.



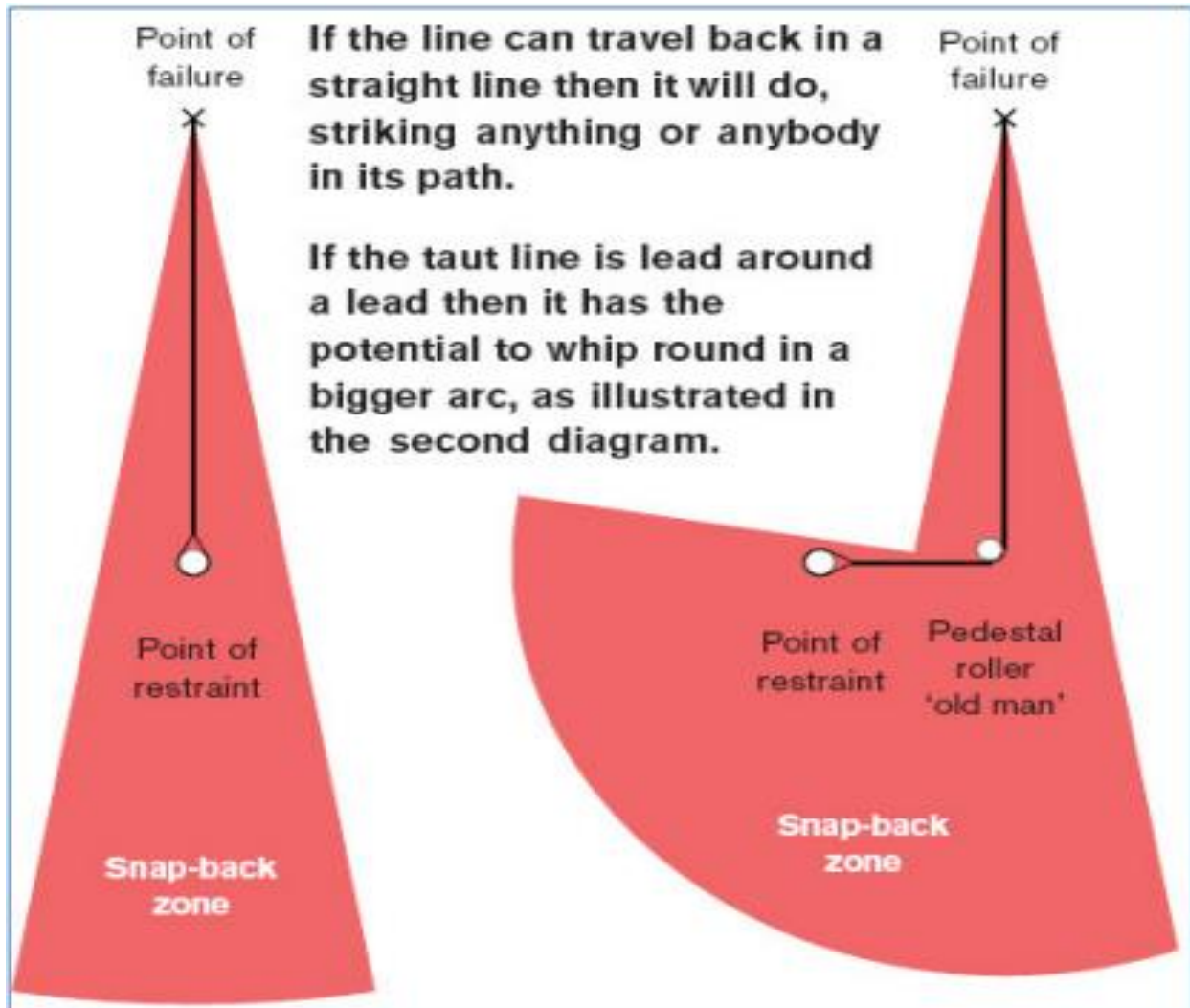
- Line Handlers should never stand behind a bollard once a line has been placed on it. A line can come under rapid and sudden tension as a result of vessel movement, or listing. Injury to personnel in the vicinity can be caused when sudden tension causes a line to “snake”. Where tension is extreme, it is possible that a line will part. In such circumstances, man-made fibre ropes and steel wires will recoil violently and can inflict serious injury or death.



- Wire ropes are prone to snagging, particularly near the splice. Mooring gangs should be alert to this risk and should take appropriate precautions.
- Forward and aft springs should not normally be put onto the same bollard, but if this is unavoidable, they should always be dipped.
- In some circumstances, the Master or Pilot may instruct that breast lines are not to be run until the vessel is alongside and in position.
- Line Handlers should not leave the berth until all lines have been made fast, and the Master and Pilot are satisfied that the vessel is securely alongside and have indicated their agreement for the mooring gang to stand down. Heaving lines and messengers should be returned to the ship or Berth Operator.
- On occasions when it is necessary for a Line Handler to board a vessel underway to assist in the mooring operation, embarkation should be via a correctly rigged pilot ladder. Such Line Handlers must report their presence on board to the vessel Master and remain under the direction of the Master or Pilot throughout their time on board the vessel.

- Any unexpected changes to the mooring plan/arrangements should always be made known to the Master/Pilot and a revised plan agreed. The Master and/or Pilot always remains in charge of the mooring operation, and they will communicate any changes to Line Handlers/Coxswains in good time.

At times, the weight of a manoeuvring ship is taken on a single mooring line. Line Handlers must be aware of snap back zones as very high loads come onto such ropes. Similar loads can be produced by the ship's mooring winches when heaving on ropes or wires. Personnel must keep clear of the snap back zone whenever mooring lines are tensioned.



10.4 Mooring Boat Operations

Mooring/Line Handling Boats used within Clydeport are required to register with the Port Authority, be declared as “fit for purpose” by the operator, carry the appropriate safety equipment and be equipped with effective VHF radios. They should be sufficiently powerful to handle the size and weight of any mooring lines. Ideally, mooring boats should be substantial steel vessels, designed for mooring/line handling operations and be fitted with equipment appropriate for the safe handling of ropes/wires.

Boats should be crewed such that they are capable of handling safely all the wires and ropes needed to complete the mooring operation safely. It is strongly recommended that safe manning of mooring boats should include a Coxswain and at least one Line Handler. The person in charge of the boat should meet the minimum competency as laid down in industry standards.



Care should be taken at all times to keep mooring boats clear of vessel propellers and tugs assisting in the mooring/unmooring operation. The Coxswain in charge of a boat should not allow it to come close to the stem or stern without having first obtained clearance from the Master or Pilot via VHF radio.

Whenever possible, lines should always be run straight forward and aft. Once made fast to a bollard or buoy, heaving should not commence until the boat Coxswain has signalled that the boat is safe and clear.

Mooring lines should be lowered into the boat and flaked down such that they can be readily hauled up the side of the jetty or dolphin. Mooring lines should be securely lashed in the boat before the boat proceeds to the jetty or dolphin, and in a manner which facilitates quick release in event of an emergency. A suitable cutting instrument should be immediately available in case of emergency. Lines should not be allowed to enter the water, particularly in the vicinity of propellers or thrusters.

Where a strong on-shore wind or tidal set exists, extreme caution should be taken by all involved to ensure that a mooring boat does not get trapped between the vessel and the jetty. In circumstances where such risk potentially exists, close liaison between the Coxswain in charge of the mooring boat and the Master or Pilot is essential.

A Coxswain in charge of a mooring boat should alert the Master or Pilot via VHF as soon as he considers that the situation is becoming dangerous. He should also take whatever avoiding action he deems necessary to ensure the safety of personnel.

Where there is a risk of the mooring boat being trapped between the vessel and the jetty, consideration should be given to running springs to the jetty using heaving line/messenger from the ship.

Where a tug is towing on a shortened line and its wash is hindering the control of a mooring boat, or otherwise putting it at risk, the Coxswain in charge should notify the Master or Pilot.

10.5 Unmooring

Unmooring should not commence until the ship or shore gangway has been properly secure, or brow landed.

No mooring line should be slackened or released except on the specific instruction of the Master or Pilot. Likewise, slackened lines should not be released until advised by the Master or Pilot as such lines may still be required for warping purposes.

Line Handlers should be aware that added tension can be put on a mooring line during an unberthing operation, and especially when using engines to “spring off”. Extra strain can also be put on mooring lines when using tugs, or when wind and tide are setting the vessel away from the berth.

A mooring line should never be let go under tension. Once a line has been released from a bollard or hook, it should be walked clear of any obstruction, unless it has been released using a triggered slip hook. All personnel in the vicinity should stand well clear.

When releasing a mooring line, care should be taken to hold it by the side of the eye, and to avoid hands getting between the line and the hook or bollard.

When releasing a dipped rope, sufficient slack should be pulled through the eye of any other ropes, so that the eye of the line to be released may be pulled over the top of the hook or bollard. This will facilitate clearing any subsequent jam as and when the line is put under tension.

Where a mooring is badly jammed, it may be necessary to slacken briefly other lines on the same bollard, whilst taking care not to release them.

When releasing mooring lines at the stern, including after breast lines and back-springs, they should be controlled and if possible kept clear of the water to reduce the risk of fouling propellers. Berths can sometimes provide messenger lines to assist the process. They should not be released until the onboard mooring team confirm they can immediately haul onboard.

10.6 Barges

The mooring/unmooring operation of a barge remains at all times under the control of the Bargemaster and/or Pilot. All involved should only take instructions from the Bargemaster or Pilot.

10.7 Additional Guidance for Ship’s Masters/Pilots

Anchors should be cleared away and winches and capstans should have been checked before arrival at the berth.

All mooring lines not on tension winches or drums should be coiled or flaked neatly on deck ready for use.

Lines on self-tensioning winches should be checked prior to use to ensure that they run freely and are not trapped on the drum.

No mechanical throwing devices are to be used for heaving lines.

Before bringing a mooring boat under the bow to collect a line, the ship's anchors should have been secured, it not in use or being prepared for use. Similarly, a mooring boat should not be allowed under the stem or stern whilst thrusters and engines present a hazard. Boats should keep well clear of a dredged anchor.

Where there is an on-shore wind or tidal set, particular care should be taken to ensure that the mooring boats are well clear before allowing the vessel to settle onto the berth. The running of lines should be monitored carefully. Attentive watch should be maintained on the appropriate VHF channel. Where the berth configuration and size of vessel permits, consideration should be given to running springs using heaving lines from the ship instead of using mooring boats.

When paying out mooring lines from the ship, care should be taken to avoid excessive weight for the Line Handlers by keeping the bight to a minimum and under control.

Ship's mooring lines should not normally be used for towing operations except in an emergency or where a proper risk assessment has been carried out. Where such use is authorised, extreme caution should be taken to ensure that the size and condition of the line are suitable and that it is kept slack and under control when lowering to the tug and making fast. Crew should stand well clear and be alert to the possibility of the hawser coming under sudden tension or a parted line snaking or recoiling.

Care should be taken to ensure that the vessel is moored in the correct position, and as required by the Berth Operator, before mooring personnel are stood down.

Appropriate lifesaving equipment should be supplied onboard the vessel at the mooring stations and should be available for immediate use.

When running mooring lines ashore, they should normally be passed via the mooring boat crew, unless otherwise instructed by the Master or Pilot.

The Master and Pilot of a vessel equipped with controllable pitch propellers or stern thrusters should be aware of the inherent dangers which exist in relation to after mooring lines.

The Pilot should not leave the bridge or break communication with the Coxswain/Line Handlers until the mooring operation is complete.

A LEGAL BACKGROUND

This appendix identifies relevant legislation relating to mooring operations and associated activities. By adhering to the legislation and guidance, safe practices develop and liabilities can be better managed. All organisations involved in mooring operations are encouraged to be familiar with, and consider how best to incorporate, their legal obligations within mooring practices.

Regulation 4 of the Merchant Shipping (Means of Access) Regulations 1988 requires that access to and from the shore be provided in a safe manner. The Merchant Shipping Act 1995 (Part IV) is also relevant in this regard.

The Health and Safety at Work Act 1974

Section 2 – Employers general duties to employees (so far as reasonably practicable).

Section 3 – General duties of employers and self-employed to persons other than their employees.

Section 7 – General duties of employees at work.

Section 8 – Duty not to interfere with or misuse things provided pursuant to certain provisions.

Management of Health and Safety at Work Regulations (MHSWR) 1999

Regulation 3 – Risk Assessments

Regulation 4 – Principles of Prevention

Regulation 10 – Information for Employees

Regulation 11 – Co-operations and co-ordination

Regulation 13 – Capabilities and Training

Regulation 14 – Employers Duties

Manual Handling Operations Regulations 1992

Regulation 4 – Duties of employers

Regulation 5 – Duties of Employees

Provision and Use of Equipment Regulations (PUWER)

This regulation places duties on people and companies who own, operate or have control over work equipment. PUWER also places responsibilities on business and organisations whose employees use work equipment, whether owned by them or not.

Port Marine Safety Code (PMSC) 2016 and the Guide to Good Practice (GtGP) 2018

Harbour Authorities have the powers in byelaws and directions to regulate the mooring of vessels in the Harbour. The Marine Safety Management System should detail the use of these powers.

Health and Safety in Ports – SIP 005 – Guidance on Mooring

This document was jointly created between the Health and Safety Executive (HSE) and Port Skills and Safety (PSS). It is aimed at companies operating in the UK ports industry with responsibility for the safe design, construction, operations, management, maintenance of ports and terminal facilities and activities to allow said organisations to make improvements within the ports industry.

Guidance on Safe Access and Egress – SIP014

The ship owner/Master has a responsibility to ensure a safe means of access and egress. SIP014 gives further guidance on this.

MGN 592 Mooring, Towing or Hauling Equipment on all Vessels 2018

This Marine Guidance Note considers the whole operation rather than the individual safety aspects, details, and specific areas of interest considered during risk assessments for mooring operations.

Code of Safe Working Practices for Merchant Seafarers, as amended

This Code is published by the Maritime and Coastguard Agency (MCA) and endorsed by the National Maritime Occupational Health and Safety Committee, UK Chamber of Shipping, Nautilus International and the National Union of Rail, Maritime and Transport Workers (RMT) as best practice guidance for improving health and safety on board ship. It is intended primarily for merchant seafarers on UK-registered ships. The Code is addressed to everyone on a ship regardless of rank or rating, and to those ashore responsible for safety, because the recommendations can be effective only if they are understood by all and if everyone cooperates in their implementation. Those not actually engaged in a job in hand should be aware of what is being done, so that they may avoid putting themselves at risk or causing risk to others by impeding or needlessly interfering with the conduct of their work.