

NEWPORT DOCK MOORING OPERATIONS MANUAL



Taking of Boatmen Services

Boatmen services are compulsory for all vessels in the locks at Newport, the fees are included in the minimum locking fee (as per tariff)

The taking of licenced boatmen services is compulsory for all vessels over 500GT from the lock to the berth and the berth to the lock to comply with both Harbour Authority statutory obligations for safety of marine operations and ISPS obligations.

The boatmen licencing procedure is designed to ensure that the Harbour Authority can ensure that persons engaged in mooring operations have met the requirements of the Port Marine Safety Code in regard to standards, training and knowledge.

All vessels under 500GT and vessels employed in maintenance work within the dock that may choose not to use Harbour Authority Licenced boatmen must advise ABP Marine Management of how the proposed mooring will have been appropriately risk assessed and be undertaken under a Safe System of Work that considers the risk assessment.

Safe Systems of Work and assessments for mooring operations for vessels under 500GT not employing the services of licenced boatmen must be formulated on the basis that crew will not be jumping/ stepping from a vessel to the quay or will not be landed in the ISPS area of the lock and have to transit operational areas. Therefore, the safe system must be based on the ability to place initial moorings safely from the vessel to the shore then keep the vessel safely alongside while a safe means of access is rigged (gangway) so that crew can safely access the quay to complete mooring operations.

In dock shifting or vessels whether moving across the dock or shifting down a berth must comply with the below:

- Any vessel shifting where the lines are required to be moved between posts **must employ a licensed boatman**
- Any vessel over 100m LOA and shifting further than 100m **must have a pilot onboard.**
- All vessel-shifting movements must seek the Harbour Master's permission via Cardiff LPS before shifting.

RESPONSIBILITIES

Associated British Ports (ABP) is the Statutory & Competent Harbour Authority for Newport Dock.

Associated British Ports are the owner of Newport Dock.

Associated British Ports are the operator of the common user berths within Newport Dock.

Several Third Parties operate from leased areas within Newport Dock.

Newport Licenced Boatmen (NLB) are a private company that provide mooring services to third parties within the area that they are licensed by the Statutory Harbour Authority. (ABP) they also provide Ad-hoc boatmen services in the Newport Sea Lock.

Vessels calling at Newport are owned and chartered by a number of different parties.

As a private company NLB are responsible for the following;

- Recruitment of their own staff and ensuring sufficient numbers are available to meet the requirement of ABP and third Party customers.
- Training of their staff.
- Medical fitness of their own staff
- PPE and procedures for personal health and safety of their own employees
- Development and review of safe working practices in consultation with ABP as Statutory Authority and the third parties to whom they provide services.

Third party operators of leased terminals have responsibility for;

- The development and maintenance of procedures for the protection and Health & Safety for all persons entering their areas of operation.
- A responsibility to maintain any berth mooring equipment and the berth lighting equipment to a safe and serviceable standard and a responsibility to ensure that the working areas are kept as clear as practicable for the purposes of mooring and unmooring operations.
- A responsibility to vessel owners and charterers for certain elements of providing a "safe" berth and safe access.

Vessels (Ships Masters) have responsibility for the following;

- The ship is held firmly against the fenders at all times by means of adequate mooring lines. It is unnecessary and dangerous to slack away lines, even if they appear to be taut, if the ship is not hard against the fenders.
- There is no appreciable rise and fall or current inside the impounded docks but vessels Masters are to ensure that moorings are tended as drafts change due to loading operations.
- All mooring equipment is in good operational condition, i.e. winches, bitts and fairleads. Provision of full power on deck to all mooring winches throughout period vessels are alongside.
- Mooring lines must be in good condition and if not directly led from a designated winch must be correctly turned up on mooring bitts, figure of eight style and not left on drum ends of winches. Mooring ropes in poor condition will be refused.
- The required number of moorings refers to the number of ends of moorings. A mooring 'on the bight' only counts as one end. In practice, rope bights will not be accepted as suitable moorings.
- Tension winches must not be used. Mooring winches must be left out of gear with brakes correctly applied.
- If an anchor is used for berthing, it must be have up upon completion of mooring.
- Mooring lines on bollards or mooring hooks where the rope has the ability to release it under extreme angles of elevation are not allowed. In addition any angle exceeding the critical angle of 30° from a horizontal plane drawn between the mooring bollard and the ships fairlead is considered to compromise the safe working capacity of the restraint system.
- Winch brake holding capacities are as required, normally at a minimum of 60% of the mooring lines breaking load. It should be born in mind that the following items have a direct effect on the brake holding capacity of a winch.
- Amount of torque applied to brake.
- Number of layers of wires/ropes on the drum; split drums are generally rated for a single layer of wire/rope.
- Direction of wire turns on the drum; pull of wire/rope and pull of band brakes should operate in same direction.
- Condition of winch.
- Annually dated inspections with SWL / rope MBL and wire direction pointers marked on the winches indicate that good mooring practices may exist onboard.

ABP have a statutory responsibility;

To ensure that all marine operations within its area of jurisdiction are risk assessed and that procedures are in place so as to ensure that all identified risks are either eliminated or maintained as low as reasonably practical (ALARP) This responsibility extends to marine procedures that are undertaken by and / or for third parties.

It therefore follows that procedures for mooring and berthing in the Dock at Newport should be risk assessed, developed, agreed and maintained via consultation between and NLB and ABP as operator (and third party operators where appropriate) with the appropriate input and overview of ABP as SHA. Those agreed procedures should duly consider company policies and control of contractor procedures for both Third Party operators and ABP.

Whilst undertaking mooring operation on behalf of a vessel, the mooring staffs effectively becomes 'servants of the vessel', so the vessel is also partially responsible for their safety. All concerned parties therefore have responsibilities for the safety of staff / contractors undertaking mooring operations and have a duty to take appropriate action if they witness unsafe practices being undertaken by any party associated with the mooring / unmooring operations.

- All mooring contractors must have met the requirements established by ABP for the issue of a licence to perform mooring and berthing duties within the Dock at Newport and continue to maintain any requirements between annual checks.
- All mooring staff, third party terminal staff and ABP Marine operations staff should familiarise themselves with all safe systems of work, agreed procedures and the position of all lifebuoys and safety ladders.

Access / Egress to Berths

It is best endeavour that mooring gangs are afforded access to berths, however in the case of third party operations they may be obliged to comply with ant third party access and egress procedures in place. It is accepted that for certain circumstances, rope men may be considered as emergency responders and should be afforded access / egress in a timely manner.

Exceptional circumstances

Mooring teams are to dynamically assess the working area and advise the lock controller of any specific potential dangers identified that may require a revised method of working. Clearly identified damage to mooring equipment should be notified immediately.

It needs to be considered that at times certain equipment may become unserviceable and or not accessible on an emergent basis or that a berthing / un-berthing operation may not be practicable under established procedures. Under such circumstances, all concerned parties should be involved in an assessment of the situation that takes into consideration the prevailing circumstances and conditions and the potential consequences of not undertaking a mooring or unmooring operation so as to determine if a departure

from the documented procedures is considered appropriate and if so, what (if any) extra measures should be put in place so as to complete the operation within accepted safety parameters.

Equipment for Mooring Contractors

PPE must be worn

High visibility clothing

Safety shoes/boots

Safety Helmet

Safety Goggles/ glasses

Lifejacket (Normally 150Kn buoyancy) fitted with water activated lights.

Gloves

2 VHF radios working capable of receiving and transmitting on VHF Port working channels.

Machinery and equipment moves

During Sailing and berthing practices, ship unloaders / cranes and motorised plant will be formally in a state whereby no movements will take place whilst mooring operations are ongoing.

In the situation that Stevedores are waiting to discharge the person in charge of the mooring gang must make contact with the shift supervisor and ensure that the above has been established. Certain third party operations have procedures in place to ensure the above, NLB staff must ensure that they are familiar and comply with any such procedures.

Vessels must be able to berth safely without making contact with quayside cranes or any other equipment.

Gantry cranes (and other if used) should be moved to a safe position so that it is least likely to be struck by a vessel prior to the vessels arrival, sailing or shifting.

Pilots and PEC holders will assess flare of bows / sterns and over-side projections when considering approach angles and navigating the berth.

All efforts should be made to position cranes and quayside equipment so that mooring operations can take place safely.

Newport East Knuckle Sailing Procedure

Overview

A new fendering system has been installed around the eastern inner lock knuckle for vessels to use when sailing from Newport dock. The operational procedure below provides instruction for its correct use, aligned with the manufacturers' parameters, and minimises the risk to personnel and damage to the fenders.

Maximum Operational limits

- | | |
|--------------------|---------------|
| • Type of vessel | Bulk Carriers |
| • Max Deadweight | 40,513 T |
| • Max Displacement | 50,000 T |
| • Max Beam | 30m |
| • Max Draft | 11.5m |
| • Berthing Speed | 0.2 kts |
| • Berthing Angle | 30 degrees |

Procedure

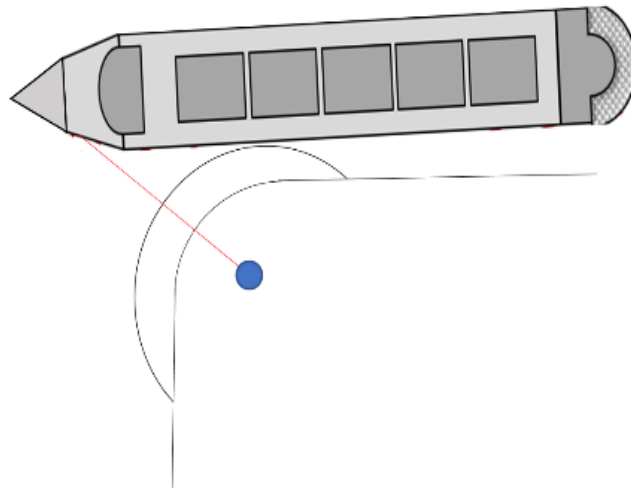
As part of the MPX, the procedure should be discussed and agreed upon with the vessel's Master. The Master should then provide a clear and straightforward description of the planned manoeuvre with the mooring parties and bridge team. The pilot should confirm that all personnel involved have a thorough understanding before commencing the procedure.

During the manoeuvre, the pilot will have clear and concise communication with the linesman and a second pilot if employed.

The fendering system is not to be used by docking vessels, any contact by vessels leaving the lock is likely to cause damage.

Phase 1

Pilots should approach the east knuckle fendering with a SOG that's as low as reasonably practicable to maintain control. When the ship's flat side is positioned to land on the fenders, the pilot should maintain an approach speed below 0.2 kts or have the vessel stopped in the water.



The forward mooring party should slowly lower the forward spring in a controlled fashion that allows the linesman to keep it elevated and prevent it from fouling on the fenders or entering the water.

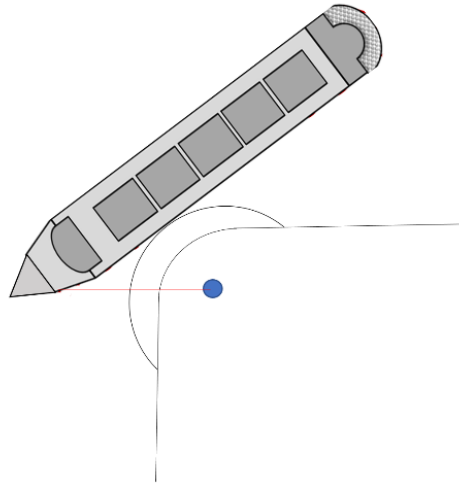
Should the line drop into the water, the crew must recover it back onboard and resend it. The linesman must not attempt to pull the line out of the dock over the fenders. They should also not step up onto the raised concrete section when landing the spring.

Phase 2

Once the vessel contacts the fenders and with the spring securely placed on the bollard, the slack should be taken up, and the line surged to the appropriate length for springing into the lock.

Before turning into the lock, the spring line must be made fast with the Master confirming such, thus preventing the vessel from gaining headway and enabling her to spring into the lock while ensuring the bow remains clear of the west knuckle.

Once the spring is fast and under tension, the linesman should stand clear of the line and the associated snapback zone.

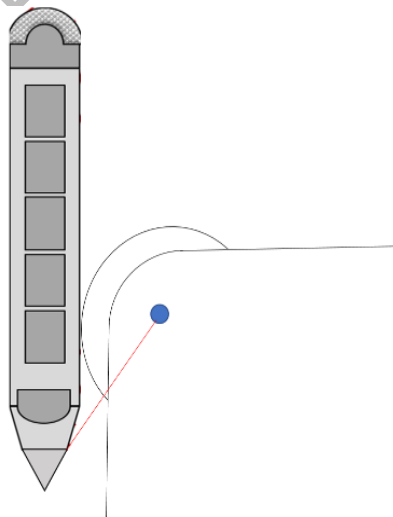


Phase 3

When the vessel is lined up, and it's safe to proceed, the pilot shall instruct the Master and the linesman to release the spring.

The linesman should remove the line from the bollard and ensure it does not foul any structure while being retrieved back on board.

Once the spring is clear, the vessel can proceed into the lock. As the vessel clears the sprung fenders, linesmen should fender the vessel as required, with handheld timber fenders, until she is safely alongside in the lock.



Mooring Requirement Guidelines

Principles

Mooring of vessels is undertaken on the principle of tying a vessel up so as to maintain the vessel's position longitudinally utilising springs lines, head and stern lines and utilisation of breast lines on some berths to help keep the vessel tight alongside.

Mooring Line Assumptions

- It is assumed that vessels visiting the enclosed dock of Newport will follow the recommendations for mooring equipment and deployment as laid out in the OCIMF publications "Mooring Equipment Guidelines" 1992 and "Effective Moorings" 1989.
- It is assumed that vessels visiting the enclosed dock of Newport will employ ropes for all mooring positions.

Mooring lines on bollards or mooring hooks where the rope has the ability to release it under extreme angles of elevation are not allowed.

Mooring Position

Every vessel stemmed to berth in the enclosed docks of Newport does so in accordance with an initial position that is designated by the ABP Operations Department or a third-party terminal representative based on the operational requirement for optimum discharge operations. This initial berthing position will be confirmed by ABP Marine Management and communicated to NLB and the vessels Master by way of information put on board in the locks.

Depending on the discharge operational plan and the size of the vessel, there may be a requirement to suspend discharge operations, move the vessels ahead or astern an agreed distance. As per conditions set out above the same requirements apply as below

- Any vessel shifting where the lines are required to be moved between posts **must employ a licensed boatman.**
- Any vessel over 100m LOA and shifting further than 100m **must have a pilot onboard.**
- All vessel-shifting movements must seek the Harbour Master's permission via Cardiff LPS before shifting.

For such occasions the new position will be agreed between the Berth Operator and ABP Marine Management. If the shift is to take place off tide the above rules will still apply, and permission must be granted by the Harbour Master or his delegated representatives before commencement of shift. No move is to take place until discharge / loading operations have ceased and the ABP/ third

party terminal representative, ABP Marine Management, NLB and vessels Master have agreed the procedure and are in all respects ready to commence.

Apart from on some third-party berths where mooring positions are dependent on unloader positions, mooring positions will be advised by bollard number and side to the quay.

Example Bollards 23-27 PST

Mooring teams are to be supplied with Green Power Flares (to mark the Stern Position) and Red Power Flares (to mark the forward spring position). There will also be cones supplied, and adapters that will enable them to fit to standard cones also.

Once the vessel is in her new position Newport Pierhead will inform Cardiff LPS of the new position of the vessel.

Pre-user Checks

A visual pre-use check of the designated mooring equipment (e.g. bollards / mooring rings) to be utilised for any given mooring operation (lock or berth) must be undertaken and the findings communicated to the Lock Controller. The third-party boatmen must advise the Lock Controller via VHF that the mooring equipment is in 'apparent' good order.

Bollards that are already confirmed as non-operational will be recorded on a register and will be physically marked as out of use. These will not be required to be reported by boatmen however, if a defective bollard or area of quay is identified this must be reported to the lock controller via VHF.

Lock Controllers / LPS to record all findings via Log Book and Notice to Masters Acknowledgement Receipt. Areas of quay or mooring equipment highlighted during the visual inspection as not in 'apparent' good order are not to be used and must be reported following internal procedures.

Please refer to the Group ABP-HS-PR-032 Safe Management of Mooring Equipment - The master document can be found on the ABP Marine and Compliance Site.

Indicative Mooring Plans

