

A Seaman's Guide to: **PILOT LADDERS**

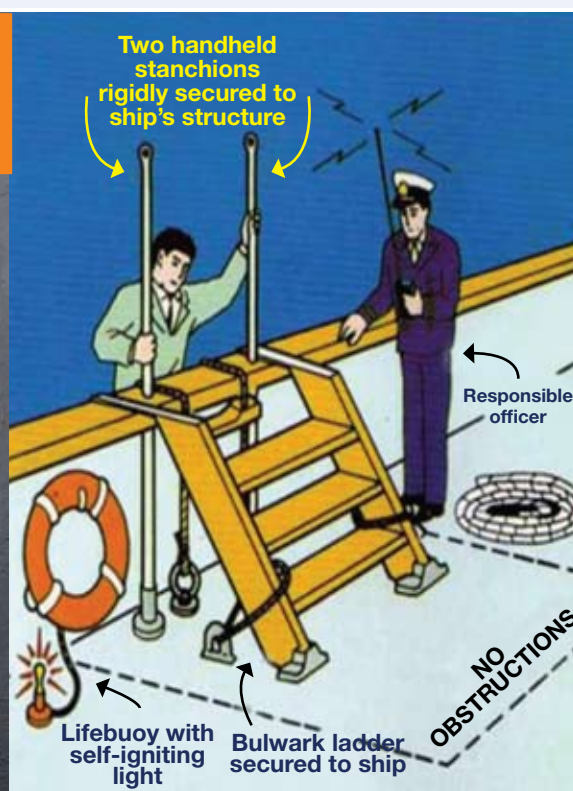
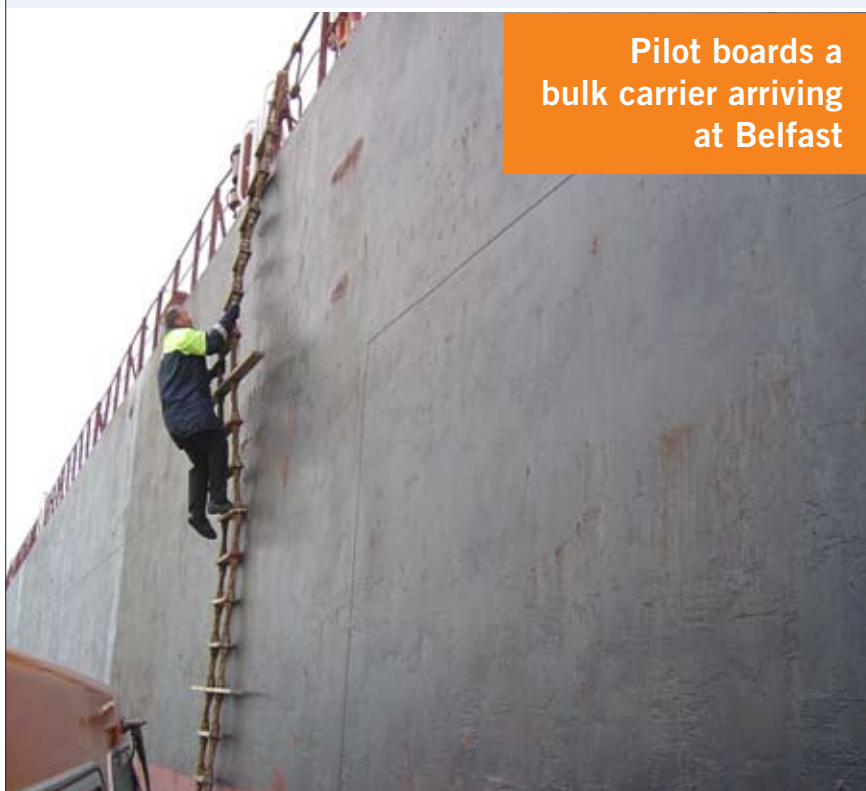
Correct position for pilot ladder

Safe access should be provided to ensure the safe, convenient and unobstructed passage of any person embarking or disembarking from the ship between the head of the pilot ladder, or any accommodation ladder or other appliance and the ship's deck.

Where such access is by means of a gateway in the rails or bulwark, adequate handholds should be provided.

Where such access is by means of a bulwark ladder, two handhold stanchions rigidly secured to the ship's structure at or near their bases and at higher points should be fitted.

The bulwark ladder should be securely attached to the ship to prevent it overturning. Shipside doors used for pilot transfer should not open outwards.



IMO Requirements/IMPA Recommendations for Pilot Boarding Arrangements



The Standard



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Ladder construction - 1

The steps of the pilot ladder should comply with the following requirements:

- if made of hardwood, they should be made in one piece and free of knots
- if made of material other than hardwood, they should be of equivalent strength, stiffness and durability to the satisfaction of the administration (i.e. Flag State of ship)
- the four lowest steps may be of rubber of sufficient strength and stiffness or other material to the satisfaction of the administration (i.e. Flag State of ship)
- they should have an efficient non-slip surface
- they should be not less than 400mm between the side ropes, 115mm wide and 25mm in depth, excluding any non-slip device or grooving
- they should be equally spaced not less than 300mm or more than 380mm apart
- they should be secured in such a manner that each will remain horizontal



◀ This ship has a freeboard where the distance from sea level to the point of access to, or egress from the ship exceeds 9 metres as indicated by the IMO pilot freeboard mark on the ship's side.

A combination ladder must be rigged in this case.

Lower spreader step has damaged lashing and is no longer horizontal.



▲ This is not a pilot ladder



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Ladder construction - 2

No pilot ladder should have more than two replacement steps that are secured in position by a method different from that used in the original construction of the ladder. Any steps secured differently should be replaced as soon as reasonably practicable by steps secured in position by the method used in the original construction of the pilot ladder. When any replacement step is secured to the side ropes of the pilot ladder by means of grooves in the

sides of the step, such grooves should be in the longer sides of the step.

Pilot ladders with more than five steps should have spreader steps not less than 1.8m long provided at such intervals as will prevent the pilot ladder from twisting. The lowest spreader step should be the fifth step from the bottom of the ladder and the interval between any spreader step and the next should not exceed nine steps.



▲ This attachment method is not considered best practice.

Ropes show signs of age and effects of weathering.

Ropes

The securing strong points, shackles and securing ropes should be at least as strong as the side ropes specified below.

The side ropes of the pilot ladder should consist of two uncovered ropes not less than 18mm in diameter on each side and should be continuous, with no joins below the top step.

Side ropes should be made of manila or other material of equivalent strength, durability and grip, which has been protected against actinic degradation and is satisfactory to the administration.

► Spreader step at deck level is being used to support the full weight of the ladder and pilot. Not considered best practice.

Ladder is rigged too long and could be trapped by the launch.

This ladder has more than five steps before a spreader.

Lowest spreader step situated five steps from bottom of ladder is not fitted.



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Rigging

1. Arrangements should be provided to enable the pilot to embark and disembark safely on either side of the ship.
2. Safe and convenient access to, and from the ship should be provided by a pilot ladder:
 - requiring a climb of not less than 1.5m and not more than 9m above the surface of the water so positioned and secured that it is clear of any possible discharges from the ship
 - situated within the parallel body length of the ship and, as far as is practicable, within the mid-ship half length of the ship
 - where each step rests firmly against the ship's side; where constructional features, such as rubbing bands, would prevent the implementation of this provision, special arrangements should, to the satisfaction of the administration, be made to ensure that people are able to embark and disembark safely
 - where the single length of pilot ladder is capable of reaching the water from the point of access to or from, the ship and due allowance is made for all conditions of loading and trim of the ship, and for an adverse list of 15°
 - where the securing strong point, shackles and securing ropes should be at least as strong as the side ropes



◀ Bottom spreader is a replacement of different construction. Should be replaced as soon as possible.

Bottom 4 steps not stiffened. Ladder rigged in way of overboard discharge

▶ Well positioned, well maintained and properly rigged ladder.

Within parallel length, mid ships and steps resting firmly against ships side.



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Associated equipment

The following associated equipment shall be kept at hand ready for immediate use when persons are being transferred:

- a lifebuoy equipped with a self-activating light and a heaving line
- if required by the pilot; two man-ropes of not less than 28mm in diameter properly secured to the ship
- stanchions and bulwark ladders shall be provided if required

Lighting

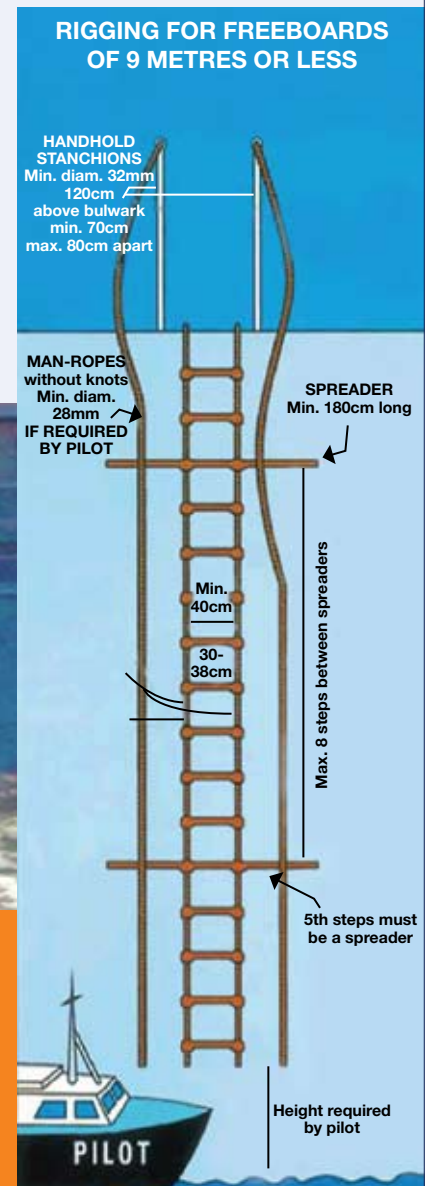
Adequate lighting shall be provided to illuminate the transfer arrangements over-side, and the position on deck where a person embarks or disembarks.



▲ Pilot boat approaching a ship for boarding.

No lifesaving appliances or bulwark stanchions in place.
No responsible person in attendance.

Because no spreader step fitted this is not considered a "pilot ladder".



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Maintenance and stowage of pilot ladders as per SOLAS V

All arrangements used for pilot transfer should efficiently fulfil their purpose of enabling pilots to embark and disembark safely.

The appliances should be kept clean, properly maintained and stowed, and should be regularly inspected to ensure that they are safe to use.

They should be used solely for the embarkation and disembarkation of personnel.

Stowage and maintenance tips

Ladders should be:

- stowed in a dry and well ventilated location
- stowed clear of the deck
- fitted with a cover to protect from sunlight, chemical or paint spills, etc
- inspected for damage to steps, ropes and lashings before use

EXAMPLES OF POOR CONSTRUCTION AND RIGGING

▼ Metal bulldog clips used as lashings.



▼ Electric cable ties used for wedge lashings.



Hard Edge

▲ Ladder constructed using alloy ferules.

May cause ropes to kink. Makes rope inspection difficult, retains moisture in the rope. Can potentially produce a hard edge on the rope.

