Bulletin

CCS Australian Office, No. 087, 2023 Issue 003

PILOT TRANSFER ARRANGEMENT

Based on AMSA Marine Notice 23/04

BACKGROUND

Since November 2017 several pilots' lives were placed at risk, in multiple separate incidents where a man rope parted, or its securing point failed. Additionally, AMSA received several incident reports on safety issues related to pilot transfer arrangements and hence, issued the latest Marine Notice 23/04 on the matter. For assisting ship owners, ship operators, masters and ship crew in better understanding the notice, CCS Australian Office composed this bulletin as follows.

PILOT LADDER TECHNICAL REQUIREMENTS/STANDARDS

SOLASV/23 sets out the minimum standards for pilot transfer arrangements on ships on or after 1July 2012. The International Maritime Organization (IMO) standards related to pilot transfer arrangements are found in:

- IMOResolutionA.1045(27) – Pilot transfer arrangements.
- IMOResolutionA.1108(29) – Amendments to the Recommendations on Pilot Transfer Arrangements (ResolutionA.1045(27)).
- MSC.1/Circ. 1428 – Pilot Transfer Arrangements – Required boarding

arrangements for pilots.

- MSC.1/Circ.1495/Rev.1.–Unified Interpretation of SOLAS Regulation V/23.3.3 on Pilot Transfer Arrangements

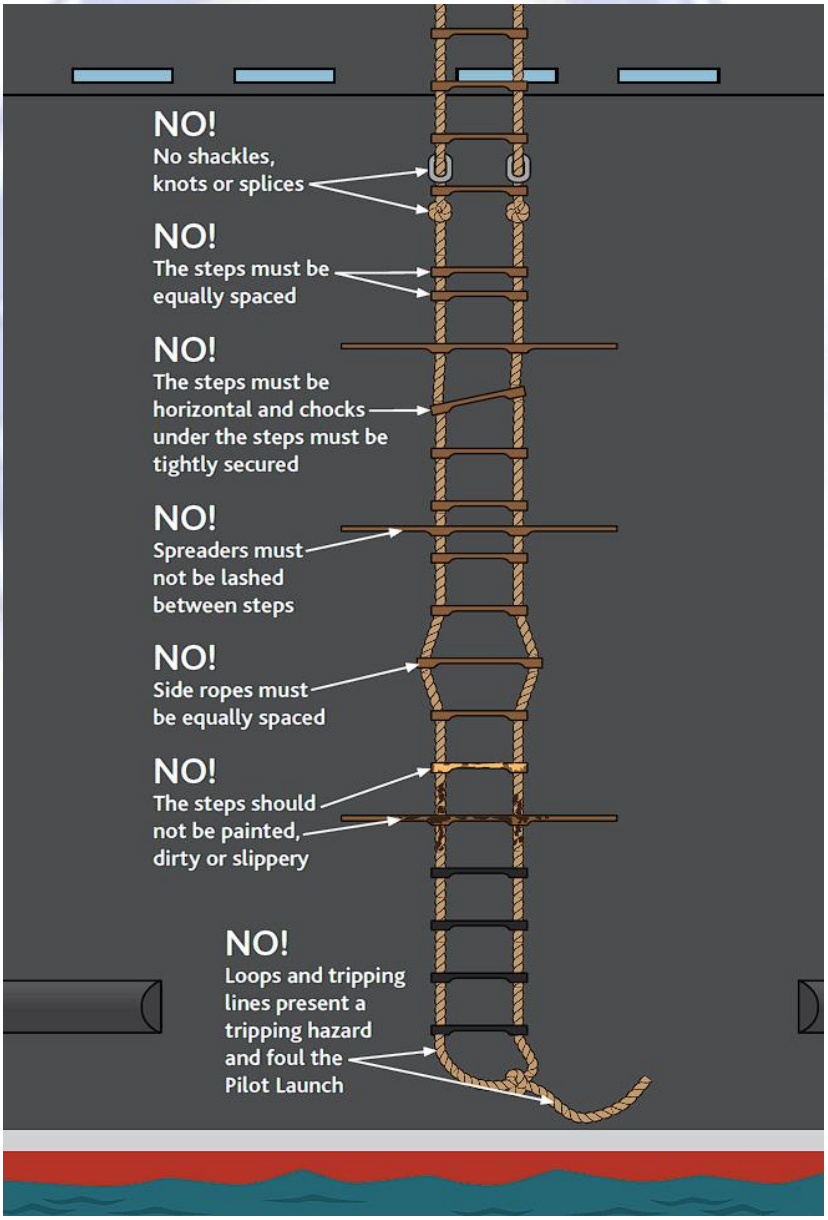
SOLASV/23.2.3 also states a pilot ladder shall be certified by the manufacturer as complying with SOLASV/23 or "with an international standard acceptable to the Organization" and refers to ISO 799-1:2019 "Ships and marine technology–pilot ladders". Where a pilot ladder has been certified under the ISO standard, AMSA expects that the ladder is strength tested according to the standard. Where this test has not been conducted within 30 months, the ladder should not be used until the test is conducted, or the ladder is replaced. When purchasing a pilot ladder, care should be exercised that the product supplied actually meets the above requirements – merely relying on the manufacturer's documentation may not be sufficient in some cases.

PIOT TRANSFER ARRANGEMENTS

For appropriate application of pilot transfer arrangements, IMO issued MSC.1/Circ.1428 PILOT TRANSFER ARRANGEMENTS (see Attachment 1), which refers to the graph from IMO A.1045 (27) (see Attachment 2) to illustrate the requirements of the application of pilot transfer arrangements. This bulletin incorporates the previous CCS Australian Office Bulletin No.56 to further interpret the requirements that are indicated in the graphs from MSC.1/Circ.1428.

Interpretation of Graph 1 (following a top-down order in the graph)

1. Side Ropes: No shackles, knots or splices (see IMO A.1045（27）2.2.1);
2. Steps: the step must be equally spaced (see IMO A.1045（27）2.1.2.6);
3. Steps: the steps must be horizontal and chocks under the steps must be tightly secured (see IMO A.1045（27）2.1.2.7 & 2.2.3);
4. Spreaders: spreaders must not be lashed between steps (see IMO A.1045（27）2.1.4);



Graph 1

5. Side Ropes: side ropes must be equally spaced throughout their lengths (see IMO A.1045 (27) 2.1.2.6);
6. Steps: the sides should not be painted, dirty or slippery (see IMO A.1045 (27) 2.1.2.4);
7. Loops and Tripping lines: Loops and tripping lines must not be present at the lower end of the pilot ladder as they can cause a tripping hazard and foul the pilot launch.

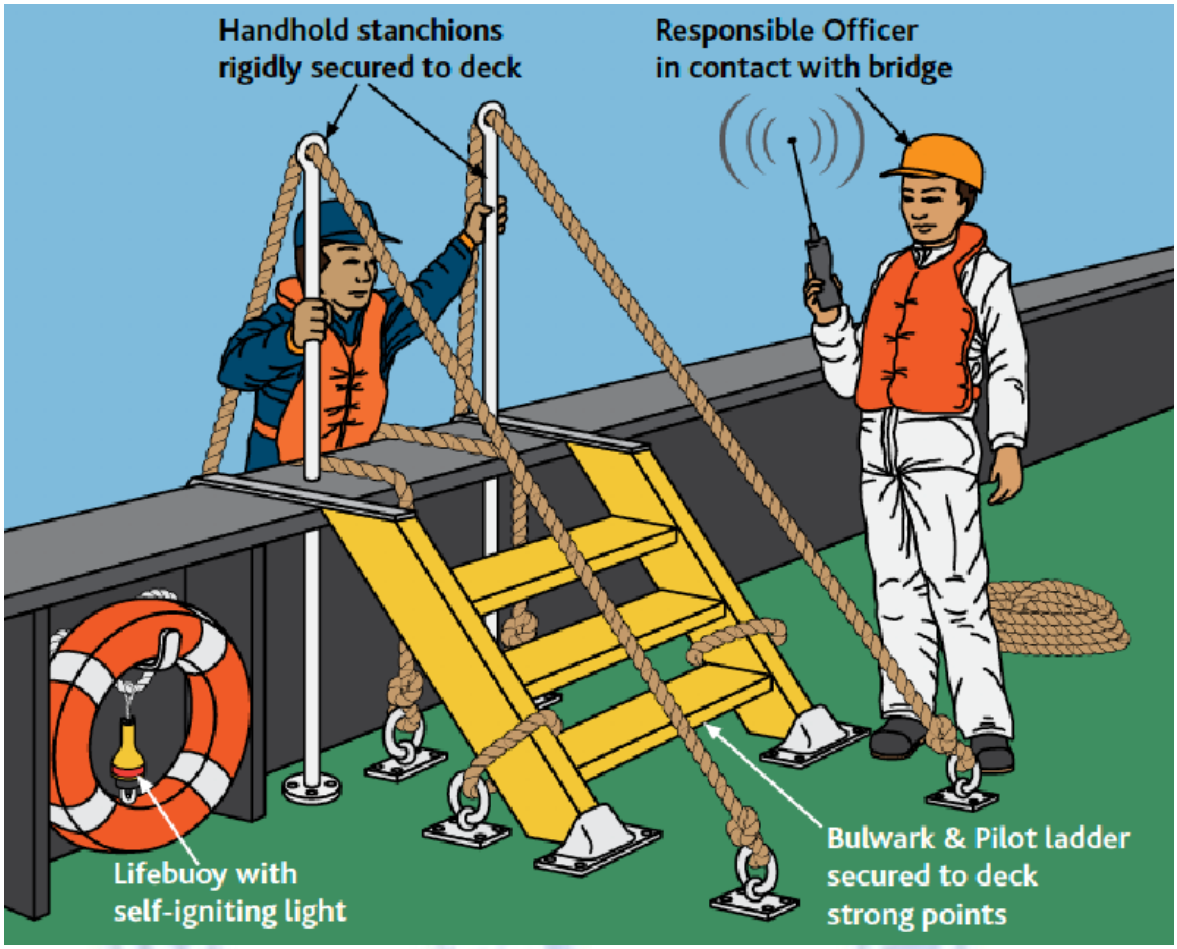
In addition to the above, AMSA Marine Notice 2023/04 emphasized the followings:

8. When not in use, the pilot ladder and man ropes should be stowed appropriately to avoid exposure to contaminants or other elements that will degrade the ladder and man ropes. The ladder and man ropes should be regularly inspected by the ship' s crew to ensure they remain ready for use.

Interpretation of Graph 2 (following a top-down and left-tight order in the graph)

1. Handhold stanchions must be rigidly secured to deck (see IMO A.1045 (27) 5.1 & 5.2, and also SOLAS Chapter V, Reg.23, 4.1 & 4.2 & 7.1.1);
2. Responsible Officer must be in contact with bridge (see SOLAS Chapter V Reg.23, 2.2);
3. Lifebuoy with self-igniting light must be secured to a deck strong point

(see SOLAS Chapter V Reg.23, 7.1.2);



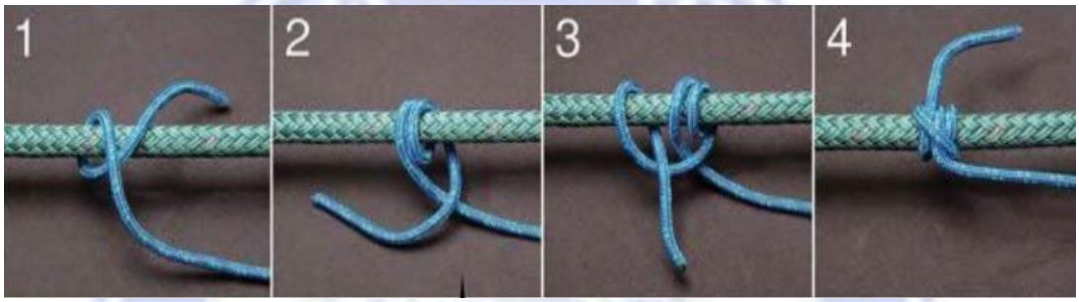
Graph 2

4. Bulwark & Pilot Ladder secured to deck strong points (see IMO A.1045 (27) 5 and SOLAS Chapter V, Reg.23, 4.2);

In addition to the above, AMSA Marine Notice 2023/04 gave the methods of securing pilot ladder:

5. It is common industry practice to use a rope stopper usually in the form of a 'rolling hitch knot' (Picture 1) between the pilot ladder sides ropes and the approved strong point on the main deck. This will transfer the weight of the ladder arrangement directly onto the designated strong point and will not damage the ladder.

6. Though rope type is not specified in SOLAS the Australasian Marine Pilots Institute recommends grade 1 manila be used. These should be tagged and included in onboard inspection and maintenance procedures. Good practice dictates these should be removed from service at the same intervals of not more than 30 months or sooner if required.



Picture 1 (Source: AMSA Marine Notice 2023/04)

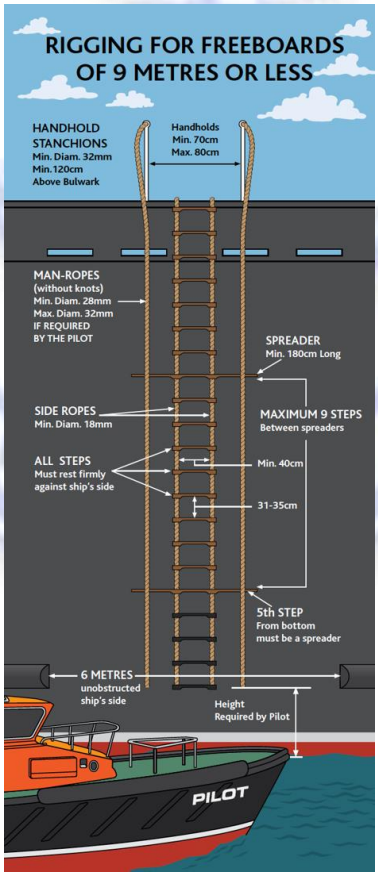
Picture 2 appropriate application of rolling hitch knot to secure a pilot ladder to a deck strong point (Source: AMSA Marine Notice 2023/04)

Interpretation of Graph 3 (following a top-down order in the graph)

1. Handhold Stanchion Dimensions & Location: stanchion min. dia.

32mm and min. 120cm above bulwark; two stanchions apart by 700-800mm (see IMO A.1045（27）5.1 & 5.2);

2. Manropes: manropes should be provided if required by the pilot, min. dia. 28mm and max. dia. 32mm, must not have knots (see SOLAS Chapter V Reg.23, 7.1.1);
3. Side Ropes: min. dia. 18mm (see IMO A.1045（27）2.2.1);
4. Steps: all steps must rest firmly against ship’ s side; side ropes on both sides of the steps should be min. 400mm away from the mid-points of the steps; steps must be equally spaced at a distance between 310mm – 350mm (see IMO A.1045（27）2.1.2.5 & 2.1.2.6, and SOLAS Chapter V, Reg.23, 3.3.1.3);



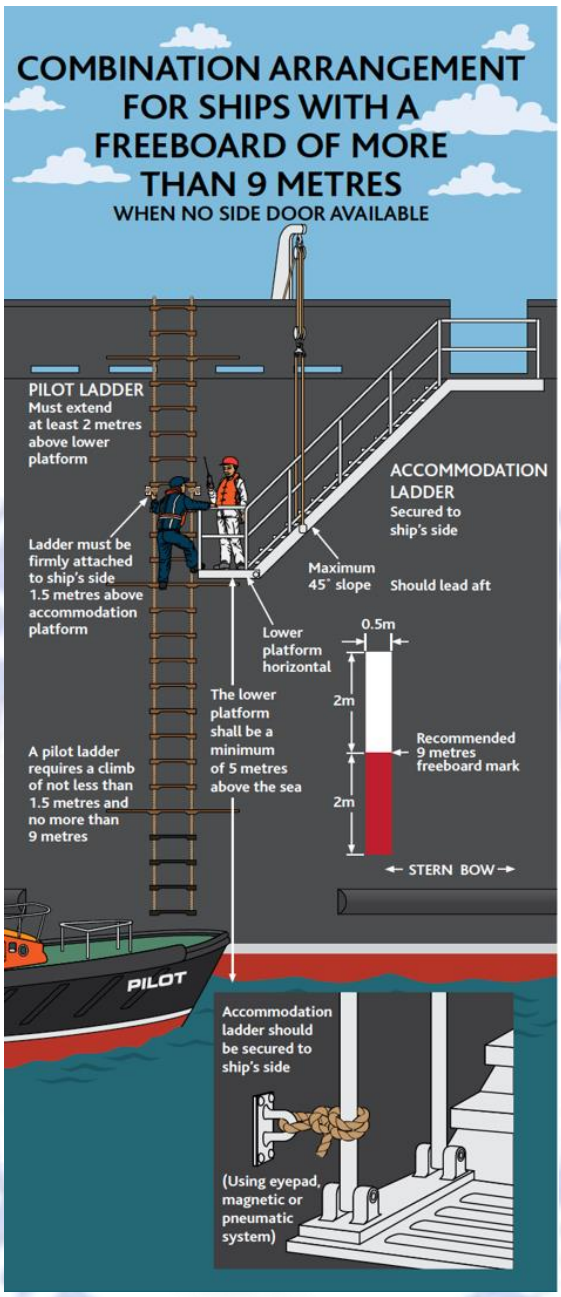
Graph 3

5. Spreaders: min. 180cm long; max. number of steps between every two adjacent spreaders is 9; the 5th step from the ladder bottom must be a spreader; the very bottom 4 steps are usually made of rubber material (see IMO A.1045（27）2.1.4& 2.1.2.3) ;
6. Approachability of the Pilot Boat: a min. 6-meters unobstructed ship side should be ensured (if ship’ s fenderbeam obstructs the pilot boat approaching the pilot ladder, it should be cut off accordingly) (see IMO A.1045（27）6);
7. The height of the ladder bottom above the pilot boat is dictated by the pilot.

In addition to the above, AMSA Marine Notice 2023/04 emphasized the followings:

8. Clear and efficient communication with the pilot boat master is essential to ensure the safety of the pilot transfer arrangements before a person uses the ladder. The pilot boat master is best positioned to judge correct height of the bottom of the ladder and identify any potential issues with the ladder or ropes once in place.

Interpretation of Graph 4 (following a top-down order in the graph)



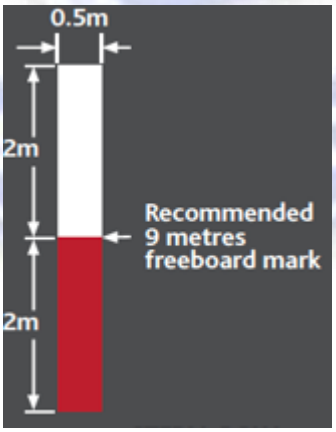
Graph 4

In the case of a freeboard exceeding 9m, a pilot ladder is usually adopted in conjunction with an accommodation ladder, and namely, combination pilot ladder arrangement.

1. Positioning of Pilot Ladder:
    - Pilot ladder must extend at least 2m above the lower platform of the accommodation ladder (see IMOA.1045（27）3.6);

- Pilot ladder must be firmly attached to the ship' s side 1.5m above the accommodation platform (SOLAS Chapter V, Reg.23, 3.3.2.1);
- A pilot ladder requires a climb of not less than 1.5m and no more than 9m (SOLAS Chapter V, Reg.23, 3.3.2)

2. Position of Accommodation Ladder:
    - Accommodation ladder must lead aft with a slope of no more than 45 degrees (see IMOA.1045（27）3.2，and SOLAS Chapter V, Reg.23, 3.3.2).
    - Lower accommodation platform should be kept horizontal and be secured to the ship side using an eyepad, magnetic or pneumatic system (see IMO A.1045（27）3.3);
    - Lower accommodation platform shall be a minimum of 5m above the sea.
3. Recommended 9m freeboard mark as shown in graph 5 below.

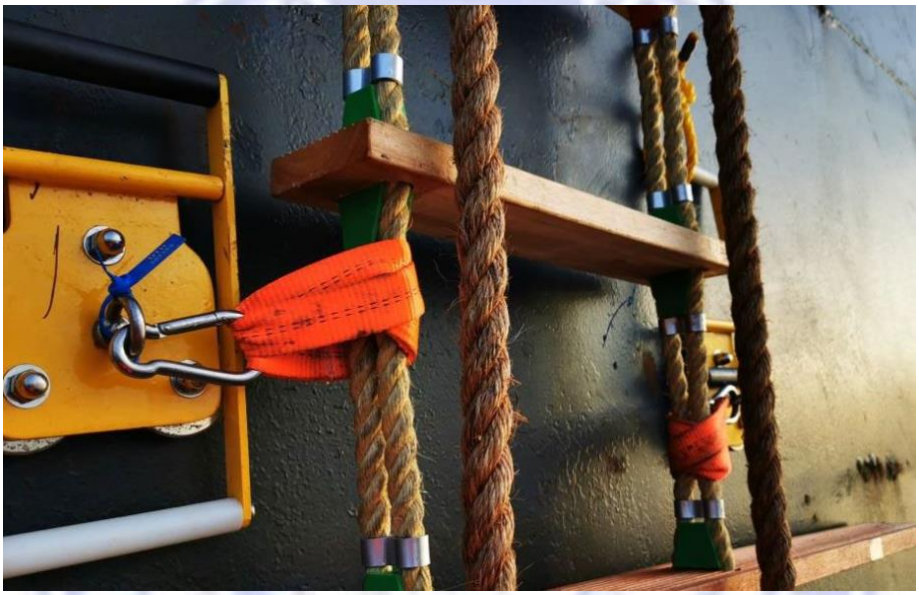


Graph 5

In addition to the above, AMSA Marine Notice 2023/04 emphasized the

followings:

4. Care should be taken of the freeboard height to ascertain the necessity of combination pilot ladder arrangement. If the arrangement is necessary, attention should be paid to the method of securing the ladder to the ship side. A common means of securing both the pilot ladder and accommodation ladders is with magnetic pads (Picture 3).



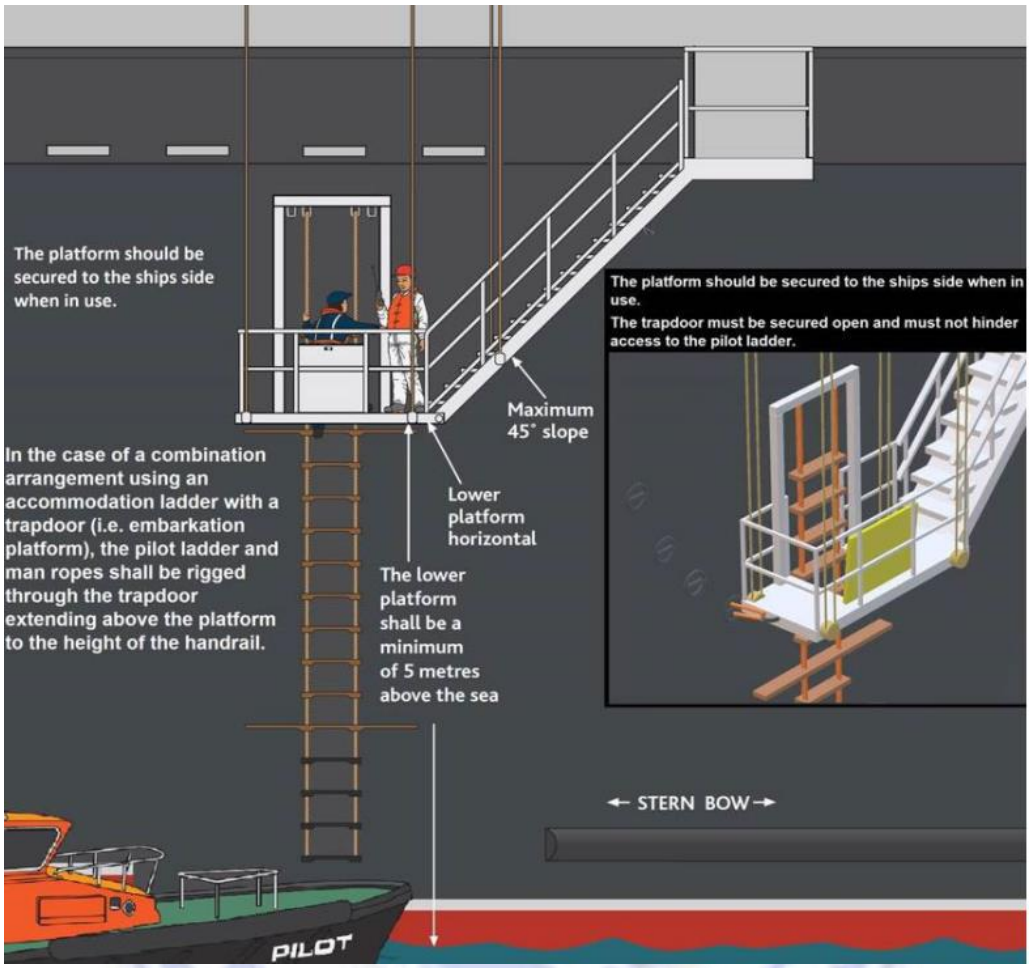
Picture 3 (Source: AMSA Marine Notice 2023/04)

Interpretation of Graph 6 (following a top-down order in the graph)

The Application of Pilot Trapdoor with an Accommodation Ladder

1. The lower platform shall be secured to the ship side, a minimum of 5m above the sea and kept horizontal;
2. The trapdoor must be secured open and must not hinder access to the pilot ladder;
3. In the case of a combination arrangement using an accommodation

ladder with a trapdoor (i.e. embarkation platform), the pilot ladder and manropes shall be rigged through the trapdoor extending above the platform to the height of the handrail.



Graph 6 (Source: AMSA Marine Notice 2023/04)

Interpretation of Pilot Ladder Reels

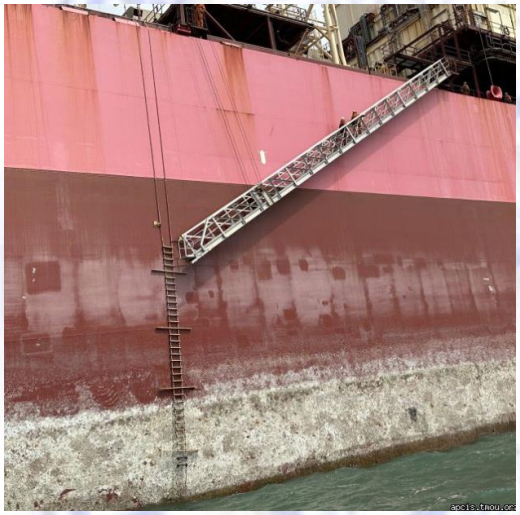
Some ships adopt a special arrangement of Pilot Ladder Reels whose requirements can be referred to item 7 in the attachment, IMO A.1045（27）and to the illustration enclosed in MSC.1/Circ.1428 therein. This bulletin will not provide further interpretation on the subject.

DEFICIENCIES RELATED TO PILOT LADDERS

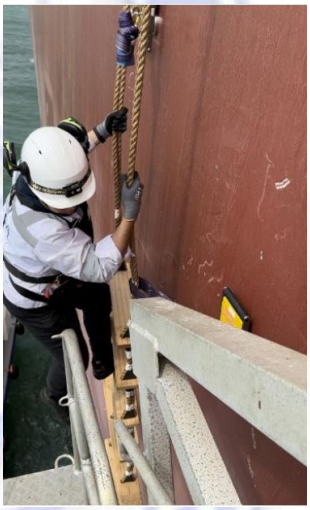
According to AMSA Marine Notice 2023/04, following deficiencies are exemplified:

1. Positioning a Pilot Ladder:

   One common issue found is that the pilot ladder does not extend the required2.0m past the accommodation platform when a combination arrangement is used. Picture 4 & 5 illustrate an example of a pilot ladder not extending the required height past the platform.



Picture 4



Picture 5

(Source: AMSA Marine Notice 2023/04)

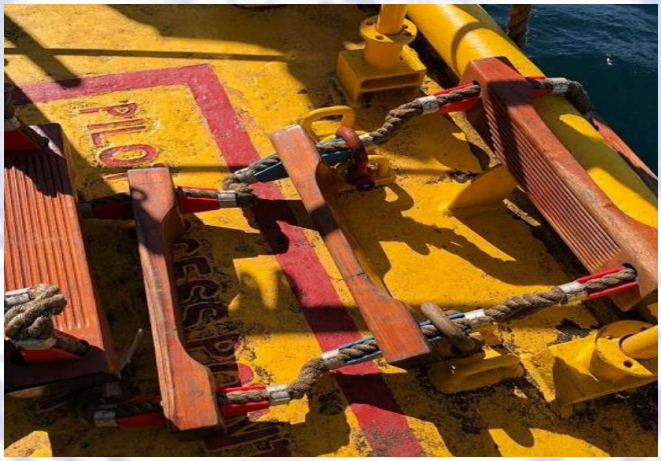
2. Securing Pilot Transfer Arrangement:

   The pilot ladder is normally secured at its thimble end with shackles. However, due to the varying freeboard at specific loading conditions, the pilot ladder cannot always be secured at full length by the thimble ends. Under such circumstances it must be secured at an intermediate length. That can only be done in a safe way by ensuring that the weight

of the ladder is transferred from ladder' s side ropes to the approved strong point on deck directly.

The ladder' s steps, spreaders or chocks should not be used to carry the weight of the ladder as they are not designed for this and do not have sufficient strength. For this reason, shackles, bars and tongues should not be used to secure the ladder to the deck. They will damage the ladder and put weight on the parts which are not designed to carry the weight.

Picture 6 & 7 show examples of unsafe use of shackles to secure pilot ladders.



Picture 6 (Source: AMSA Marine Notice 2023/04)

Picture 7 Unsafe pilot ladder securing arrangements

(Source: AMSA Marine Notice 2023/04)

3. Routine Inspection and Maintenance:

   Ongoing inspection and maintenance of pilot boarding arrangements are an essential part of ensuring their continued safe operation. Paragraph 10.1 of Part A of the International Safety Management Code (ISM) requires ship operators establish procedures to ensure a ship is maintained in conformity with the relevant rules and regulations, including pilot transfer arrangements. Such procedures should include regular inspections of the pilot transfer arrangements and storage to prevent damage of such equipment when not in use.

   Common areas of defects can be the thimble ends of the pilot ladder. Corroded end point thimbles as illustrated in Picture 8, can damage the side ropes leading to failure.

Picture 8

(Source: AMSA Marine Notice 2023/04)

Another common area is the frayed or damaged side ropes as illustrated in Picture 9, and as a result, Pilot ladder where side ropes parted when in use (Picture 10). These should be detected during routine visual inspections.

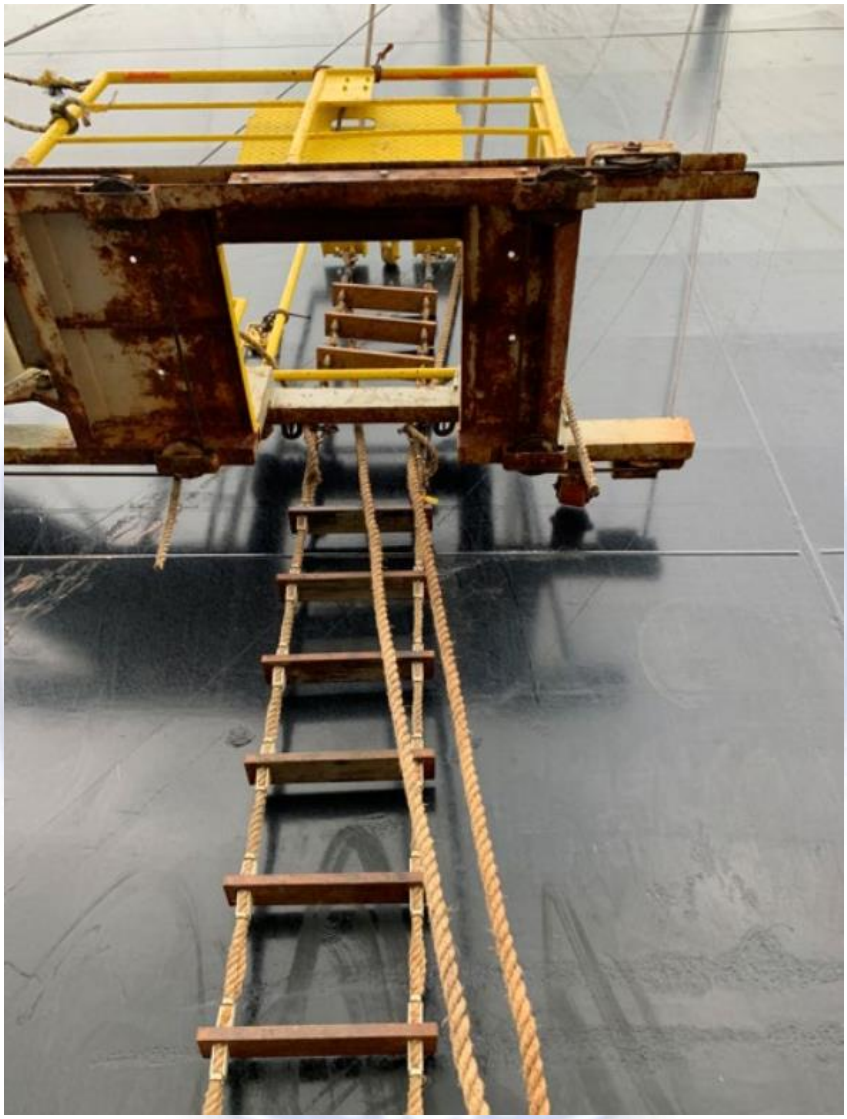
Picture 9

Picture 10

(Source: AMSA Marine Notice 2023/04)

4. Application of Pilot Trapdoor with an Accommodation Ladder:

   If the pilot ladder and manropes are not rigged through the trapdoor this creates an unsafe arrangement for persons as illustrated in Picture 11.



Picture 11

CONSEQUENCE

Where a person suspects that the pilot transfer arrangement provided is unsafe, they should refuse to use the arrangement until it is made safe by

the master and crew and report the circumstances to AMSA and their employer. Where such situations occur, AMSA will endeavor to follow-up to determine the cause and actions taken. Where a ship is not calling into an Australian port, AMSA will follow up with the flag State.

ADDITIONAL INFORMATION

References in regard to pilot transfer arrangement:

- Marine Order 21 (Section 12)
- IMO/IMPA Pilot Ladder Poster

This and other useful guidance material are available on the AMSA website and in the AMSA Pilot mobile App.

RECOMMENDATIONS & NOTES

Regarding Pilot Transfer Arrangement, we bring the followings to the attention of the operators of the ships calling Australia:

1. When conducting port State control (PSC) inspections, AMSA inspectors will pay particular attention to the material state of all equipment and the implementation of Marine Order 21, Res.A.1045(27) as amended by Res.A.1108(29), ISO 799-1:2019, MSC.1/Circ.1428 and MSC.1/Circ.1495/Rev.1. The relevant IMO circulars and resolutions can be obtained from AMSA orwww.imo.org.
2. It should be noted by operators coming to Australian ports that the availability of compliant pilot ladders is limited in Australia. To prevent

avoidable delays operators are recommended to have spare compliant pilot transfer arrangements onboard.

3. Crew members assigned to rig a pilot transfer arrangement should be sufficiently familiar with the task. The master or responsible officer supervising the rigging of the pilot transfer arrangements should assess whether supplementary measures, such as lifejackets, harnesses, lifelines be made available to enhance the safety of personnel rigging the pilot transfer arrangement.
4. Where a pilot transfer arrangement is rigged incorrectly, this may contribute to evidence that the master or crew are not familiar with essential shipboard procedures relating to the safety of the ship, which may be seen as a deficiency that leads to a ship detention.

CCS Australia Office

July 22, 2023

Announcement:

1. Intention is to assist and ensure owners to understand and well prepared, ensuring all updated requirements from AMSA can be met
2. For more information, please visit AMSA website at www.amsa.gov.au and CCS website at www.ccs.org.cn
3. The information contained does not and cannot supersede any AMSA or related governing parties requirements as well