

This document is intended as a guide for Masters to show examples of the unacceptable and unsafe practice that has been seen on the Firth of Forth and to show what is deemed acceptable as per SOLAS Chapter V Regulation 23 and IMO Resolution A.1045 (27)

Forth Pilots places the safety of staff at the highest level of importance and will make no exceptions in the interests of safety.

Vessels are expected to meet the requirements of the regulations as laid out in SOLAS Chapter V Regulation 23 and IMO Resolution A.1045 (27)

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Part A – Non Compliant Examples

1. Securing of the Pilot Ladder

There have been numerous issues around the safe and proper securing of Pilot Ladder arrangements both when used by vessels presenting freeboards less than 9m and with larger freeboards utilising a combination arrangement.

As seen in the next image shackles over side ropes is a commonly seen practice for securing ladders. This is an ineffective and unsafe means of securing the Pilot Ladder. Weight coming on the ladder will result in the shackles bringing up against steps or the step securing wedges.

Steps are rated to 8kNs and Side Ropes have a breaking strength of 24kNs per side rope with a combined strength of 48kNs. This strength is lost as soon as the weight is held by a step or chock/widget.

IMO Res.1045 (27) 2.11

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



This image shows the secondary lashings after being requested by the Pilot. As per good seamanship these secondary lashing should be a rolling hitch 1 with the standing part leading so that the lashing seizes when weight is applied to the ladder.



The Ashley Book of Knots, #1734, #1735



Forth Pilots will not accept Pilot Ladders secured around railings or hand rails.

These can have sharp edges that could damage side ropes or have hidden corrosion resulting in a failure.

Forth Pilots will not accept shackles over side ropes as a securing measure.

2. Accommodation Ladders – Combination Arrangements



This image shows an accommodation ladder with a nonhorizontal platform and a distance from the platform to sea level of less than 5m.

If lower platform is less than 5 m above sea level this becomes a hazard for the Pilot Vessel, the Pilot and crew waiting to embark the vessel. This hazard increases with sea and swell height.

IMO Res.1045 (27) 3.3

The lower platform of the accommodation ladder should be in a horizontal position and secured to the ship's side when in use. The lower platform should be a minimum of 5m above sea level.

Pilot Ladders should be properly secured with both side ropes to the ships side 1.5m above the bottom platform of the accommodation ladder.

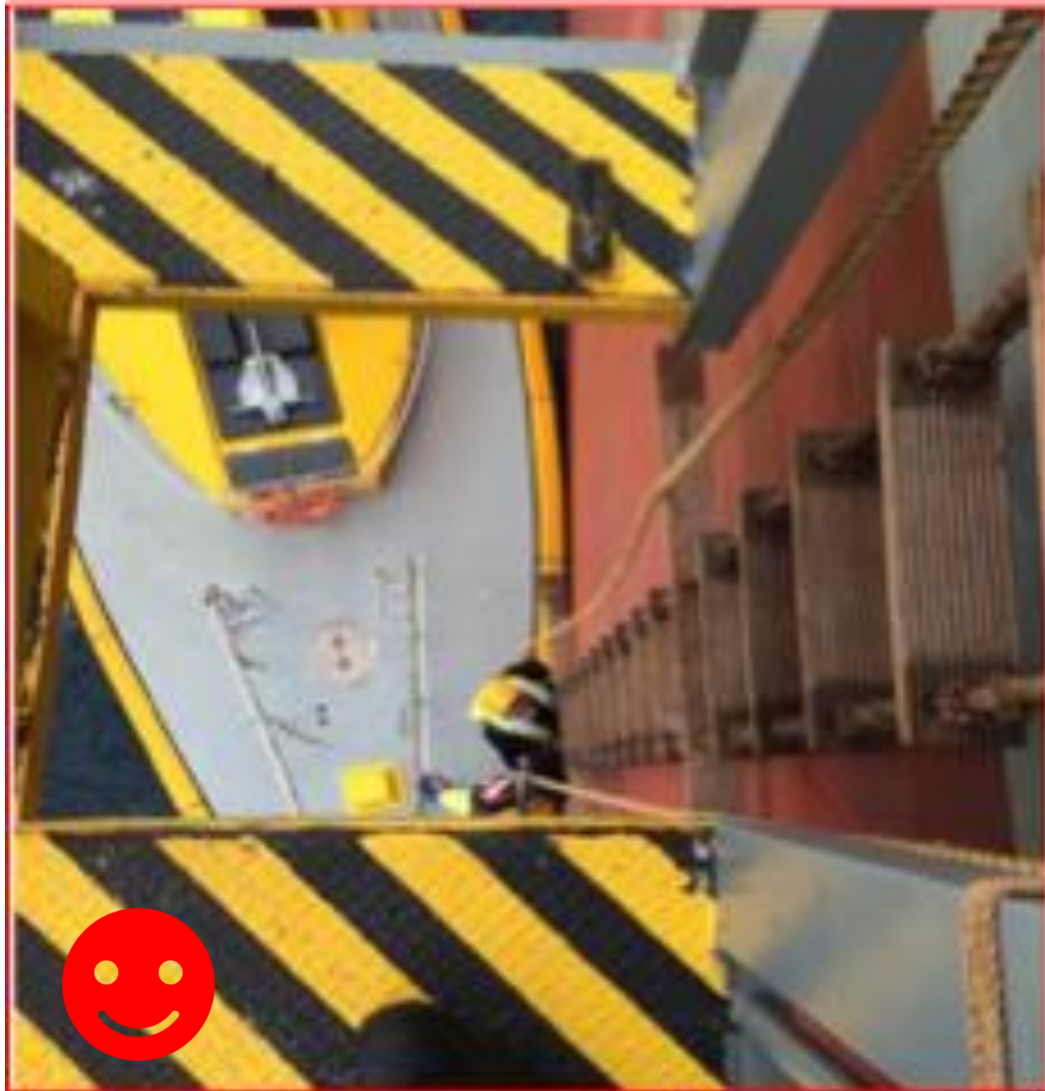
SOLAS Chapter V – Regulation 23

3.3.2.1 When a combination arrangement is used for pilot access, means shall be provided to secure the pilot ladder and manropes to the ship's side at a point of nominally 1.5m above the bottom platform of the accommodation ladder.

A trapdoor arrangement may be used to facilitate safe transfer.

- *If a trapdoor is fitted in the lower platform to allow access from and to the pilot ladder, the aperture should not be less than 750 mm x 750 mm.*
- *The trapdoor should open upwards and be secured either flat on the embarkation platform or against the rails at the aft end or outboard side of the platform and should not form part of the handholds.*
- *The after part of the lower platform should also be fenced*
- *The pilot ladder should extend above the lower platform to at least the height of the handrail.*
- *The Pilot Ladder must be firmly attached to the ship's side at a height of 1.5 metres above the platform. It must not be secured by fastenings to the accommodation ladder.*
- *All steps of a pilot ladder must lie flat against the side of the ship.*





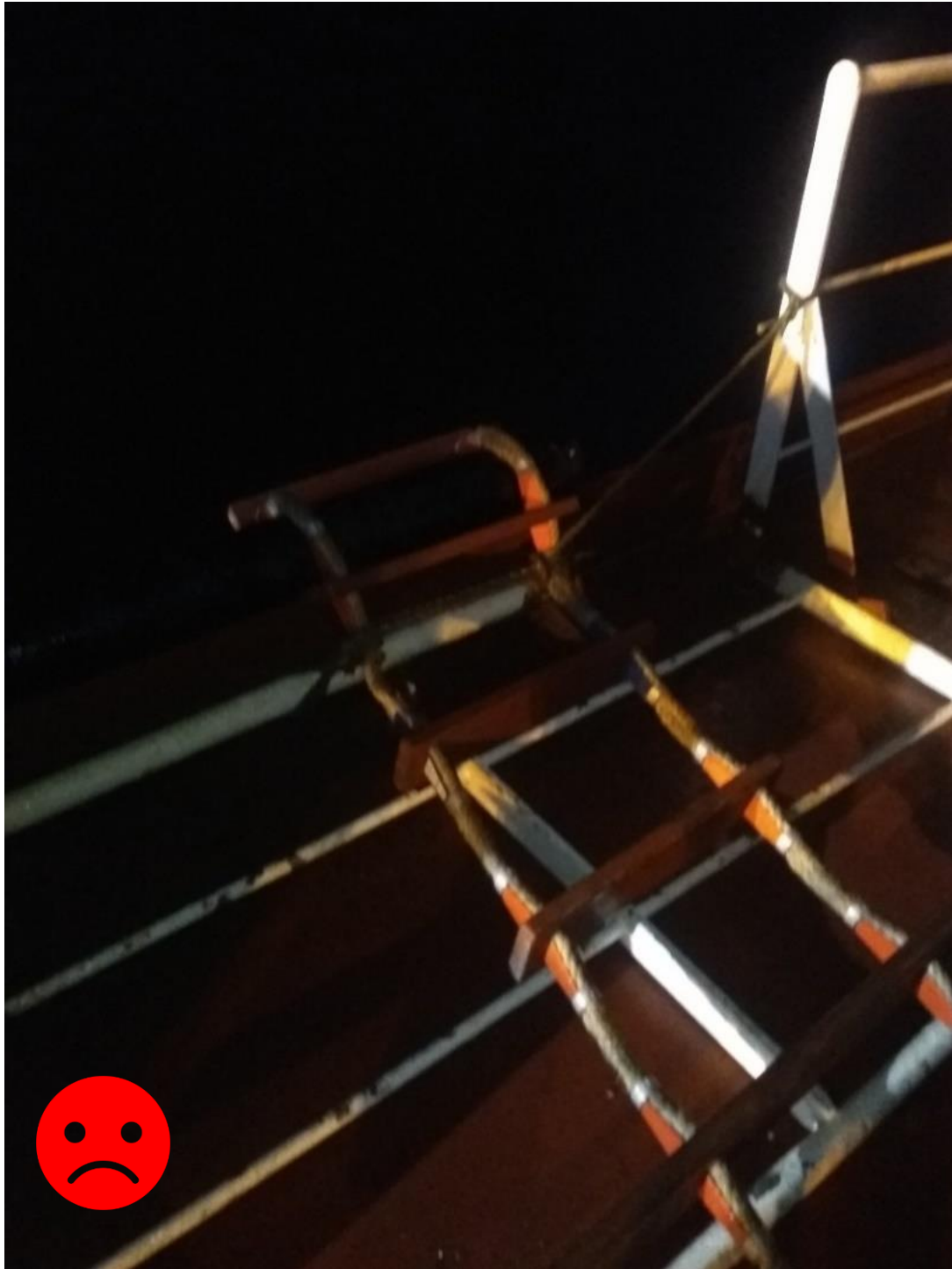
3. Access to Deck

IMO Res.1045 (27) 5

Means should be provided to ensure safe, convenient and unobstructed passage for any person embarking on or disembarking from, the ship between the head of the pilot ladder, or any accommodation ladder, and the ships deck; such access should be gained directly by a platform securely guarded by handrails.



This also shows a secondary lashing spliced around a hard angle. This is not a dedicated securing point.



Another example showing obstructed access at the head of the ladder.

4. Winch Reel arrangements



These images show a Pilot ladder and winch reel arrangement that does not:

Secure the pilot ladder at deck level

Have any secondary lashings

IMO Res.1045 (27) 7.4.1

The Pilot Ladder winch reel should not be relied upon to support the pilot ladder when the pilot ladder is in use.

IMO Res.1045 (27) 7.4.3

The pilot ladder should be secured at deck level.



This example shows a winch reel that has not been mechanically secured.

IMO Res.1045 (27) 7.5.6

A mechanical device or locking pin should also be utilised to lock powered winch reels.

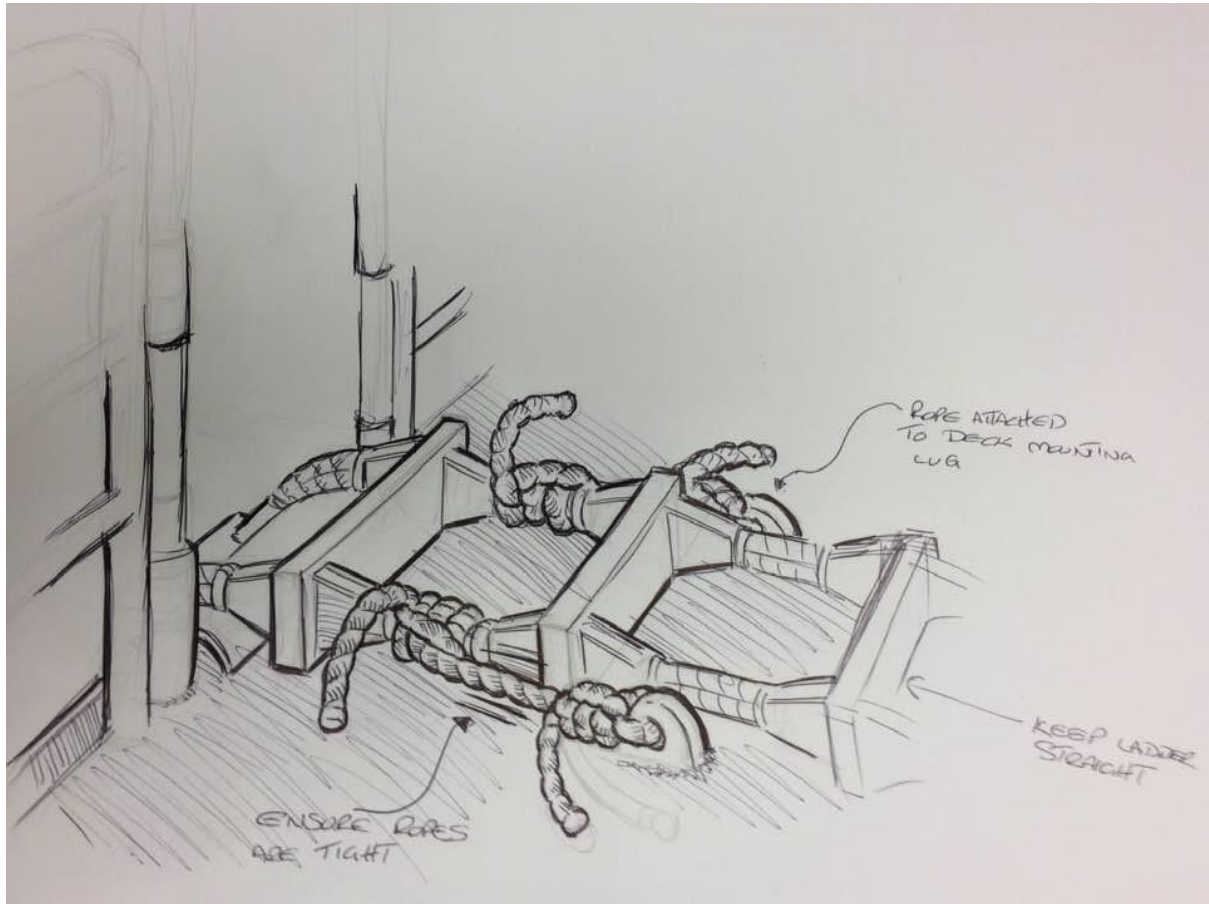
Part B – Compliant Examples



The above shows a correct secondary securing method for a ladder coming off a winch reel.



Showing mechanically secured winch reel.



Whilst this example shows the lashing tied to the deck secure point it would be more preferable to have dedicated lashings shackled to a strong point.



These straps can be removed when not in use. Preventing UV degradation of the lashing.