

December 2021

Approval of equivalent arrangements for pilot transfers

Transferring pilots while underway is a high-risk operation. Despite regulation and despite the standard operating procedures practised by ports, pilotage providers, and ships' crews, maritime pilots in New Zealand still face risks to their health and safety when using pilot ladders.

The purpose of this guidance is to advise all stakeholders of Maritime New Zealand's position regarding the safe provision of so-called 'trapdoor' arrangements for pilot transfers while underway. Stakeholders include pilots, ships' masters, ships' owners/operators, ships' agents, port companies, harbour authorities, marine managers, MNZ marine officers and Port State Control inspectors.

Risk

A recent overseas incident that resulted in a fatality has highlighted the particular risks to pilots associated with trapdoor arrangements used to transfer pilots while underway.

The particular risks to pilots associated with trapdoor arrangements are:

1. a structural horizontal cross-member on the inboard side of the platform where the ladder passes. In this instance, the pilot must lean back from the ladder to climb past the cross-member while passing through the trapdoor. This type of arrangement (illustrated below) is implicated in the fatal accident mentioned earlier.



Figure 1: Pilot ladder/trapdoor showing the non-compliant horizontal cross-member.

2. Steel or aluminum handholds that, in cold conditions, may become slippery.
3. Ladders not resting firmly against the side of the ship.
4. Ladders and manropes not extending above the platform to at least the height of the handrail.
5. Platforms and ladders not being secured to the side of the ship.
6. Platforms not having adequate handrails on all sides.
7. Trapdoors not being secured in the open position.

Regulation

The international requirements for safe pilot transfers are found in regulation 23 of chapter V of SOLAS 1974, adopted by the International Maritime Organization (IMO) in 2011. Detailed recommendations to governments on the construction and rigging of pilot transfer arrangements are found in IMO Assembly Resolution A.1045(27), which was also adopted by the IMO in 2011. The requirements of both documents are captured in New Zealand law by Maritime Rule Part 53: Pilot Transfer Arrangements and Ship Helicopter Pilot Transfers, the most recent version being published in November 2016. Part 53 specifies the requirements for the construction, position, reach and securing arrangements for pilot ladders.

Maersk's proposal for a modified trapdoor arrangement

Maersk has presented MNZ with a detailed design for the construction and rigging of a trapdoor arrangement. The principal features of this arrangement are:

- It complies with SOLAS Regulation V/23 and IMO Resolution A.1045(27).
- It has been approved by ABS and Lloyds Classification Societies.
- There is no cross-member on the inboard side of the platform.
- The platform has been appropriately stiffened to compensate for the removal of the inboard member.
- The accommodation ladder, platform, frame, winch, and running gear have been designed to withstand forces greater than 48kN. This ensures that the ladder side ropes are the weakest link, not the accommodation ladder assembly.
- The accommodation ladder hoist and lower mechanism includes a locking device that is engaged before the pilot transfers.
- The ladder extends 2 metres above the platform and is secured to pad eyes on the inboard side of the frame so that it rests firmly against the side of the ship.
- The ladder extends no less than 5 metres below the platform.
- Manropes are secured directly to additional pad eyes 2 metres above the platform on the inboard side of the frame.
- Ladder height is easily adjustable to the correct height for boarding.
- Ladder side ropes will not be prone to chaffing damage from incorrect securing.
- The ladder is always maintained in a stable, vertical orientation.
- The arrangement is reported by deck crews as being safer and easier to rig than other trapdoor and combination arrangements.
- The handrail surrounding the platform provides all-round fall protection for the pilot or ship's crew.

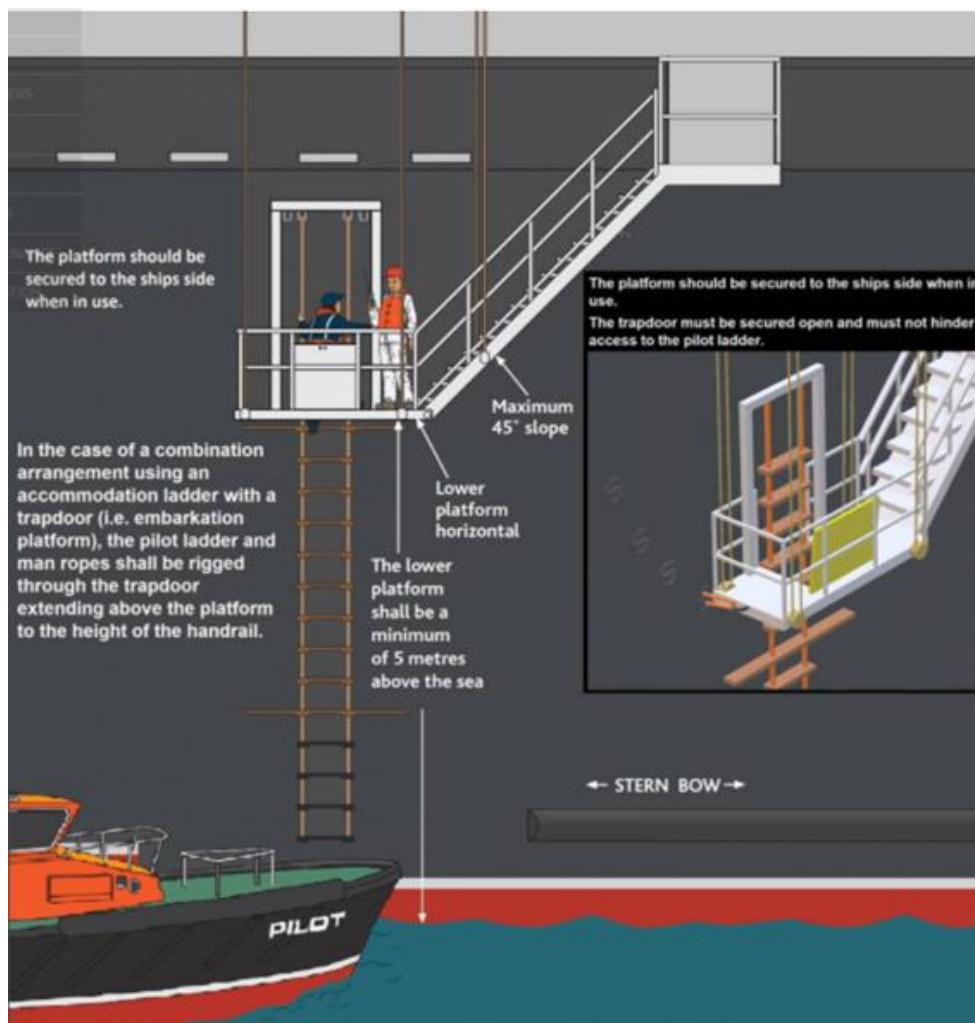


Figure 2: an access ladder/trapdoor arrangement in line with Maersk's proposal. The manropes are deliberately omitted; the pad eyes in the side elevation drawing show where the manropes are secured. (Illustration courtesy of Troy Evans.)

Overseas approval

The United States Coast Guard and countries such as Australia, Singapore, the Netherlands, and the United Kingdom have approved this arrangement, and others like it, as a compliant and safe option for pilot transfers. As a result, the arrangement is likely to become more common on ships visiting New Zealand.

Maritime New Zealand's view

Maersk's proposed arrangement complies with SOLAS Regulation V/23 and IMO Resolution A.1045(27). Maritime Rule Part 53 applies to pilot ladders and accommodation ladders used in conjunction with a pilot ladder, and the Maersk design is neither of these. Instead, it may be considered as an integral unit and therefore an equivalent pilot transfer arrangement under Maritime Rule 53.5, which enables the Director of Maritime New Zealand to approve new and innovative systems so that pilots may safely and efficiently transfer.

In the interests of safety and efficiency, and with agreement from the appropriate stakeholders, Maritime Rule Part 53.5 allows the Director to give written approval for equivalent pilot transfer arrangements that are **not**:

- I. Pilot ladders.
- II. Pilot ladders used in conjunction with accommodation ladders

Provided that:

- I. The arrangements are as safe and efficient as those listed above; and
- II. Approval will not breach New Zealand's obligations under international conventions.

Director's approval

In view of the safety benefits offered by Maersk's proposed arrangement, and being satisfied that the proposed arrangement complies with the requirements specified in Maritime Rule Part 53.5(c) – (d), the Director of MNZ has approved this equivalent pilot transfer arrangement.

Maritime New Zealand approval for similar arrangements

The Director may approve other substantially identical arrangements. Such designs that have been approved by a classification society that is a member of the International Association of Class Societies (IACS) may be submitted for consideration to enquiries@maritimenz.govt.nz
