MARINER'S UPDATE

COMPLIANCE WITH SIMPLICITY

PSC FOCUS - WEEK 2

35 YEARS OF INCIDENTS

60 CHECKS TO PREVENT

POOR TRAINING KILLS - NOT ONLY BROKEN STEPS

Competency Gap in Pilot Ladder Knowledge

One critical safety gap in the maritime industry is that pilot ladder rigging is not taught as a dedicated subject during competency examinations for officers and ratings. As a result, the task is often treated as a routine deck job handled by experienced Bosuns or deck crew.
However, experience does not always mean compliance.

Fleet Managers and Marine Superintendents can easily test this knowledge gap onboard their vessels.

Check with them can they differentiate Manila and Sisal ropes ?

Try asking your Master, Officers, or Bosun a simple question:

“How should a pilot ladder be secured to the deck strong point?”

In most cases, the immediate answer will be:
“By shackles.”

But this is not the correct answer.

Pilot ladders should normally be secured using proper rope securing methods such as rolling hitch knots on certified strong points, rather than shackles or rigid connections that can create unsafe loading conditions.

Ask a second question:

“Can you demonstrate how to tie a rolling hitch knot?”

In our experience, many crew members — including experienced Bosuns — are unable to demonstrate it correctly.

This simple test often reveals a surprising reality.

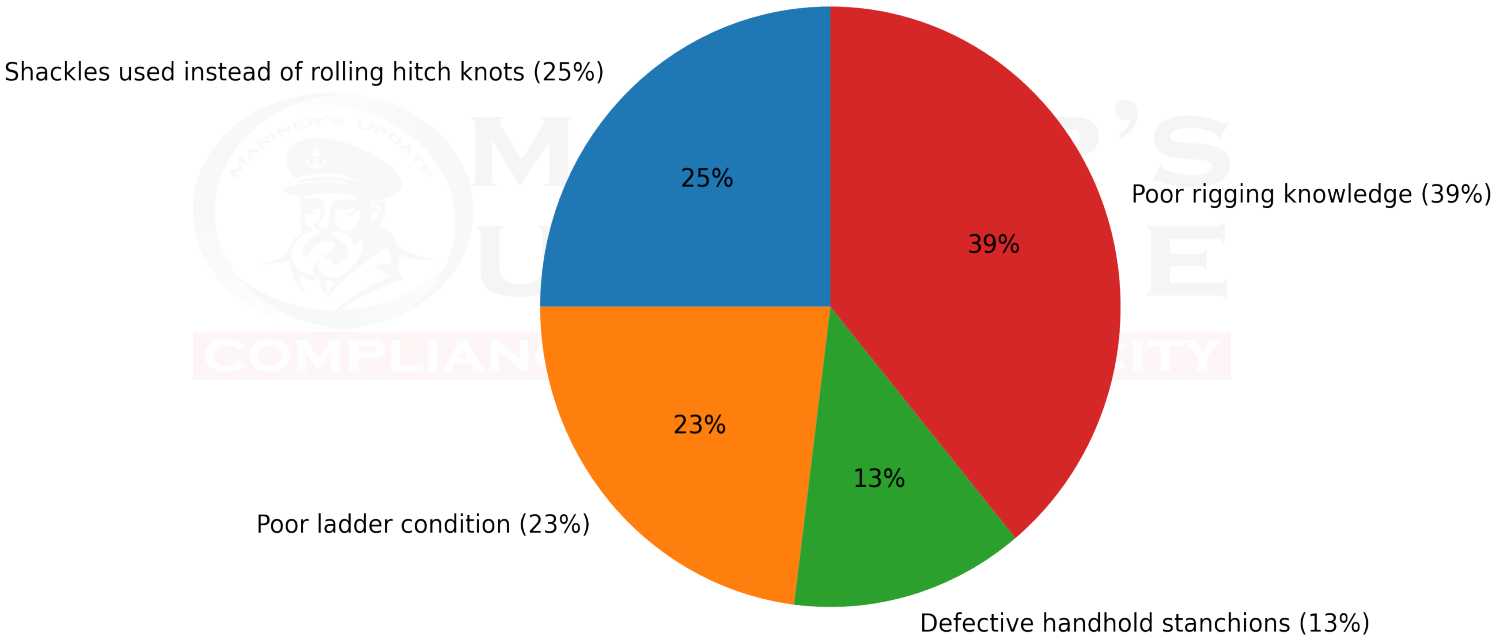
I can confidently say that if this question is asked across fleets, nearly 95% of crews will not be fully aware of the correct pilot ladder securing method.

Incident Frequency

A survey conducted by UK marine authorities showed:

- 96,000 pilot ladder transfers conducted in one year
- Over 400 incidents or accidents recorded during these transfers

Although most transfers are completed safely, the consequences of a single failure can be fatal.



- **25% caused by shackles used instead of rolling hitch knots**
- **23% caused by poor ladder condition**
- **13% caused by defective handhold stanchions**
- **39% caused by poor rigging knowledge**

Pilot Ladder PSC Deficiencies :

PSC inspection reports under Deficiency Code 10101 – Pilot Ladders and Pilot Transfer Arrangements shows several recurring deficiencies.

Certification and Documentation

- Pilot ladders without proper certification
- Serial numbers not matching certificates
- Boarding equipment maintenance records missing
- Use of uncertified pilot ladders or fake marine product certificates

Equipment Condition

- Pilot ladder steps broken, cracked, or damaged
- Supporting side ropes worn, damaged or not of suitable material
- Steps dirty, painted or slippery
- Steps not horizontal or not equally spaced
- Incorrect step fittings or spreader installation

Rigging and Arrangement Failures

- Pilot ladders not secured properly to the ship's hull
- Ladder secured to non load-tested fittings (vents, pipes etc.)
- Ladder rigged over railings or deck tongue
- Retrieval line incorrectly rigged
- Ladder reel secured only on winch brake
- Pilot ladder exceeding the maximum allowable climbing height

Boarding Arrangement Deficiencies

- Lifebuoy with self-igniting light missing at embarkation area
- Bulwark ladder not provided where required
- Pilot ladder rigged too far forward or aft
- Accommodation ladder platform unsafe or incorrectly positioned

Increasing Global Concern

International PSC data confirms a worrying trend.

• 2020: 197 deficiencies and 1 detention related to pilot transfer arrangements

• 2023: Paris MoU FIC , inspectors identified major issues with ladder identification and missing repair records.

• 2024: 523 deficiencies and 12 detentions

• 2025 The Tokyo MoU FIC in February conducted 2,357 inspections, resulting in: 176 pilot ladder deficiencies & 3 vessel detentions

Regulatory Requirements

• SOLAS Chapter V Regulation 23 – Pilot Transfer Arrangements

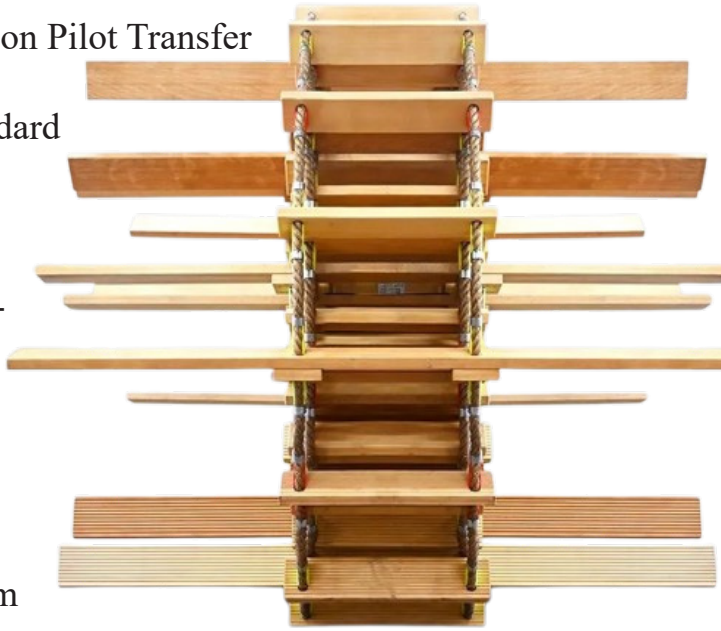
• IMO MSC.1/Circ.1331 – Guidelines for Pilot Transfer Arrangements

• IMO Resolution A.1045(27) – Recommendations on Pilot Transfer

• ISO 799-1:2019 – Pilot Ladder Construction Standard

• ISO 799-2:2021 – Inspection and Maintenance

• ISO 799-3:2022 – Associated Equipment Requirements



Service Life Requirements

• Pilot ladder maximum service life: 30 months from manufacture, some ports requirement is 24 months.

• Extension permitted only with strength testing certification

• Manropes maximum service life: 12 months

Original certificates must be retained onboard for inspection by PSC, surveyors and pilots.

Checklist for Pilot ladder

A	Certification and Documentation	OK? (Y/N)	REMARK
1	Does the pilot ladder have a valid manufacturer's certificate of compliance?		
2	Is the ladder certified according to SOLAS Chapter V Regulation 23 and IMO Resolution A.1045(27)?		
3	Is the manufacturer metal identification plate / unique number tag fitted under the top step, underneath of last spreader?		
4	Do the serial numbers on the ladder match the certificate and ID plates?		
5	Is the date when the ladder was placed into service recorded onboard?		
6	Are inspection and maintenance records maintained in the ship's PMS log?		
7	If the ladder is older than 30 months, is there a valid strength test certificate and recertification with an additional ID plate?		
B	**Ladder Construction and Design**	**OK? (Y/N)**	**REMARK**
8	Are the side ropes made of manila or equivalent material?		
9	Are the side ropes minimum 18 mm diameter and continuous without joints?		
10	Do the side ropes have a minimum breaking strength of 24 kN per side rope?		
11	Are permanent length markings provided at regular intervals (e.g., every 1 meter)?		
12	Are the steps made of hardwood in one piece and non-slip?		
13	Are the steps minimum 115 mm wide and 25 mm thick?		
14	Is the distance between side ropes at least 400 mm?		
15	Is the distance between steps between 310 mm and 350 mm?		
16	Are spreader steps properly fitted where required?		
C	**Physical Condition of the Ladder**	**OK? (Y/N)**	**REMARK**
17	Are the steps clean and free from paint, varnish, oil, grease or coatings?		
18	Are steps not cracked, broken, bent, warped or excessively worn?		
19	Are the steps horizontal and evenly spaced?		
20	Are the chocks beneath the steps securely fitted?		
21	Are side ropes clean and free from wear, rot, damage, knots, splices or joins?		
22	Are step fixtures secure and tight?		
23	Are ferules, wedges and seizings in good condition?		
24	Are step securing clamps in good condition?		
	Are there no more than two replacement steps installed?		
D	**Storage and Maintenance**	**OK? (Y/N)**	**REMARK**
	Is the ladder stored in a dry, ventilated area where natural fibres can breathe (fibre and wood will breathe)?		
	Is the ladder clear of deck and protected from sea spray and sunlight?		
	Is the ladder protected from paint spills and chemical contamination?		

E	Rigging Arrangement	OK? (Y/N)	REMARK
	Is the pilot ladder firmly secured to certified deck strong points?		
	Are the strong points clearly marked with SWL?		
	Is the ladder secured using rope and rolling hitch knots rather than shackles?		
	Is the ladder rigged against the ship's hull?		
	Is the climb between 1.5 m and 9 m?		
	Is the retrieval line fitted above the last spreader step and leading forward?		
	Is the retrieval line free of loops and not attached to the bottom step?		
	Is the pilot ladder not secured to rails, vents, pipes or non-load tested fittings?		
F	**Pilot Boarding Area**	**OK? (Y/N)**	**REMARK**
	Is the pilot transfer area free from obstruction?		
	Is adequate lighting provided at the boarding area?		
	Is a lifebuoy with self-igniting light available at the embarkation point?		
	Are handhold stanchions properly secured to the ship's structure?		
	Do the ship side doors used for pilot transfer open inwards?		
G	**Manropes and Safety Equipment**	**OK? (Y/N)**	**REMARK**
	Are manropes available if requested by the pilot?		
	Are the manropes made of natural fibre (28–32 mm diameter)?		
	Are the manropes less than 12 months old?		
	Are manropes free from knots, joins or splices?		
	Are manropes secured to strong points and passed through the handhold stanchions?		
H	**Combination Ladder Arrangement (If Freeboard > 9 m)**	**OK? (Y/N)**	**REMARK**
	Is the accommodation ladder angle not exceeding 45 degrees?		
	Is the accommodation ladder minimum width 600 mm?		
	Is the lower platform horizontal and secured to the ship's side?		
	Is the lower platform at least 5 m above sea level?		
	Is the pilot ladder rigged immediately adjacent to the lower platform?		
	Does the pilot ladder extend at least 2 m above the lower platform?		
	Is the horizontal distance between pilot ladder and platform between 0.1 m and 0.2 m?		
	Is the pilot ladder not secured to the accommodation ladder platform?		
	Is the accommodation ladder secured to the ship's side?		
	Is the lower platform not obstructing the pilot ladder?		
I	**Operational Safety**	**OK? (Y/N)**	**REMARK**
	Has a risk assessment been conducted before rigging the ladder?		
	Is the rigging of the ladder supervised by a responsible officer?		
	Are crew using appropriate PPE such as lifejackets and safety harness if required?		
	Is the pilot boat clear of the vessel before maneuvering?		

Major Pilot Ladder Fatality Cases

Top Pilot Ladder Accidents (1990–2025)

Year	Vessel	Location	Incident/cause	outcome
2026	Emerald Princess	Kauai, Hawaii.	A harbour pilot fell from the ladder of a cruise ship during rough weather	Injury
2025	Cargo ship (ATSB case)	Newcastle pilot boarding ground, Australia	Pilot ladder structural failure during boarding	Near miss
2023	Finnhawk	Humber Estuary, UK	Pilot fell from ladder while boarding from pilot boat Humber Saturn	Fatality
2023	Cruise ship (pilot transfer case)	Nagasaki, Japan	Pilot fell during ladder boarding	Fatality
2021	Bulk carrier	Australian waters	Crew member fell from pilot ladder while transferring to launch	Fatality
2019	Container ship	New York Harbor, USA	Pilot fell backward from ladder during transfer	Fatality
2018	Singapore Express	Off Portugal	Pilot fell from pilot ladder during boarding	Fatality
2018	Container vessel	Off Portugal	Pilot fell from pilot ladder during boarding	Fatality
2018	Container vessel	Liverpool Bay, UK	Ladder failure during pilot boarding	Serious injury
2017	General cargo vessel	River Thames, UK	Sea pilot died during transfer	Fatality
2016	Bulk carrier	China pilot station	Ladder secured incorrectly to rail	Pilot injured
2015	Oil tanker	Bosphorus pilot boarding ground	Improper ladder securing to deck fitting	Serious injury
2014	Bulk carrier	Singapore anchorage	Ladder side rope failure	Pilot injured
2013	Container vessel	Rotterdam pilot station	Defective handhold stanchion	Pilot fall
2012	LPG carrier	Houston pilot station	Ladder too far forward / unsafe rigging	Pilot injury
2011	Bulk carrier	South Korea	Ladder step failure	Pilot injured
2009	Container ship	North Sea pilot station	Ladder not against hull	Pilot fall
2007	Bulk carrier	Brazil pilot station	Ladder secured to weak fitting	Serious injury
2005	Tanker	Houston pilot station	Ladder spreader failure	Pilot injured
2002	Bulk carrier	Japanese waters	Improper combination ladder rigging	Pilot fall
1998	Tanker	English Channel	Ladder rope parted during transfer	Pilot injured
1994	Bulk carrier	Mediterranean pilot station	Defective ladder steps	Pilot fall

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Online

PILOT LADDER TRAINING COURSE

1. Past PSC Observations
2. Pilot Ladder Regulatory Requirements
3. Practical Pilot Ladder Rigging Training

4. Inspection Procedures
5. Major Port Requirements
6. Past Pilot Ladder Incidents and Lessons Learned

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