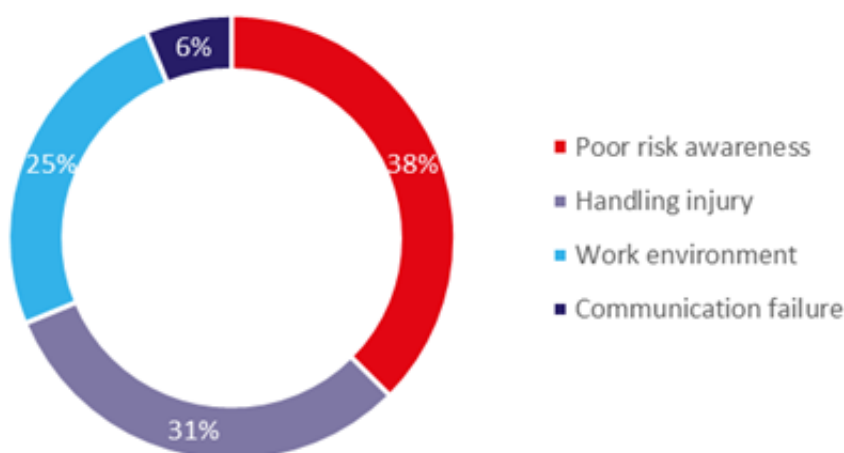


Risk assessments for mooring operations

Following on from our articles on [Implementing risk assessments](#) and [Risk assessments for passenger vessel operations](#), the Club has produced the next article in the series which focuses on [risk assessments from mooring and unmooring operations](#).

Mooring has always been a dynamic operation. Looking at causation for related claims between 2014 and 2023, it is shown that the root cause of incidents, which occurred on the mooring deck, can be attributed to four main areas.

Causation analysis of mooring claims
2014 to 2023



Cause	General Cause Detail	Related Resources
Poor risk awareness	General lack of risk awareness. Regardless of a person's education and experience, there is still the possibility that anyone may, from time to time, lack a proper appreciation of the risk involved with any task.	In this sample risk assessment , we highlight various potential hazards and offer possible control measures. We would like to emphasise that this is for guidance purposes only and it is imperative that operators conduct their own risk assessments based on their individual operating parameters.

Handling injury	Injuries to crew when caught in the bight of a rope or crushed between a rope and the ship's structure/equipment.	The IG P&I Clubs Stop, Think, Stay Alive Mooring Deck Safety Animation highlights some common areas of human factor related mooring incident causes, which is often also attributed to handling injuries.
Work environment	Issues mainly attributed to poor housekeeping or the lack of surfaces/PPE that prevents crew from slipping on the deck when wet. Also, specific hazards associated with the snap-back of mooring lines.	Promote a healthy safety culture that enables crew to be a team of high performers that proactively seek to limit risks specific to the operation/task at hand. Data* recorded through the Club's Condition Survey Programme (CSP) highlighted that the most frequently reported defect was a lack of, or improper means of, highlighting the snap-back dangers present on the mooring deck. Please refer to the Club's guidance . To assist mitigate against future risks.
Communication failure	Claims arising from communication failures between the various teams involved in mooring operations such as, the bridge team, the pilot and the deck mooring teams, as well as the tugs/shore mooring personnel.	Communication management during a pilotage operation to assist with maintaining clear, open and effective communication.

*CSP data for the period 01 January 2023 to 31 December 2023 shows this defect was noted in 30% of surveys.

To further reiterate the prevailing risks associated with mooring operations, an analysis of the condition survey programme (CSP) data for 2023 showed:

- Mooring bollards were not in a satisfactory condition on board 14% of vessels surveyed. Further detail provided by the attending surveyor highlight the main concern as -

bollards not being marked with the safe working load (SWL).

- 8% of vessels surveyed were found to have defects associated with the working condition of the mooring ropes on board and,
- 8% of passenger vessels surveyed displayed no clear warnings and/or means of controlling passenger access to mooring decks.

In addition to the Club's guidance, to further assist Members with mitigating risks associated with mooring activities, the International Maritime Organization (IMO) [MSC.1/Circ.1620](#) *Guidelines for the inspection and maintenance of mooring equipment including lines* came into effect in January 2024 to assist with the safe use, control, inspection and maintenance of mooring ropes and equipment.

We trust Members find this guidance useful and if further assistance is required please contact the [Loss Prevention Team](#).