

## Personal Injury in and around Cargo Holds

### Introduction

Crew illness and injury claims consistently represent around 30% of all claims incurred by the Club in any one year. Whilst the majority of claims arise from illness, a substantial number involve avoidable personal injury and high levels of cost. Work at sea often involves hazardous conditions and the advent of the ISM Code in 1998, and the resultant focus upon shipboard safety management ought to have greatly reduced the risk of accidents resulting in personal injury. Undoubtedly close adherence by crewmembers to the procedures laid down in vessels' safety management systems, proper training, and the use of appropriate personal protective equipment represent the best safeguard against unnecessary personal injury. However, notwithstanding the regulatory framework that now applies in relation to shipboard safety, the Club continues to experience claims arising from incidents that illustrate that more still has to be done to contain this risk.

For the individual who has the misfortune to suffer a serious personal injury, the consequences are at best uncomfortable, and at their worst devastating. For a shipowner, accidents can result not only in serious financial consequences, but also operational difficulties and delay. Clearly it is in the interest of all concerned to eliminate the risk of accidents occurring in the first instance.

A review of some of the claims recently incurred by the Club clearly illustrates that notwithstanding the existence of safety management systems and their associated procedures, accidents resulting in serious personal injury are still occurring. In this issue of Risk Alert, a number of claims are examined which have as their theme serious personal injury arising in a variety of circumstances either within cargo holds

or in conjunction with cargo operations. It should be evident from the narrative of each event that the incidents and the resultant injuries were all avoidable.

### A Falling Tarpaulin

A general cargo vessel was partly laden with a cargo of steel coils. In order to prepare for the loading of further cargo, a number of the crew were directed to cover the steel coils with tarpaulins. On the main deck a deck cadet and one seaman brought a folded tarpaulin to the hatch cover of the hold in which it was to be used. An additional seaman was stationed on the 'tween deck to check that the area was clear and to receive the tarpaulin. Rather than using a line to lower the tarpaulin into the hold, the cadet and seaman lifted it on to the hatch coaming preparatory to dropping it into the hold. The seaman on the 'tween deck was asked to confirm that the area was clear, and he did so. The crew on deck called out a warning and then immediately dropped the tarpaulin. At that moment, the bosun, who had been working in the lower hold, arrived on the tween deck and walked out from the wing of the hold into the hatch square into the path of the falling tarpaulin. He was struck and sustained serious injuries that appear likely to result in paralysis.

The risks associated with the uncontrolled descent of a heavy object into a cargo hold are self evident, and manifest from the consequences that arose in this instance. Unless the risk of personal injury can be confirmed as non-existent by clearing the hold of all personnel, items such as this tarpaulin should be lowered into the hold, not dropped.



### Heavy Weather and a Shift of Stow

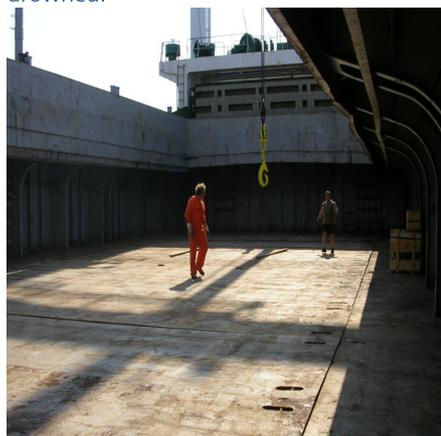
A general cargo vessel was laden with project cargo, including a quantity of steel pipes stowed in No. 1 hold. Shortly after commencing an eastbound transatlantic passage, the vessel encountered heavy weather. During one of the regular checks on the lashings of the cargo, the chief officer discovered that the stowage of pipes had become loose. Without informing the Master of the vessel, the Chief Officer took the deck crew into the hold to attempt to re-secure the cargo. Because the bridge watch-keeping officer was unaware that personnel were in the hold, no steps had been taken to alter course or moderate speed to minimise the motion of the vessel. Whilst the crew were in the hold the vessel took a particularly heavy roll, and the cargo of pipes shifted trapping the legs of a seaman and the chief officer. Both individuals suffered serious injuries, one of which involved an open fracture of the leg. The severity of the injuries required the vessel to deviate from its voyage and approach the coast to enable the injured men to be evacuated by helicopter.

On a vessel underway in heavy weather, any cargo space is hazardous. When the securing of cargo in a hold has already been compromised, that space is

extremely dangerous and it should not be entered, but if the safety of the vessel should require that an attempt be made to re-secure cargo, it is essential that a thorough risk assessment is undertaken and appropriate steps taken to contain those risks to an acceptable level. It is certainly wholly inappropriate for unilateral action to be taken that exposes the crew to unnecessary risk.

### A Loss of Stability

A push barge was being operated with two pontoons on which were loaded three extremely large steel piles that were to be used as the foundations for an offshore windmill. Each pile was 85m in length and weighed over 400MT. On arrival at the port of discharge two crewmembers commenced the ballasting operations on the barges that were an integral part of the operation to discharge the piles. During the ballast operations the barges developed a list which caused the cargo shift from its stowed position and to be lost overboard. As the cargo went overboard it carried the two members of the crew with it, one of whom was drowned.



### Oxygen Depletion

A vessel was laden with a cargo of steel turnings. The dangerous nature of this cargo, given its capacity to cause depletion of oxygen in cargo spaces, was well understood by the Master, Chief Officer and the vessel's Safety Officer. Warning notices providing information

about the dangers of the cargo and prohibiting entry to the holds were placed at entrances to the holds, and posted in the officers' and crew mess-rooms.

The maintenance of the temperature sensors in the cargo holds was the responsibility of the second engineer. A few days after the commencement of the voyage, and presumably to check the operation of equipment in the holds, the second engineer inexplicably entered one of the holds without notifying anyone of his intentions. Some time later an AB noticed that the access door to one of the holds was open. The second engineer was retrieved unconscious from the hold. As the result of oxygen deprivation, permanent and considerable brain damage occurred. The second engineer remains in a vegetative state with no prospect of recovery.

### Closing Hatch Covers

After the completion of cargo operations, a vessel's crew were engaged in removing dunnage and debris from the cargo holds. After completing work in one of the holds the hatch covers were to be closed. This operation was controlled by the third officer who was assisted by a seaman. Shortly after one of the hatch cover panels was lowered, the covers stopped moving. The seaman checked the panels and finding no apparent problem reported to the third officer, from a position at which he was obscured, that the closing operation could continue. The third officer operated the control to resume closing the cover at which point a sound was heard which caused him to stop the operation on an emergency basis. It transpired that the seaman's thumb had been crushed by the hatch covers. As the vessel was in port, he was immediately evacuated to hospital but the extent of his injury was such that amputation of his thumb was necessary.

The risk of personal injury in situations such as this is self evident and individuals should ensure that they keep well clear of heavy equipment that is in motion.



### Conclusion

Often, the hardest lessons that individuals learn in life are those that arise from their own mistakes. Because of the personal impact, those lessons are generally retained and the chance of recurrence minimised. For those who happily have yet to suffer the misfortune of a personal injury, the next best alternative is to learn from the mistakes of others - the objective of this issue of Risk Alert.

For further information on this or other Loss Prevention topics please contact the Loss Prevention Department, Steamship Insurance Management Services Ltd.

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