Marine Safety Investigation Unit

Transport Malta

SIMPLIFIED SAFETY INVESTIGATION REPORT

201506/017 REPORT NO.: 09/2016 June 2016

MV *THOMSON CELBRATION*

Serious injury to crew member during the launching of a tender boat 10 June 2015

Course of events

Thomson Celebration had just arrived and dropped her anchors outside the port limits of Hvar, Croatia with 1236 passengers and 534 crew members on board.

Prior to commencing the tender boat services, the crew had to remove the gripes from the boats (Figure 1). The operation was initiated soon after the safety officer had completed his safety briefing. Three tender boats had already been launched. Six crew members were involved, *i.e.* the safety officer, the bosun and four ABs.

At the time of the accident, the safety officer supervising the unlashing process was visually observing the crew members who were working on the boat deck. From his position, he was making sure that all unlashed wire ropes were clear before the tender boats were lowered away.

The accident happened when one of the ABs was unlashing the gripes on tender boat no. 15 (Figure 1).

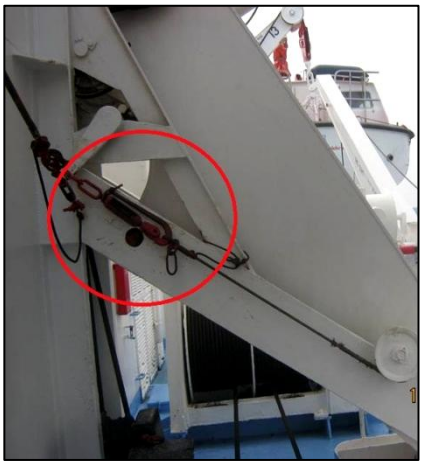

Figure 1: The gripe being released by the AB at the time of the accident

As he was removing the forward gripe wire rope, the pelican hook caught his finger as it swung open (Figure 2).

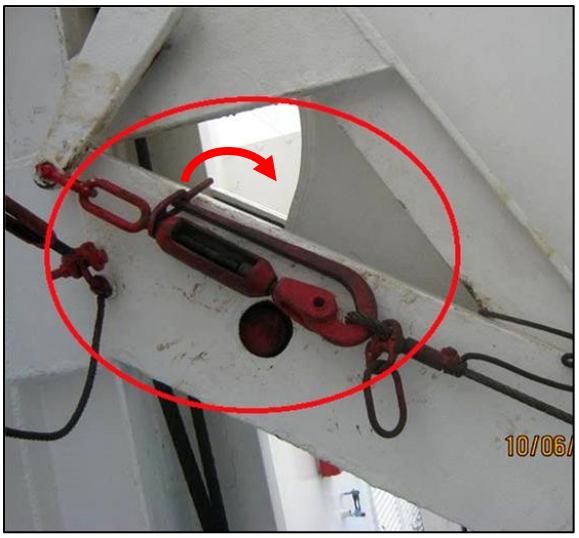

Figure 2: Details of the pelican hook

Nature of injuries

It was evident that the nature of the injuries to the right index finger was severe. The AB was initially treated in the ship's hospital; however, he was transferred ashore for more specialised treatment. Notwithstanding the medical assistance received, the crew member lost his index finger as a result of to the severity of the injuries.

Cause of the injury and release of the pelican hook[1]

The immediate cause of the accident was the tension in the gripe, which was not sufficiently slackened prior to the release of the pelican hook.

The release of the pelican hook is considered to be a simple operation and does not require any particular skill. In fact, the process entailed four sequential steps, as depicted in Figures 3-6. The first stage, the slacking of the wire rope (by means of the turnbuckle) is considered to be a critical one for the safe removal of the gripe (Figure 3).

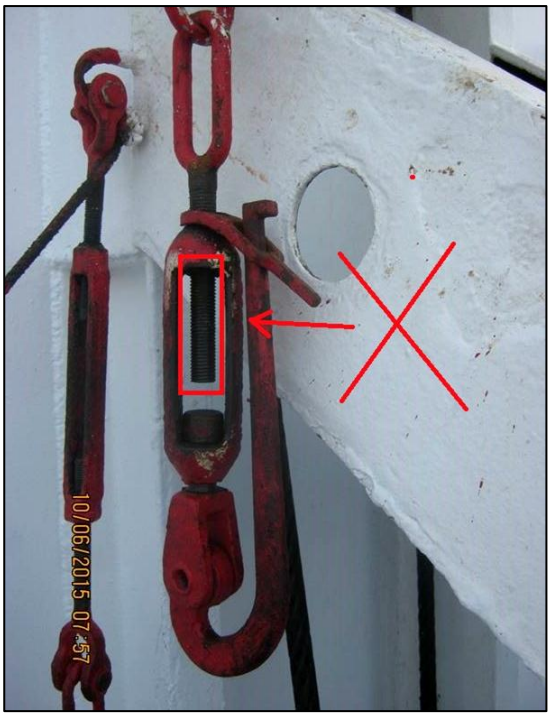

Figure 3: *Step 1* - The safe release of the gripe necessitates the slackening of the pelican hook

Figure 4: *Step 2* - Removal of the pelican hook's securing ring

[1] The purpose of a marine safety investigation is to determine the circumstances and safety factors of the accident as a basis for making recommendations, and to prevent further marine casualties and incidents from occurring in the future.

Figure 5: *Step 3* - Opening of the pelican hook

Figure 6: *Step 4* – Release of the residual tension from the gripe

The opening of the pelican hook was sudden and violent. The severity of the injuries sustained by the AB was suggestive that the gripe had excessive tension stored in it because the turnbuckle on the hook was not released enough to relieve the tension (Figure 3). Consequently, the index finger was caught in the pelican hook lever (Figure 7).

Figure 7: A reconstruction of how the index finger may have been injured by the pelican hook

Hazards and risks

The safety management system addressed tender boat services in detail to ensure that operations are carried out safely, systematically and in a controlled manner. Whereas the staff captain was responsible for the overall organisation and monitoring of the tender boat operations, the safety officer was tasked to complete the relevant checklists, combined with a risk assessment.

The safety management manual required a safety briefing to be carried out prior to the commencement of the tender boat services, covering the entire tender operation, *inter alia*, the passage plan, local conditions, communication, manpower, and safe operation, although the actual launching of the tender boat was not detailed in a specific manner.

Notwithstanding the above, launching and recovery were addressed by a very detailed risk assessment, which had been completed in January 2012. However, related hazards (injury during unlashing / lashing) were not identified during the risk assessment.

As already indicated, it was evident that the turnbuckle had not been fully released when the securing ring was being removed. Its release went unnoticed by the safety officer, leading to a 'one person' error situation.

Moreover, releasing the tension from the wire rope did not necessitate the crew member to engage in a problem-solving exercise. The task was almost routine, non-problematic and certainly in a familiar setting. Research suggests that errors similar to the one described above necessitate the attention of the crew member to be captured by something else – possibly external to the task in hand.

It was also very probable that an attentional check of the system had been omitted during the actual task. The safety investigation considered that this was illustrated by the fact that the crew member's initial intention was to release the tension in the gripe *before* releasing the pelican hook's securing ring.

However, since the 'securing ring' was released prematurely, there was an absence in the attentional check when tensile forces were still stored in the wire rope. It was very probable that the securing ring was intentionally removed as soon as the gripe allowed this - even if it had enough residual tension to violently snap open the pelican hook. That action had sufficient force to inflict the nature of injuries sustained by the crew member.

SAFETY ACTIONS TAKEN DURING THE COURSE OF THE SAFETY INVESTIGATION[2]

The Company has ensured that safety briefings emphasise the importance of relieving the tension from the gripes before the safety ring on the pelican hook is released.

Provisions have also been made to ensure that the safety officer physically checks all the wire ropes before authorising the release of the gripes.

The Risk Assessment document has been amended and 'Injury during lashing/unlashing' has been inserted as a newly identified hazard. To address the risk, seven risk control factors were identified, *i.e.*:

1. Training;
2. Familiarisation;
3. Supervision;
4. Review of launching instructions;
5. Briefing before tendering;
6. Full release of turnbuckle and showing to supervisor before release; and
7. Use of appropriate PPE.

RECOMMENDATIONS

On the basis of the actions taken by the Company, no recommendations have been made.

[2] **Safety actions and recommendations should not create a presumption of blame and / or liability.**

SHIP PARTICULARS

Vessel Name:	*Thomson Celebration*
Flag:	Malta
Classification Society:	DNV GL
IMO Number:	8027298
Type:	Passenger
Registered Owner:	Tui UK Limited
Managers:	Columbia Cruise Services Ltd., Cyprus
Construction:	Steel
Length Overall:	214.66 m
Registered Length:	193.74 m
Gross Tonnage:	33933
Minimum Safe Manning:	20
Authorised Cargo:	NA

VOYAGE PARTICULARS

Port of Departure:	Kotor, Montenegro
Port of Arrival:	Hvar, Croatia
Type of Voyage:	Short international
Cargo Information:	NA
Manning:	534

MARINE OCCURRENCE INFORMATION

Date and Time:	10 June 2015 at 07:00
Classification of Occurrence:	Serious Marine Casualty
Location of Occurrence:	Hvar anchorage
Place on Board	Boat deck
Injuries / Fatalities:	One serious injury
Damage / Environmental Impact:	None
Ship Operation:	On anchor
Voyage Segment:	Arrival
External & Internal Environment:	Light airs, calm sea state, good visibility
Persons on board:	1770