



Mariners' Alerting and Reporting Scheme

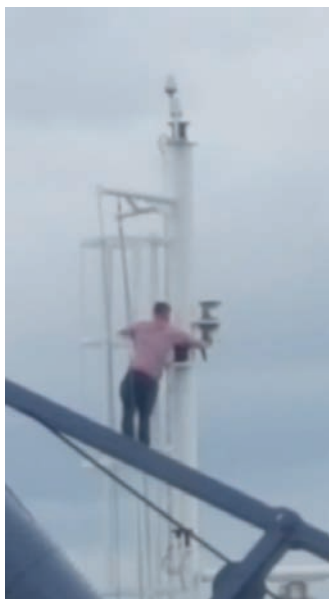
MARS Report No 335 September 2020

MARS 202047

Backscratcher becomes tummy tickler

→ While in port, an observer from another ship sent the photo right. We can see a member of the ship's crew standing on the outside of the 'back scratcher' of the main mast ladder without fall protection. According to the observer, he stretched from this position to change a lamp on the forward side of the mast. He descended the ladder then returned; on both occasions, once he reached the top he climbed through the back scratcher to access the lamp.

On inserting the new lamp and without the appearance of having communicated via radio, the light immediately illuminated. That probably indicates that the light's electrical system had not been locked out. On the first occasion, another crew member was standing at the starboard bridge wing door watching. He did nothing to stop the job and seemed to be taking an observer/standby role.



Lesson learned

- Obviously, one should never exit the confines of a back scratcher unless fully secured by some other means of fall protection.
- In this case, the back scratcher may have been fit for some other purpose – but not for changing the front-facing lamp.
- If you see an unsafe act being carried out on your own vessel, intervene immediately.
- Even such banal tasks as changing a light bulb should be preceded by a lock-out procedure of the electrical source, especially in wet and outdoor environments.

MARS 202048

Ro-ro rolls heavily and tips trucks

As edited from official UK MAIB report 3/2020

→ A shortsea ro-ro passenger and freight service operated up to seven sailings per day with a crossing time of about two hours. The ship's deck crew were split into a day shift, which was led by the day Master, and a night shift led by the night Master.

In the evening, the day Master sent an email to all ship departments warning of a forecast of heavy weather that night and the following morning. All loose gear was to be secured prior to the ship's scheduled departure at 20.20.

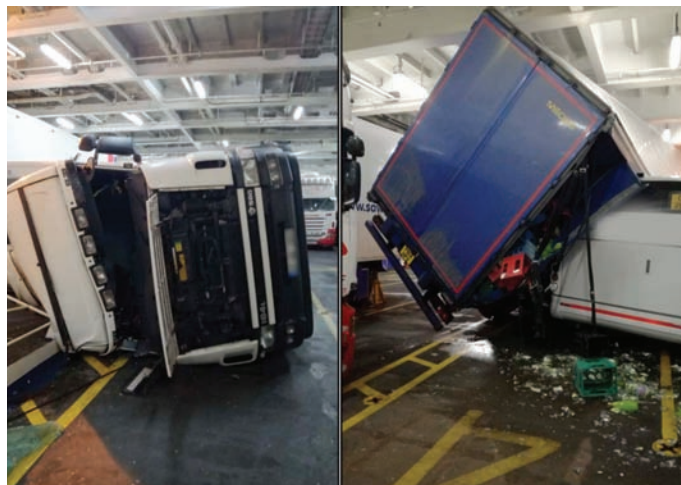
The deteriorating weather conditions meant the vessel arrived at its destination 55 minutes behind schedule. The next departure was

postponed due to the prevailing weather conditions, which were close to the company's limits for entering and leaving the ports. During the cargo loading operations the Master discussed the lashing requirements with his loading officer. It was decided to lash the freight vehicles parked at the fore and aft ends of each vehicle lane and all unaccompanied semi-trailers with two lashings (one either side).

At 05.15, loading was completed with 40 accompanied freight vehicles (mainly articulated vehicles) and 46 other vehicles. When the vessel sailed, the wind was close to the company's limits for departing port and the Master experienced some difficulty manoeuvring the ship's bow through the wind. Once in open water the ship's stabilisers were deployed, the autopilot set to the ship's standard planned course of 073° and the ship was brought up to its full sea speed of 21 knots.

Soon after leaving port the vessel experienced several large rolls. The wind was blowing between 40 and 50 knots gusting to 60 knots; the waves were very large from the same direction, causing the ship to roll and yaw. Following a discussion with the Master, the OOW altered course to port and brought the ship on to a course of 055° with the aim of easing the motion. A few minutes later the OOW altered course to starboard and brought the ship on to a course of 060°. A little later the vessel rolled 20° to starboard, then yawed violently to starboard, achieving a rate of turn in excess of 100° per minute. The ship then took a larger roll to port of just over 30°. During the 30° roll several of the freight vehicles and unaccompanied semi-trailers on the vehicle decks moved and some toppled over. In the engine room, a lubricating oil low-level trip activated on one of the ship's four main engines, causing it to shut down.

The OOW altered the ship's heading to 057° and very quickly the Master arrived on the bridge, followed shortly afterwards by the chief officer and the day Master. The OOW briefed the Master while the chief officer used the ship's CCTV system to assess the condition of the cargo on the vehicle decks. The chief officer saw that several vehicles had toppled over and informed the Master. The ship was placed into hand-steering and brought round to starboard to a course of 085°. The OOW handed the con to the Master and went to assist on the vehicle deck. Within 90 minutes the vessel had been brought to shelter and docked.



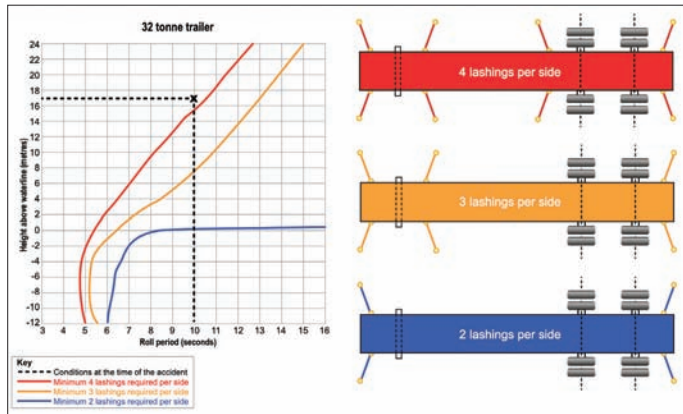
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The official report found that, among other things:

- The passage plan was not altered to minimise the potential effects of the prevailing and forecast weather conditions and the night Master's intent to continue on the altered course was not clearly communicated to the OOW. Either action could have avoided heavy rolling.
- The freight vehicles, secured with one lashing on either side, were not lashed in accordance with the guidance provided in the MCA's guidance, *Ro-Ro ships: stowage and securing of vehicles code of practice*. For the conditions experienced four lashings either side would have been required.
- Passengers remained in their vehicles during the passage, endangering themselves and compromising the safety of other passengers and crew. This practice is not unique to this company and requires industry-wide collaboration to eliminate it.

Lessons learned

- Passage plans need to be revised according to weather; Mother Nature is the boss.
- Best practice dictates that passengers and truck drivers exit their vehicles before transit.
- MCA guidance for lashing freight vehicles is as follows:



MARS 202049

Small fall is still a fall

→ A tanker had loaded and left port while crew were still securing the deck for sea passage and making preparation for heating the cargo. One crew member was assigned maintenance duties on the deck heat exchangers. To perform these duties he was standing on hydraulic lines located some 40cm above deck and using a spanner to make the necessary adjustments. Suddenly, through a combination of ship movements and his precarious position, he lost his balance on the hydraulic lines and, jumping down, hit his back on a deck frame. The resulting injury required first aid and a hospital visit followed by four days rest.



Lesson learned

- Slips, trips and falls are one of the leading causes of injuries for shipboard personnel. This another example of a hazard in plain sight that was still invisible to the crew.
- Always ensure you keep a sure footing while working and use fall prevention even if the height seems small.
- Routine jobs can contribute to a sense of control and hence complacency.

MARS 202050

Crushed by a tween deck pontoon

As edited from official TSIB (Singapore) report 027

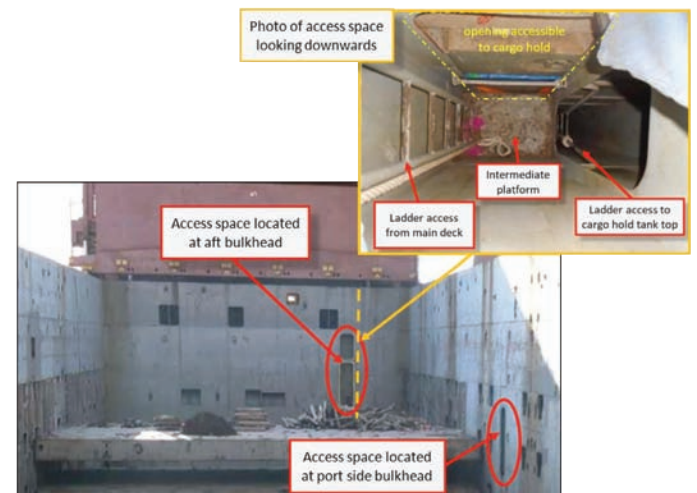
→ A vessel in port was being discharged. Once the cargo above the tween deck had been offloaded, the deck crew needed to shift the pontoons with the vessel's crane to facilitate discharging cargoes below. Pontoons 6 and 7 were shifted and stacked at the planned positions. Two rigging crew moved from the aft access space and re-entered the cargo hold to unhook the lifting wire slings for pontoon 7. Then pontoon 8 was lifted and slowly swung towards the aft bulkhead where it was to be stowed. The same two crew had returned to the protected area in the aft access space and were waiting to unhook the lifting wire slings from pontoon 8.

When pontoon 8 was about 4m away from the aft bulkhead and being gently moved into position, one of the hold crew asked the crane operator via the VHF radio to stop the movement of the pontoon so that he could climb out of the aft access space, walk over pontoon 7 and climb on to pontoon 8. Once the momentum of pontoon 8 had stopped (now about 3m away from the aft bulkhead), the crew member climbed on to it. Standing on the pontoon, he signalled to the crane operator to continue moving the pontoon towards the aft bulkhead. At the same time he shouted across to the other crew in the aft access space to stay within the protected area.

When the pontoon was about 1m away from the aft bulkhead, the other crew member suddenly exited from the aft access space, raising one leg to climb on to pontoon 8, which was now moving again. The crane operator saw the danger but could not stop the pontoon's movement in time. The crew member's chest was crushed between the edge of pontoon 8 and the aft bulkhead. The pontoon was cleared and the victim attended to but on the way to the hospital he succumbed to his injuries.

The official investigation found that, among others:

- The first crew member opted to enter the cargo hold before the pontoon was stacked in its final position. Despite being part of the same team to unhook the wire slings from the pontoon, there



appeared to be a lack of co-ordination and communication between the two crew members.

- Being new to the company, the victim probably followed the actions of the first crew member by instinct.
- Although a risk assessment was carried out in line with the company's SMS procedures, it did not cover the proper positioning of personnel during pontoon shifting operations, especially in situations where the access openings may be blocked by stacked pontoons.

Lessons learned

- Working in a hold where heavy lifts are taking place needs excellent communication, co-ordination and control.
- Standing on a lifted and moving pontoon is not good practice.
- Rigging crew should be in a protected area until the load is in position and stable and the weight is off the hook.

MARS 202051

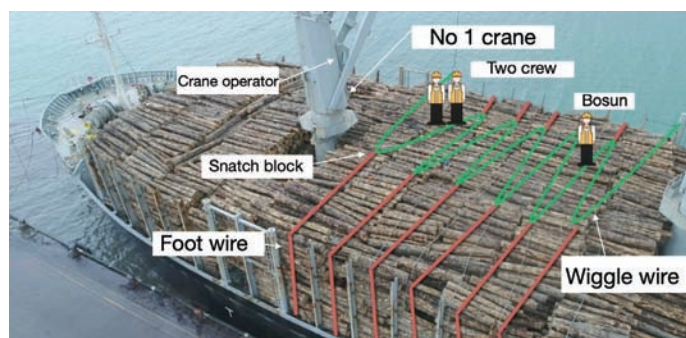
No wiggle room when it comes to cargo securing procedures

As edited from official TAIC (New Zealand) report MO-2019-203

→ A vessel was in port and the crew were loading logs on to the hatch covers. The securing system involved the use of foot wires, snatch blocks and a wiggle wire (see image). Although it was dark, the deck was well lit by the ship's own floodlights and the floodlights on the wharf. The crew were wearing personal protective equipment (PPE), which included boot spikes to reduce the risk of slipping on the wet logs.

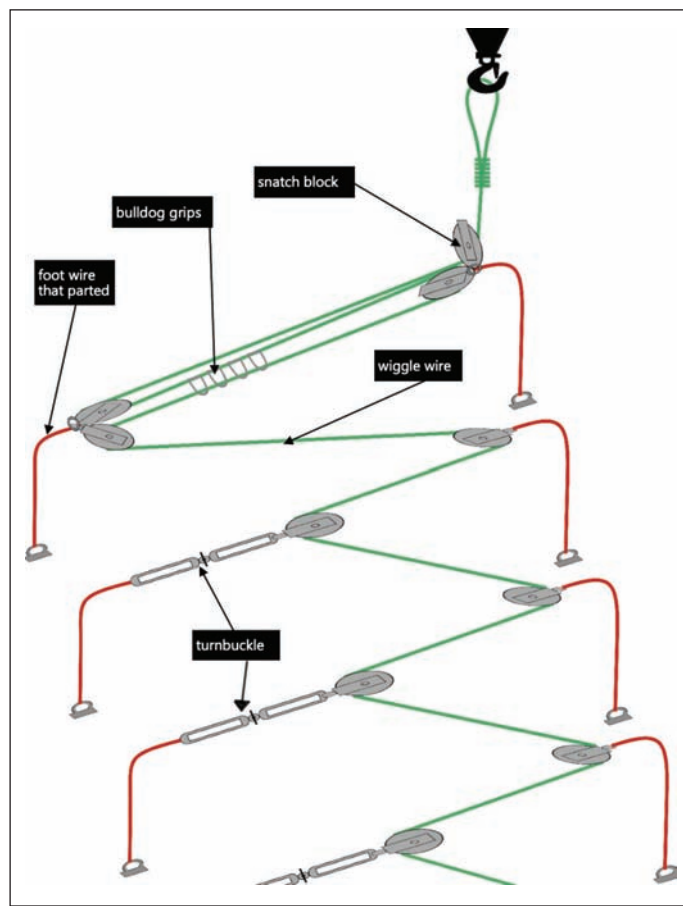
The number one crane was being used to tension the wiggle wire, and two deck crew were standing close by to check the tension in the wire. The bosun was communicating with the crane operator using hand signals. Tension was brought on the wiggle wire and then stopped at a signal from the bosun. The bosun started to walk towards the two deck crew in preparation to attach bulldog grips to secure the tensioned wire when a foot wire directly in front of the two deck crew suddenly parted. The rapid release of tension allowed a block and the wiggle wire to recoil towards the two deck crew.

Both crew were struck by securing equipment and/or wire; one sustained minor injuries but the other later died of his injuries.



The investigation found that the member of deck crew, whose role was to monitor the tension, had no way of determining how much tension was in the wire other than by feel, which was done by depressing the wiggle wire with their foot. This improvised procedure led them to stand in a hazardous area close to a wire under tension.

As it was, the investigation found that the foot wire parted as a result of over-tension. According to the vessel's cargo securing manual, only a nominal initial tension was to be applied to the wiggle wire since turnbuckles were supposed to be rigged between the wiggle wire and foot wires (see diagram in next column), to permit manual re-tensioning when needed. In this case the crew member had decided not to use turnbuckles but to try to tension the wire fully with the crane.



Lesson learned

- Follow your cargo securing manual to the letter – there are good reasons for each step.
- Keep clear of any wires or ropes under tension – if they come under tension, stop all work immediately and get clear.

MARS 202052

Corroded crane floor gives way

As edited from TSIB (Singapore) Safety Flyer – 2019/02

→ A container ship was in port to unload. A crew member entered the crane to work the cargo but as he put his weight on the floor of the crane cabin, it gave way. He fell from the crane cabin, a height of nearly 20 metres. He later succumbed to his injuries at the hospital.

It was found that the base plate (floor) was severely corroded. Although the company's planned maintenance system covered inspection of cranes, the corrosion of the base plate had not been detected.

Lessons learned

- A crane cabin is essentially a 'work at height' area, with all the attendant risks of such a place. Every aspect of a crane cabin and ladder needs to be regularly inspected to ensure safety and integrity.



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