

IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of all. The effectiveness of the IMCA Safety Flash system depends on members sharing information and so avoiding repeat incidents. Please consider adding safetyreports@imca-int.com to your internal distribution list for safety alerts or manually submitting information on incidents you consider may be relevant. All information is anonymised or sanitised, as appropriate.

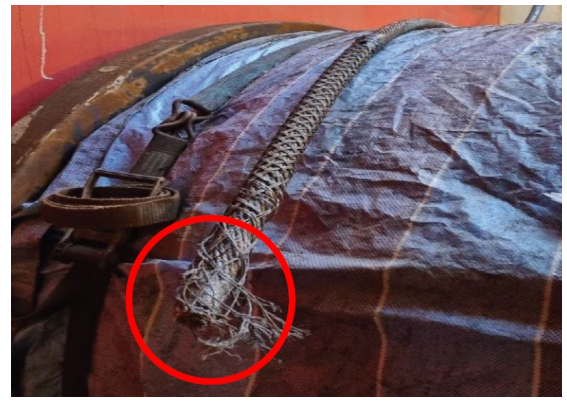
1 Broken Chinese Finger

What happened

During a reeving operation of the forward crane auxiliary hoist, there was a failure of a “Chinese Finger” between the messenger wire and auxiliary hoist wire. About 6m before reaching the trolley sheave, the Chinese Finger broke, resulting in the auxiliary hoist wire falling down into the cargo hold. The messenger wire fell on the main deck below the crane trolley.



Broken messenger & auxiliary hoist wire



Close-up of broken Chinese Finger

What went right

No-one was nearby where anything landed. There were no injuries.

What went wrong

- The Chinese Finger parted due to direct contact between the sharp edge of the Auxiliary Hoist Wire and the Chinese Finger itself;
 - The Chinese Finger could not withstand the applied tension endured during the reeving works;
 - The point of contact between the Auxiliary hoist wire and Chinese Finger was too sharp resulting in a point load;
 - The Auxiliary hoist dead-end was not tapered and by this created a sharp edge at the extreme end of the wire;
- There was a lack of awareness of this aspect of the use of the Chinese Finger.

Members may wish to refer to:

- [Rigging failure during riser recovery – soft slings parted](#)
- [Failure of natural fibre rope in embarkation ladder](#)
- [Failure of cable socks \(Chinese fingers\) on subsea rigging](#)

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2 Incorrect operations result in failure of hoist

What happened?

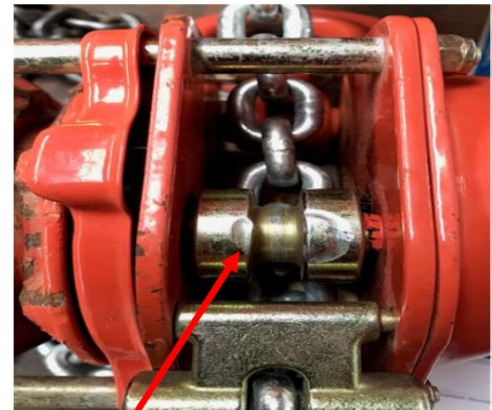
A chain hoist failure resulted in a chain link breaking which caused an 800kg load to fall to deck from a height of 1 metre. Personnel were working on a wind turbine foundation. A regular shaped load was being moved out of the tower using a chain block suspended from a cantilevered trolley beam on a temporary gantry structure erected on the site. A lifting bag was positioned beneath the gantry structure onto which to lower the winch. When the winch was 1 metre above the lifting bag, one of the chain links on the main chain hoist failed causing the load to fall. No-one was in the line of fire; no-one was injured.

What went wrong

Findings indicated that at some point during the operation, the chain had entered the hoist in a twisted or knotted configuration and excessive force applied resulted in damage to the chain link which subsequently failed.



- Insufficient attention was given to ensuring that the chain between the block and the load was not twisted or in a knotted configuration;
- The headroom between the gantry beam and the tower floor was less than expected which resulted in the chain hook having to be pulled as tightly into the block as possible to



Sign of compression, indicating the chain link was twisted side on and snapped due to the change in dynamic loading placed on the chain link.

keep the load clear of the floor. This put additional load into the chain and block and left nowhere for any residual twist in the chain to go, causing the damage to the chain and its subsequent failure.

Recommendations

When using a chain hoist, consider checking the chain for twists as it enters the block. Continually monitor the chain to ensure no twisting occurs. Avoid pulling the hook into the body of the hoist.

What went right? There was no-one in the line of fire! Ensure personnel are always positioned well clear of the line of fire.

Members may wish to refer to:

- [Shackle failure during over-boarding of pennant wire and ballast chain](#)
- [Near-miss: Safe use of chains in rigging](#)

3 Man overboard from anchor handler tug

What happened

A sub-contracted anchor handling tug was performing grapnel run activities using a long chain as a grapnel. Whilst overboarding the chain, a crew member lost balance and fell overboard.

What went right

- The vessel crew's MOB response was exemplary and swift. The person in the water was recovered to deck within three minutes using a nearby life buoy with rope;
- Because rescue equipment was readily available and because the crew had practiced MOB situations in drills, the crew member was recovered quickly and safely.

What went wrong

The first part of the chain was being over boarded using a hook with a T-bar across the top. When the chain started sliding overboard, the hook wasn't released quickly enough and at the same time the T-bar caught on the life jacket worn by the crew member, causing him to lose balance and stumble. This ultimately led to the crew member falling overboard.

- After the incident the design of the hook was modified to prevent it from getting caught;
- Also, the overboarding process was changed to using the crane, eliminating the use of such a tool.

Lessons learned

- Do your drills, learn your skills! They may become necessary;
- Risk assessment: can we do a task in a smarter, safer way?
- Manage sub-contractors and get involved in their work methods and risk assessments;
- Review all hand tools for potential snag points and correct such snag points (if the tool cannot be eliminated);
- Respect the identified no-go areas at vessel edges;
- Apply last minute risk assessment, considering:
 - yourself (is your life jacket belt tight enough?)
 - the tools you use (are there tool snag points?) and,
 - your position and your surroundings (are you in the line of fire or close to the edge?)

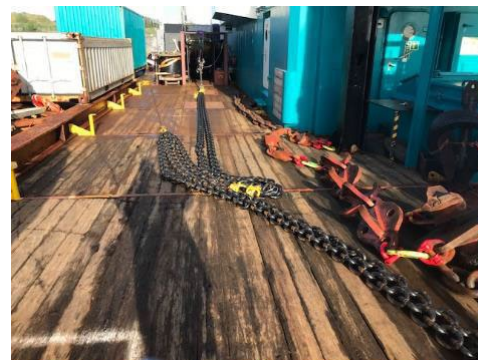
Members may wish to refer to:

- [Two injuries](#) [someone caught their sleeve on the latch of a door and was injured as a result]
- [LTI: Hand injury resulting from clothing catching on door](#)
- [Fall from the quayside into water](#)
- [Near-miss: Drawstring on storm jacket nearly drawn into rotating equipment](#)

4 Don't ASSUME – verify and check

A member reports a number of serious control of work related accidents and near misses, in which a common cause across them all was seen to be ASSUMPTIONS being made without VERIFICATION checks being performed. Three examples were an electric shock, a dropped scaffold plank, and a person in a pipe assembly area whilst equipment was moving.

What Happened



Vessel deck showing chain grapple



Old and new design of hook

Electric shock: it was wrongly ASSUMED that a slip ring was isolated; it was not VERIFIED. Entry to the slip ring area was not required for the activity, that is why it was not isolated. This resulted in a person being electrocuted;



Dropped scaffold plank: it was wrongly ASSUMED that dropped object protection was removed. This resulted in a scaffold plank dropping 4m onto the coating station floor when the roller box, which the plank was resting on, was opened;



Worker went into area where equipment was moving: it was wrongly ASSUMED that the pipe assembly area was isolated; it was not VERIFIED. This resulted in a work party being exposed to moving machinery where they were working;



What went wrong

- In all three examples, important steps in the Control of work process were omitted, for example, activities were started without complete Permit to Work or Lock out/Tag out documentation.
- Opportunities to “speak up” and potentially stop the job were missed during toolbox talks;

Recommendations

- Follow your company control of work processes – they are there to keep you safe;
- Do not start an activity until the control of work process, including all the necessary paperwork such as permits, JSAs, toolbox talks, etc, is complete. The paperwork is there to keep you safe;
- Inspect and VERIFY that all safeguards and precautions, as stipulated in the permits and JSAs, are in place before starting the activity – do not ASSUME they are in place;
- Don't be afraid to SPEAK UP and STOP THE JOB if you think that the control of work process is not being followed – DARE to CARE.

Members may wish to review:

- [Lifting bridle snagged – Failure to “stop the job”](#)
- [UK HSE: Poor control of work – worker suffered serious injuries](#)
- [Dropped object fell from crane – Poor communication/lack of awareness/control of work](#)
- [Unexpected truck movement caused rigger to fall off a ladder \[assumptions were made\]](#)
- [Near miss: Emergency fire pump could not be started from the bridge \[lesson learned: Ask questions, be willing to exercise stop work authority; don't assume it's all just business as usual\]](#)

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5 IOGP: Squeezed hand due to unintentional activation of winch

What happened

IOGP has published [Safety Alert #336](#) relating to a squeezed hand due to the unintentional activation of a winch. A crane operator stood by a control panel to operate the mooring winch. On the level below was an auxiliary winch connected to a rope that was hanging over the railing. By mistake, the crane operator activated the lever for the auxiliary winch, and a crewman on the level below saw the rope connected to the auxiliary winch move. He thought the rope was slipping over the railing and grabbed it. At the same time, the crane operator pulled further on the aux winch lever, which resulted in the crewman's hand being pulled in and squeezed between the railing and the structure.

What went wrong?

- Poor design: the design of the workplace made it challenging for the crane operator to keep an eye on the control panel while operating the winch;
- The risk of unintentional operation of the winch was not identified, and the injured person's role in the work operation was not sufficiently described in the procedure;
- The injured person lacked part of the required training and did not know that the auxiliary winch could be operated from the control panel.

Lessons learned

- Improve design of workplace to design out risks;
- Disconnect redundant levers;
- Ensure crew are properly trained and competent for the task at hand;
- Ensure the risk of unintentional driving of the winch is captured in risk assessment, toolbox talk etc.

Members may wish to refer to:

- [Accidental discharge of bilge water in dry dock](#)
- [Life-raft dropped to the jetty \[crewmember accidentally released the ratchet strap of the wrong raft.\]](#)

