

## Incorrect operations result in failure of hoist

Safety Flash Published on 14 July 2022 Generated on 22 January 2025 IMCA SF 17/22

An 800kg load to fall to deck from a height of 1 metre.

### 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 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.

### Photos

### What went right?

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

### 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.

*IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of the entire offshore industry.*

*The effectiveness of the IMCA Safety Flash system depends on the industry sharing information and so avoiding repeat incidents. Incidents are classified according to IOGP's Life Saving Rules.*

*All information is anonymised or sanitised, as appropriate, and warnings for graphic content included where possible.*

*IMCA makes every effort to ensure both the accuracy and reliability of the information shared, but is not be liable for any guidance and/or recommendation and/or statement herein contained.*

*The information contained in this document does not fulfil or replace any individual's or Member's legal, regulatory or other duties or obligations in respect of their operations. Individuals and Members remain solely responsible for the safe, lawful and proper conduct of their operations.*

Share your safety incidents with [IMCA online](#). Sign-up to receive Safety Flashes [straight to your email](#).