

IMCA Safety Flash 07/20

February 2020

These flashes summarise key safety matters and incidents, allowing wider dissemination of lessons learnt from them. The information below has been provided in good faith by members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of the IMCA safety flash system depends on receiving reports from members in order to pass on information and avoid repeat incidents. Please consider adding the IMCA secretariat (imca@imca-int.com) to your internal distribution list for safety alerts and/or manually submitting information on specific incidents you consider may be relevant. All information will be anonymised or sanitised, as appropriate.

A number of other organisations issue safety flashes and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at www.imca-int.com/links. Additional links should be submitted to info@imca-int.com

Any actions, lessons learnt, recommendations and suggestions in IMCA safety flashes are generated by the submitting organisation. IMCA safety flashes provide, in good faith, safety information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

These three incidents have been shared with IMCA by the G+ Global Offshore Wind Health and Safety Organisation, and all relate to dropped objects in the offshore wind industry.

1 High Potential Dropped Objects from Wind Turbine Nacelle Crane

What happened?

Two lifting bags detached and fell from the crane hook on a wind turbine tower. The incident occurred during lowering operations at the end of an annual service day in the wind turbine nacelle. A contractor technician packed up tools and equipment and loaded them into certified lifting bags. The bags were then loaded onto the nacelle crane hook for lowering to the transition piece. During the operation, two of the lifting bags became detached from the crane hook and fell approximately 60 meters into the sea. Both of the bags were recovered from the sea; there were no injuries or property damage.

This is an historical event from 2016 which has been recently shared with IMCA for incident learning and sharing purposes.

What went wrong?

- ◆ The safety latch on the lifting hook had suffered damage and failed. The investigation noted that this potentially indicated that the hook was incorrectly loaded, which had resulted in excess pressure on the safety latch of the crane hook causing it to become defective.



What actions were taken?

- ◆ Ensure any planned lifting operations are verified to ensure safe loading techniques are employed;
- ◆ A toolbox talk (TBT) to be delivered to all service technicians as a reminder of the correct procedure for rigging the nacelle crane and dangers of incorrect loading.

Members may wish to refer to:

- ◆ [High Potential Near miss: failure of lifeboat release hook mechanism](#)
- ◆ [Near Miss: Non-Fatal Man Overboard Incident \[latch failure\]](#)

2 High Potential Dropped Object – Chains

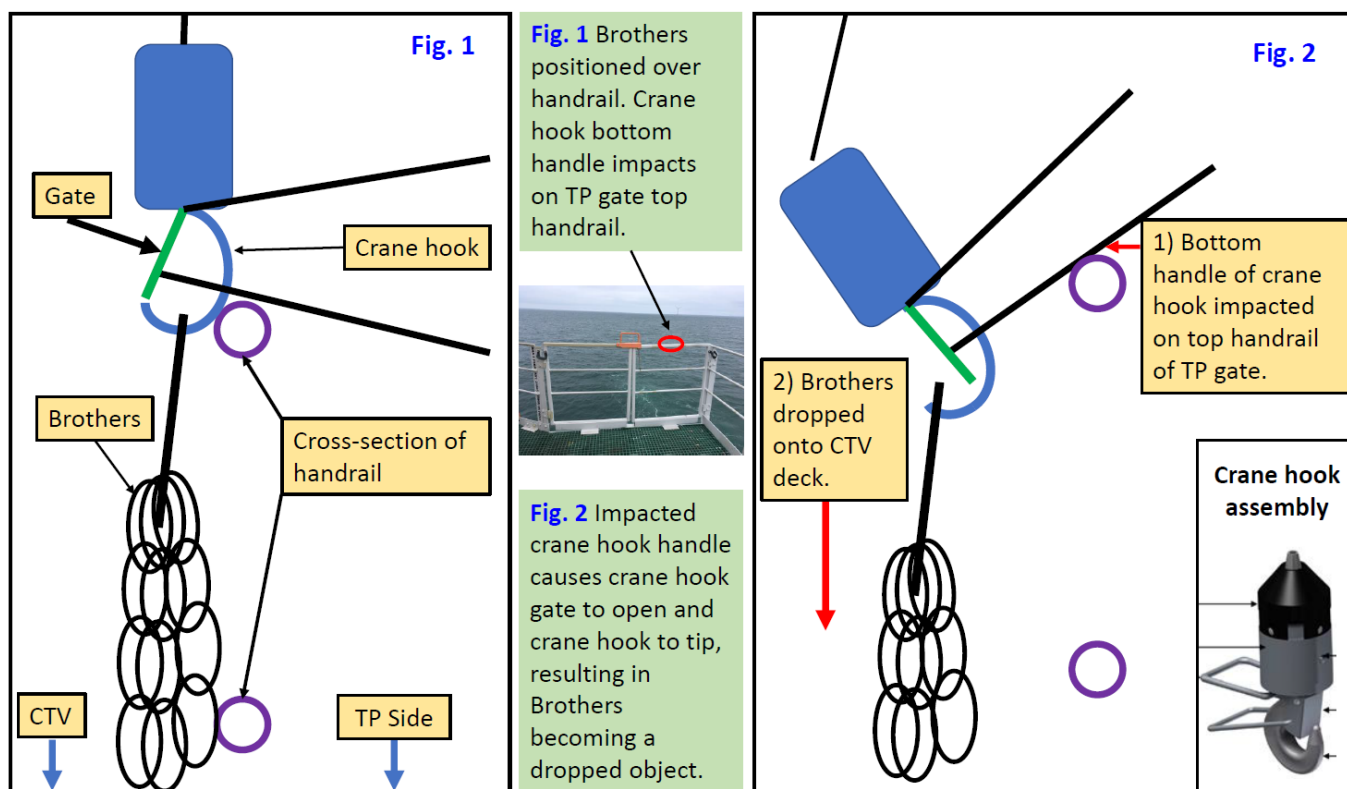
What happened?

A set of heavy chain links, or 'Brothers' used in lifting, fell from a turbine tower onto the front deck of a Crew Transfer Vehicle (CTV) below. The incident occurred when loads were being lifted to the transition piece level of an offshore wind turbine tower using a davit crane.

After lifting two loads, the crane operator released the three hooks on the lifting bags and raised the crane hook up using the hand pendant while another crewman started to manually operate the crank handle to slew the crane hook towards the CTV, ready to lift the third load. Instead of raising the crane hook and attaching 'Brothers' above the height of the transition piece gate handrail, the crewman raised the hook approximately 50mm above the transition piece gate handrail and once the crane hook was nearly slewed to the gate, stopped the lifting operation and manually re-position the set of 'Brothers' over the handrail before continuing lifting operations by lowering the load while slewing continued.

The practice of manually repositioning the 'Brothers' was intended to make the lifting operations slightly quicker; however, it resulted in the bottom handle of the crane hook impacting on the top of the transition piece gate handrail, making the crane hook open and the crane hook itself tilted. This then resulted in the set of 'Brothers' falling onto the front deck of the CTV below. There were no injuries.

What went wrong?



3 High Potential Near Miss: Dropped Object from Turbine Tower

What happened?

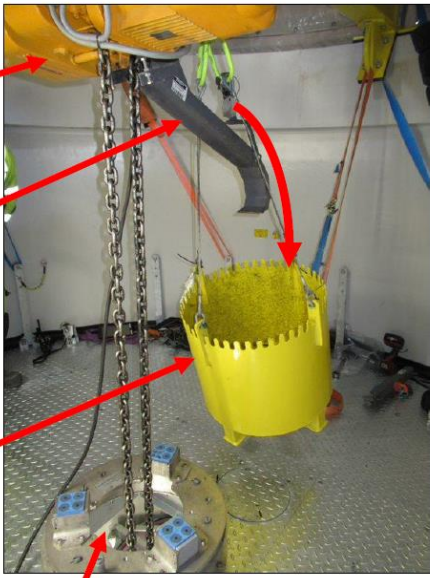
At a wind turbine tower, chains weighing 17kg fell 84m. The incident occurred during the pulling through of a 66kv HV cable during installation. The surplus chain came out of a storage bucket and spooled uncontrolled 84m down the tower to the entrance level. The noise of the chain spooling down the tower alerted the client's HSE inspector who went towards the tower to investigate. There were workers near the chain as it fell and as it landed, but no-one was hit or injured.



The company investigation noted, with regard to severity, that *“although no actual harm occurred there is a possibility for significant injury due to the height and weight involved”*, and the *“probability was high based on historic events of this nature”*.

The very informative annotated photographs provided by the company involved are reproduced here in full:

Photos / Drawings




Winch System

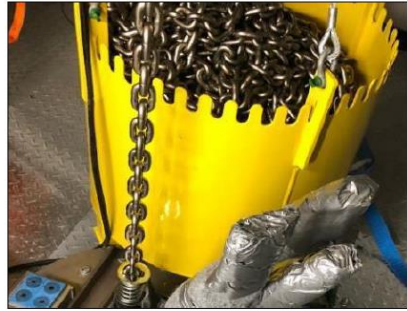
Chain Feed Tray

Chain Collection Bucket

Void which chain and 66kV cable enters through and also dropped through after chain backed up in feed tray




Winch System




Example of bucket being filled with chain

Photos / Drawings



Example photograph showing how chain can kink causing it to back feed from feed tray due to the bucket being overfilled with chain



Example photograph from a previous incident showing length of chain that has the potential to drop

What were the causes?

The company investigation noted the following:

- ◆ Minuted corrective actions from a similar incident six months previously had not been implemented and crew were not aware of the incident or the learnings from it:
 - when interviewed, the spotter and the other members of the team had no knowledge of the prior incident and the importance of ensuring the chain does not kink;
- ◆ A watchman or 'spotter' moved/looked away from their role of ensuring the chain did not kink:
 - there were clear instructions to the effect that the spotter, if moving away, must stop the operation.

What actions were taken and what lessons were learned?

- ◆ Create a way of capturing and disseminating information from previous incidents where control measures have been implemented, and provide evidence to the client that this has been 'taken on board' by all crew on site;
- ◆ Ensure that all persons performing any given task at the worksite are fully competent and capable of doing so;
- ◆ Ensure that persons 'spotting' in this particular work context understand that if for any reason they must look away, they must STOP THE JOB until they are back in position.

Members may wish to refer to:

- ◆ ["Reliable Securing" booklet](#) developed by the G+ Global Offshore Wind Health and Safety Organisation and DROPS
- ◆ [Technip DROPS video](#) (IMCA SEL 039)
- ◆ [Saipem DROPS "Choice not chance" video](#) (IMCA HSSE 042)
- ◆ [DROPS video](#) (provided by Subsea 7) (IMCA HSSE 043)