# Shared Learning

Near miss (Falling Swivel) Investigation lessons learnt

What happened?

On Wednesday 31st May 2017, at approx. 3pm a near miss happened with a falling piece of equipment on a drilling rig. Conditions of the work area were good, Heras fenced work area double clipped, rig site bunded and clear.

The driller was stood at the rig control panel adjusting the torque on the drill head, whilst undertaking a core run, and accidentally caught the wireline winch lever and activated it in to the 'reel in' location. The wireline winch with swivel attached, was then unknowingly reeled to the top of the mast where it came in to contact with the top of the mast and resulted in the wireline cable pulling through the fitting eyes / clamps and the swivel freefalling to the ground, hitting the back of the rig.
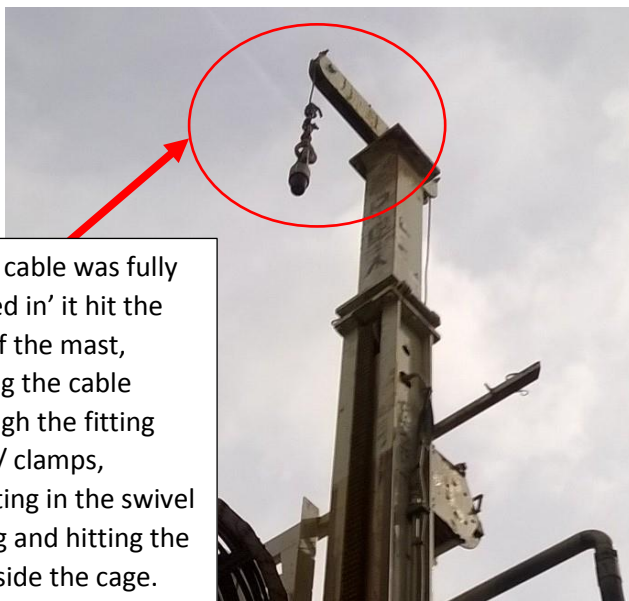
Once cable was fully 'reeled in' it hit the top of the mast, pulling the cable through the fitting eyes / clamps, resulting in the swivel falling and hitting the rig inside the cage.

As the rig was coring at the time, the swivel (a metal item weighing approx. 15kg) fell and rested on the floor within the area surrounded by the rotary guard, inside the heras fencing area and approx. 5 metres from the lead driller who was manning the control panel.

The second man was not within the vicinity of the work area at the time, partly because the rig was undertaking a core run which did not require them to stand near the guard.

Whilst the falling object did not land near to personnel, there was the potential for the object to strike another piece of equipment and be diverted towards them.

SLEEVE CAUGHT ON WIRELINE WINCH LEVER

Document reference: 1G087-SEN-GT-REP-000-00003   Date issued: 5th July 2017

What was the cause?

- **Operator (Lead Driller) error.**

Catch requires lifting to release lever lock.

The winch lever should have been in locked off position. This can be done by putting the control lever in the neutral position fully, which locks it off. A catch has to be then lifted in order for the lever to be used again. The lock stops it being accidentally knocked in either direction (see picture).

- **Swivel should not have been positioned so high up the mast** – usually it is lower and the movement of the winch would have been noticed by the driller.

- **Rig design / controls (comparison to other rigs).**
  When compared other manufacturer controls, there are different configurations of lever layout. The Berretta T41 has spring loaded levers, however the panel is set out such that there is no particular reason to reach over levers. The control panel of a Soil Mech 6 is not dissimilar to that of a Fraste XL. Both have winch levers that are locked off when put into neutral.

- **Lack of additional safety feature**
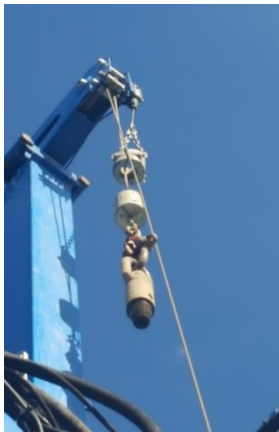
Other rig makes (Soil Mech) do have a 'Chandelier' type safety feature fitted (see picture) which stops the swivel / winch from fully reeling in. If the winch were to be fully reeled in, then the swivel / hook adapter would strike this safety device, and stall the engine. This feature appears to be manufacture specific however, and not dependant on age etc. It would involve considerable cost and design to retrofit the safety device onto other rigs which do not have it factory fitted.

- **PPE** is considered partly a contributory cause for the issue, however if the lever was fully locked off, and also other safety features used, then the incident is unlikely to occur again.

What can we learn?

1. Swivel should not have been positioned so high up the mast – usually it is lower and the movement of the winch would have been noticed.
2. Lever should have been locked off. The lever clicks & locks off when in the neutral position, but it appears on this occasion the lever had not been fully clicked to neutral, & locked.
3. Extra vigilance when operating controls, and ensure controls are locked off where appropriate, and that PPE does not pose an issue getting caught on controls.

> **Please consider these 3 take-away points as part of a review of your working practices. All incidents provide us with the opportunity to reflect on what we do, improve the way we work and show leadership in the development of best practice.**

Thank you