



Safety Alert

From the International Association of Drilling Contractors

ALERT 03 – 30

MODIFIED TONG ATTACHMENT RESULTS IN MTO

WHAT HAPPENED:

The rig crewmembers were working on the rig floor preparing to torque up the bit. A shackle was needed to attach the make-up chain to a line-pull sensor. Instead of getting a shackle from storage, the shackle was taken from the snub line on the breakout tong. The crewmembers did not replace the shackle following the bit being made up to the bit sub.

The crew also needed to test the down-hole motor so a stand of collars was run in the hole and the top drive was rotated into the stabilizer on top of the stand. The breakout tongs were placed on the stump for back up purposes. When the top drive spin-up was complete, the breakout line spooled off and broke loose from the cathead. The tong spun around rapidly causing the loose end of the snub line to strike the driller on his hardhat. The driller was knocked down and was later taken to the hospital for evaluation. The driller was checked out at the hospital and released to return to work. One stitch was required to close a head wound.

WHAT CAUSED IT:

One issue was that the crewmember perceived a shortage of shackles so he borrowed a shackle from the breakout tong's snub line when one was needed to attach the load cell to the jerk chain. At that point, no one recognized the hazard created by modifying the equipment and they failed to reinstall the shackle. Other shackles were available, which leads to the next safety issue.

The second issue was that those supervising did not pay full attention to what the rig floor crewmembers were doing to prepare for the task of torquing the bit. The issue then is of supervising the operation and not getting so busy with other activities that attention isn't paid to the rig floor crewmember's behavior. Other shackles were available but supervisors failed to recognize a need to oversee rig floor crewmembers in their effort to attach the load cell.

A third remedial action identified from this incident is the need for a better, engineered driller's protection cage.

CORRECTIVE ACTIONS: To address this incident, this company did the following:

- Crews discussed the need for better communications. They also installed a plastic tie in the shackle pin to make the removal of the shackle more difficult and less likely to happen. All shackles/clevises must have the pin wire tied in place at all times. A good practice would be to leave a shackle attached to the load cell so it's available when needed.
- Equipment modifications that are not documented and communicated to all personnel can lead to very serious incidents. Anytime equipment is modified, it must be returned to its normal state as soon as possible. Obviously there must be a method used to alert all personnel to the fact that a change was made.
- The driller's cage height has been raised and the cage was extended to more completely protect the driller.
- All crews were reminded to an "equipment modification" process, which includes a document that must be signed by the appropriate supervisor in charge and passed on to other crews should a crew change take place.

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.