Alert 04 – 03

Improper Slinging Results in a Fatality and Two LTIs

What Happened:
Using a crane, the mast was lifted and attached to the rotary beam support and side legs. It was then lowered and pinned to the set back assembly. The assistant driller decided to vary from previous lift procedures and had the assembly lifted so that they could gain access to bolts that were in the toolbox located in the off driller side of the substructure base. While lifting the assembled section, the chains broke. The Assistant Driller and Floorman were working under the load and the second Floorman was kneeling on top of the beam with his fall protection on. Two Floormen sustained injuries and were treated in the hospital, but the Assistant driller was critically injured to head and died on the way to the hospital.

What Caused It:
In the pre-tour meeting, the Senior Toolpusher instructed the relief crew to work on other projects and not to work on the mast assembly. The relief crew works under the direct supervision of the Tour Pusher, who had not arrived on the site due to travel delays. The Crane Operator arrived after the meeting and was not aware of the instructions given to the relief crew. Rigging used to raise the mast and install the rotary beam support legs was not readjusted for hoisting the set back assembly. In addition, the sling assembly was rated for 21.4 tons and the load was 23 tons. The Assistant Driller and the two Floormen were under the radius of the load and the third Floorman was standing on the load. The Crane Operator lifted the load without warning the crew to leave the working radius of the crane. The Crane Operator did not assess the lifting risk before raising the section with the set back pinned and he did not check the lifting accessories. According to procedures, lifting all sections together was never done before. The Assistant Driller did not consider the chains unfit for purpose. Two Floormen failed to stop an unsafe act. Workers involved did not recognize the incorrect rigging they were applying to lift the load.

Corrective Actions: To address this incident, this company did the following and instructed personnel to:

- Developed and implemented a detailed Lifting Management Plan for mast sub frame assembly. Review lifting arrangements for rotary table support frame.
- Clarified roles and responsibilities in lifting operations (Crane operators, Tour Pusher and relief crew) and consider dedicated rigger/operator for lifting operations.
- Revised lifting gear management plan for drill site and prepared a daily checklist for mobile crane on the drilling site.
- Established a baseline competency profile for crane operators and riggers and assess them against it. The base line competency may include additional training and replacement to rectify any gaps.
- Provided means of communication for remote operations on the project.
- Revaluated disciplinary actions for safety violations.
- Encourage culture to STOP unsafe work and continue to reinforce the hazard awareness.
- Prepare daily written work instructions to Tour Pusher for relief crew operations.

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.