ALERT 08 – 03

CRANE RIG UP RESULTS IN FALL FROM HEIGHT

WHAT HAPPENED:

The rig crews were rigging up a tall pedestal crane on an offshore production platform as the first phase of the drilling package rig–up process. The heel section of the boom was secured and pinned and the next task was to install a hydraulic cylinder, which is used to raise and lower the boom. The Driller and Derrickman had successfully removed the transport-securing pin and were lowering the cylinder in place on the turntable clevis with assistance from another crane. At this point the cylinder slipped in its rigging and fell onto a handrail, which protected the pedestal walk around. The handrail was broken from its base and fell 18 feet (5.4 meters) to the deck, taking with it the Derrickman who was tied onto it by his fall protection lanyard. The injured received skull fractures and a broken right arm.

WHAT CAUSED IT:

The rigging was not properly applied. Past work practice has dictated the procedure for rigging up the cylinder with a second crane, and rigging that was simply slung underneath to support the cylinder to ease the positioning of the cylinder into the turntable support clevis. As the cylinder was lowered into position, it increased the angle exposed to the slings, causing the slings to slip upward on the cylinder, allowing it to fall.

The Derrickman had tied off his fall protection lanyard to a handrail that was enclosing the pedestal walk-around. Handrails surrounded the platform walk-around, so there was no need for the Derrickman to tie off.

CORRECTIVE ACTIONS: To address this incident, this company instructed rig supervisors and personnel in the following:

Just because “We have always done it this way” does not mean that the hazard is not present. We all need to take a step back and review our actions and practices upon the completion of each job and ask; “What went right, what went wrong, what could we have done different?”

Perform JSA’s on each task in a job - not the whole job. Clearly the installation of the boom heel section and then the cylinder are two tasks in the job of installing the crane. After the job is complete, capture lessons learned during the review of JSA and up-date the JSA on file as needed.

Rig supervisors: Immediately audit fall protection training on your rig. Spend an equal amount of time talking about tie-off points as you do on wear and care of the harness. Identify individual tie-off points for your lanyards. Provide and clearly mark tie-off points around the rig. A handrail is not an appropriate tie off point for fall protection, as it is designed to withstand only 200 pounds of side loading, whereas an appropriate fall protection tie off point is required to withstand 5000 pounds of dynamic loading.

When rigging loads, use only API recommended hitching techniques. Improvised slinging will not be a part of our work practice.
Most importantly take the time to visualize the work to be done and identify the potential hazards, and communicate them, so a control can be implemented. Think beyond the evident, adopt a questioning attitude: "What If?" Remember:

Step 1: Identify the Hazard
Step 2: Assess the Risk
Step 3: Identify Controls
Step 4: Implement Controls
Step 5 Monitor the Process.

The above 5 steps are a simple and effective tool for all of us to use, whether crossing a busy street or installing a crane.