ALERT 09 – 13

DROPPED DRAWWORKS PLATFORM

WHAT HAPPENED:

During the process of lowering the draw-works and support structure to the ground, one of two 35 ton sheaves used in the pulley system failed, causing one side of the draw works structure to fall 3 to 4 meters (10 to 13 feet) to the rig sub base. When the structure collapsed, five employees fell, resulting in major injuries (fractured bones and dislocated shoulder) and first aid cases. Potential was for multiple fatalities. The incident also caused major damage to the substructure and draw-works resulting in the rig being unserviceable. A second shackle had been added to the pulley system sheave used to lower the draw-works. This additional shackle caused misalignment of the sheave with the direction of the load. While lowering the platform, the tension in the pulley system increased forcing the sheave plates apart, releasing the sheave pin and resulting in immediate release of the cable and draw-works.

WHAT CAUSED IT:

- Personnel were in exposed position during lowering of the draw-works.
- The person in charge had not performed the operation before and procedures did not give detailed and clear guidelines for the rig down operation.
- Although experienced personnel were present they were not listened to and an extra sheave was added to the rigging system.
- There was a failure in the Management of Change (MOC) by altering an existing approved design and the lack of documentation of the rig down procedure to assure consistent performance.
- Person-in-charge handover did not address safety critical tasks.
- Lifting equipment inspection and control procedures were not followed.

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

- The rig has been through extensive repair, redesign and recertification by the manufacturer.
- All design issues and the rig documentation were revised by the manufacturer.
- Updated rig move procedures to include details of critical safety tasks.
- Developed lift plans and consider Permit To Work requirements for significant lifts.
- Identified high risk areas during lifting and load movements and removed personnel from these areas during the lifting/loading operation.
- Confirm lifting equipment is certified and that personnel are competent to perform their tasks.