ALERT 07 – 28

MAST COLLAPSE RESULTS FROM REMOVAL OF WRONG PINS

WHAT HAPPENED:

A rig crew was preparing the mast to lower during a rig down. During preparation to lay the mast over, the incorrect pins were removed from the “A” legs. The pins that connect the front leg to the rear leg of the “A” Leg assembly were removed instead of the pins that connect the front A-leg assembly to the mast legs. Once the mast was broke over the center of gravity point it was free to fall/pivot to the ground. No one was injured but the equipment was severely damaged.

WHAT CAUSED IT:

There was poor communication and lack of overall supervision. Supervision should have confirmed proper pin removal before attempting to lower the mast. A JSA was completed but did not address specifics on proper pin removal. The pivot pins of the “A” legs were removed instead of the pins that secure the derrick to the “A” legs.

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

Instructed Rig Personnel and Supervisors to:

- Supervisors are to ensure that mast pins that are not to be removed are to be equipped with keeper pins that cannot be removed (Weld lock washers or nuts/bolts on keeper).
- Supervisors are to ensure that all pins not for normal removal are painted safety yellow
- Step back and conduct a thorough evaluation of the operation (Step back 5X5).
- Supervisors are to ensure that there is clear communication between them and their workers.
- Supervisors are to provide close supervision of critical tasks being performed on rig downs.

This set of 2 A-legs pins should never be removed for mast lowering.

Correct pin to remove when lowering mast (one pin per side)
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.