



Safety Alert

From the International Association of Drilling Contractors

ALERT 13 – 11

FAILURE TO PROPERLY MAKE UP THE TOP DRIVE/SAVER SUB CONNECTION RESULTS IN EMPLOYEE INJURY

WHAT HAPPENED:

After making up the Bottom Hole Assembly to spud in the well, the crew made up the first stand of drill pipe in the mouse-hole. The stand was then picked up, made up to the drill string and then the top drive was connected. As the drill string was picked up off the slips, the pumps were engaged to test the MWD tool. At this point the drill string pulled loose from the top drive saver sub and dropped approximately 3 feet (91cm) into the elevators. As the drill string dropped, the drill pipe screen came out of the top of the drill pipe and fell approximately 90 feet (27m) to the rig floor striking an employee in the left forearm, which resulted in a fracture.

WHAT CAUSED IT:

1. The drill pipe was not fully screwed into the saver sub because the top drive pipe grabber did not fully open allowing the drill pipe to stab into the saver sub.
2. While rotating the top drive, two grabber dies broke off and became wedged between the saver sub and drill pipe, thereby tightening it up and giving a false indication that the saver sub and drill pipe were made up.
3. The connection appeared to torque up.
4. The Driller did not engage the pumps and pressure up prior to picking up off the slips.
5. The grabber control switch failed when placed back to the “open position”.
6. The employees did not recognize the hazard prior to the top drive leaving the floor level.

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

1. The Rig Manager had the counter balance valve for the pipe grabber replaced.
2. Rig crews operating top drives were instructed to revise the rig specific JSA / Work Plan to address the following when preparing to make a connection:
 - a. When applying pipe dope to the box and saver sub, the grabber is to be inspected to make sure that it is in the full open position, prior to raising the top drive leaving the floor level.
 - b. Deficiencies are to be immediately relayed to the Driller and Rig Manager; with appropriate maintenance / repairs scheduled and performed.
3. The Driller was reminded that once a connection is made and torqued, the mud pumps are to be engaged and pressured up prior to picking up off the slips. The Driller was also given the following instructions:
 - a. The top drive shall not be moved if leaks are noted; the Rig Manager shall be immediately notified.
 - b. The Rig Manager must agree to a variance if down hole conditions require that the pipe be picked up before the mud pumps pressure up.
4. Rig crews were reminded to review their rig specific JSA / Work Plan to make sure the minimum steps of making up joints of pipe and/or connecting the top drive are taken into consideration. Note: The company also reminded all rig crews that this procedure can be attached to the JSA / Work Plan for review prior to making up a connection with the top drive.

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.