



# Safety Alert

From the International Association of Drilling Contractors

ALERT 13 – 23

## FAILURE TO TORQUE DRILL PIPE RESULTS IN SERIOUS NEAR MISS EVENT

### WHAT HAPPENED:

The crew had made up a stand of drill pipe in the mousehole. After hoisting the stand out of the mousehole, and while it was still hanging in the elevators, the crew began to make up a float sub to the bottom of the stand using the iron roughneck. Unknown to them, when the stand was originally made up in the mousehole, the connection (tool joint) between the top and middle joints did not get fully torqued thereby creating a “loose” connection. When the iron roughneck was engaged to spin the bottom joint of the stand to make it up into the float sub, it also backed out the “loose” connection between the middle joint and top joint of drill pipe, separating the bottom two joints of the stand from the top joint. The bottom two joints fell damaging the hand rails on the rig floor before continuing off the floor and coming to rest against the substructure. No injuries occurred.



Damage to Handrail



Typical Iron Roughneck

### WHAT CAUSED IT:

- Incorrect Torque Procedure – The iron roughneck operator applied the correct torque to the tool joint, but he did not notice that the jaws had bottomed out; i.e., the torque was not applied to the tool joint, just the jaws. He did not verify that the tool joint was tight before removing the machine from the pipe.
- Low Quality JSA / Work Plan - The JSA / Work Plan and review did not address the correct procedure for the specific operation (in this case, installing a float sub), nor the specific hazards associated with the task.

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

- The company reminded and instructed all employees on the iron roughneck torque procedure. The machine operator must be aware of the operating procedure of the iron roughneck, especially in verifying that correct torque is applied to the tool joint and in paying attention to the position of the jaws when reaching the designated torque. When in doubt, reposition the jaws and reapply the torque to make sure that the tool joint is tight.
- The company also reminded all employees that the iron roughnecks should not be engaged to spin a stand to the right with weight hanging in the elevators. I.e., the Driller needs to slack weight off the stand when the pipe is being spun onto any tool or tool joint.
- All employees were reminded of the company's JSA / Work Plan. The rig specific JSA / Work Plan must be written to address the safest procedure for making up downhole tools and must clearly list all associated hazards and barriers to prevent an incident from occurring. Contact the appropriate up-line supervisor if additional assistance and / or resources are needed.
- The company informed all rig crews that due to various tools associated with drilling operations, it is difficult to establish one set procedure to address all possible installations. For example, a bit sub is typically attached to the bottom of the stand with chain tongs; a float sub can be stabbed onto the stump in the rotary to be made up conventionally; reamers and other longer equipment may need to be made up in the mousehole (using slips); etc. Therefore, the rig specific JSA / Work Plan for the installation of any particular downhole tool must clearly state the job steps, potential hazards, and steps to mitigate the hazards. The crews were instructed to review their JSA / Work Plan prior to picking up the tools.

**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.**

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices

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Issued October 2013