

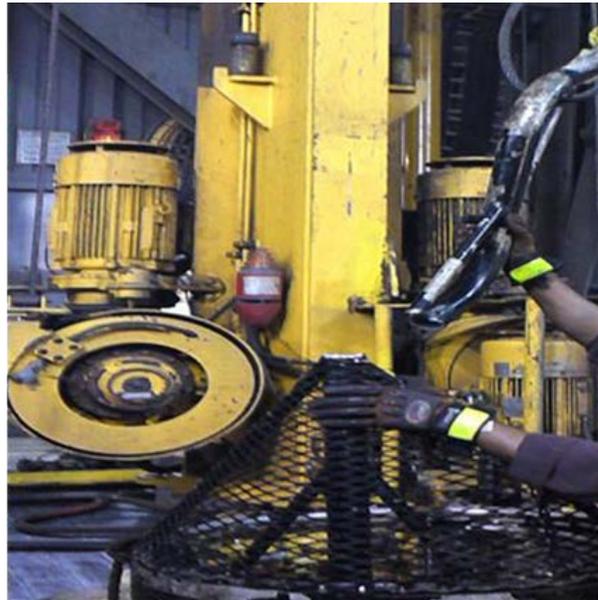
ALERT 14-29

PERSONNEL BASKET FAILURE – SERIOUS NEAR HIT

WHAT HAPPENED:

While lifting a Floorhand in a personnel basket to perform scheduled maintenance on the Pipe Racking System inside the derrick, the curved lifting pipe used to suspend the basket partially separated when the basket hung up on an obstruction. The basket and rider were approximately 110 feet above the rig floor when the incident occurred. The rider felt the basket tilt and called “all stop” over a hand held radio he was using to communicate with the banksman. The basket continued to tilt and the rider repeated the command “all stop”. The basket stopped just as the lifting pipe partially failed.

A separate derrick winch line had been anchored to the rig floor, adjacent to the path the basket would travel, to serve as a guideline for the rider. Following the failure, the rider gave the command to lower the basket. He supported his weight by holding onto the guideline as the basket was lowered to the floor. When the basket reached the rig floor, the lifting pipe parted completely from the basket.



Personnel Basket with Separated Lifting Pipe

WHAT CAUSED IT:

The personnel basket was designed as a lightweight aluminum basket to be used inside the derrick to lift a single rider. It had a Safe Working Load of 400 pounds with a tensile strength of 4,000 pounds. The hydraulic utility winch used to lift the basket was certified for personnel lifting but had a hoisting capacity of 14,000 pounds, which exceeded the tensile strength of the basket lifting pipe. When the basket hung up on an obstruction, the winch exerted more force than the basket could withstand and the basket partially separated from the lifting pipe.

ADDITIONAL SAFETY CONCERNS

- The rider was wearing a fall protection harness with a lanyard attached to the basket rather than an anchor point independent of the basket, making his fall protection ineffective if the lifting pipe failed.
- There was a delay between the time the first “all stop” command was given and hoisting of the basket stopped.

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

- Extreme caution should be exercised when using personnel baskets which have a tensile strength below the hoisting capacity of the winch being used to lift them.
- The travel path of the basket should be surveyed for any obstructions that could contact the basket and a banksman should be positioned to have a clear view of the basket and rider at all times.
- Continuous hand signals should be used as the primary means of communication. Should hand signals cease, the lifting equipment operator must immediately stop movement and must not resume movement until clearly directed to do so. If radio communications are used the commands should be also be continuous with the operator immediately stopping movement if a command is not heard.
- Secondary fall protection attached to an anchor point independent of the personnel basket should be considered in the risk assessment conducted for all personnel lifting operations.

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