



Safety Alert

From the International Association of Drilling Contractors

ALERT 02 – 17

OVERHEAD SHACKLE FAILURE RESULTS IN DROPPED TONGS

WHAT HAPPENED:

The drill crew was on the rig floor changing out the rig tongs from type-DB to type-C. The DB tongs had been removed from the make up tong side and the type C tongs were attached to the tong cable. The type C tongs were being lowered by the air hoist and the weight of the tongs was transferred from the hoist line to the tong line. The tongs stopped at about 2.5 feet from the rig floor where one of the floormen was able to remove the hoist line. Once the hoist line was removed, the shackle pin at the counterweight bucket had come out of the tong cable causing the tong to drop to the rig floor.

WHAT CAUSED IT:

The investigation revealed that about a month earlier the tong line was removed from the weight bucket to rig up casing tongs. When the tong line was reattached either the reused cotter pin broke and fell out or the pin was not put in place.

- The shackle pin at the counter weight bucket came out, allowing the tongs to drop.
- The JSA did not call for an inspection of the shackles in the mast.
- The safety shackle with the missing pin was not identified during safety & compliance audits.
- It is possible that the shackle pin cotter key was not put back in place after being removed during a previous job or it was reused and weaker than a new one allowing it to break which permitted the nut to back off.

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

- A complete inspection of the mast and substructure was performed looking for pins that might have missing or weak cotter keys.
- The JSA was revised to contain a safety precaution to check overhead shackles and all associated tong hardware and connections, whenever tongs are to be changed out, including after every casing operation.

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.

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