FILLING CASING WITH HIGH PRESSURE MUD PUMP RESULTS IN A LOST TIME INCIDENT

WHAT HAPPENED:

The rig was in the process of running casing. While filling the casing with mud, a floorman closed the fill line valve when the casing was full. When he closed the valve, the pressure build up in the line surpassed the working pressure of the valve causing line failure. The floorman was struck with debris and required medical attention. The result was a Lost Time Incident.

WHAT CAUSED IT:

The investigation showed that the rig was using its high-pressure mud pump to fill casing. The fill line components did not meet the pressure requirements of the high-pressure mud pump.

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

- Directed the Rig Managers to ensure that the only centrifugal mud pumps are directly connected to the casing fill line on all of the company rigs.
- Instructed rig personnel to use a ball type valve with a 90-degree filling extension on the end of the fill line.
- Instructed rig personnel that casing fill line should not allow for main mud pumps to be used to fill casing.
- Instructed rig personnel that only in an emergency situation should the main mud pumps be used to fill casing.
- Suggested that on rigs with Top Drives, the use of the Top Drive may eliminate this problem.