

SAFETY ALERT - #10-2009

Workers Injured Using Damaged Lifting Equipment Release Date: April 20, 2009

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Function: Well Completions and Servicing	Incident Date: June 22, 2008
Incident Type: Struck by Operating Equipment	Country and Region: West Central Alberta

Summary:

Two workers were injured when a lift sling dislodged from a winch hook that did not have a properly operating safety latch.

Description of Incident:

A service rig crew was in the process of laying down the working floor when they realized that the floor would not be able to come down all the way because a pressure switch was in the way. The operator began to raise the floor so the pressure switch could be turned. As the floor was raised to approximately 45 degrees, the winch hook came unlatched and the floor fell. To save time and speed up the operation, the floorhand and the derrick hand had stepped underneath the floor to pass a 36" pipe wrench. This placed both individuals directly in the fall path of the floor. Both workers were contacted by the falling floor.



Figure 1Resting position of rig floor post incident

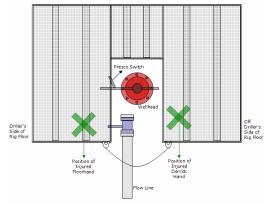


Figure 2Diagram showing location of injured workers

Relevant Observations:

- 1. The rig was equipped with two winch lines, the first of which had a damaged Kuplex hook. At the time of the incident the second winch line, which was not used, was fully operational.
- 2. The rig crew identified "overhead loads, swing paths, and pinch points" in a safety meeting.
- 3. The rig manager was aware that the safety latch on the winch hook was damaged and could not be properly secured. This was verbally communicated to all crew members and documented the hook in a hazard report.
- 4. The winch hook was taken out of service for repair after it had been identified as damaged.
- 5. A winch hook repair kit had been ordered and was on location at the time of the incident.
- 6. After the hook repair kit had been received, the rig manager had attempted to fix the winch hook but was unable to install the new latch locking mechanism.
- 7. Believing it would be "OK" for the task of positioning the work floor, the winch hook was



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returned to service.

- 8. When the rig operator began running the winch controls, the floor hand and derrick hand were standing out of the fall path of the rig floor.
- 9. At the time of the incident, both workers had moved below the fall zone of the rig floor before the rig floor was in position.
- 10. The winch hook was attached to the centre pad and an engineered sling was attached to the work floor. As the floor was raised, the weight of the floor transferred from the center pad sling to the work floor sling. Without the latch lock mechanism, the D-ring pushed out of the winch hook allowing the rig floor to fall.



Figure 3:

All Kuplex® safety hooks are designed so the latch cannot open under load and requires pressure on the trigger to release the hook when the load is grounded.

Figure 4:

Kuplex® safety hook did not have a latch locking mechanism on latch assembly at time of incident and was therefore able to open when raising the floor

Recommendations for Preventing Future Incidents:

Important hazard identification and control recommendations include:

- □ **Never use damaged equipment**: Although all members of the rig crew were aware that the winch hook was damaged, the hook was returned to service and used to raise the rig floor.
- □ Always give careful thought about your proper position for the task: In this case, both the derrick hand and the floor hand moved below the rig floor while it was being hoisted by the winch line and were standing directly below an overhead hazard.
- □ Consider the need for design changes before an incident happens: In this case, the company initiated a review the work floor design after the incident and made changes to eliminate the necessity of having the winch hook on the work floor centre pad making lifting operations much safer.

A final thought: Efficiency is important and something we all take a lot of pride in. Always take an extra moment to consider your actions whenever attempting to save time or effort. Make sure your decision is a safe one.

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DISCLAIMER:



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