

SAFETY ALERT - #11- 2009

USING DAMAGED EMERGENCY EGRESS EQUIPMENT LEADS TO WORKER INJURY

RELEASE DATE: JULY 2, 2009

Function: Well Completions and Servicing	Incident Date: March 22, 2009
Incident Type: Fall Hazard	Country and Region: Alberta, Canada

Summary:

A worker sustained minor injuries using damaged emergency egress equipment.

Description of Incident:

A service rig had just finished a cement job. The crew then started to rig out all non-essential equipment including the device installed for emergency evacuation from the tubing board. The relief derrick hand went up to the tubing board, connected his safety lanyard to the emergency escape device and started to travel down to ground level.

At this point, the safety hook tied to the automated braking system disconnected from the tubing board, causing the escape device to descend at a high rate of speed. The worker had not been trained to activate the secondary emergency brake. This resulted in an uncontrolled descent to the ground. The worker's injuries were limited to a sprained ankle, wrist and elbow.



Photo of Damaged Double Latch Hook

Important investigation results:

- Follow up investigation confirmed that the double latch snap hook was damaged causing it to seize in the open position. As a result, the hook was able to disconnect from the D-ring on the tubing board.
- This was the first time the relief derrick hand attempted to rig out this equipment. He had not previously used the emergency escape device, other than being shown how to use the system by a worker at another location while the equipment was on the ground.

Causal Analysis:

A detailed root cause analysis was completed. The main causal factors were:

1. No formal training for the individual using the fall protection or egress equipment
2. No pre-rig-up or rig-out inspections were completed
3. No tailgate safety meeting was held before beginning rigging out operations
4. No monthly inspections were being done on the fall protection equipment as per manufacturer's recommendations.



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We Can Prevent Similar Incidents

This incident reinforces the importance of the fall protection requirements identified in occupational health and safety regulations. In this case, the employer added the following requirements to their written fall protection plan:

1. Only trained personal are allowed to use emergency escape equipment.
2. The trained individual must have both a valid fall protection certificate for rig work and confirmation that they have successfully completed the training provided by the manufacturer.
3. A more detailed pre-rig-up and rig-out checklist was developed in cooperation with the manufacturer of the escape system. The individual using the emergency escape system **MUST** fill out this checklist.
4. A competent worker **MUST** fill out the Monthly Inspection and Descent Log Book.
5. All employees will read the manufacturers operating and maintenance manual and sign off.

The incident also reinforced the importance of both manager, supervisor and worker responsibilities for the safety of the operation. Fall protection responsibilities identified by the employer included:

Manager / Supervisor Responsibilities

- Ensure that all employees that you are supervising have read through and signed off on the manufacturers operating and maintenance manual.
- Ensure that workers are trained to use fall protection and emergency escape equipment.
- Ensure that all hazards and controls are addressed in the daily safety meetings.
- Ensure that monthly equipment inspections are performed and minimum monthly riding is being done and documented in the fall protection manual.
- Ensure that all fall protection equipment that fails inspection (pre-use or formal) is removed from service and determine if the item should be repaired, replaced or destroyed.

Worker Responsibilities

- Ensure that you have the proper training before entering the derrick, fall protection for rig work and use of the emergency escape system training as per the manufacturer's requirements.
- Ensure that all fall protection equipment that fails inspection (pre-use or formal) is removed from service and referred to a supervisor.
- Ensure that you know where the procedure and equipment manuals are at all times when on location. If you move from rig-to-rig, make sure you ask your supervisor where they are.
- Make sure that you understand everything within the procedure manuals. If you do not understand, ask your immediate supervisor or manager.

Contact:

safety@enform.ca

The Fall Protection Manual published by [CAODC](#) details important fall protection guidelines.

DISCLAIMER:

This Safety Alert is designed to prevent similar incidents by communicating the information at the earliest possible opportunity. Accordingly, the information may change over time. It may be necessary to obtain updates from the source before relying upon the accuracy of the information contained herein. This material is presented for information purposes only. Managers and supervisors should evaluate this information to determine if it can be applied to their own situations and practices.