

# Fatalities in the Oil and Gas Industry

## Crew stays clear of runaway spool

### *What happened:*

A drill crew was in the process of slipping and cutting a 1-3/8 drill line. Two floormen were assigned to un-spool wire rope until there was approximately a 40-foot loop below the storage reel.

As the drill line reached the desired slack, the spool continued to rotate due to its momentum. An attempt was made to stop the rotation by using a wooden board as a brake lever.

When it became evident that it wasn't possible to stop the spool from rotating, all personnel were instructed to vacate the area and stay clear.

The drill line eventually became entangled, which stopped the rotation of the spool. Fortunately, there were no injuries.

### *Investigation results:*

It was determined the incident was caused by the following:

- Manually un-spooling the drill line from the spool prior to slipping the drill line.
- The drill line spool was not driven by a powered device.
- The drill line spool was not equipped with a mechanical braking device.
- A relatively full spool of drill line was in use and the momentum of the rotating spool was too great to be stopped manually.

### *What's it to you:*

To address the incident, the company developed a standard drill line spool drive and braking system.

All rigs should ensure appropriate safeguards are in place to prevent a similar incident. These safeguards include:

- Reviewing and revising the job safety analysis for the task of slipping and cutting drill line
- Ensuring the drill line spool is equipped with a mechanical braking device
- Confirming the mechanical braking device is maintained and working properly

### **Ignoring lockout procedure injures motorman**

#### *What happened:*

Work requiring disconnection and removal of a mud mixing pump assembly commenced without a lockout/tagout procedure.

A motorman was asked to operate the chain fall assembly by pulling the control chain to raise the motor. While pulling on the chain, an on-off switch was activated for the electric pump. This energized the motor and caused it to go out of control. It swung upward and struck the motorman, who was seriously injured.

#### *Investigation results:*

It was determined the accident was caused by no pre-job planning, no lockout/tagout procedure, no job safety analysis and no permit to work.

#### *What's it to you:*

The company took the following corrective actions:

- Revised the job safety analysis to eliminate the hazards and include lockout procedures
- Provided refresher training for lockout/tagout, job safety analysis and permit to work
- Recommended a different type of electric switch that is guarded on the start button
- Installed safety signs on equipment that starts automatically
- Recommended a lifting frame to eliminate chain falls from piping

### **Jump-started crawler kills operator**

#### *What happened:*

A 53-year-old operator decided to show another worker how to jump-start a crawler that wouldn't start (because it was in gear).

He reached into the engine compartment and used a screwdriver to bridge the electrical terminals on the starter. The machine started, but because it was in gear, it moved forward and ran over the operator, who died.

*Investigation results:*

Jump-starting the crawler bypasses the start-in-neutral safety device, allowing the crawler to start in gear. Normally, the safety device prevents a crawler from being started from the driver's seat when its transmission is in gear.

*What's it to you:*

- Never jump-start mobile equipment.
- Start and operate mobile equipment only from the driver's seat.
- Always put the transmission in park or neutral and set the brakes before starting.
- Install and maintain any labels warning against jump-starting.
- Do not remove starter shields that prevent jump-starting.

## **Makeshift hook kills floorman**

*What happened:*

A makeshift hook used to pull the kelly on an oil well drilling rig released from a jam and struck a floorman on the head, killing him.

*Investigation results:*

While lifting the kelly in preparation for storage, the driller began to lower the kelly into the kelly sock. The hook used to pull the kelly was a makeshift hook, and as the kelly was being lowered, the line on the winch fouled and pulled the kelly into the back of the kelly sock, jamming it.

The fouled winch continued to tighten the line and the makeshift hook released, hitting the floorman on the head.

*What's it to you:*

- You must follow all written safe work procedures provided by your employer and not use any other means if they create hazards.
- To employers – ensure the adequate direction of workers in the safe performance of their duties. Ensure that they work without undue risk.

### **Hoist line failure kills derrickman**

*What happened:*

A derrickman was killed when a hoist line failed after the traveling block ran into the rig crown.

*Investigation results:*

When the line failed, the traveling block fell, hitting the worker who was in the rod basket below the rig crown. A flag, attached to the drill line, was being used as a visual aid to stop the hoist when the flag reached the drum. A visual error allowed the block to run into the rig crown.

*What's it to you:*

- Do not rely on visual references.
- Install an upper travel limit device to guard against line failure.

### **Sit down, buckle up and live**

*What happened:*

The driver of a water tanker died after his vehicle flipped on its side on a steep hill. He wasn't wearing a seat belt.

*Investigation results:*

The vehicle was wending its way down a steeply-sloped road when the tanker began to slip. When it started to roll, the driver attempted to escape through a hatch above him. But he was crushed to death when the vehicle slipped onto its side. A follow-up check showed deterioration to the brake/steering system.

*What's it to you:*

- Wear a seat belt when operating mobile equipment.
- Ensure regular inspection and maintenance of mobile equipment  
(by qualified people).
- Train operators of mobile equipment how to drive safely on steep slopes.