Drill Line Cuts I-Beam Due to Incorrect Spooling

POTENTIALLY SERIOUS INCIDENT

Description:
During drilling activities in a deep well, a significantly damaged I-beam located below the drilling rig crown block was identified when a melted piece of metal fell to the rig floor. The drill line was spooled incorrectly and had cut almost completely through the I-beam, which was located below the crown block and water table. This could have led to a serious incident.

What Went Wrong:
- Guards or barriers were not present to prevent the drill line from passing above the water table I-beam (from the block to the fast-line sheave) when the crown was reeved (threaded).
- The job safety analysis (JSA) and rig-specific procedures did not identify this risk or the correct routing of the drill line.
- Personnel, including the supervisor, who were all very experienced, did not identify the incorrect spooled drill line during string up (rig laid down) or subsequent dropped object inspections.

Life Saving Rules:
This alert relates to the following excerpts from the rule:

Safe Mechanical Lifting

- I confirm that the equipment and load have been inspected and are fit for purpose

Watch the video

View of drill line cutting through I-beam

View of correct and incorrect orientation of drill line
Actions Taken/Recommendations:

• To prevent a serious incident in the future, evaluate water table I-beams on similar drilling rigs and install guards to prevent the drilling line from being spooled incorrectly.
• Place a decal on the water table with instructions and an arrow indicating the drill line must be spooled under the water table.
• Revise JSAs to include correct routing of the drilling line from the traveling block to the fast line sheave under the water-table I-beam and not above.
• Revise the rig-specific operating procedures to include correct routing of the drill line, including photos of correct and incorrect spooling of drill line at the water table I-beam.

Energy Safety Canada Resources:

• Life Saving Rules
• Dropped Objects Program
• Energy Safety Canada partnered with DROPS (DropsOnline.org) to establish a Canadian chapter. To become a member, review the Terms of Reference on the Canadian Chapter DROPS website and send an email to express your interest.

Help industry by sharing lessons learned from an incident. Submit your Safety Alert.