



Safety Alert

From the International Association of Drilling Contractors

ALERT 05 – 15

IMPROPER USE OF IRON ROUGHNECK™ TYPE EQUIPMENT RESULTS IN DAMAGE

The lower jaw on the Iron Roughneck™ was being used to hold back up on a sub while the top drive was being used to spin-up the connection. This resulted in the full torque of the top drive spin-up function being transmitted to the tracks and wheels of the Iron Roughneck™. The Iron Roughneck™ was not designed to be used as a back up to the top drive, but only as a back up to itself. The torque applied to the track was sufficient to shear the hold down mechanism on the Iron Roughneck™ and dislodge it from the tracks. There were no injuries.

WHAT CAUSED IT:

1. Improper work procedure. The model of Iron Roughneck™ in use was not designed to back-up the top drive. The unit is designed to have reactive torque from the top wrench to the bottom wrench, not to hold the torque with the wheels.
2. Insufficient training. The crews on the rig were not fully trained in the limitations of the unit. No organized training for operation of the specific model of Iron Roughneck™ was incorporated in the rig training.

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

Instructed all Operations Personnel To:

1. Review this incident with crews and emphasize that an Iron Roughneck™ is designed to work as an independent unit and shall only be operated as designed. ANY deviation from the designed use requires a completed formal risk assessment and an approved Management of Change.
2. All operators of the Iron Roughneck™ are required to review the operations and maintenance sections of the operations manual. This must be included in the individual's training record*. Specific emphasis is to be placed on a thorough knowledge of the pre-operating checklist, end-of-stroke interlock, torque wrench back-up mode, and mouse hole operations.
3. All work procedures involving the use of the Iron Roughneck™ are to be reviewed by the drill crew for compliance to the operating procedure for that piece of equipment and their rig-specific JSA.

This Alert applies to any "Iron Roughneck™", type system, whether it is on tracks, wheels, or hangs on a wire or arm.

*Requirement for this training will be included and documented in the Floorhand position in Competency. Until this program is complete, the Driller must ensure that all operators of Iron Roughnecks™ and similar equipment are in compliance with Recommended Action #2.

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices
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