

Drill Operator Struck By Wrench

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INCIDENTS

There have been many accidents across the mining industry in which operators of drills and co-workers have been struck while trying to remove or repair parts of the drill such as bits, rods or steel.

- ❖ In one incident on a diamond drill rig on surface, the operator installed a pipe wrench on the drill casing and engaged the rotation on the drill to unscrew the rod. The wrench rotated completely and struck the helper on the head. He died from his injuries.
- ❖ In another situation, a three-foot length of pipe being used for extra leverage first jammed against the stope wall, and then sprung free, when the drill operator reversed the drill's rotation. The pipe hit two workers, causing lost-time injuries.
- ❖ A fatal accident in the United States occurred when two workers attempted to free up a drill bit that was wedged in a hole, using two pipe wrenches and a six-foot length of "cheater" pipe. The two workers decided to stop after making little progress. When they removed the cheater pipe, one wrench slipped and the other rotated, hitting a worker on the arm and head. He later died from his injuries.

PREVENTION

- ✓ Whenever possible, drills should be fitted with automatic clamping or steel changing devices which allow the machine to screw/unscrew under power without a person having to physically hold any part.
- ✓ If no automatic device is installed, drill bits, steel and couplings **must** be removed and installed manually. The drill rotation motor must **never** be used to remove or install any part of the drill string while a helper holds one of those components.
- ✓ Company procedures must be in place for completing these tasks manually, and workers must be trained in these procedures.
- ✓ There are many different forms of energy, and workers need to be aware of the related hazards. Main energy sources provide power to activate moving parts. Stored energy remains in the system after the power has been turned off. Stored energy sources may be hidden, but can be extremely dangerous.
- ✓ Follow proper lockout procedures before beginning any work on a machine or equipment with moving parts.
- ✓ All powered equipment has a danger zone which reaches all the way around the machine's working perimeter. All those working nearby must observe the danger zone.
- ✓ Communication is critical when working around rotating drills. Operators must clearly communicate to others nearby when they are planning to start up, or to reverse drill direction.
- ✓ Tools such as wrenches should only be used for their designed purpose. Adapting them with pipes or other add-ons creates a hazard both for the user and others in the area.
- ✓ When undertaking maintenance work, the work area should be well-lit, and free of tripping hazards.