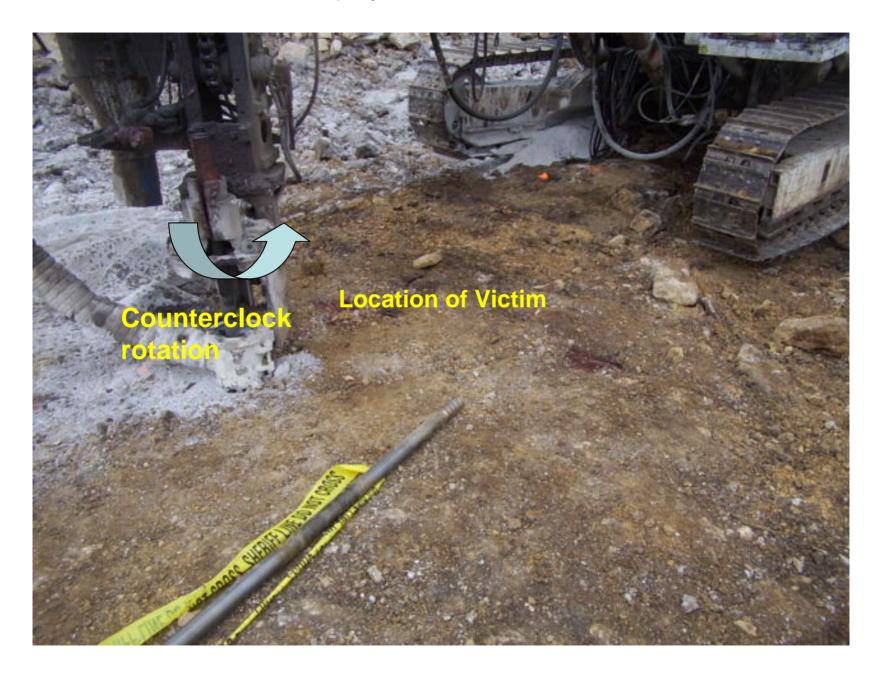
# MNM Fatal 2004-07

- Machinery Accident
- March 24, 2004 (Oklahoma)
- Crushed Stone Operation
- Driller
- 41 years old
- 22 years experience

# Overview

- The victim was using a track mounted drill to drill blast holes.
- He attempted to manually thread a new drill steel.
- The mast was vertical and the drill head was rotating.
- The rotating steel entangled him.

The drill operator was found lying next to the drill mast near the drill steel.



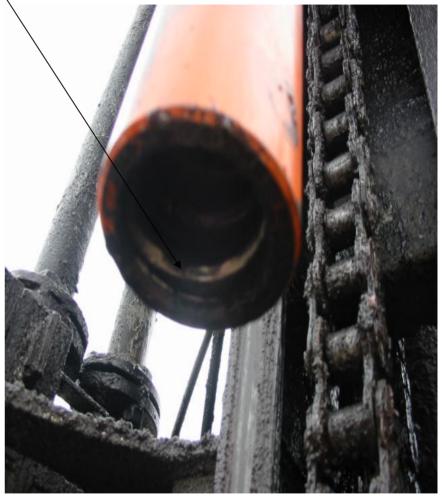
A 14-foot starter steel and a 12-foot steel were found in the prior hole drilled. One used steel was found in the magazine. The victim was manually feeding a steel into the collar with the mast vertical and the drill head rotating when it cross threaded and entangled him.



636 Furukawa HCR 12 ED Rock Drill

Note the abrasion marks (indicating possible cross threading) on the top of drill steel and in the collar.





# Why Did Accident Occur?

- Drill steel being added did not come from the storage magazine on the drill.
- Victim physically placed the drill steel on the rotating striker bar.
- Drill mats was in the vertical drilling position.
- Drill not turned off.
- Victim did not follow procedures. Two persons required to place steel in magazine with drill turned off and in lowered horizontal position.
- Victim's clothing became entangled in the drill steel.

Drill mast in lowered horizontal position for correct way to manually place steel on collar and striker.



### Causal Factor

Drill operator did not follow the drill manufacturer's procedures for adding drill steels.

#### **Best Practices**

- Train all personnel to help them recognize and understand procedures to safely perform tasks before beginning any work.
- Ensure that personnel follow the manufacturer's procedures when adding drill steels.
- Never manually thread drill steels when the drill head is rotating.
- Do not wear loose fitting clothing when working around drilling machinery.
- Monitor personnel routinely to determine that procedures are followed.