



Department of  
**Industry and Resources**

Safety Health and Environment Division  
Department of Industry and Resources  
Mineral House, 100 Plain Street  
EAST PERTH WA 6004  
Phone: + 61 8 9222-3333  
Fax: + 61 8 9325-2280  
Email: shed@doir.wa.gov.au  
www.doir.wa.gov.au

## SIGNIFICANT INCIDENT REPORT NO: 113

### DRILLER'S OFFSIDER STRUCK BY "STILLSON" TYPE WRENCH

#### INCIDENT

Recently an inpit RC grade control drillers offsider was struck in the chest by a "Stillson" type wrench, when rotation was released following torquing up a joint. Over the past year two other accidents have been reported involving "Stillsons" being used to break out the thread of the drill rod components. A drill fitter on a blast hole rig received two broken legs when rotation was applied to the drill rod and in the other accident a driller sustained a serious injury to the abdomen.

#### CAUSES:

- Rod break out procedures, detailing a safe work method, were not adequate.
- Poor communication between the drill crew contributed to each incident.
- Persons placed themselves in positions where they were at risk whilst performing break out functions. This involved standing in a position where they could be struck by the "Stillson" attached to the rotating rods.
- Not using purpose design tools to break out the rods.

#### COMMENT AND ACTION:

- "Stillsons" are a hand tool designed with a long handle for manual (human) powered leverage only. "Stillsons" are not designed to facilitate hydraulic or machine driven motion.
- In all three cases persons were struck by "Stillsons" either under rotation or whilst releasing torque on a blast hole drill rig. It is the view of the Department that the use of "Stillsons" should be restricted to the limitations of their design function, which is manual (hand) use only. "Stillsons" should never be used under hydraulic or machine power.

ThinkSafe MineSafe

- Principal Employers, Employers, Drilling Contractors and Manufacturers should pursue engineering solutions to perform such functions where the break out of hammers, bits, rods etc is required. This may include installing a hydraulic break out spanner or similar apparatus. Through applying innovative engineering solutions it may be possible to eliminate the use of "Stillsons" in the drilling process altogether.
- A detailed risk assessment should be conducted in relation to all break out functions and the associated tooling. The process should consider the hierarchy of controls.
- There needs to be effective communication between the driller and offsider at all times. The driller should instruct the crew to stand clear before applying a rotational force.

STATE MINING ENGINEER