

- DRAFT -

AUGER DRILL

Background:

On September 28, 1992, a worker was critically injured while operating a CME Model 55 Auger drill to take soil samples in Northern Ontario. As the drill was rotating, the worker apparently reached in beside the auger, most likely to retrieve a hand held tool placed behind the drill. This caused his clothing to become entangled with a connector pin in the auger shaft. Investigations showed that this pin had been installed backwards, with the tip of the pin pointing in the direction of drill rotation. There were no guards around the rotating shaft.

Auger drills are used in geotechnical / environmental drilling to extract soil samples and to help determine soil integrity. Another extensive use is in water well drilling. They can be mounted on a wide variety of carriers for use in the bush as well in developed areas.

Preventive Action:

All employers shall ensure no work is done on or near the drill while it is rotating, and that the clutch and gear levers are disengaged before work is done near the drill.

All employers shall ensure that tools and materials are stored away from the vicinity of the drill shaft.

All employers should review training with their drill operators to ensure that the operators know which way to install the connecting pins and what could be the consequences of improper installation.

The nature of the machine's design does not lend itself to being easily guarded and input from the manufacturers and users will be needed to ensure a practical design is found.

Coworkers did not see the accident

Central Mine Equipment 55 – gas motor driving a hydraulic pump directly driving the drill, mounted on a Bombardier tracked carrier

Control panel on left hand side – no E-stop

Different sections of drill column are joined together using connector pins. Each pin has one end fashioned into a retaining clip that is just larger than a quarter circle. Operator's manual did not show correct installation.