



# Safety Alert

From the International Association of Drilling Contractors

ALERT 04 – 24

## HAZARDS USING PORTABLE POWERED TOOLS

### WHAT HAPPENED:

There have been at least two instances recently where portable powered grinders or cutting wheels have been found in use on company sites without guards fitted. Operating these tools and saws without proper guarding is a breach of regulations on Guarding of Portable Powered Tools. Operating these tools without guards is also an extremely hazardous act, which has resulted in death and serious injury on numerous occasions within the Oil and Gas Industry.

By way of example:

- Recently a welder suffered a laceration to the arm requiring stitches after losing control of a 9-inch grinder when the pipe being cut apparently pinched the unguarded cutting blade. The tool was being used to cut a 6-inch pipe located in a bell hole. The incident could easily have resulted in an amputated arm. Quick thinking on the part of the injured worker during the incident prevented a co-worker standing nearby from also being seriously injured by the out-of-control grinder.
- An air-powered angle grinder was being used to cut grooves into cast iron with a cut-off wheel. The unguarded cut-off wheel fractured during use and a large fragment of the wheel went through the worker's face shield and into the worker's face. The worker died as a result of the injury.
- Similarly, a welder using an unguarded electric powered 6-inch cutting disk was fatally injured when an incorrect disc was in use and the disc fractured causing a piece of the disc to strike his face killing him instantly.

### WHAT CAUSED IT:

Lack of proper guarding and in one case the use of an improper disk.

**CORRECTIVE ACTIONS:** To address this incident, this company gave the following instructions to their personnel:

- Never use a powered tool unless you are competent in its use.
- Never use a grinding/cutting tool without its guard in place.
- Always secure the work piece so that it can't move during the task.
- There are hundreds of different types of wheels and discs – make sure the correct one is used for the task. The RPM of the machine must not exceed the RPM of the wheel/disc (and the peripheral speed of the disc), and the wheel bore and machine arbors must match.
- Never use a cutting-off wheel for grinding – the sideways force will break the disc.
- Don't use a damaged disk or wheel – watch for cracks or chips.
- Be gentle – let the tool do the job – don't apply excessive pressure.
- Always wear goggles, medium impact face shield and hearing protection.
- Take the time to read and follow the manufacturer's instructions of the wheel or disc being used – don't use after the 'use-by' date has expired.
- Transport discs and wheels carefully to avoid damage.
- Store wheels and discs in dry, cool conditions.
- Clear others from the work area in case the wheel or disc shatters causing numerous high-speed projectiles.

**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.**