



Accident Alert

Portable Grinder Accident

The Accident

A hobbyist using a portable grinder on his personal street stock-car was injured when the cutting disc shattered. Disintegrated fragments of the disc flew into his body causing serious pelvic and stomach injuries.

The injury occurred when he was cutting horizontally through the vehicle lower door sill (see photograph 1).

Causation Factors

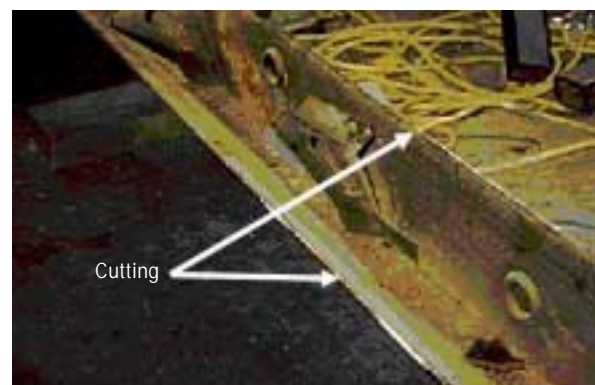
It appears, from the angle of the disc, pressure exerted by the operator and the disc striking intrusion brackets, caused it to shatter.

There was no guarding fitted allowing disintegrated fragments of the disc to fly towards the operator resulting in serious injuries.

Although the old disc used was appropriate for the equipment, the exact condition of the disc prior to injury is not known (see photograph 2).

Standards

The AS1788.2-1987 standard relates to guards, protective clothing, correct mounting of abrasive wheels, speed compatibility of machine and grinding wheel, handling, storage and inspection of grinding wheels. General machine conditions are also included in the standard.



Photograph 1: Vehicle door sill



Photograph 2: Unguarded grinder with shattered discs

Preventative Measures

Suppliers provide these machines with a half guard which protects the operator in the event of a disk shattering. This guard should never be removed. A guard fitted to the portable grinder would have reduced the likelihood of operator pelvic and stomach injuries. Because the grinder was used without a guard and without any protective equipment for the

operator, the exposed cutting disc was able to cut into the operator's pelvic and stomach area.

It is imperative that all guards and protective devices are maintained in good condition and are correctly replaced when removed. It is also important that any adjacent personnel are protected by barriers, booths or segregated work areas.

The condition of cutting discs should be checked prior to each use to ensure they are safe to use. Safe storage of discs should also occur to prevent inadvertent damage.

OSH regions should make this accident alert available to contractors and other potential users of portable grinders.