



Guarding winches on portable drilling rigs



INCIDENT

An employee suffered a serious crush injury to a finger when his hand became trapped in an unguarded winch cable.

CIRCUMSTANCES

While operating a portable drilling rig to drill and install an oil well conductor pipe, a worker's hand became trapped in an unguarded winch on the drilling rig. The winch is used as an energy source to lift and pull drilling rods from the well.

It was common practice on this rig for a person to guide the winch rope manually, manipulating the cable into the winch spool to ensure that the cable tracked properly. Due to poor communication between the winch operator and the injured person, the winch was engaged while the injured person was attempting to guide the cable. No guarding was in place on the winch that would have otherwise prevented the worker from accessing the hazardous parts of the winch.

DEPARTMENT OF LABOUR ADVICE

Employers must identify hazards around the areas of winch operation. Significant hazards must be eliminated, isolated or minimised, and the hazard controls communicated to employees.

All operators of portable drilling rigs should install interlocked guards to winches, with lockout procedures applying to situations when the guards are removed, e.g. for maintenance purposes.

Winches should be guarded to the standard AS4024.1:2006 *Safety of machinery*. For further information, refer to the Department of Labour's machine guarding factsheets: [General Principles](#) and [Information, Installation, Operation and Maintenance](#).

Operators of this type of portable drilling rig should also consider installing a mechanism for guiding the cable onto the spool such as that shown in picture 2. This removes the need for workers to position themselves close to moving parts.

WHICH INDUSTRIES/SECTORS OR MATTERS WILL THIS INFORMATION BE RELEVANT TO?

Operators of portable drilling rigs, or any equipment that utilises winch operation and wire cable.

Note: This material has been prepared using the best information available to the Department of Labour at the time of publication. Information may change over time and it may be necessary for you to obtain an update. This material is also only intended to provide general advice and does not constitute legal advice. You should make your own judgement about action you may need to take to ensure you have complied with your workplace health and safety obligations under the law.



1

This image shows interlocked guarding that was fitted to the winch spool after the accident occurred.



2

This image shows an example of a cable guiding mechanism.

