



Workplace Health and Safety Queensland

SAFETY ALERT

Pacific Roll Pac 16 tonne multi-tyred roller

Purpose

To alert workers, principal contractors, employers, self-employed persons, suppliers and owners of plant of the circumstances that led to a Pacific 16 tonne multi-tyred roller running over a worker causing fatal injuries.



Photo 1: Showing a Pacific Roll Pac 16 tonne multi-tyred roller.

Background

The worker was performing maintenance work behind the rear wheels of the multi-tyred roller. The water spray system was spraying water onto the ground adjacent to where the wheels contacted the ground. The roller was being moved a short distance periodically to avoid creating a mud hole. The roller engine was running and it had been left in neutral without the park brake on.

The incident occurred when another vehicle struck the front of the roller causing it engage reverse gear and drive over the worker undertaking maintenance.

Hazards

Hazards associated with this incident include:

- maintenance workers in the path of the roller
- the engine left running, and
- the park brake not applied.

Risks

The risk associated with this incident was that a person could come into contact with the moving plant (equipment or machinery).

Recommended control measures

A number of engineering and administrative controls have been listed below. This list is not exhaustive, however, if any one of these controls had been implemented the incident may not have occurred or the severity of injury could have been considerably reduced:

- **Engineering controls**
 - a mechanical 'interlock system' to prevent the forward and reverse gears from being inadvertently engaged
 - replace gear box with a hydrostatic transmission with an internal drive brake
 - an interlocked park brake when the transmission is in neutral, and
 - a park brake interlocked with the operator's seat.
- **Administrative controls**
 - develop and implement a traffic control plan that separates operating plant from pedestrians and plant maintenance areas
 - ensure park brake is engaged while maintenance work is in progress
 - if practical have the operator at the controls while the engine is running, and
 - place large chocks against the wheels to prevent rolling.



Photo 2: Showing the gear shift arrangement



Photo 3: Showing the interlock arrangement from manufacture controlling the engagement of the forward gear shift mechanism



Photo 4: Showing a modified mechanical interlock arrangement controlling the engagement of both the reverse and forward gear shift mechanism

Legislative requirements

The [Workplace Health and Safety Act 1995](#) (PDF, 766 kb) imposes health and safety obligations on anyone conducting a business or undertaking, whether as employer, self-employed person, designers, manufacturers, suppliers, installers and owners of plant and workers. Section 27A(2) details risk control principles.

For practical advice on how to manage exposure to risks when using plant download the:

- [Plant Code of Practice 2005](#)
- [Risk Management Code of Practice 2007](#)

For more information

For more information about mobile plant, visit www.worksafe.qld.gov.au or call the Workplace Health and Safety Infoline on 1300 369 915.

Other information sources:

Australian Standard AS 2958 Earth Moving Machinery—Safety

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