

Safety and health alert

09/06 Runaway road roller

Incident

A local government employee had a “ride of terror” when a multi-wheeled road roller he was operating went out of control travelling 250 metres down a steep section of roadway before it plunged down an embankment.

While the road roller was being operated on a slight vertical gradient of roadway, the engine stopped due to fuel problems. The vehicle continued, propelled by gravity, onto a steep section of roadway. The continued application of the vehicle’s brakes with the engine not operating caused the air over hydraulic braking system to become depleted of air. The vehicle’s braking system was not designed to “fail to safety”, as is the case with modern vehicle braking systems.

Gravity acting on the multi-wheeled road roller with a total mass of 23 tonnes caused the plant to increase speed and become uncontrollable before crashing through a barrier and plunging 30 metres down an embankment.

The operator was ejected through the windscreen and sustained injuries. A seat belt was not used, and the risk assessment process conducted prior to the work being commenced did not take account of the potential effects of gravity in undulating terrain or consider horizontal and vertical gradients specified by the manufacturer.

Factors to consider

- A seat belt was not used.
- The potential for gravity associated with undulating terrain.
- Horizontal and vertical gradients recommended by the vehicle manufacturer.
- The content of the risk assessment.

Recommendations

- Ensure that pre-operational checks of powered mobile plant and the associated risk assessment process take account of the potential for gravity.
- Seat belts must be fitted to and used on powered mobile plant.
- Consider fail-safe braking systems (where if air pressure or power fails, the brakes apply) for vehicles used in undulating terrain.

Further information

- Manufacturer’s safe use instructions/operators’ manual.
- Commission for Occupational Safety and Health – “Powered Mobile Plant – A Guide for Employers, Self-Employed Persons and Employees”.
- WorkSafe Western Australia – *Occupational Safety and Health Act 1984* and *Occupational Safety and Health Regulations 1996*.

Further information can be obtained from WorkSafe’s internet site www.worksafe.wa.gov.au or by contacting customer service on 1300 307 877 or email safety@docep.wa.gov.au

