

# Safety Alert

Mines

Mines Inspectorate

All surface mines

Safety Alert No. 273  
20 September 2011

## Hydraulic hoses fail on excavator booms

### What happened?

In two separate incidents, pressurised hydraulic oil from burst hydraulic hoses fractured the glass panel on an excavator operator's cab window. In one instance the glass shattered, spraying the operator with glass and oil.

### Why did it happen?

Hydraulic hoses on the booms of the hydraulic excavators, immediately adjacent to the ferrule at the hose-assembly end, failed. (During the full range of excavator operations, this ferrule in the hose assembly is often immediately adjacent to the inner, right-hand, cab window.) As a result, pressurised hydraulic oil hit the excavator operator's cab window.

On both occasions, aftermarket providers and not the original equipment manufacturer (OEM) had supplied or assembled the equipment.

### Recommendations

- Ensure that using non-OEM products and assemblies does not introduce an unacceptable level of risk, and that such products and assemblies meet or exceed OEM specifications.
- Discuss the possibility of incorporating guarding/shielding with excavator manufacturers, to prevent such incidents in the event of a boom arch hose failure.
- Refer to the document [Guideline for fluid power system safety at mines: MDG 41](#), issued by the New South Wales mines safety regulator, and available on the web at [www.dpi.nsw.gov.au/data/assets/pdf\\_file/0006/366927/MDG-41-Guideline-for-Fluid-Power-System-Safety-at-Mines.pdf](http://www.dpi.nsw.gov.au/data/assets/pdf_file/0006/366927/MDG-41-Guideline-for-Fluid-Power-System-Safety-at-Mines.pdf).

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#### Chris Skelding

##### Manager, Safety and Health — Central

Contact: Mick McWilliam, Inspection Officer, +61 (07) 4938 4128

**Please ensure all relevant people in your organisation receive a copy of this Safety Alert. Any such advice supplied to site should reach those who require it, and it should also be placed on the mine noticeboards. See more safety alerts and bulletins at**

[www.dme.qld.gov.au/mines/safety\\_information\\_bulletins.cfm](http://www.dme.qld.gov.au/mines/safety_information_bulletins.cfm)