

SAFETY ALERT

DATE: FEBRUARY 2021

Underground loader makes contact with development drill rig (jumbo)

This safety alert provides safety advice for the NSW mining industry.

Issue

A Caterpillar R2900G underground loader contacted the rear of a stationary Atlas Copco jumbo while turning into an access drive. There were no injuries sustained by either worker. Damage was caused to the rear of the jumbo and it was taken out of service for inspection and repairs.

Circumstances

The incident occurred on 25 January 2021.

At the time of the incident, the jumbo operator was in front of the machine, using an impact wrench while changing drill steels to set up for bolting. This task was being undertaken on flat ground before moving into the face/drill site. The jumbo was parked approximately five to ten metres inside the access drive. The loader turned into the access drive and the operator could not see the stationary machine due to the lack of visibility on the offside of the loader. The bucket of the loader contacted the rear frame of the jumbo. The jumbo had the jacks down and the impact moved the jumbo forward a small distance. There was no beacon/flashing light on the jumbo or demarcation of the access drive.

Figure 1. Atlas Copco jumbo parked in the access drive with booms lowered to change drill steels.



Figure 2. Impact point of the loader and jumbo



Figure 3. Access drive and impact point of the loader and jumbo



Investigation

An inspector from the NSW Resources Regulator attended the site and conducted an assessment which identified the following contributing factors:

- The jumbo did not have a beacon/flashing light fitted to visually alert the loader operator of its presence in the drive.
- There was no demarcation or restriction of access to the drive implemented prior to carrying out the drill steel change over process.
- Minimum parking distances from access drive corners had not been identified in any documented procedure.
- The jumbo operator was using an impact wrench and could not hear the loader approaching.

Recommendations

It is recommended that mine operators should:

- ensure control measures that are implemented at the mine, such as beacon/flashing lights, are installed, maintained, and operational
- review the appropriateness of the location and type of beacon/flashing lights used on underground mobile equipment
- develop, review and update procedures that manage the interaction of all mobile plant operating on site, including requirements for proximity detection, demarcation and

positive communication. Considering stopping distances, blind spots and audible warning limitations of different mobile plant

- implement engineering controls to control vehicle and mobile plant interactions such as proximity detection, collision avoidance and proximity lockout systems
- ensure information, instruction and training is provided to and implemented by workers to manage vehicle interactions on the mine
- have systems in place for supervisors to monitor compliance with site vehicle interaction procedures
- ensure mine supervisors monitor and enforce compliance with nominated procedures and controls regarding vehicle interactions in all underground work areas.

NOTE: Please ensure all relevant people in your organisation receive a copy of this safety alert and are informed of its content and recommendations. This safety alert should be processed in a systematic manner through the mine's information and communication process. It should also be placed on the mine's common area, such as your notice board where appropriate.

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