



SIGNIFICANT INCIDENT REPORT NO: 116

OPERATOR SAFETY – EARTHMOVING SCRAPERS

INCIDENT

Whilst the driver of a Cat 633D elevating scraper was taking a skim cut to remove topsoil from a tailings dam site, a piece of mulga wood approximately 150mm x 100mm was projected through the rear window of the cabin. The timber shattered the rear window and narrowly missed the operator before striking and cracking the laminated front windscreen.

CAUSE

The piece of mulga was flung from the scraper's elevator against the rear cabin window. This occurred whilst the flights were rotating at high speed (1st gear transmission and 1st gear elevator speed). Although the rear cabin window was safety glass it was not laminated. There were no guards / grids fitted across the rear window to protect the operator from such an occurrence.

A similar type incident occurred on an earthmoving scraper where the tyre treads peeled off from the wheel located directly behind the cabin and smashed into the cabin causing considerable damage. This incident was the subject of Significant Incident Report No. 21 issued in March 1991.

PREVENTATIVE ACTION

- A full risk assessment should be undertaken to identify and address the risks associated with this operation.
- Guards, grids or other suitable means to protect the rear window of the cabin from the entry of extraneous material should be fitted to elevating scrapers. This not only prevents the possibility of projected timber and stones striking the rear window, but also would protect the operator and window should the tyre tread peel off from the wheel located directly behind the cabin. As indicated in Significant Incident Report No. 21, prior to the attachment of any guard / grid to the cabin, it is recommended the dealer / manufacturer be consulted to ensure that the integrity of the ROPS cabin is not weakened or its certification revoked.

- Laminated safety glass should be fitted to the rear window of such scrapers to provide additional impact protection.
- Ensure stone guards are in place at the top of the elevator mechanism to reduce the chances of projectiles striking the windows of the scraper.
- Prior to removing topsoil with scrapers the area should be bulldozed of vegetation and graded. Any tree roots encountered should be ripped and the roots along with other timber graded off the area.

M J Knee
STATE MINING ENGINEER

19 July 2002