



# Safety Alert #64

## Overheated Tyres

(this Safety Alert Contains Two pages)

### Incident Description

An underground RAM car was being operated in an underground mine, when the operator heard a bang and subsequently noticed a strong smell. The operator also noticed a smoke-like substance coming from the rear of the machine.

A number of workers were subsequently sent to hospital as a result of interacting with the smoke-like substance emanating from the rear tyres, and many other workers engaged the self rescuers to enable them to exit the area.

### Findings

1. It was found that the rear tyres of the machine overheated internally. Rubber Liner (RL) inserts were being used, and were found to have failed from thermal degradation (internal heating).
2. The internal heating resulted in tyre burst and the release of smoke-like substances and toxic fumes. Twenty four hours after the incident the failed tyres were still too hold to touch/hold.
3. The recommended safe operating speed of the tyre assembly had been exceeded.
4. The original tyres had been replaced by a different specification tyre (lower capacity), and that the payload of the machine was not reduced in line with the change of tyre. At the time of the incident the tyre and RL specifications were not known by the mine.
5. Payload of the machine appeared to be exceeded.
6. The RAM car was owned by a hire company.
7. This incident had occurred 6 months previously at this same mine.

### *‘Klinge Safe Tyres Produce More & Last Longer’*

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## Recommendations

1. Klinge site managers are to actively promote the concept of TKPH to site tyre custodians and users, and ought to monitor and manage TKPH performance. Site TKPH tests/studies are encouraged.
2. The use of Rubber Liner Inserts and alike must be strictly managed in terms of restrictions upon use, TKPH, and condition monitoring. Of prime importance is the ability of the insert to at least be able to match the rated performance of the tyre it resides in. Klinge site managers to review use of tyre inserts at your respective sites, document current practice/products and send to Klinge Manager Global Risk and Business Improvement.
3. Upon consideration of changing tyre specifications at your site please review OEM specifications carefully and consult Klinge Technical Manager. Document your findings and retain information.

Ensure as part of your tyre inspection management program, that inserts are also inspected and monitored for degradation.

4. Ensure that emergency preparedness systems, procedures and equipment are Risk Assessed, are fit for purpose and are in place to deal with potentially harmful situations such as this. I.e Hot Tyre Park Up Areas; Purpose built Tyre Inspection Areas; Heat detection/measurement tools; Exclusion zones; Tyre related protocol; Policy and Procedure that covers these considerations.
5. Klinge site managers are to ensure that adequate information relating to Klinge supplied vehicles, such as Tyre Handlers and Light Vehicles, is supplied to the client. I.e Road worthy certificates, inspection certificates, etc.
6. Please ensure that acknowledgement forms are completed for this Safety Alert, and that the acknowledgement forms are retained on-site on-file.
7. Ensure that this Safety Alert is posted on your Safety Notice Board until August 30<sup>th</sup> 2008.

## ***Eliminate All Unsafe Acts & Conditions.***

Davin Faux, Manager – Global Risk & Business Improvement

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