



SPLIT RIM WHEEL AND TYRE ASSEMBLY

A Coronial Inquest into the death of a maintenance fitter was recently held following a fatal accident on a minesite. The fitter received multiple injuries when a split rim wheel and tyre assembly failed catastrophically whilst being fitted to a mobile crane.

The outer section of the cast iron split rim failed allowing a sudden release of energy. The wheel components along with the fitter were projected some 13 metres in the blast.

The jury found that the death arose by way of accident and the Coroner, on the recommendation of the jury, issued two riders as part of his findings:

Rider 1

Training in tyre repair procedures must be provided to all maintenance personnel required to carry out tyre repairs, to ensure that they are competent to do so. This competence must be verifiable by the production of a certificate of competency or ticket provided by a recognised tyre repair trainer.

Rider 2

Before tyres are repaired, written procedures for the type of tyre involved should be checked instead of guessing what may be required.

Care must be exercised when assembling multi-piece rims with special attention to the following points:-

- The rim components should be carefully inspected prior to assembly, with particular attention given to wear in the rim.
- The rim assembly nuts should be tightened to the correct torque specification using a “T” bar and socket or tension wrench.
- Prior to inflating the tyre, an appropriate restraining device should be fitted.
- The person inflating the tyre should not stand in front of the tyre, but in a safe position.
- The inflation device should incorporate a hand piece with a pressure gauge, flow control mechanism and sufficient hose to distance the operator from the inflation chuck.
- Assembly and dismantling of multi-piece rim components should be carried out with care and “shock loading” of vulnerable parts of the assembly (eg. Due to striking with heavy hammers) should be avoided.
- Periodically, components should be checked for cracks.

Employees, managers, supervisors, employees, contractors and other interested parties are urged to consider these riders and apply them appropriate to tyre repair work at their own operations.

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