



Safety alert 22/2009

Split rim wheel assembly injury

Incident

A mechanical fitter was seriously injured while removing the rear wheel assembly from a Chamberlain Champion R1250 back-steer loader with an air operated impact wrench.

Unbeknown to the fitter, the rear wheels of these machines are split rims. The rims are split down the middle and are secured by what appears to be eight wheel studs.

There were no warning decals on the plant to indicate that the wheel assemblies were split rims.

As the fitter was removing the nuts, the outer portion of the rim failed under the pressure of the tyre which had been inflated to approximately 60 psi. The fitter took the full force of the explosion on his hands and face. He was flung nearly three metres across the workshop floor, where he remained unconscious for some time.

Contributing factors

- There was no workshop manual available at the workplace for the machine.
- There were no warning signs on the machine.
- It was difficult to ascertain the nature of the rims simply by looking at them.
- The fitter was working by himself on a Saturday morning.
- Other people in the organisation were aware that the wheels were split rims, but appeared to be unaware of the dangers associated with such wheel assemblies.

Recommendations

1. Before attempting to remove any wheel assembly, fully deflate the tyre.
2. Have fully-trained tyre fitters deal with removal/fitting of tyres and wheel assemblies on mobile plant.
3. Detailed methods and instructions for safe tyre assembly/fitting are available from the manufacturers of tyres and wheels.
4. Affix warning decals or paint nuts in red paint when mobile plant has split rims.
5. Regularly check on personnel who are working on their own.

Further information

Further information can be obtained from WorkSafe's internet site

www.worksafe.wa.gov.au or by contacting customer service on 1300 307 877 or email safety@commerce.wa.gov.au

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