

INDUSTRY ALERT

FATALITY/INJURY

Two recent incidents illustrate the dangers of exploding tires

What happened?

In two separate incidents in Quebec and Saskatchewan in 2004, seemingly routine work on a heavy equipment tire produced devastating consequences. In the Saskatchewan incident, a 22-year-old worker at a gas and oilfield services company was inflating a tire prior to putting it back on the equipment when the tire exploded in his face. The worker was rushed to hospital where he was pronounced dead. In the Quebec incident, a forestry worker stopped on a logging road to repair a flat tire on his truck. As he loosened the tire's bolts, the rim tore and the tire tube burst, propelling the tire into his chest. He suffered severe chest and upper body injuries.

Why did it happen?

Investigators of the Saskatchewan fatality believe the cause of the incident was that the tire was not restrained by a safety cage or chain while the worker was inflating it. Investigation of the Quebec incident determined that the tire rim was corroded and the worker had not deflated the tire prior to loosening it.

How can it be prevented?

An employee who is required to work with tires and wheel assemblies must be trained to recognize and understand the hazards and to know the correct procedures for all aspects of tire and rim maintenance and repair, including inspecting, installing and removing them.

Section 77 of Ontario's Regulations for Industrial Establishments clearly requires that a safety chain or cage be used when inflating a tire mounted on a rim. These safety devices will restrain flying parts in the event of an explosion. The ideal practice when inflating a tire is to use a remote air valve and gauge and to stand in a safe location away from the trajectory of the wheel components.

Truck and mobile machine operators should regularly inspect tires and rims for signs of wear such as excessive rust or cracks, bent, broken or worn parts, damaged or elongated bolt holes, damaged, loose or missing lug nuts, and bent or stripped studs. If there is known or suspected damage to the tire or rim, the air should be completely removed from a tire before the wheel nuts are loosened. On dual wheels, always inspect the inside tire before removing the cap nuts on the outside wheel. If there is obvious or suspected damage to the inside tire or wheel assembly components, completely deflate both tires.

OFSWA has developed a safety meeting topic, *Tires, Wheels & Rims: Controlling the Hazards*. A CD-ROM containing printable copies of all the necessary safety meeting material is available to member firms for \$20. To order a copy, call OFSWA at (705) 474-7233 ext. 267 or e-mail gaetanedubois@ofswa.on.ca.

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