

FATAL ALERT

May 6, 2009

On May 6, 2009 a Tire Technician was tasked with tire repairs on trucks and trailers within a company's equipment yard. After completing the initial tasks the technician was approached to repair a tire on a 14G Cat motor grader. With authorization received, the technician positioned his service truck along side the motor grader in need of a tire repair. The moldboard on the motor grader was used to elevate the tire for repairs. With the tire being partially inflated, air was applied to locate the leak. The leak detected was due to a bad O-ring seal which meant the tire would have to be disassembled to replace the O-ring. The technician prepared to perform a vertical tire repair, meaning the tire rim would not have to be removed from the motor grader to make the repair. During the remounting procedures the employee received phone calls. During the mounting procedures, the safety/snap ring was not replaced on the rim to lock the flange in place on the wheel rim. Without realizing that safety/snap ring was not installed on the rim, but rather lying on the ground, the technician began to apply air to the tire. At some point after completing the inflation of the tire and with the technician standing in front of the tire, the tire exploded. The force of the explosion forced the employee to the ground and under the cab of the service truck. The employee expired at the scene.

Significant Factors

- The employee received thirty days training in all aspects of tire repair.
- The day prior to the accident the technician went home early due to a migraine head ache.
- The employee received and made phone calls on his cell phone during the demounting and mounting of the tire.
- The employee inflated the tire without ensuring the safety ring/safety clip was installed.
- The witness indicated he had just asked the technician about the safety ring, but the technician did not have a chance to answer before the tire exploded.
- Sometime after inflating the tire, the bead seal of the tire released, allowing the wheel flange and tire to explode off the tire rim.
- The employee happened to be in the path of the wheel flange and tire when it exploded off the Wheel.

Recommendations:

- Brief all employees on the facts and circumstances of this fatal mishap.
- Develop a reminder such as a checklist or warning stickers to ensure employees remember to install all critical rim components and place all safety devices/restraining devices prior to inflating a tire.
- Conduct refresher training seminars, to ensure employees are able to recognize, prevent, and avoid unsafe conditions for the work they perform.
- Prior to demounting/mounting procedures, disable both personal and company cell phones.