

DoD Ergonomics Working Group NEWS



Issue 111, November 2010

www.ergoworkinggroup.org

BEST PRACTICE AWARD WINNER

Sierra Army Depot: Ergonomic Truck Inspection

Injuries from slips, falls, and overexertion during climbing activities frequently result in significant medical expenses and workers' compensation costs.

Challenges Faced When Conducting Truck Inspections

- Equipment variables such as rung separation and ladder slant.
- Task variables such as climbing velocity, direction, and time-into-cycle.
- Slip/fall hazards having the potential for overexertion of hand and foot forces, joint moments, hand torque, and localized fatigue.



These issues combined with the additional climbing torque from being overweight and the requirements to wear law enforcement web gear can lead to painful rotator cuff and other injuries.

Injury Contributors from Inspections

- Pulling up on nonstandard truck ladder handholds
- Static postures
- Twisting positions
- Variable heights of truck steps
- Unsafe footing/uneven walking surfaces
- Repetition
- Minimal clearance between seats
- Heavy web gear
- Swinging, twisting, and over torque when climbing



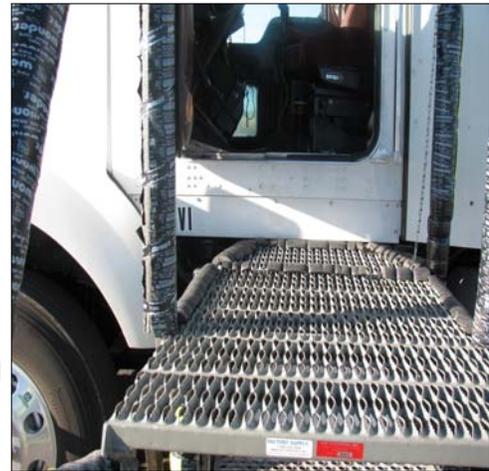
There are no standard steps or grab handle configurations on tractor trailer rigs—imagine climbing up and inspecting 60 to 100 trucks a day!

Continued on page 2

Solution: Modified Rolling Inspection Station

The Sierra Army Depot Safety Office procured a rolling inspection station. Then they brainstormed the following modifications with the security force, with the goal of mitigating ergonomic hazards:

- Removable hand rails provided to allow closer positioning around doors.
- Lower frame extended to allow cantilever positioning under truck.
- Front platform extended to reach closer to floorboard of truck.
- Front upper frame moved back to fit around fuel tank.
- Larger casters with heavier brakes used to prevent movement.



Easy access to driver's side door with the left side hand rail removed.



Security truck inspections made safe with Sierra Army Depot's Rolling Inspection Platform



For more information, contact Robert DeMartini, Safety Specialist, Sierra Army Depot, at 530-827-5282, Robert.Demartini@us.army.mil.