

Ergonomics in the Transportation Industry

May 16, 2019

Presented By | Rich Moldstad, CDS



WELCOME!



RICH MOLDSTAD, CDS
Safety Consultant

rmoldstad@smcsafety.com
219.477.3682

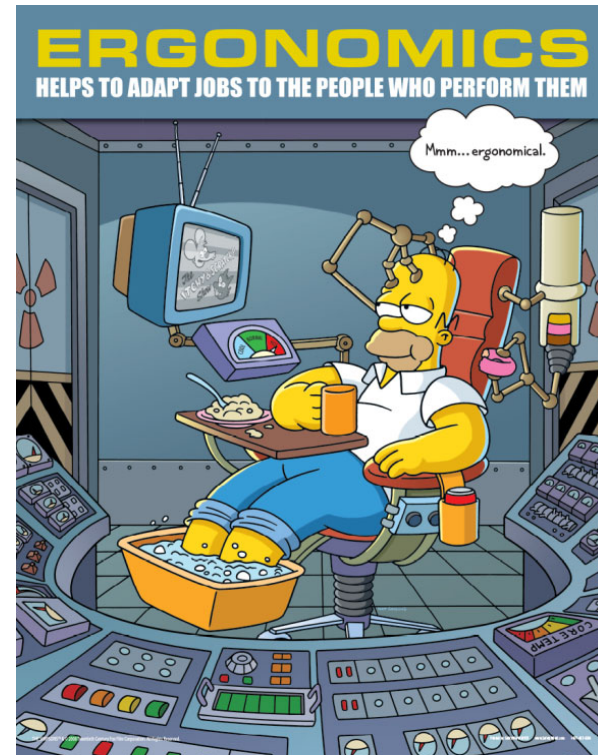


ERGONOMICS IN THE TRANSPORTATION INDUSTRY



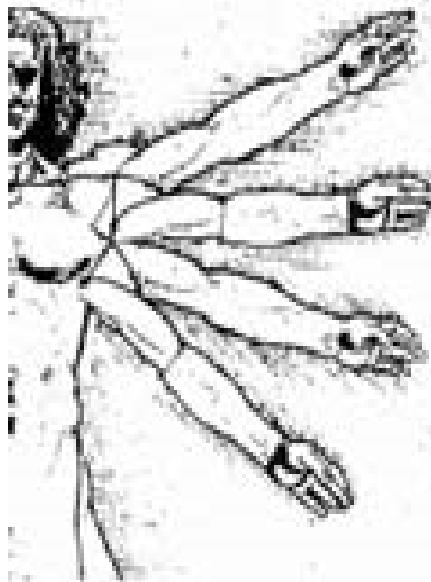
TOPICS

- Overview of Ergonomics
- Ergonomics at work
- Ergonomic driver challenges
- Stretching for health
- Examples and Solutions
- FCE examinations



ERGONOMICS

- Ergo = work
- Nomos = law
- “Designing the work to fit the worker rather than forcing the worker to fit the work”



HOW CAN ERGONOMICS HELP MY WORKPLACE?

- Lower injury rates
- Increase productivity by making job tasks less hazardous
- Reduce absences due to less time off for injuries
- Reduce turnover as job tasks will fit more employees' physical capabilities
- Lower workers' compensation costs
- Improve worker safety
- Increase worker comfort
- Reduce worker fatigue
- Improve morale of workforce/management commitment



“THE BIG THREE”

- Force
- Repetition
- Posture



"Neutral Posture or Positions"

"NEUTRAL POSTURE – LOWER BODY"



"MOVEMENT...MOVEMENT...MOVEMENT"

- What the body needs!

Oxygen and Movement



SEARCHING FOR ERGONOMIC INDICATORS

- OSHA 300 log
- Evaluate jobs
- Talk with workers and supervisors
- Workers' compensation records
 - Good first step but often fails to identify jobs or workers who are experiencing symptoms or who are future candidates for the injuries/disorders



Driver Ergonomic Challenges

ERGONOMICS AND DRIVING

- Typical Problems From Frequent Driving
 - Neck, back and shoulder pain
 - Cramps, pressure points and poor circulation in legs/buttocks
 - Immediately after driving, greater risk of low back injury due to lifting
 - Long-term potential for degeneration of spinal discs and disc herniation



ERGONOMICS AND DRIVING

- Avoiding Health Hazards of Driving
 - Suspension systems should always be in good working order
 - Adjust seat and steering wheel properly. Make sure pedals can be pressed without moving lower back forward off the back of seat.
 - Use lumbar support.
 - Avoid slouching!!
 - Take regular rests/stretch breaks (5 minutes per hour is ideal)
 - Participate in company wellness/stretching programs while on road



WHAT'S THE CHALLENGE?



ARM RESTS?

seats⁺



WHAT'S THE CHALLENGE?



3-POINT CONTACT



WHAT IS THE CHALLENGE?



CLIMBING LADDER



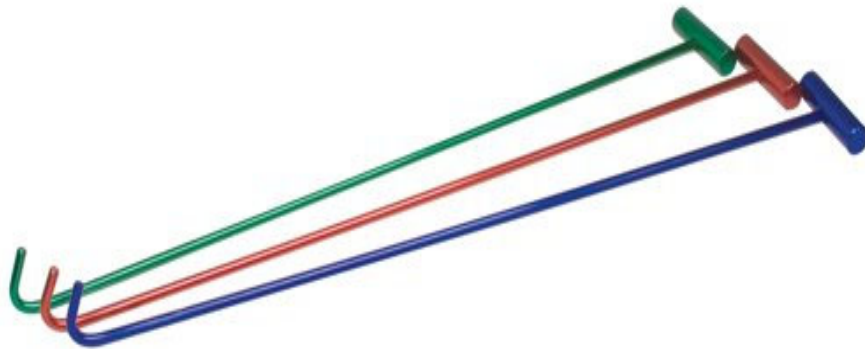
WHAT IS THE CHALLENGE?

- Awkward position
- Crouching down
- Back bent in a weak position
- Body stability is compromised
- Utilizing small muscles of one arm/rotator cuff
- Arm raised above the head
- Average 100 lbs. of pull force



PIN PULLING DEVICE

- Athletic stance
- Both arms now used
- Large muscles used for pulling
- Spine kept more in alignment
- Arms not raised above head



WHAT'S THE CHALLENGE?



TWO-ARM METHOD



WHAT'S THE CHALLENGE?



PORTABLE LADDER/SQUEEGEE



WHAT'S THE CHALLENGE?



IMPROVED BODY POSITION



WHAT'S THE CHALLENGE?



WHAT'S THE CHALLENGE?



WHAT'S THE CHALLENGE?



TARP LIFTING



Maintenance Personnel Ergonomic Challenges

WHAT'S THE CHALLENGE?



HANDCART ASSIST



WHAT'S THE CHALLENGE?



TIRE CART



WHAT'S THE CHALLENGE?



ERGO WORK PLATFORM



WHAT'S THE CHALLENGE?



ERGO WHEEL CADDY



- Flexible and ergonomic wheel trolley for the easy removal of wheels and brake drums
- Adjustable lifting arms for wheel sizes 10 2/3 - 51 in
- Lifting arms with roller bearings for easy rotation of the wheel into correct position
- Pedal operated pump leaving both hands free for working
- Bracket for easy securing of the wheel whilst transporting
- Hand operated dead man's release for optimum safety whilst lowering
- Ideal for lifting brake drums, fuel tanks, tool boxes etc.
- With 2 pcs. 360° revolving wheels



WHY CARE?

- Family
- Right thing to do
- No motor carrier w/o our drivers!



Questions