

ERGONOMIC RISK FACTORS

FOR MARITIME INDUSTRY FACILITIES

By designing work based around ergonomic risk factors, waterfront employers can optimize the efficiency and quality of their processes while minimizing the risk of workplace injuries to the back, shoulders, arms, and knees.

There are five main ergonomic risk factors to consider when evaluating a job:



STATIC/AWKWARD POSTURES

Changing positions frequently can help prevent injury.

Awkward positions put the muscles and tendons at mechanical disadvantages, making them weaker. Static or stationary positions rob the muscles of needed oxygen resulting in fatigue. Static positions require more recovery than dynamic motions.

- 1 Back Support
- 2 Specialized Portable Seat
- 3 Adjustable Height
- 4 Locking Wheel



FORCEFUL EXERTIONS

Forceful exertions such as lifting, carrying, pushing, pulling or gripping may overload muscles and increase fatigue.

- 1 Eyes Look Forward
- 2 Keep Back Straight
- 3 Elbow Close to Body
- 4 Arms Inside Knee
- 5 Brings Load to Power Zone
- 6 Grip Underneath Object Diagonally
- 7 Wide Stance, Shoulder Width, Diagonal Feet

VIBRATION

Vibration to the hands and arms from grinders, sanders, needle guns, chipping hammers, impact wrenches or chainsaws can slowly rob the body of much-needed blood flow and result in injury to the blood vessels, nerves or muscles.

Preventative maintenance of tools can also help prevent injury.

- 1 Safety Glasses and Respirator
- 2 Protective Glove
- 3 Keep Grinder to Power Zone
- 4 Wide Stance



REPETITIVE MOTIONS

Repetitive motions of the wrists, arms, back, neck or knees occur from repeating the same motion at a fast pace with little variation in the task. Frequent repetitive motions slowly fatigue the muscles and decrease productivity.

- 1 Keep Arms Close to Body
- 2 Keep Wrists Straight
- 3 Protective Gloves
- 4 Auto Hose Roller Used

CONTACT STRESS

Contact stress occurs when there is continuous contact or rubbing between hard or sharp objects and surfaces and sensitive body parts such as the fingers, palms, elbows, thighs, knees or feet. The contact creates localized pressure that reduces blood flow, nerve function and movement of tendons and muscles.

- 1 Helmet
- 2 Protective Glove
- 3 Elbow Pads
- 4 Steel Toe Shoes
- 4 Knee Pads

