

Timber Products Manufacturers Association

ERGONOMICS

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Who are You?



Ergonomics: How to Minimize the Pain and Injury



ERGONOMICS [defined]

- ▶ The science of fitting a job to *human* anatomical, physiological, and psychological characteristics to enhance human efficiency and health
- ▶ The relationship between the *work*, the *worker*, and the *worksite*



Timber Ergonomics

- ▶ Why do we care about Ergonomics?
- ▶ **Workers are getting injured.**
- ▶ Musculoskeletal Injuries
 - ▶ **Injury to the soft tissue of the upper and lower extremity or low back that happens overtime.**



Timber Ergonomics

- ▶ Hazards:
 - ▶ Highly Repetitive Motions
 - ▶ High Force
 - ▶ Awkward Positions
 - ▶ Or a Combination of them



Establishment of Plan

- ▶ Identify Ergonomic Risk Factors
 - ▶ Observe personnel doing their jobs
 - ▶ Detailed Risk Assessment of work processes
 - ▶ Include a detailed description of steps in each job
 - ▶ Assessment of physical demands of job
 - ▶ Determine when a job becomes hazardous based on Ergonomics Rule
 - ▶ Possible Hazard Controls for each Job



Timber Ergonomics

▶ Hazard Controls

▶ Engineering Controls

- ▶ Physical Changes to Workstation, Tools, or Equipment

▶ Administrative Controls

- ▶ Job Rotation or Reorganization of the production process to reduce exposure time to hazard

▶ Work Practice Controls

- ▶ Employee re-training and monitoring changes are followed and effective



WORKER CONSIDERATIONS:

- ▶ POSTURES AND POSITIONING
- ▶ MUSCLE STRENGTH / FATIGUE
- ▶ ENERGY EXPENDITURE



BEST PRACTICES / POSITIONS

- ▶ Personal “Strike-Zone”
- ▶ “Hand-Shake” Zone
- ▶ “Power” Zone
- ▶ Computers; Screens; Equipment/Product



Agriculture Ergonomics

- ▶ What are some examples of Controls in your work place?



Timber Ergonomics

- ▶ Raise Work level height
- ▶ Use tool to reduce reaching
- ▶ Use machines to reduce manual labor
- ▶ Use lifting devices
- ▶ Update how we do specific jobs “work smarter not harder” Get the right tool for the job!
- ▶ Properly position control panels to improve postures



Timber Ergonomics

- ▶ Most Controls take the form of:
 - ▶ Reducing or eliminating the workers handling of products.
 - ▶ Reducing the force applied to do work.
 - ▶ Reducing the frequency of repetitive movements or awkward postures
 - ▶ Look at causes of elbow grease at source.
 - ▶ Job Rotation duration frequency schedule.
 - ▶ Pre-Work Stretching



PRE-WORK STRETCHING

Applications

- ▶ Must Be Safe For All Ages and Abilities

- ▶ Restrict Intensity to Individual Comfort

- ▶ Developed and Trained by Certified Professional

- ▶ “Fitness” is Strength, Endurance, *and* Flexibility



PROPERLY APPLIED ERGONOMICS CAN:

- ▶ DECREASE PAIN AND INJURY
- ▶ INCREASE PRODUCTIVITY
- ▶ DECREASE FATIGUE
- ▶ IMPROVE MORALE
- ▶ REDUCE MISTAKES AND WASTE
- ▶ INCREASE SAFETY
- ▶ DECREASE STRESS



Info from Dan Arnold, PT, CAE Certified Associate Ergonomist
& WA State Lumber Handling in Sawmills Manual

Workers' Rights Under OSHA Act

Workers are entitled to working conditions that do not pose a risk of serious harm. To help assure a safe and healthful workplace, OSHA also provides workers with the right to:

- ▶ Ask OSHA to inspect their workplace;
- ▶ Use their rights under the law without retaliation and discrimination;
- ▶ Receive information and training about hazards, methods to prevent harm, and the OSHA standards that apply to their workplace. The training must be in a language you can understand;
- ▶ Get copies of test results done to find hazards in the workplace;
- ▶ Review records of work-related injuries and illnesses;
- ▶ Get copies of their medical records.



Right to File a Complaint

- ▶ The Occupational Safety and Health Act of 1970 gives employees and their representatives the right to file a complaint and request an OSHA inspection of their workplace if they believe there is a serious hazard or their employer is not following OSHA standards. Further, the Act gives complainants the right to request that their names not be revealed to their employers.
- ▶ Complaints from employees and their representatives are taken seriously by OSHA. It is against the law for an employer to fire, demote, transfer, or discriminate in any way against a worker for filing a complaint or using other OSHA rights.
- ▶ OSHA will keep your information confidential.



Whistleblower Protections

- ▶ OSHA's Whistleblower Protection Program enforces the whistleblower provisions of more than twenty whistleblower statutes protecting employees who report violations of various workplace safety laws.

Protection from discrimination means that an employer cannot retaliate by taking "adverse action" against workers, such as:

- ▶ Firing or laying off
- ▶ Blacklisting
- ▶ Demoting
- ▶ Denying overtime or promotion
- ▶ Disciplining
- ▶ Denial of benefits
- ▶ Failure to hire or rehire
- ▶ Intimidation
- ▶ Making threats
- ▶ Reassignment affecting prospects for promotion
- ▶ Reducing pay or hours

