



**Rapid Interactive  
Disability Management Ltd.**

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## **JOB SITE ANALYSIS**

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**For:** Durham Pallet Services  
202 South Blair Street, Unit #9  
Whitby, ON L1N 8X9



## ASSESSORS CREDENTIALS

Chris Agaton has been practicing as a Kinesiologist since 2001. He performs various functional and ergonomic evaluations for insurance companies, law firms and disability management businesses within Canada. He specializes in conducting Medical-Legal and Insurer examinations such as car accident IME's, catastrophic assessments, torts (plaintiff and defense), chronic pain assessments, occupational health and WSIB assessments. He is qualified to perform Arcon, Metriks, Matheson, Hanoun and FACTS Functional Capacity and Functional Abilities Evaluations. He has completed Advanced Functional Capacity and Functional Abilities Evaluations training courses. He is qualified to perform Worksite Ergonomic Assessments (Office and Industrial), Physical Demands Analyses (Job Site Analyses), Pre/Post Offer Employment Testing/Screening Assessments (POET) and has completed Advanced Ergonomic Assessment training courses. He graduated from Dalhousie University with a degree in Kinesiology and later completed a diploma in Massage Therapy. Chris also graduated from York University with a Bachelor of Education degree. He is a Certified Fitness Consultant and was employed by Dalhousie University as a Strength and Conditioning Coach and Athletic Therapist. He is a Professional Member with the Ontario Kinesiology Association and is a member in good standing with the College of Kinesiologists of Ontario, College of Massage Therapists of Ontario and Ontario College of Teachers.

## OVERVIEW

The purpose of this assessment was to provide detailed physical demands of a **Pallet Repairer**. The job tasks and physical demands of the position were gathered using a combination of the following:

- Measurements of loads and forces as appropriate using calibrated equipment.
- Interview with Mr. Jason Nitchie, President on January 11, 2017.
- Interview with \_\_\_\_\_ from the Functional Capacities Evaluation completed by this assessor on January 18, 2017.
- A review of the National Occupational Classification (2016).

The assessment was conducted at Durham Pallet Services, 202 South Blair St., #9 in Whitby, ON on January 11, 2017 at 10:30am. Mr. Jason Nitchie, was present for the duration of the assessment.



## OCCUPATION INFORMATION

### Job Information:

**Job Title:** Pallet Repairer

**Company Name:** Durham Pallet Services

**Company Description:** Supply and distribution of pallets to various companies.

**Job Objective:** The job of a Pallet Repairer involves inspecting and repairing damaged pallets.

### Hours of Work:

- worked on a full time basis.
- Shifts were from 3:00pm to 11:00pm. + 7- 3:00
- 30 minute lunch plus 2-15 minute breaks were provided.
- Overtime was available.

**Work Pace:** The worker works at a moderate to fast pace as there were required quotas depending on tenure at the company. Employees were encouraged to exceed quota when it can be done safely and quality is not compromised.

### Extended Benefits

Yes.

### Unionized

No.

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### **Return to Work Planning**

#### **Status of Position:**

#### **Modified Hours/Duties**

Available.

#### **Work Environment:**

**Work Station:** The worker is required to work within an area in the warehouse dedicated to the repairing of pallets.

**Lighting:** Artificial lighting as work is complete indoors.

**Floor Surfaces/Terrain:** Concrete flooring throughout.

#### **Machines, Equipment, Tools & Work Aids:**

##### **Machines & Equipment:**

- Tool balancer
- Conveyor roller
- Garbage bin

##### **Handled Materials, Parts and Other Items:**

- Pallets weighing 65 lbs.
- Planks measuring 40"

##### **Tools & Work Aids:**

- Reciprocating saw – 11 lbs.
- Nail gun – 15.5 lbs.
- Screw gun – 5 lbs.
- Hammer – 2 lbs.
- Pry bar – 6 lbs.



### **Safety Equipment:**

- Safety glasses
- Ear protector
- Safety shoes
- Safety vest
- Gloves
- Mask (optional)

### **NATIONAL OCCUPATIONAL CLASSIFICATION (NOC)**

Based on the Career Handbook 2003, physical demands of the job of **Other Wood Products Assemblers (Code 9493.1)** include:

1. Medium strength
2. Body postures other than, or in addition to sitting, standing and/or walking such as bending, stooping, kneeling and crouching
3. Upper limb coordination

According to the NOC 2016, the job of **Other Wood products and assemblers and inspectors (Code 9493)** may include the following main duties:

- Read production orders and materials
- Take and sand wood, including, if necessary, sanding parts in the sanding using hand and power tools
- Assemble wood to make doors, window frames, stairs, tables, benches, beds and barrel sets, join, glue, screw or nail or other fasteners
- Assemble door, window frames, benches and other parts on assembly line or make production orders using the overhead crane and hand and power tools
- Replacing assembly products for assembly in other sections and install hardware such as doors and frames
- May assist with maintenance of the factory

## ESSENTIAL JOB DUTIES

Durham Pallet utilizes a goal policy for new and current workers.

The essential job duties are as follows:

1. **Visual top deck inspection:**
  - a. Slide pallet from inbound roller to repair table
  - b. Manually inspect with hands to inspect for loose boards
  - c. Visually inspect top of pallet for raised nails and loose lumber
2. **Repair top/bottom deck:**
  - a. Remove any/all non-conformance lumber with hand or pry bar
  - b. Place damage components into trash bin by throwing over repair table
  - c. Hammer nails flush with hammer
  - d. Put new pre-cut lumber over missing component
  - e. Secure new component with necessary tool(s)
  - f. Visually inspect top deck
  - g. Flip pallet
  - h. Continue with above steps with bottom deck
3. **Complete repair:**
  - a. Flip pallet
  - b. Inspect entire pallet with hands/eyes
  - c. Slide pallet to outbound roller
  - d. Push stack of 10 pallets for receiving by forklifts
4. **Clean up of work area:**
  - a. Using broom will clean up area of debris
  - b. General cleaning throughout shift as needed and final clean up 30 minutes prior to end of shift.



## STRENGTH LEVEL DETERMINATION

### National Occupation Classification (NOC 2011)

The use of strength in the handling of loads such as pulling, pushing, lifting and/or moving objects during the work performed.

- 1-Limited:** Work activities involve handling loads up to 5 kg;  
**2-Light:** Work activities involve handling loads of 5 kg but less than 10 kg;  
**3-Medium:** Work activities involve handling loads between 10 kg and 20 kg;  
**4-Heavy:** Work activities involve handling loads more than 20 kg

Item Moved	Weight	Type of Lift & Distance Moved
Single pallet	Average 65 lbs. Pallets may range between 40-80 lbs.	To and from conveyor (pallet stack) to work table. Flipping pallet (twice per repair).
Reciprocating saw	12 lbs.	Hanging from tool balancer. Moved short distances.
Nail gun	15.5 lbs.	Hanging from tool balancer. Moved short distances.
Screw gun	5 lbs.	Hanging from tool balancer. Moved short distances.
Hammer	2 lbs.	Moved short distances.
Pry Bar	6 lbs.	Lifted from floor to workstation to a height of 34".
Heavy gauge coiled nails	2 lbs.	Located on work table.
Industrial push broom	5 lbs.	Located within work area.
Pallet stacks (max. 10) – 61" high	Required push/pull force of 30 lbs.	Pushed/pulled along conveyor rollers up to 16'

Note: Tools were located on a table 32" high at some workstations. The saw and guns are attached to a tool balancer at other workstations thereby reducing the amount of force required to lift each tool as well as reducing the amount of twisting to reach the tools. Mr. Nitchie noted that all workstations are to be retrofitted with a tool balancer by February 2017.



<b>PSYCHO-SOCIAL/COGNITIVE FACTORS OF THE JOB</b>
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<b>PSYCHO-SOCIAL/COGNITIVE FACTORS</b>	
Degree of supervision in position	Within functional limits – self-paced
Need to work co-operatively	Within functional limits
Deadline pressures	Within good limits – quota to be met
Ability to maintain work pace	Within good limits quote to be met
Attention to detail required	Within good limits
Performance of multiple tasks	Within functional limits
Exposure to environmental stimuli	Within good limits - many workers and vehicles present
Organizational ability	Within functional limits
Communication skills	Within functional limits
Exposure to emotional situations	Within functional limits
Exposure to confrontational situations	Within functional limits
Responsibility and accountability required	Within good limits
Creativity	Within functional limits
Constructional Ability	Within good limits
Memory skills	Within good limits
Copying skills	Within good limits
Numerical skills	Within functional limits
Reading literacy	Within functional limits
Writing literacy	Within functional limits
Computer literacy	n/a



## ENVIRONMENTAL CONDITIONS

	YES	NO	EXTENT		YES	NO	EXTENT
Inside	√		Work in a warehouse setting.	Toxic Conditions		√	
Outside		√		Vibrations	√		When using tools such as reciprocating saw. Exposed to whole body vibration on forklifts (if required).
Extreme Heat (Non-weather)	√		At times.	Proximity to Moving Mechanical Parts	√		Close proximity to forklifts. Use of conveyer rollers.
Extreme Cold (Non-weather)	√		At times.	Exposure to Electrical Shock	√		When using electric-based tools.
Wet/Humidity		√		Exposure to Radiation		√	
Dirty/Dusty; including fumes, mists & poor ventilation	√		Dust present. Air quality test performed in past and masks were not deemed as required.	Working with Explosives		√	
Noisy	√		Exposure to loud noises from various tools and equipment such as forklifts.	Exposure to Toxic or Caustic Chemicals		√	
Working in High, Exposed Places		√		Other Hazards to Avoid	√		Debris on floor may pose as a tripping hazard.
Lighting	√		Adequate - artificial lighting throughout.	Square footage	38000 sq. ft.		




## SUMMARY OF PHYSICAL DEMANDS

<b>Key:</b>	<b>N</b>	<b>Never</b>
	<b>R</b>	<b>Rarely</b> - less than 10% of the shift spent in this activity = less than 0.5 hours per shift
	<b>O</b>	<b>Occasionally</b> - up to 33% of the shift spent in this activity = 0.5 to 2.5 hours per shift
	<b>F</b>	<b>Frequently</b> - up to 66% of the shift spent in this activity = 2.5 to 5.5 hours per shift
	<b>C</b>	<b>Continuously</b> - from 67% - 100% of the shift spent in this activity = 5.5+ hours per shift

PHYSICAL DEMAND	FREQUENCY	TASK DESCRIPTION / COMMENTS
<b>MOBILITY</b>		
Walking	O	Short distances within work area.
Standing	F	May be required with all essential tasks.
Sitting	R	When operating forklift.
<b>AGILITY</b>		
Climbing	R	When getting into/out of forklift.
Balancing	F	May be required with all essential tasks.
Bending	F	May be required with all essential tasks.
Twisting	F	May be required with all essential tasks.
Kneeling	R	May be required with all essential tasks.
Crouching/stooping	F	Repair table is located 34" from floor.
Crawling	N	
Lying on back/stomach	N	
Running	N	
Jumping	N	
<b>NECK &amp; UPPER EXTREMITY MOVEMENTS</b>		
Neck Flexion	F	May be required with all essential tasks.
Neck extension	O	When receiving/stacking pallets. Pallet stack is 61".
Neck rotation	F	May be required with all essential tasks.
Reaching forward	F	May be required with all essential tasks.
Reaching above shoulder level	O	When receiving/stacking pallets. Pallet stack is 61".
Reaching down	F	When receiving/stacking pallets.





PHYSICAL DEMAND	FREQUENCY	TASK DESCRIPTION / COMMENTS
<b>MANUAL DEXTERITY AND CO-ORDINATION</b>		
Light grip/grasp	F	Good coupling necessary to handle tools and parts.
Strong grip/grasp	F	Necessary when handling pallets and larger/heavier tools such as a pry bar.
Finger dexterity	F	Good coupling necessary to handle small tools.
Eye/hand co-ordination	F	When hammering nails.
Lifting/Carrying	F	Lift a minimum of 25 pallets/hour or 180/day.
Pushing/pulling	F	Individual or stack of pallets. A minimum of 25 pallets/hour or 180/day.
Driving	R	When operating forklift.

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## SUMMARY

Based on the completed Job Site Analysis by this assessor, the physical demands of the job of Rigger are as follows:

**Strength:** Heavy

**Frequent:** Standing, balancing, bending, twisting, crouching, stooping, neck function, reaching (front and down), hand/finger dexterity, lifting/carrying, eye/hand coordination and pushing/pulling.

**Occasional:** Reaching above shoulder, walking and neck extension

**Rare:** Kneeling, sitting, climbing and driving

Please note that the opinions expressed in this report are based on the information cited above. If it is subsequently learned that there is significant missing information, then my opinion may change.

Thank you for referring \_\_\_\_\_ for a Job Site Analysis. Should you have any further questions regarding the contents of this report, please do not hesitate to contact me through the offices of Rapid Interactive Disability Management.

Sincerely,



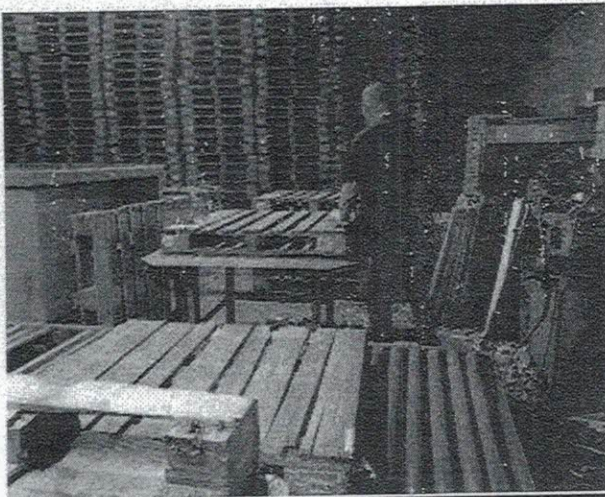
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Chris Agaton R. Kin., BSc. K.  
Registered Kinesiologist  
Certified Arcon Evaluator

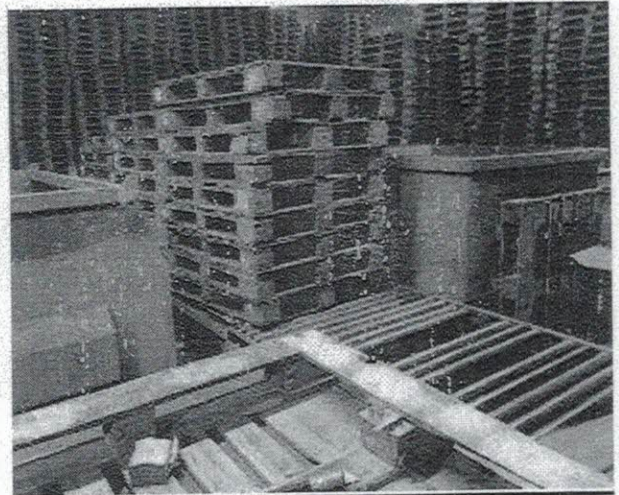
*NB: An electronic signature was used in order to assist with a timely report. The assessor is in agreement with the content of the report, and has provided authorization to utilize the electronic signature.*



## Appendix A: Photographs of Work Site



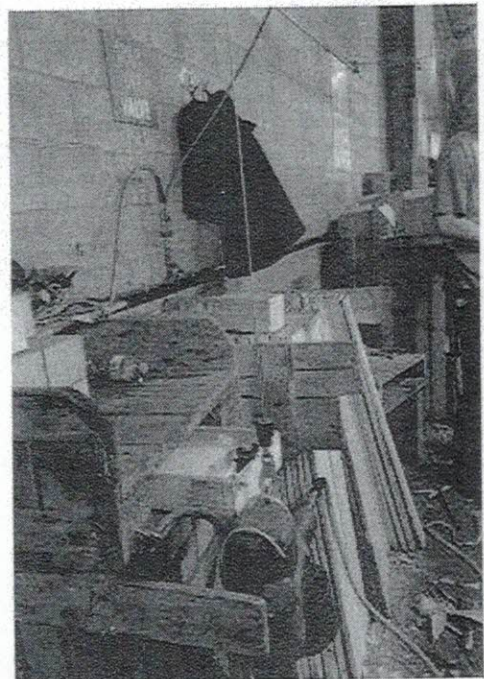
Worker is located at a work table where repairs are completed.



Pallets weigh 65 lbs. each and stacked a maximum of 10 pallets high.

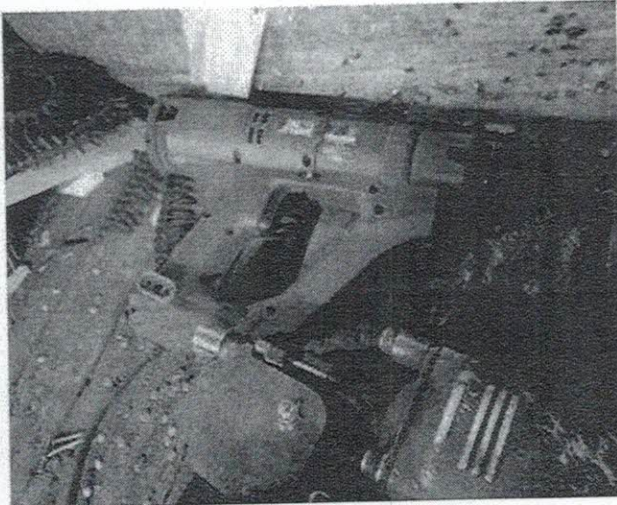


Work table located 34" from floor. Various tools are used to repair pallets.



Shelf located 32" from floor where various tools are placed. Tools attached to tool balancer overhead.

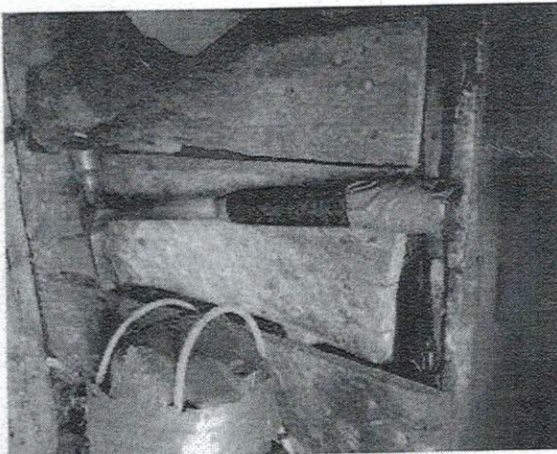




Screw gun - 5 lbs.



Nail gun - 15.5 lbs.



Hammer - 2 lbs.

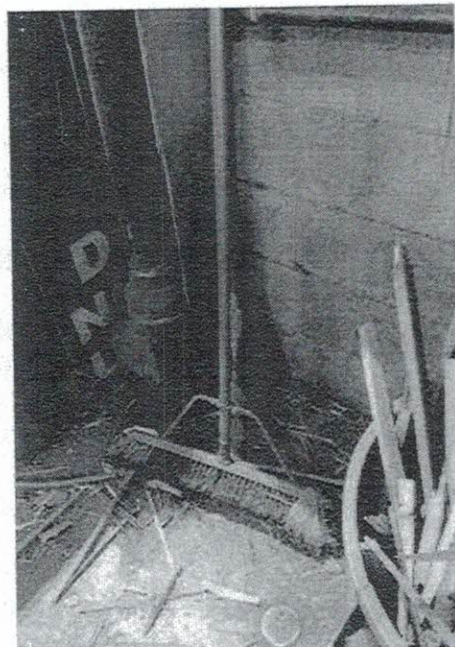


Pry bar - 6 lbs.

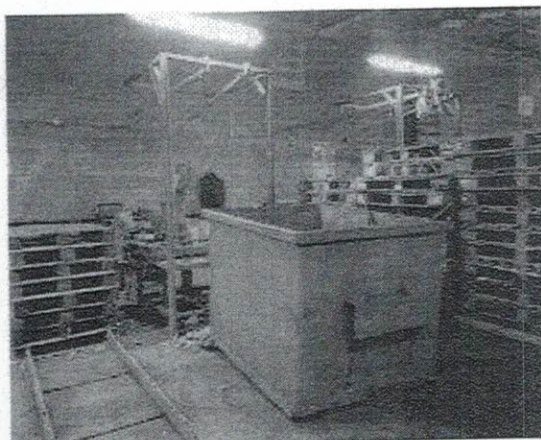




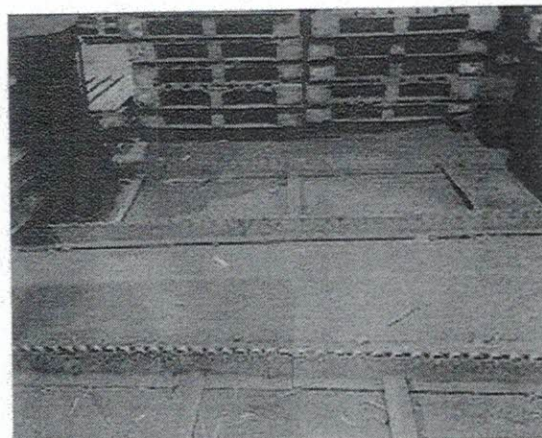
Reciprocating saw – 12 lbs.



Industrial broom – 5 lbs.



Garbage bin



Conveyor roller



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## **Appendix B: Definition of Terms**

<b>Pushing/Pulling:</b>	To exert a force on or against an object in order to move it away/to draw towards oneself
<b>Sitting:</b>	Remaining in a normal seated posture
<b>Standing:</b>	Remaining on one's feet in an upright position at a workstation without moving about
<b>Walking:</b>	Moving about on foot
<b>Climbing:</b>	To ascend or descend stairs and/or ladder, scaffolding or inclined surfaces
<b>Balancing:</b>	The maintain body equilibrium in addition to walking, standing in order to prevent falling
<b>Stooping:</b>	Bending the body downward and forward by bending the spine at the waist
<b>Kneeling:</b>	The ability to perform work which requires kneeling (bending the legs at the knees to come to rest on the knee or knees) over sustained periods
<b>Crouching:</b>	The ability to perform work in a crouched position (bending the body forward and downward by bending the legs and spine) over sustained periods
<b>Crawling:</b>	The ability to perform work which requires crawling (moving about on the hands and knees or hands and feet) for sustained periods
<b>Reaching Forward:</b>	The ability to perform work that requires forward reach (extending the hands and arms in any direction between the waist and shoulder) for sustained periods
<b>Reaching Above Shoulder:</b>	The ability to perform work, which requires above shoulder reach (Extending the hands and arms in any direction above the shoulder) for sustained periods



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**Low Level  
Reaching:**

The ability to perform work which requires reaching below the waist (extending the hands and arms in any direction below the waist) for sustained periods

**Grasping/  
Handling:**

The ability to perform tasks which require handling skills such as grasping, seizing, turning objects over, holding and gross manipulation by the hands (fingers not involved) for sustained periods

**Fingering:**

The ability to perform fine motor tasks which require considerable digit independence such as picking, pinching or otherwise working primarily with the fingers for fine manipulation

**Talking:**

Expressing or exchanging ideas by means of the spoken word

**Hearing:**

Perceiving the nature of sounds by the ear

**Feeling:**

Perceiving such attributes of objects and materials such as size, shape, temperature, texture

**Vision:**

Obtaining impressions through the eye of the shape, size, distance, motion, color of objects

## PHYSICAL DEMAND CHARACTERISTICS OF WORK

In Canada, the CCDO has been replaced by the National Occupational Classifications (NOC). The NOC has four strength classifications as follows:

1. **Limited** - handling of loads up to 5 kg or 11 lbs.
2. **Light** - handling of loads of 5 kg but less than 10 kg (11 to 22 lbs)
3. **Medium** - handling of loads between 10 kg and 20 kg (22 to 44 lbs)
4. **Heavy** - handling of loads more than 20 kg (> 44 lbs)

## TIME FRAMES

<b>Never:</b>	Never
<b>Rare:</b>	less than 10 % an eight-hour workday spent in this activity = less than 0.5 hours per shift.
<b>Occasional:</b>	up to 33% of an eight-hour work day/event spent in this activity = 0.5 to 2.5 hours per shift
<b>Frequent:</b>	up to 66% of an eight-hour work day/event spent in this activity = 2.5 to 5.5 hours per shift
<b>Constant:</b>	= 67 to 100% of an eight-hour work day/event spent in this activity = 5.5 + hours spent per shift

## STANDARDIZED PHYSICAL TESTING PARAMETERS

Knuckle Height	Bench Height
Shelf Height	Ankle Height
Cart Height	Shoulder Height
Bench Height	

## PHYSICAL ACTIVITIES

- Knuckle height of individual
- Standard of 91.4 cm. (36 inches)
- Standard of 35.6 cm. (14 inches)
- Shoulder Height of Individual
- Standard of 91.4 cm. (36 inches)
- Standard of 149.9 cm. (59 inches)
- Standard of 106.7 cm. (42 inches)



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Abilities reported in kilograms (weight) and metres (distance)

**Static Lift:** A manual lift executed with both hands (unless otherwise identified) in which no movement (isometric) occurs and the force generated is calibrated by a force gauge.

**Dynamic Lift:** A manual lift executed by both hands (unless otherwise identified) in which a force/weight is moved through a vertical range in which an object is raised or lowered from one level to another.

**Carrying:** Transporting a weight/force with two hands over a standard distance of 15 metres.

**Cumulative Trauma**

**Disorders (CTD):** Disorders of the muscles, tendons, peripheral nerves, vascular system, or other tissues. They can result from, be precipitated by, or be aggravated by intense, repeated, sustained or insufficient recovery from exertion, motions of the body, vibration or cold.

**Cold:** An interface between the body and the environment in which the net result is heat loss from the body. Work in low ambient temperatures that may involve the handling cold materials, the immersion of body parts, working outdoors or the venting cold air exhaust can expose body parts to cold.

**Cycle:** A cycle contains a sequence of one or more work elements performed in a repetitive task. Non-repetitive tasks contain just one cycle, while repetitive tasks contain multiple cycles. The number of cycles in a task are sometimes related to production output, such as "units assembled", or "customer processed".

**Cycle Time:** The time to complete one sequence of elements in a cycle needed to achieve a unit of work for a specific task (eg. Assemble a tire) is the cycle time. Cycle time is sometimes related to measure of production time, such as "time per unit" per "time per customer".

**Disorder:** A disturbance of normal function, or an abnormal physical condition (ailment).

**Duration:** A period of time over which one is exposed to physical stress to the period of time considered as rest.

**Element:** Elements are units of work or operations performed in a cycle. A particular sequence of elements is usually repeated every cycle. An



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element is often described in terms of the operation performed, such as "run machine," "pause to rest", or "input customer request."

**Ergonomics:** A multi-disciplinary field addressing the interactions among humans, tasks and the total work environment.

**Force:** Force is the mechanical effort to accomplish a specific movement or action.

**Health Care**

**Providers (HCP):** A health care practitioner operating within the scope of their license, registration, certification or legally authorized practice.

**Job:** A job consists of one or more tasks that are performed during the course of a workday. Usually similar sets of tasks are performed on daily basis, although this is not always the case. Jobs are sometimes described by characteristic tasks or groups of tasks, such as "machine operation," "final assembly," "shipping" or "maintenance."

**Magnitude:** The extent or degree to which each physical stress is involved. An example is the amount of force applied or the angle that a joint is flexed.

**Physical Stress:** Physical attributes that include force, posture and motions, vibrations and cold.

**Posture and motions:**

Posture refers to the position of a specific articulation or body part relative to an adjacent body part, determined by the angle of the joint connecting them. Motions pertain to rotational motion of a body segment relative to another, about a common joint. Motion includes angular displacement, velocity or acceleration.

**Psychosocial Factors:**

Characteristics of the work environment that affect the interpersonal relationships between co-workers, employees and their supervisors, and employees and the organization.

**Job**

**Modifications:** Changes to an employee normal essential job requirements, either through adaptations of the physical environments, or changes in the employees schedule or required duties.



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**Assistive  
Devices:**

Devices which decrease the physical demands or otherwise adjust a work environment to make completing a job less strenuous or fatiguing.

**Graduated Return  
to Work:**

A systematic method returning a worker to their occupation in a gradual manner, generally through either incrementally adding hours or duties until the employee is performing all job duties.

**Accommodating Work  
Environment:**

Work environments in which employees are allowed job modifications such as graduated return to work schedule and/or the use of assistive devices if required.