

<b>Safety Policy &amp; Procedure Manual</b>		Section:	Date: 11-4-2015
		Revision:	
Subject: <b>Manual Lifting</b>			

## Purpose

The purpose of this policy is to ensure the identification, assessment and control of all manual lifting activities in order to prevent injuries and to advise Light Tower Rentals, Inc. (LTR) employees on proper procedures for manual lifting and alternative means for materials handling. All employees are responsible for following the steps detailed in this policy for any manual lifting activity as defined below.

## Definitions

Manual lifting - is any activity that involves lifting, pushing, pulling, carrying, moving or holding. It also includes sustained and awkward postures or repetitive movements. Good manual lifting techniques can help to prevent injury.

## Hazard Assessment

Before manual lifting is performed, a hazard assessment must be performed and must consider the size, bulk and weight of the object(s), if mechanical lifting equipment is required, if two-man lift is required, whether vision is obscured while carrying and the walking surface and path where the object is to be carried.

## Training

Training will be provided to all employees on the general principles of hazard assessment, procedures for reporting hazardous conditions and procedures for reporting of injuries. Job specific training will be provided on safe lifting and work practices, hazards and controls.

## Manual Lifting Equipment

Company provided manual lifting equipment, such as dollies, hand trucks, carts, and hoists, will be utilized where ever possible to minimize the risk of injury. Use of provided equipment will be enforced. Where the use of mechanical lifting equipment is impractical or not possible, two-man lifting techniques must be used.

## Manual Lifting Procedures

### Step 1 - Assessment of Risk

Each manual lifting job is broken down into individual tasks to assist in identifying the range of potential manual lifting hazards.

Subject:

Manual Lifting



Manual lifting hazards are considered through employee consultation, reviewing incident reports and workers compensation records, and through observation.

The **Safety Manager** observes and records:

- workplace and workflow design
- how and where equipment is used
- how tools are stored and accessed
- tasks that require awkward postures and movements and/or that are forceful or repetitive
- how workers perform their tasks
- how workers might be injured

When assessing manual lifting risks, consider the following:

- workplace and workstation layout
- worker's posture and position
- duration and frequency of manual lifting
- load location and distance to be moved
- characteristics of the load
- available equipment and resources to assist moving the load
- work environment
- worker's health, skill and experience

Hazards are prioritised, taking into consideration likelihood, consequences and controls. The Safety Manager addresses hazards with the highest rated risk of injury as a **priority**.

## **Step 2 - Minimizing Manual Lifting Risk**

The Safety Manager ensures work practices are designed to minimize risk and be consistent with the safe lifting of objects.

All objects, work practices and the working environment are designed, constructed and maintained so as to eliminate risks arising from manual lifting.

LTR has established a hierarchy of controls to minimize risk as outlined below:

- Isolate the hazard from the person
- Minimize the risk by engineering means, for example ensuring workers have adjustable workstations to avoid unnecessary reaching or bending
- Minimize the risk by administrative means, such as providing training (LTR has created standard operating procedures (SOPs) for the pre-check, loading, transport, unloading, set-up, servicing, start-up and rig-down of all company owned equipment).
- Provide personal protective equipment (PPE) to assist with the move
- If one measure does not control the risk, a combination is used.

Where it is not practical to eliminate manual handling risks, the Safety Manager designs the work activity to control these risks and, if necessary:

Subject:

Manual Lifting



- Modify the design of objects or the work environment taking into account work design and work practices
- Provide mechanical aids or as a last resort use team lifting
- Ensure workers are trained in manual lifting techniques, correct use of aids (dollies, hand carts, overhead hoist, forklifts, etc.) and team lifting procedures.

### Step 3 - Assessing the Lift

1. Before lifting an object, assess the start and finish heights and ensure clear pathways.
2. For objects over 50 lbs. use mechanical aids or use team lifting.
3. Consider your own capacity: Do you have existing injuries or are you recovering from an illness?

### Step 4 - Performing a Lift

1. In preparation for lifting an object, warm up the muscles by stretching and then test the weight of the load.
2. Begin with a smaller load using a whole hand grip.
3. For good balance, use a wide base of support and position yourself with your feet shoulder width apart.
4. Use smooth motions and hold the load close to the body.
5. Maintain the natural curves of the spine as you move through the lift.
6. Use hip and knee joints to bend to the object rather than bending the spine in exaggerated curves. Do not twist or bend the back sideways.
7. There is equipment (**dollies, hand carts, overhead hoists, forklifts, etc.**) available to assist workers to move and lift heavy items. This equipment is available at all LTR locations.

### Step 5 - If Discomfort Occurs

Following the lift or move, report any discomfort you feel to your direct supervisor and contact LTR's triage service provider. Follow the directions of the triage service provider.

### Step 6 - On-Going Evaluation

Any injuries caused by improper lifting will be investigated and findings will be incorporated into work procedures to avoid future injuries. All injuries will be recorded and reported in accordance with OSHA regulations. Supervisors must periodically evaluate work areas and employees' work techniques to assess the potential for and prevention of injuries (**see the attached Hazard Identification Form**). Any new

Subject:

Manual Lifting



operations will be evaluated to assess hazards and implement engineering controls before work processes are implemented.

## **Breach of Policy**

The Company has an obligation to consistently apply and enforce this policy. Likewise, Employees must comply with this policy. Any Employee that breaches this policy shall be subject to counselling and/or disciplinary action.

Subject:  
Manual Lifting



### Hazard Identification Form





Name of Worker: \_\_\_\_\_

Completed by (Name/Title): \_\_\_\_\_

Job Task: \_\_\_\_\_






Location: \_\_\_\_\_

Date: \_\_\_\_\_

1. Awkward Postures			Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Neck	Working with the neck bent forward or to the side more than 30° for more than 2 hours total per day.	 Side <input type="checkbox"/>  Forward <input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
Neck	Working with the neck rotated more than 45° in either direction for more than 4 hours total per day or working with the neck bent back /up more than 10° for more than 2 hours total per day		<input type="checkbox"/>			<input type="checkbox"/> Date: _____
Neck	Working with the elbow(s) at or above the shoulder for more than 2 hours total per day		<input type="checkbox"/>			<input type="checkbox"/> Date: _____

Subject:  
Manual Lifting



1. Awkward Postures			Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Shoulder	Working while sitting or standing with the back bent forward, sideways, or twisted more than 30° for more than 2 hours total per day	 Side <input type="checkbox"/>  Twisted <input type="checkbox"/>  Forward <input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
Back	Working while sitting or standing with the back bent back more than 10°, and with no support for the back, for more than 2 hours total per day	 Backward	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
Knees	Employee squats/ kneels for more than 2 hours total per day	 Kneel	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

2. Static Whole Body Postures		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Prolonged Sitting	Employee sits for more than 6 hours total per day	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
Prolonged Standing	Employee stands on hard surface more than 4 hours total per day (standing in one location without taking > 2 steps in any direction)	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

Subject:

Manual Lifting



3a. Lift/Lower Forces (manual labor)		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Back/ Shoulder	Lift/lower objects up to 2 times <b>an hour</b> Object close to the body: 35 lb or more Object away from the body: 17 lb or more	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Lift/lower objects 3 to 60 times <b>an hour</b> Object close to the body: 30 lb or more Object away from the body: 15 lb or more	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Lift/lower objects 61 to 240 times <b>an hour</b> Object close to the body: 25 lb or more Object away from the body: 15 lb or more	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Lift/lower objects >5 lb more than 240 times <b>an hour</b> (more than 4 times a minute)	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

3b. Lift/Lower Forces (office work)		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Back/ Shoulder	Lift/lower objects up to 2 times <b>an hour</b> - Object close to the body: 30 lb or more - Object away from the body: 15 lb or more	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Lift/lower objects 3 to 60 times <b>an hour</b> - Object close to the body: 25 lb or more - Object away from the body: 15 lb or more	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Lift/lower objects 61 to 240 times <b>an hour</b> - Object close to the body: 25 lb or more - Object away from the body: 10 lb or more	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Lift/lower objects >5 lb more than 240 times <b>an hour</b> (more than 4 times a minute)	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

Subject:

Manual Lifting



<b>4a. Push/Pull Forces (manual labor)</b> (Carts, trolleys, rolls, cables, etc.)  <i>NOTE: Push/Pull force is the force required to move the object, not the weight of the object itself.</i>		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Back/ Shoulder	Pushing/pulling up to 2 times an hour with initial push/pull force of more than 50 lb	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Pushing/pulling 3 to 120 times an hour, with initial push/pull force of more than 25 lb	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Pushing/pulling forces >5 lb more than 120 times an hour (more than twice a minute)	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

<b>4b. Push/Pull Forces (office work)</b> (Carts, trolleys, rolls, cables, etc.)  <i>NOTE: Push/Pull force is the force required to move the object, not the weight of the object itself.</i>		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Back/ Shoulder	Pushing/pulling up to 2 times <b>an hour</b> with initial push/pull force of more than 50 lb	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Pushing/pulling 3 to 120 times <b>an hour</b> , with initial push/pull force of more than 25 lb	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Pushing/pulling forces >5 lb more than 120 times <b>an hour</b> (more than twice a minute)	<input type="checkbox"/>			<input type="checkbox"/> Date: _____



Subject:

Manual Lifting



5. Repetition		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Neck, shoulders, elbows, wrists or hands	Employee repeats the same motion with the neck, shoulders, elbows, wrists, or hands every few seconds with little or no variation for more than 2 hours total per day excluding computer use. Check body part(s) that apply: <input type="checkbox"/> Neck <input type="checkbox"/> Shoulder(s) <input type="checkbox"/> Elbow(s) <input type="checkbox"/> Wrist(s) <input type="checkbox"/> Hand(s)	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
Computer Use	Employee uses computer more than 3 hours total per day	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

6. Hand/Arm Vibration		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Hands Arms	Use high vibration tools (impact wrenches, chain saws, jack hammers, riveting hammers) for more than 30 minutes total per day	<input type="checkbox"/>			<input type="checkbox"/> Date: _____
	Use moderate vibration hand tools (grinders, sanders, jig saws) that typically have moderate vibration levels more than 2 hours total per day	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

7. Repeated Impacts		Mark if required	<ul style="list-style-type: none"> <li>List task(s) requiring this posture</li> <li>What is the possible cause of the posture?</li> </ul>	List possible control measure(s) and state if control measures have been implemented	Hazard Resolved
Hands Knees	Employee uses one of the following as a hammer more than 10 times per hour and for more than 2 hours total per day. (Check the body part(s) that apply)  <input type="checkbox"/> Hand (heel/base of palm), or <input type="checkbox"/> Knee	<input type="checkbox"/>			<input type="checkbox"/> Date: _____

Subject:  
Manual Lifting



Complete this section only if potential hazards have been identified in the “Mark if required” column:

1. How many employees are exposed to the hazards identified above and how often?

	# of employees Exposed	How often? (describe in hours per day or week, as appropriate)
Awkward postures		
Static whole body postures		
Lift/lower forces		
Push/pull forces		
Repetition		
Hand/arm vibration		
Repeated impacts		

2. In the past two years, how many Musculoskeletal Disorder (MSD) incidents have been reported among employees who are exposed to the identified hazards? State the number of incidents and their nature (e.g., Lost Time, Medical Aid, First Aid, Incident only)