

MMH – MOBILE LADDER STANDS OR MOBILE LADDER PLATFORMS

Ergonomics has a role to play in protecting workers from falling from a height (for example, when using a ladder). There are many factors that contribute to an increase risk of a possible fall. These include:

- Body size
- Postures adopted when reaching for and/or lifting product when on a ladder
- Ability to maintain three points of control/contact
- The weight/forces on the body and the load that is being handled
- The size of the base of the support

If a ladder needs to be used to either remove or place objects on shelving only mobile ladder stands or mobile ladder platforms should be used and only if the manufacturer allows it to happen. The objects lifted should not impair the ability to climb/descend and maintain balance, and do not block field of view. It is important that a risk assessment be completed to determine if the mobile ladder stands or mobile ladder platforms should be used.

MMH on all other ladder types should not be done as it is extremely difficult to maintain 3 points of contact/control.

Listed below are examples of controls to eliminate and/or reduce risk associated with manual materials handling on mobile ladder stands or mobile ladder platforms.

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PROBLEM	SOLUTION	TYPE OF CONTROL	APPLICABLE LEGISLATION
<p>Ascending/Descending a mobile ladder stands or mobile ladder platforms with a large load may result in:</p> <ul style="list-style-type: none"> ▪ Being off balance ▪ Blocking the field of view ▪ Facing the wrong direction 	<ul style="list-style-type: none"> ❑ Use reaching devices to eliminate the need for using mobile platforms or the possibility other ladders may be used. Hanger poles to place/retrieve clothing hangers from high locations or light bulb poles to replace bulbs are a few examples 	Engineering	<p>Section 73 of Regulation 851</p>
	<ul style="list-style-type: none"> ❑ Consider using a reach truck or other mechanical handling equipment to place or remove large items from racking. ❑ Rolling stairs with lockable castors are a safer alternative than a step ladder or extension ladder. 	Engineering	
	<ul style="list-style-type: none"> ❑ Assess the load to ensure it doesn't impair the ability to maintain balance. This includes if the load is unbalanced (i.e. liquid, flour, etc.). 	Administrative	
	<ul style="list-style-type: none"> ❑ Store frequently accessed items on lower shelves to avoid repetitive use of mobile ladder. 	Administrative	
	<ul style="list-style-type: none"> ❑ Face the proper direction for climbing/descending a mobile ladder stands or mobile ladder platforms according to manufacturer (e.g., for a grade over 50°, manufacturer may specify facing the ladder when descending). 	Administrative	

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PROBLEM	SOLUTION	TYPE OF CONTROL	APPLICABLE LEGISLATION
	<input type="checkbox"/> Create a policy to prevent lifting large boxes while on mobile ladder stands or mobile ladder platforms	Administrative	
	<input type="checkbox"/> Provide adequate supervision and training to ensure proper work procedures are followed.	Administrative	
	<input type="checkbox"/> Determine before ascending/descending the mobile ladder stands or mobile ladder platforms the steps/movements required to move the load safely are planned.	Administrative	
	<input type="checkbox"/> Always maintain 3 points of control/contact. Leaning outside of the ladder can result in a fall with or without 3 points of contact.	Administrative	
	<input type="checkbox"/> Use a buddy system to pass the object to them instead of ascending/descending the mobile ladder stands or mobile ladder platforms while carrying the load	Administrative	
	<input type="checkbox"/> Ensure workers are properly trained on mobile ladder stands or mobile ladder platforms use, inspection and storage	Administrative	

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PROBLEM	SOLUTION	TYPE OF CONTROL	APPLICABLE LEGISLATION
Range of movement maybe restricted due to: <ul style="list-style-type: none"> ▪ Deep bending ▪ Reaching sideways outside of ladder ▪ Overreaching 	<input type="checkbox"/> Purchase the proper mobile ladder stands or mobile ladder platform so employees can access items on the shelves without bending or assuming awkward postures.	Engineering	
	<input type="checkbox"/> Use a “pick stick” to reposition items to provide for an easier reach.	Engineering	
	<input type="checkbox"/> Educate workers to ensure boxes are not pulled further than their centre of gravity resulting in the box falling or are unevenly loaded.	Administrative	
	<input type="checkbox"/> Position the mobile ladder stands or mobile ladder platforms to prevent overreaching.	Administrative	
	<input type="checkbox"/> Ensure the workers “belt buckle” does not go beyond the outer vertical support of the mobile ladder stands or mobile ladder platforms. Leaning outside of the outer vertical support can result in a fall.	Administrative	

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PROBLEM	SOLUTION	TYPE OF CONTROL	APPLICABLE LEGISLATION
Lifting heavy objects <ul style="list-style-type: none"> May result in leaning backwards and risking a fall Smaller platforms may lead to awkward postures Result in MSDs from excessive force and awkward postures 	<input type="checkbox"/> Use mechanical means to raise/lower the box or item.	Engineering	
	<input type="checkbox"/> Tools, equipment and materials could be placed in a container and raised or lowered by rope or a ladder lift system, if necessary.	Engineering/Administrative	
	<input type="checkbox"/> Label the weight of the box	Administrative	
	<input type="checkbox"/> Consider adding handles to boxes referred to better coupling.	Administrative	
	Provide MMH training that includes the following: <ul style="list-style-type: none"> Safe handling techniques such as maintaining the natural curve in back, co-contracting the stomach and back muscles, keeping the load close to the body etc. Instruction on choosing an action adapted to the situation to find a suitable solution; Understand the importance of work planning principals to minimize awkward lifts Practice proper techniques. 	Administrative	25(2)(a) of the OHSA, employers must give their workers information, instruction and supervision clause 25(2)(h)
	<input type="checkbox"/> Educate workers on MSD hazards that might result in MMH hazards.	Administrative	

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PROBLEM	SOLUTION	TYPE OF CONTROL	APPLICABLE LEGISLATION
Pushing/pulling <ul style="list-style-type: none"> Jammed items on a shelf may result in forceful movements to remove where there is the potential for an unexpected reaction 	Always maintain 3 points of control/contact. If the item cannot be removed with one hand, then investigate other ways to remove the object such as: <ul style="list-style-type: none"> Determine if adjacent items can be adjusted to free up the item to be moved; Use a “pick stick” to reposition items to provide for an easier reach; and/or Use alternative method such as forklift to bring the load down. 	Engineering/Administrative	
	<input type="checkbox"/> Test the load or use a coding system to ensure it can be removed easily to prevent forceful action that may result in falling backwards.	Administrative	

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For additional information, ask to speak to your local Ergonomist.

Workplace Safety & Prevention Services

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Revised: May 2020