



**Ahern Australia Pty. Ltd.**

ACN: 003 724 141

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## **Plant Risk Assessment**

Manually Propelled Vertical Mast type Material Hoist

**MLI, MLM & MLC Series - all models**

This Hazard Identification and Risk Assessment document is Model specific. It is based on the knowledge that all new examples of the nominated models were/are produced to the same specification and design. It assumes all examples of these models currently in service to be as per the original specification, and to have been and continue to be operated and maintained in accordance with the Manufacturers requirements, and with all applicable statutory and regulatory requirements


This Hazard Identification and Risk Assessment document has been prepared based on information available at the time of publication, and on the physical assessment of an original example of the Models for which it was prepared. This Assessment must be reviewed by all stakeholders as required:

- o Having regard to the manufacturers approved options
- o Having regard to the general arrangement of miscellaneous equipment or facilities that may be provided on the plant according to the end users requirements or specification
- o According to the particular circumstances under which the plant is used and maintained
- o As new Hazards are identified and/or as risks are reassessed
- o As existing risk control measures are revised or new risk control measures are introduced and implemented
- o As and when work procedures are altered or revised
- o Having regard to any unauthorised alterations or modifications made to the design or operation of the equipment


**Ahern Australia Pty. Ltd. have made every attempt to identify all reasonably foreseeable operating circumstances in preparing this Assessment, however no guarantee as to the completeness of this Assessment is provided or implied.**

**It is the responsibility of Owners, Employers and Operators to identify all hazards associated with the use of this equipment specifically applicable to the task to be carried out and to where the equipment is to be used or located. They must assess the risk potential for each of the identified hazards and ensure that all reasonably practicable steps are taken to ensure those risks are effectively controlled.**


- \*All operators must be trained and competent in the safe use of this particular piece of equipment, and hold appropriate qualifications as required by applicable regulatory requirements**
- \*Operators of the equipment to which this Plant Risk Assessment refers must read and understand the Instructions for Use and Warnings contained within the Operators Manual prior to use**
- \*All Daily Pre-Start Checks, Routine and Periodic Inspections, Maintenance and Repairs to this equipment must be carried out in accordance with the requirements of AS2550.10-2006**

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	<b>Plant type:</b> Manually propelled vertical mast Material Hoist		<b>Person conducting Assessment:</b> Bruce MacLean	
	<b>Model:</b> MLI, MLM & MLC Series - all models		<b>Date of Assessment:</b> January 5th, 2021	


HAZARD DESCRIPTION	RISK ASSESSMENT	PRACTICABILITY Is it practicable to remove or mitigate the risk?	RISK CONTROL		CONFIRMATION
GENERAL HAZARDS			RISK CONTROL MEASURES ALREADY IMPLEMENTED (by Designer, Manufacturer, Importer, Distributor)	SUPPLEMENTARY RISK CONTROL (for action by Management - the person, company or entity legally responsible for the use of the equipment)	Has the necessary action been completed?
Injury - due to use of machine not suitable for the task, and/or operating the machine without sufficient instruction, training, information or supervision	High	Yes	Operators Manual provides detailed information on use of the machine, including all limitations and associated hazards and risks. Manual warns of use by inexperienced or untrained operators	Prepare a documented system of work ensuring all modes of operation of the machine are covered. Train and instruct the operator, and ensure the Operators Manual is with the machine at all times	
Injury as a result of site specific hazards	High	Yes	General requirements, warnings and list of site specific hazards is detailed in the Operators Manual	Ensure Operators are able to identify all site specific hazards they may encounter and implement actions to ensure they are addressed by appropriate means	
Injury due to inappropriate and/or unauthorised use	High	Yes	Warnings in Operators Manual of the dangers of 'horseplay' and to secure the machine against unauthorised use at the end of each shift	Ensure only trained Operators use the machine and ensure it is secured before leaving unattended	
Persons injured due to missing, damaged or illegible safety decals and labels	High	Yes	Pre-operational Inspection includes check of decals and Operators Manual provides pictures of each decal for identification	Ensure Pre-operational Inspection is carried out as per manufacturers instructions. Maintain/replace decals as required	
Persons injured due to unrecognised hazards	High	Yes	Preliminary hazard identification is provided in the Operators Manual	Ensure a specific hazard and risk assessment is carried out relevant to the task and environment, prior to operation of this piece of equipment. Ensure all appropriate risk control measures are implemented and adhered to	
Due to failure to observe or rectify safety upgrades from the manufacturer	Extreme	Yes		Ensure the owner of the machine is registered with the manufacturer. Periodically check with the manufacturer for the existence of any safety related bulletins or notifications or upgrades and ensure they are implemented. Ensure the manufacturer is notified when the machine is disposed of.	
Persons could be injured if the unit is operated by persons under the influence of drugs and/or alcohol.	High	Yes	AS2550.10-2011 Clause 6.2 (r) warns against the use of equipment whilst under the influence of alcohol or drugs	Ensure that operators do not use the machine while under the influence of alcohol or drugs.	
Persons could be injured if the operator's performance is inhibited by poor health or medication with side effects.	High	Yes		Instruct the operator that he/she must report to the supervisor if suffering poor health and safe operating performance could be affected.	
Persons could be injured if the operator's performance was inhibited by fatigue.	High	Yes		Implement a system to ensure that operators do not work excessive or continuous shifts and manage peak demands.	

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<b>GENERAL HAZARDS (continued)</b>					
Persons could be injured if the operator's vision is impaired by sunlight or bright lights in close proximity.	Moderate	Yes		Instruct the operator in relation to the siting of lights.	
Persons could be injured if machine is operated while not wearing appropriate PPE.	High	Yes	Requirement specified in AS2550.1-2011. Warning in Operators Manual regarding wearing PPE appropriate to the task and environment	Provide specification for appropriate PPE including gloves, safety glasses, hard hat and safety footwear etc as appropriate. Instruct operators on requirements for its use. Ensure PPE is inspected and certified on a routine basis.	
<b>ELECTRICAL HAZARDS</b>					
Persons could be injured due to contact with or approach to live electrical apparatus	Extreme	Yes	Legislative requirements to maintain minimum approach distances (MSADs). Operator's manual contains warnings. Decals fitted to hoist warn that the unit is not electrically insulated	Ensure all persons understand and observe the limits of approach. Use only trained and qualified operators	
<b>STRUCTURAL FAILURE</b>					
Machine could collapse due to design or manufacturing fault	High	Yes	Machine is designed, manufactured and tested to comply with requirements of AS1418.8-2008. Compliance has been independently verified	Carry out all Pre-operational safety checks. Routine and Periodic Maintenance as required by AS2550.1-2011 must be carried out by a competent person. Periodically check with the manufacturer and industry bodies for the existence of any Safety Alerts or Service Bulletins.	
Structural failure to overloading	High	Yes	Overload tested in accordance with AS1418.8-2008. Decals on platform show maximum capacity and acceptable load centres	Ensure machine is only operated within the specification and operating parameters detailed in Operators Manual, and in accordance with industry standards and regulatory compliance with AS2550.1-2011. Ensure machine is only operated by trained personnel	
Structural failure due to loose or missing pivot pins, retainers and fasteners	Extreme	Yes	Pre-Operational checks detailed in Operators Manual include inspection of these components	Ensure that Pre-operational checks are performed and documented	
Structural failure due to unauthorised modification, alteration, use or interference	High	Yes	Operators Manual includes warnings prohibiting unauthorised modification or alteration	Ensure that no modifications or alterations are performed without written consent of the manufacturer. Ensure the machine is secured at the end of each shift	
Structural failure due to unit being in poor mechanical condition due to fatigue or wear	High	Yes	Pre-operational checks of all mechanical and structural components are included in Operators Manual	Ensure machine is checked, repaired & maintained by a competent person in accordance with manufacturers checklist provided in manuals and in compliance with AS2550.1-2011. Use only OEM parts to repair	

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<b>Loss of stability/overturning hazards</b>					
Injury as a result of instability or overturning due to use on excessive slope or on ground surface incapable of supporting machine weight and load	Extreme	Yes	Machine is designed for use on flat level ground only. Operators Manual warns of requirement for ground checks prior to use	Ensure the support surface is level and is capable of supporting the full weight of the machine and load. Ensure operators are trained regarding proper setup and site evaluation and to seek advice as required	
Overturning due to overloaded platform	Extreme	Yes	Overload tested in accordance with AS1418.8-2008. Maximum capacity decal fitted on platform	Ensure the platform is not overloaded and that operators understand and observe the allowable load limits	
Overturning due to use in high winds	High	Yes	Operator's Manual warns against use where machine could be exposed to wind forces	Ensure the machine is not used where there is the risk of exposure to wind forces	
Overturning due to misuse or non use of stabilisers or use of incorrect stabilisers	Extreme	Yes	Operators Manual provides instruction on correct operation of the stabilisers. Warnings provided in Operator Manual	Ensure operators are trained in correct use of the machine and correct setup procedures for the stabilisers. Ensure only the correct stabilisers for the model are used	
Loss of stability due to machine movement	High	Yes	Operators Manual warns of requirement for ground checks prior to use. Manually applied brakes are fitted to rear caster wheels. Machine is designed for use only on level ground	Ensure the support surface is level, is not slippery, and is capable of supporting the full weight of the machine and load. Ensure the caster brakes are locked before raising a load	
<b>CONTROL MALFUNCTION &amp; UNCONTROLLED MOTIONS</b>					
Due to control malfunction	High	Yes	Details of required pre-operational checks are included in the Operators Manual	Ensure pre-operational checks are carried out as per the Operators Manual. Implement regular maintenance in accordance with manufacturers instructions and AS2550.1-2011 requirements	
Due to accidental operation of controls by 'knocking', or inadvertent activation from engagement by other items	Low	Yes		Implement safe working procedures to ensure the risk of inadvertent engagement by tools, hoses, cables and loose clothing etc, is minimised	
Due to failure of hoist or hoist cable	High	Yes	Hoist cable factor of safety exceeds requirements. Failsafe mast brake fitted arrests lowering in the event of cable failure. Hoist and cable inspection pre-start requirement is included in the Operator's Manual	Ensure machine is checked, repaired & maintained by a competent person in accordance with manufacturers checklist provided in manuals and in compliance with AS2550.1-2011. Use only OEM parts to repair	

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<b>CRUSHING, SHEARING &amp; TRAPPING HAZARDS</b>					
Crush injury as a result of operation	High	Yes	Operator stands behind load when raising and lowering. Operator's manual warns operators not to stand under a raised load	Ensure only trained operators use the machine. Ensure operators are aware of their surroundings and maintain sight of the load at all times	
Persons crushed whilst performing routine maintenance	Low	Yes	Instructions in Parts & Maintenance Manual detail procedure for inspecting masts	Train operators and maintenance personnel to be aware of these hazards and implement safe work procedures	
Persons crushed by lowering platform and/or mast sections	High	Yes	Operator stands behind load when raising and lowering. Operator's manual warns operators not to stand under a raised load	Ensure only trained operators use the machine. Ensure operators are aware of their surroundings and maintain sight of the load at all times	
<b>SLIP, TRIP &amp; FALL HAZARDS</b>					
Operator trapped or crushed when moving machine	Moderate	Yes	Warnings in Operator's Manual regarding movement and positioning of machine	Ensure operators heed warnings in the manual. Use a forklift or other suitable equipment to move the machine between locations when the ground surface to be traversed is sloping or uneven	
Falling from the lifting attachment	High	Yes	Machine is not designed to lift personnel. Operators manual and decals on machines provide warnings forbidding the lifting of personnel	Ensure only trained operators use the machine. Ensure operators heed all warnings	
<b>FALLING OBJECTS</b>					
Operator and/or other persons at ground level being struck by falling objects	Extreme	Yes	Warnings in Operator's manual regarding the positioning/centering of the load and securing of the load to the platform. Operator stands behind the load when raising. Manual warns against leaving elevated loads unattended	Ensure only trained operators use the machine. Implement a system of management to ensure the immediate area around the equipment is clear of personnel when lifting loads, and to ensure that loads are fully lowered before leaving the machine unattended	
<b>EMERGENCY PROCEDURES</b>					
Injuries exacerbated as a result of working solo	High	Yes		Where personnel are required to work alone or unsupervised, implement a system of management to ensure they are monitored regularly	

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<b>DRIVING, TRANSPORT &amp; HANDLING</b>					
Injury as a result of accumulation of deterioration during long term storage	High	Yes		Ensure that an Annual Inspection is comprehensively performed by a competent person before returning the machine to service	
Injury from unsecured vehicle	High	Yes	Procedures are provided in the Operators Manual	Ensure the machine is secured in accordance with the requirements described in the manual and with relevant transport regulations	
Injury releasing brakes	High	Yes	Operators Manual includes warnings related to release of brakes	Ensure the machine is secured to prevent it moving when brakes are released, prior to releasing them	
Injury sustained when lifting the machine	Moderate	Yes	Data plate on machine and specifications in Operators Manual show the machine gross weight	Ensure the lifting equipment and all rigging is appropriate for the task and is in good condition. Keep all personnel clear during lifting	
Persons injured during loading/unloading of the machine onto transport vehicle	High	Yes	Instructions for use of loading device included in Operators Manual and decal regarding safe practice fitted to machines	Ensure operators are trained in correct loading and unloading procedures and use of the loading device	
<b>MAINTENANCE</b>					
Injury sustained when performing maintenance or repairs	Moderate	Yes	Instructions and warnings provided in Spare Parts & Maintenance Manual	Establish appropriate work procedures for all required and anticipated tasks. Ensure they are adhered to and review them periodically. Ensure maintenance personnel are adequately trained in the maintenance of this piece of equipment. Always follows manufacturers instructions when performing maintenance and seek advice when necessary. Ensure the machine is tested by a competent person prior to being returned to service after any maintenance and/or adjustment to systems and/or components has been carried out	
Injury due to handling heavy and/or unsupported components	High	Yes		Ensure personnel are provided with any necessary mechanical aids and instructions on their use, and ensure they are used and in accordance with those instructions	