

SAFETY MANAGEMENT SYSTEM

Plant and Equipment Risk Assessment

Equipment Location:	Hired From All Master Hire Stores	Equipment:	Smooth Roller – 3.0 – 4.5 Tonne	Approved By:	Steven Jose
				Signature:	
		Manufacturer Details	Various		

Hazard	Action Required Yes/No	Risk Level (Refer to risk matrix)	Hierarchy of Control	Hazard and Risk Treatment (Complete Hazard Report Form)	Risk Level after Risk Treatment (Refer to risk matrix)
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Entanglement					
Can anyone's hair, clothing, gloves, necktie, jewellery, cleaning brushes, rags or other materials become entangled with moving parts of the plant, or materials in motion?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ACUTE	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Do not lean or reach into engine area with motor running</i> <i>Do not do any servicing or maintenance with motor running</i> <i>Ensure exclusion zone is set up</i> <i>Correct PPE to be worn at all times</i> <i>Clothing to be buttoned up and tucked in - no loose articles</i> <i>Ensure all guards and covers in place when operating machine</i> <i>Ensure hands kept away from moving parts</i> <i>Lock out/tag out plant when carrying out maintenance</i> <i>Activate parking brake before leaving operators station</i>	MEDIUM

Crushing					
Can anyone be crushed due to: <ul style="list-style-type: none"> ▪ Material falling off the plant? ▪ Uncontrolled or unexpected movement of the plant or its load? ▪ Lack of capacity for the plant to be slowed, stopped or immobilized? ▪ The plant tipping or rolling over? ▪ Parts of the plant collapsing? ▪ Coming in contact with moving parts of the plant during testing, inspection, use, maintenance, cleaning or repair? ▪ Being thrown off or under the plant? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ACUTE	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Ensure travel of moving plant/vehicle (forward or reversing) is clear of all personnel</i> <i>Use spotter in restricted areas</i> <i>Ensure all plant and attachments are tied down securely</i> <i>Correct PPE to be worn at all times</i> <i>Ensure seat belt worn at all times during operation</i>	MEDIUM

<ul style="list-style-type: none"> ▪ Being trapped between the plant and materials or fixed structures? • Other factors? 				<p><i>Ensure all guards in place when operating machine</i></p> <p><i>Ensure exclusion zones maintained at all times</i></p> <p><i>Lock out/tag out plant when carrying out maintenance</i></p> <p><i>De-energise/depressurise hydraulic system prior carrying out maintenance</i></p> <p><i>Activate parking brake before leaving operators platform</i></p> <p><i>Use chocks on rollers to prevent movement when carrying out maintenance work where there is a risk of plant moving.</i></p> <p><i>Avoid all driving across a slope, instead drive up and down the slope</i></p> <p><i>Do not exceed manufacturers recommendation for lateral tilt</i></p> <p><i>Ensure plant is operated on a stable working base</i></p> <p><i>Maintain recommended operating speeds</i></p> <p><i>Do not operate roller on damp and in poor ground conditions</i></p> <p><i>When loading on vehicle, ensure ramp is securely attached and at the appropriate angle</i></p> <p><i>Ensure the ramp is fitted securely to the truck/float</i></p> <p><i>Ensure articulation locking brace is engaged prior to transport</i></p>	
Cutting, Stabbing and Puncturing					
<p>Can anyone be cut, stabbed or punctured due to?</p> <ul style="list-style-type: none"> ▪ Coming in contact with sharp or flying objects? ▪ Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair of the plant? ▪ Plant, parts of the plant or work pieces disintegrating? ▪ Work pieces being ejected? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HIGH	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Do not lean or reach into engine area with motor running</i></p> <p><i>Ensure plant/vehicle is switched off and key/s removed before making any adjustments and when not using</i></p>	LOW

<ul style="list-style-type: none"> ▪ The mobility of the plant? ▪ Uncontrolled or unexpected movement of the plant? ▪ Other factors? 				<i>machine</i> <i>De-energise/ depressurise hydraulic system prior carrying out maintenance</i> <i>Use appropriate prop/s to support elevated mechanisms when conducting inspection or maintenance</i> <i>Ensure appropriate PPE is used (e.g. eye protection, hearing and footwear)</i>	
Shearing					
<p>Can anyone's body parts be:</p> <ul style="list-style-type: none"> ▪ Sheared between two or more parts of the plant, or between a part of the plant and a work piece or structure? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ACUTE	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Do not lean or reach into engine area with motor running</i> <i>Correct PPE to be worn at all times</i> <i>Ensure all guards are in place during operation.</i> <i>Lock out plant prior to maintenance or removing guards</i> <i>Ensure all body parts remain within ROPS/cabin</i> <i>Check gas struts prior to working in engine bay</i> <i>Stay clear of roller and truck if winching</i> <i>Ensure articulation lock is fixed prior to transport</i>	MEDIUM
Friction					
<p>Can anyone be burnt, gain abrasions etc. due to:</p> <ul style="list-style-type: none"> ▪ Contact with moving parts or surfaces of the plant, or material handled by the plant? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Do not lean or reach into engine area with motor running</i> <i>Do not do any servicing or maintenance with motor running</i> <i>Allow motor and other components to cool before servicing</i> <i>Wear appropriate PPE</i>	LOW

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<p>Striking</p> <p>Can anyone be struck by moving objects due to:</p> <ul style="list-style-type: none"> ▪ Uncontrolled or unexpected movement of the plant or material handled by the plant? ▪ Plant, parts of the plant or work pieces disintegrating? ▪ Work pieces being ejected? ▪ Mobility of the plant? ▪ Other factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ACUTE	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Use appropriate prop/s to support elevated mechanisms when conducting inspection or maintenance</i></p> <p><i>Ensure travel of moving plant/vehicle (forward or reversing) is free of all personnel</i></p> <p><i>Use spotter in restricted areas</i></p> <p><i>Ensure all loads are placed and secured within tray of vehicle while transporting</i></p> <p><i>Ensure exclusion zone in and around vehicle while loaded using mechanical aids (e.g. skid steer loader, excavator)</i></p> <p><i>Check clearance to overhead structures</i></p> <p><i>Ensure load is correctly loaded and secured</i></p>	HIGH
<p>High Pressure Fluid</p> <p>Can anyone come into contact with?</p> <ul style="list-style-type: none"> ▪ Fluids under high pressure in normal use, in the instance of plant failure? 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>De-pressurise prior to working on hydraulic system</i></p> <p><i>Lock out/Tag out procedure for all maintenance</i></p> <p><i>Wear appropriate PPE for task</i></p>	LOW
<p>Electrical</p> <p>Can anyone be injured by electrical shock or burnt due to:</p> <ul style="list-style-type: none"> ▪ The plant contacting live electrical conductors? ▪ Plant working close to electrical conductors? ▪ Overload of electrical circuits? ▪ Damaged or poorly maintenance electrical leads or cables? ▪ Damaged electrical switches? ▪ Water near electrical equipment? ▪ Lack of isolation procedures? ▪ Other factors 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ACUTE	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Ensure all overhead/underground wiring or other obstructions have been located prior to commencing work</i></p> <p><i>Check plant height prior to loading</i></p> <p><i>Maintain safe clearance to overhead power lines</i></p> <p><i>Consider height of plant, height of ramps and height of elevated tilt tray prior to commencing</i></p>	HIGH

				<i>Ensure all positive electrical cables/contacts on machine are covered / insulated</i> <i>Battery to be securely restrained</i>	
Explosion					
Can anyone be injured by fuels such as gases, vapors, liquids, dusts or other substances being ignited triggered by the operation of the plant or by materials handled by the plant?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Fueling must be carried out in well ventilated space, away from ignition source/s</i> <i>Engine must be switched off and cooled before refueling</i> <i>Avoid contact with hot surfaces</i>	LOW
Slipping, Tripping and Falling					
Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to: <ul style="list-style-type: none"> ▪ Uneven or slippery work surfaces? ▪ Poor housekeeping, such as shavings in the vicinity of the plant, spillage not cleaned up? ▪ Obstacles being placed in the vicinity of the plant? ▪ Other factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HIGH	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Wear appropriate footwear</i> <i>Face steps provided when getting in/on plant/vehicle</i> <i>Always observe 'three points of contact' if need to get on/in plant/vehicle</i> <i>Maintain cleanliness of plant/vehicle (inside and out)</i> <i>Ensure plant and steps/walkways are clean</i> <i>Do not jump from machine</i> <i>Use grip painted walkways on the truck deck</i> <i>Wear appropriate protective footwear</i> <i>Operate exclusion zone while loading/unloading as required</i>	MEDIUM
High Temperature					
Can anyone: <ul style="list-style-type: none"> ▪ Come into contact with objects at high temperature? ▪ Come into contact with hot fluids? ▪ Be injured by fire? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input checked="" type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Do not do any servicing or maintenance with motor running</i> <i>Allow motor and other components to cool before servicing</i> <i>Wear appropriate PPE</i>	LOW

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				<p><i>Ensure fire extinguisher is serviceable and current (within last 6 months)</i> <i>Check condition of hydraulic lines before beginning work</i> <i>Lock out/Tag out procedure for all maintenance</i> <i>De-pressurise prior to working on hydraulic system</i></p>	
Temperature and Thermal Comfort					
<p>Can anyone suffer ill-health due to:</p> <ul style="list-style-type: none"> ▪ Exposure to high or low temperatures? ▪ Failure of air conditioning equipment? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Be aware of body responses to adverse/extreme weather conditions (hot/cold)</i> <i>Ensure air conditioning in cabin is working properly (where fitted)</i></p>	LOW
Suffocation					
<p>Can anyone be suffocated due to:</p> <ul style="list-style-type: none"> ▪ Lack of oxygen, or atmospheric contamination? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HIGH	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Do not leave persons or animals unattended in/on plant/vehicle</i> <i>Position in well-ventilated area where vapours or fumes are present</i> <i>Operate in well-ventilated areas where vapours or fumes are created</i> <i>Keep windows closed with air conditioning on/in dusty environs</i></p>	LOW

Ergonomics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Take regular breaks/rests</i> <i>Exercise/stretch regularly</i> <i>Do not operate beyond operators personal capabilities</i> <i>Use suitably designed and secured loading/unloading procedures including crane, hoist, ramps etc.</i> <i>Observe and use proper manual handling techniques</i>	LOW
Can anyone be injured due to: <ul style="list-style-type: none"> ▪ Poorly designed seating? ▪ Repetitive body movements? ▪ Constrained body posture or the need for excessive effort? ▪ Design deficiency causing physical or personal stress? ▪ Inadequate or poorly placed lighting? ▪ Lack of consideration given to human error or human behavior? ▪ Mismatch of the plant with human traits and natural limitations? ▪ Other factors? 					
Transportation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HIGH	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Ensure engine and fuel is switched off</i> <i>Ensure equipment, attachments and sundry items are correctly loaded and securely tied down</i> <i>Apply/use chocks if necessary</i> <i>Ensure adequate exclusion zone is in place</i> <i>Stay clear of machine and truck if winching</i> <i>Do not overload transport vehicle</i> <i>Check clearance to overhead structures</i> <i>Check total height of loaded plant comply with any permits required</i> <i>Maintain vehicle and/or equipment in good working order - report any malfunction or damage to Master Hire immediately and stop using plant/vehicle where it is reasonable to foresee further risk to persons or damage to plant/vehicle</i>	LOW
Can anyone be injured by this equipment falling or driven off vehicle or trailer while loading, unloading or transportation?					

Operational					
<p>Can anyone be injured by this equipment</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HIGH	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Ensure plant/equipment is on stable ground and clear of obstructions</i></p> <p><i>Ensure adequate ventilation</i></p> <p><i>Ensure gears, levers, switches etc. are engaged/disengaged appropriately before starting/operating</i></p> <p><i>Ensure all guards and fixtures are in place</i></p> <p><i>Ensure appropriate PPEs are used (e.g. eye protection, hearing and footwear)</i></p> <p><i>Ensure plant/vehicle is switched off and key/s removed before making any adjustments and when not using machine</i></p> <p><i>Ensure hold-to-run controls provided for machine are working properly</i></p> <p><i>Do not operate on steep slope</i></p> <p><i>Ensure handles and other adjustable parts are set right for the operator</i></p> <p><i>Ensure guards cover the entire width of the rotating parts</i></p>	MEDIUM
<p>Other Hazards</p> <p>Can anyone be injured or suffer ill-health from exposure to:</p> <ul style="list-style-type: none"> • Chemicals? • Toxic gases or vapors? • Fumes? • Dust? • Noise? • Vibration? • Radiation? • Other Factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Wear appropriate PPE especially hearing protection</i></p> <p><i>Position and operate in well-ventilated area to prevent inhaling vapours or fumes</i></p> <p><i>Check for overhead/underground utilities (gas, water, electrical) before operation</i></p> <p><i>Ensure equipment is appropriately labeled and meet the relevant State Legislative requirements</i></p>	LOW



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					<i>Maintain plant/vehicle in good working order - report any malfunction or damage to Master Hire immediately and stop using plant/vehicle where it is reasonable to foresee further risk to persons or damage to equipment</i>
Further Comments:	A Specific Risk Assessment on site must be undertaken prior to plant operation.				
	This equipment must only be driven/operated by competent persons and holders of the appropriate license				
Checklist:	<input checked="" type="checkbox"/> <i>Manufacturers' manuals referenced</i> <input checked="" type="checkbox"/> <i>Copy kept in Master Hires' Risk Management File</i>				

Hazard / Risk Matrix

Reference: Workplace Health and Safety Queensland - Risk Assessment - Supplement 2
Risk Management Code of Practice 2007

Step 1 Determine Likelihood – What is the possibility of the event happening?

	Criteria	Description
Almost certain	Expected in most circumstances.	Event is a common problem
Likely	Will probably occur in most circumstances.	Event is known to have occurred at this site or it has happened
Possible	Might occur at some time	Event could occur at the site or I've heard of it happening
Unlikely	Could occur at some time	Event is not likely to occur at the site or I have not heard of it happening
Rare	May occur only in exceptional circumstances	Event is practically impossible.

Step 2 Determine Consequence - What will be the result if it happens?

Classification	Example detail description
Insignificant	No injuries
Minor	First aid treatment only; spillage contained at site.
Moderate	Medical treatment; spillage contained but with outside help.
Major	Extensive injuries; loss of production
Catastrophic	Death; toxic release of chemicals

Step 3 Determine the risk score

LIKELIHOOD	CONSEQUENCE				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain	3 High	3 High	4 Acute	4 Acute	4 Acute
Likely	2 Medium	3 High	3 High	4 Acute	4 Acute
Possible	1 Low	2 Medium	3 High	4 Acute	4 Acute
Unlikely	1 Low	1 Low	2 Medium	3 High	4 Acute
Rare	1 Low	1 Low	2 Medium	3 High	3 High

Step 4 Record risk score against the job sequence steps

(Note – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)

Score	Action
4 A: Acute	ACT NOW – Urgent – do something about the risks immediately. Requires immediate attention.
3 H: High	Highest management decision is required urgently.
2 M: Medium	Follow management instructions.
1 L: Low	OK for now. Record and review if any equipment/ people/ materials/ work processes or procedures change.