



Hazards		Location/Activity	Risk Score	Controls	Additional Control Required
Type	Description				
Ergonomics	Discomfort from poorly designed seating, a prolonged time in the same posture (fatigue)	Cabin seating area	M	Adjust the operators seat Regular breaks Job rotation Operate the machine in the seated position only	
Chemical/Fumes	Inhalation of fumes, skin irritation, and adverse health effects from chemicals	Refuelling the machine Handling chemicals Chemical leaks on the machine Exhaust fumes	M	Adequate ventilation PPE Avoid contact with hazardous substances Read MSDS before using any chemical	Remove paint before welding Avoid creating dust Beware of what is in the dust (asbestos) and prevent inhalation
Falling Objects	Any objects falling from above from the load or environment	Falling materials from the load Items that have been left on machine	H	FOBS cab Never lift move swing bucket above anyone or over machine	Do not use the machine for crane operation Wear goggles or safety glasses
Falls from Heights	Falling from the machine to the ground	Whilst climbing the side while entering the cabin	M	Fasten seat belts at all times Remain seated at all times Never allow others to ride on machine	Use handholds and steps Maintain three points of contact at all times
Over turning of machine	The machine over turns or falls from heights	Whole machine on sloppy area or unstable ground	E	Investigate job site beforehand Ensure the machine is equipped with a FOBS cab When travelling up or down a grade, keep the bucket in the direction of travel approximately 200-300mm above the ground Safe work induction	Signal person Reinforce grounds, edges and broad shoulders Drive machines safely (not across the face of a slope) Make a work plan Avoid undercutting

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Entanglement	Catching of long hair, loose clothing or fingers in Hire plant with rotating parts.	Tracks and rotating parts	H	Ensure hands, feet, clothing, jewellery and hair do not come in contact with the moving part.	Training. Be aware of all the safety signs on the machine, follow all the safety instruction, including those for maintenance
Crushing	Trapped or crush of persons between fixed structure or other barriers and driven plant	Crush by digging arm with the ground Run over crushed between cabin and other objects	E	Follow all safety instructions Confirm location of bystanders at all time Use the horn when moving	Keep machine in proper working order Use a signal person when moving, swinging or operating
Struck By	Person struck by moving parts of the machine whilst on the ground Two machine colliding	Moving are Cabin swing area Tracks – whole machine	E	Only start engine whilst in the operator's seat. Park on level ground. Provide signals for jobs involving multiple numbers of machines. Use a signal person. Look for bystanders before moving. Safe work instructions. Set up barriers on swing area. Secure the machine properly before carrying out any work on it.	If the engine is jump started the person must follow instructions. No riders on machine at any time. Training in signals used. Keep mirrors and lights clean and in good condition. Attach a DO NOT OPERATE tag before carrying out any maintenance.

Electrical	Electrocution from faulty wires or from overhead power lines or underground lines.	Hitting overhead power lines or underground lines.	E	Regular maintenance on the machines. Never move any part of machine or load closer than 3m plus twice the line insulator length.	Keep all bystanders and co-workers away from site. Locate all underground lines. Training safe work instructions.
Fire / explosion	Ruptured underground cables or gas lines from digging. Fire caused by fuel in the machine or battery.	Digging Refuelling machine Oil leaks Engine area.	H	Prepare for emergencies. Personal protective equipment. Before digging check locations of underground lines – DIAL BEFORE YOU DIG. Keep the minimum distance required by law. Check for all oil leaks and shorts each shift or after 8-10 hours of operation.	Contact the local diggers hotline. Keep all ignition sources away from flammable fuels; always stop the engine before refuelling. Store flammable fluids accordingly. Check the off switch every shift to ensure it still works. Keep sparks away from the top of battery.

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Burns	Burns from hot water/fluids, steam, the engine, hoses & other parts that become hot	Engine area with prolonged use	H	Inspect and maintain the machine on a regular basis. Wait for the machine to cool down before conducting any maintenance.	Avoid heat by welding, soldering or using a torch near pressurised fluid lines or other flammable materials
High Pressure	Skin injection from the application of Hydraulic Pressure Jet Ingress of water or contaminants to eyes	Hose Radiator	M	Do not attempt to remove grease fitting or valve assembly Make sure all tools and implements are stored away to prevent damage to lines PPE	Keep body & face away from air release plug Wait for the gear oil and radiator to cool down before releasing pressure Replace rubber hoses Periodically
Noise	Excessive noise from the machine or surrounding environment	Engine While digging	M	PPE Operate at different times to others Isolated the machine	

	CONSEQUENCE				
RISK RATING CHART <i>(base on the AS/NZs 4360 – Risk Management Standard)</i>	1. Insignificant No injury or damage expected	2. Minor Could cause 1 st Aid injury or minor damage	3. Moderate Could require medical attention and serval days off work or moderate damage	4. Major Could cause serious long-term illness or injury or major damage	5. Catastrophic Fatality, cause permanent disability or ill health or cause very serious damage
E. Almost Certain Could happen any time	H	H	E	E	E
D. Likely At some point in time	M	H	H	E	E
C. Possible Possible it might happen	L	M	H	E	E
B. Unlikely Not likely to happen	L	L	M	H	E
A. Rare Could happen, but probably never will	L	L	M	H	H
Class E Class H Class M Class L	EXTREME RISK: - Immediate action required HIGH RISKS: High risk, senior management attention required MODERATE RISK: Moderate risk; management responsibility must be specified LOW RISK: Low risks; manage by routine procedures				