

# RISK MANAGEMENT REPORT

**TYPE** Rollers, Smooth Drum Self Propelled

**MAKE** Dynapac

**MODEL** CA1500D

**CHASSIS / VIN**

**Report Number** CEA 20180822-1529

**Date** 22-Aug-2018

**Created By** Graeme Reid

**Assessor** Graeme Reid

**Assist. Assessor(s)**

**Completed By** Graeme Reid

**Owner** CEA Brisbane

**Assessment Purpose** Sale

**State** QLD

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<b>SECTION 3</b>	<b>RISK ANALYSIS, RISK EVALUATION &amp; RISK TREATMENT</b> Contains details of the technique used to calculate risk ratings, time frame and risk treatments. Please refer to this information when reviewing and interpreting the information in section 4 & 5
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## SECTION 1 IMPORTANT INFORMATION

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This Risk Management Report has been prepared for -

(insert recipient name/company name)

This document has been prepared to cover the sale or transfer of this item of plant between the Company identified on the front cover and their named recipient. This report must not be used for any subsequent sale or transfer.

This document is provided to meet duty of care obligations as set out in relevant state and territory health and safety regulations for the supply of plant and the sale and transfer of plant.

The safety hazards associated with the operating and maintaining of this item of plant have been identified as far as practical by visual inspection. This item of plant is being sold in an "as-is" condition with known and unknown safety hazards. No physical testing has been conducted (eg. Wire rope tests, stress tests, structural/non-destructive tests, noise tests, vibration tests, brake tests, insulation tests etc.) unless stated otherwise in the notes.

This document is not intended to provide information on, nor warrant the mechanical, electrical or structural condition of this item of plant. Any information on standard features have been supplied through the manufacturer and should be used as a guide only until otherwise verified.

This item of plant should be further assessed, tested and inspected or dismantled as necessary to gauge any further hazards and /or risks relating to SPECIFIC WORKPLACE USE, which are currently unknown, in accordance with relevant standards, regulations and acts.

Under common law and relevant state and territory health and safety acts, regulations and codes of practice, there is a requirement for the plant owner, employer and operator to exercise a duty of care in the safe operation and maintenance of plant. Accordingly before this item of plant is supplied to, or used at any workplace it must be inspected to ensure it is in a fully operational, safe and serviceable condition and that operators and maintenance personnel are appropriately trained in the use & maintenance of this item of plant.

For further information regarding this report contact Online Safety Systems on 1300 72 88 52

## SECTION 2 MACHINE DETAILS

MACHINE DETAILS	- NOISE TEST RESULTS	1. Manufacturers specified noise level dBA	
		2. Ambient noise level dBA	
		3. Noise level - Operator position (high idle) dBA	
		4. Noise level - Operator position (low idle) dBA	
		5. Noise level LHS dBA @ m (high idle)	
		6. Noise level Front dBA @ m (high idle)	
		7. Noise level RHS dBA @ m (high idle)	
		8. Noise level Rear dBA @ m (high idle)	
	BODY TYPE	Articulation, either side (deg)	38
BRAKES		Service Braking System	Hydrostatic
CAPACITIES		Fuel Tank Capacity (Litres)	190
DIMENSIONS/WEIGHTS		Ground clearance (mm)	320
		Height (mm)	2730

	Length (mm)	5280
	Operating weight (kg)	8500
	Static weight on drum (kg)	3600
	Turning circle diameter (mm)	
	Wheelbase (mm)	2690
	Width (mm)	1866
<b>DRIVES</b>	Drum drive	Hydrostatic
<b>DRUMS</b>	Drum width (mm)	1676
	Static drum mass/lineal cm (kg)	20kg/cm
<b>ENGINE</b>	Engine Displacement (Ltr)	
	Engine Hours	
	Engine Make & Model	Cummins QSB3.3
	Engine Number	
	Net power, SAE rated (kW@rpm)	74@2200
	Number of Cylinders	4
<b>PLANT CLASSIFICATIONS</b>	Class	
	Year	
<b>TRANSMISSION</b>	Transmission type	Hydrostatic
<b>TYRES</b>	Tyre Size	14.9x24TL
<b>WORK CAPABILITIES</b>	Centrifugal force, high/low amplitude (kN)	133/72kN
	Gradeability w/o vibration (%)	55%
	Nominal amplitude, high+low (mm)	1.8/0.8mm
	Vibratory frequency, max+min (Hz)	32/36Hz
<b>EXTRAS</b>	Air Conditioning	
	ROPS - Cabin	

## SECTION 3 RISK ANALYSIS / RISK EVALUATION


RISK ANALYSIS		CONSEQUENCE				
LIKELIHOOD		1. INSIGNIFICANT Dealt with by in house first aid	2. MINOR Treated by medical professionals, hospital out patients	3. MODERATE Significant non permanent injury overnight hospital stay	4. MAJOR Extensive permanent injury eg. Loss of fingers, extended hospital stay	5. CATASTROPHIC Death, permanent disabling injury eg. Loss of hand, quadriplegia
	A. Almost certain to occur in most circumstances	MEDIUM 8	HIGH 16	HIGH 18	CRITICAL 23	CRITICAL 25
	B. Likely to occur frequently	MEDIUM 7	MEDIUM 10	HIGH 17	HIGH 20	CRITICAL 24
	C. Possibly and likely to occur at sometime	LOW 3	MEDIUM 9	MEDIUM 12	HIGH 19	HIGH 22
	D. Unlikely to occur but could happen	LOW 2	LOW 5	MEDIUM 11	MEDIUM 14	HIGH 21
	E. May occur but only in rare circumstances	LOW 1	LOW 4	LOW 6	MEDIUM 13	MEDIUM 15

RISK EVALUATION	CRITICAL	Act immediately to mitigate risk. Implement risk treatment(s) in accordance with the risk treatment table below.
	HIGH	Act immediately to mitigate risk. Implement risk treatment(s) in accordance with the risk treatment table below. If the appropriate risk treatments are not immediately accessible establish interim risk treatment strategies. Permanent risk treatments must be implemented within one week.
	MEDIUM	Take reasonable steps to mitigate and monitor the risk. Implement risk treatment(s) in accordance with the risk treatment table below. Permanent risk treatments must be implemented within one month.
	LOW	Take reasonable steps to mitigate and monitor the risk. Implement risk treatment(s) in accordance with the risk treatment table below. Permanent risk treatments must be implemented within three months.

RISK TREATMENT	Selecting the most appropriate risk treatment option involves balancing the costs and efforts of implementation against the benefits derived, with regard to legal, regulatory and other requirements. (source AS/NZS ISO 31000:2009)	
	Eliminate	Eliminate the risk source.
	Substitute	Provide an alternative that is capable of performing the same task which is safer.
	Engineering	Provide or construct a physical barrier or guard.
	Administration	Develop policies, procedures, practices and guidelines in consultation with employees to mitigate the risk. Provide training, instruction and supervision about the risk source.
	Personal protective	Provide personal protective equipment to protect the individual from the risk source.




## SECTION 4 RISK TREATMENTS REQUIRED








This section of the report pertains to hazards created by use of this item of plant which currently do not have risk treatments in place. The risk treatments recommended in this section have been developed based on relevant Australian Standards, health & safety legislation, the hierarchy of risk treatment in accordance with the guidelines set forth in AS/NZS ISO 31000 – Risk Management and various other sources. The recommended risk treatment measures must be developed, implemented and validated as effective prior to the operation, maintenance or testing of this item of plant. Treatments applied must be dated and initialled adjacent the recommendations. All operators must read and understand the entire contents of this section prior to operating this item of plant.








	HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating	Time Frame	Due Date	Date Rectified	Initial
OPERATION	 <b>INCORRECT OPERATION</b>	CRITICAL 24	MEDIUM 15	Immediate	22-Aug-18		
	<b>Risk Treatment Required: Operator Competency</b> Only persons who are qualified, trained and experienced and/or hold the relevant certification/license can operate this item of plant. If there is not a competent/licensed person available for operation of this item of plant then only persons who are supervised by a competent/licensed person can operate this item of plant.						
	Legislation: State Health & Safety Legislation & Regulation						
	<b>References:</b> Work Health & Safety Act & Regulations-						








## SECTION 5 RISK TREATMENTS IN PLACE

This section of the report pertains to risk treatments currently in place on this item of plant. This section must be read in conjunction with the safety section of the manufacturers handbook. All operators must read and understand the entire contents of this section prior to operating this item of plant. These treatments or equivalent must remain in place at all times whilst this item of plant is in operation.

	HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
DELIVERY	 <b>CRUSHING</b>	HIGH 22	MEDIUM 15
	<b>Risk Treatments in Place: SWMS Loading/Unloading</b> Ensure that all operators follow approved SWMS/SOP when loading and unloading this machine to and from a flat top truck or trailer, low loader or tilt tray.		
	<b>References:</b> Work Health & Safety Act & Regulations-		
DELIVERY	 <b>CRUSHING</b>	HIGH 22	MEDIUM 15
	<b>Risk Treatments in Place: SWMS Load Restraint</b> Ensure that all operators follow the approved SWMS/SOP when restraining this machine for transport.		
	<b>References:</b> Work Health & Safety Act & Regulations-		
OPERATION	 <b>INCORRECT OPERATION</b>	HIGH 22	MEDIUM 15
	<b>Risk Treatments in Place: Operation Handbook</b> The manufacturer's operation handbook has been supplied for this item of plant.		
	This handbook must be available at all times to all potential operators and supervisory staff. All potential operators must read and be familiar with this handbook prior to operating.		
	A complete risk assessment/Job Safety Analysis must be undertaken covering all operating processes and environments associated with this item of plant. SWMS should be produced for specific tasks associated with use of this item of plant.		
	<b>References:</b> Work Health & Safety Act & Regulations-		






HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
 <b>INCORRECT OPERATION</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Pre-op Checklist Roller Smooth Drum Self Propelled</b> A pre-operational checklist is available for this Roller, Smooth Drum Self Propelled. All operators must complete this checklist prior to operating this Roller, Smooth Drum Self Propelled.		
<b>References:</b> Work Health & Safety Act & Regulations-		
 <b>INCORRECT OPERATION</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: SOP Roller, Smooth Drum Self Propelled</b> Safe Operation Procedures are available for this Roller, Smooth Drum Self Propelled. The information in the Safe Operation Procedures must be followed at all times whilst operating this Roller, Smooth Drum Self Propelled.		
<b>References:</b> Work Health & Safety Act & Regulations-		
 <b>INCORRECT OPERATION</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Control Labels</b> All controls including all levers, buttons, pedals, switches etc. are clearly labelled as to their purpose and method of operation. These labels must be maintained in a clean and serviceable condition at all times.		
<b>References:</b> AS/NZS4024.1905		
 <b>FALLING, CRUSHING</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Passenger Seat Label</b> This item of plant is fitted with a clear hazard warning label re: Operator only, No passengers. Passengers must not be carried at anytime. This label must be clear and legible at all times whilst this item of plant is in operation.		
Legislation: State Health & Safety Legislation & Regulation		
<b>References:</b> AS1319-		
 <b>CRUSHING</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: ROPS Label</b> The warning label stating that the ROPS must not be damaged at any time (including cuts, drill holes and welds) must be present, clean and legible at all times.		
<b>References:</b> ISO3471		
 <b>CRUSHING</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: ROPS seat belt label</b> The advisory label stating that a "ROPS is fitted seatbelts must be worn" must be followed at all times whilst operating this item of plant. This label must be present, clean and legible at all times.		
<b>References:</b> AS2294, ISO3471		
 <b>COLLISION</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Phone Use label</b> This item of plant is fitted with an instruction label advising that mobile phones must not be used whilst operating this machine. Accordingly all operators must not use a mobile phone at any time whilst operating machine. If phone use is necessary then operator must place machine in park configuration in a safe position prior to phone use. Operators MUST adhere to this advice at all times.		
This label must be clear and legible at all times whilst this item of plant is in operation.		
<b>References:</b> AS1319- , ISO31000		









HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
 <b>POISONING, EXPLOSION, BURNS</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Tank ID Label</b> The tank(s) on this item of plant have clear, legible label(s) identifying their contents, and if appropriate any necessary controls re: the contents. These must be present, clear and legible at all times. (this includes radiator, hydraulic and petrol/diesel tanks) <b>References:</b> Work Health & Safety Act & Regulations-		
 <b>CRUSHING</b>	HIGH 21	MEDIUM 15
<b>Risk Treatments in Place: Articulated Joint Crush Label</b> This item of plant has clear hazard warning labels re: crush zone, keep clear, that are attached to each side of the articulated joint. These must be present, clear and legible at all times whilst this item of plant is in operation. <b>References:</b> ISO20474- , AS/NZS4024.1201		
 <b>HEARING LOSS</b>	HIGH 19	MEDIUM 14
<b>Risk Treatments in Place: Hearing Protection Label - Bystanders</b> The hazard warning labels re: wearing of hearing protection for bystanders attached to this item of plant refer to the level of noise produced. Permanent hearing damage will result if hearing protection is not worn. These labels must be present, clear and legible at all times whilst this item of plant is in operation. <b>References:</b> AS/NZS1269, AS3781-		
 <b>HEARING LOSS</b>	HIGH 19	MEDIUM 14
<b>Risk Treatments in Place: Hearing Protection Label - Operator</b> The hazard warning label(s) re: wearing of hearing protection attached to this item of plant refer to the level of noise produced. Permanent hearing damage will result if hearing protection is not worn. These labels must be present, clear and legible at all times whilst this item of plant is in operation. <b>References:</b> AS/NZS1269, AS3781-		
 <b>BURNS, ENTANGLEMENT, SHEARING</b>	HIGH 19	MEDIUM 13
<b>Risk Treatments in Place: Engine Guard Label</b> The engine fan and alternator belts, pulleys and gears are guarded. These guards have clear legible hazard warning labels re do not open or remove guards while engine is running. These labels must be present, legible and easily seen at all times whilst this item of plant is in operation. <b>References:</b> AS1319- , AS/NZS4024.1201		
 <b>FIRE</b>	MEDIUM 13	LOW 4
<b>Risk Treatments in Place: Fire Extinguisher</b> This item of plant is fitted with an approved and maintained fire extinguisher. Fire extinguisher(s) must be present and fully functional at all times. They must be readily accessible to the operator. Regular inspections must also be carried out in accordance with the manufacturer's requirements and AS 1851 – 1995 <b>References:</b> AS/NZS1841, AS1851		
 <b>COLLISION, CRUSHING</b>	MEDIUM 12	LOW 6
<b>Risk Treatments in Place: Warning Device (horn)</b> This item of plant is fitted with a fully functional audible warning device such as a horn. This must be easily accessed by the operator, and easily identifiable by nearby pedestrians.  All operators should ensure the warning devices are functional at the start of each shift, by completing pre-start checklists. Warning devices should operate automatically where appropriate (eg reversing) <b>References:</b> ISO7731, ISO9533		






HAZARD(S)		Prelim. Risk Rating	Residual Risk Rating
	COLLISION, STRIKING, CRUSHING	MEDIUM 12	LOW 6
<b>Risk Treatments in Place: Tail Swing Label</b> The rear of this item of plant has a hazard warning label re: general plant movement, tail swing, keep clear. It must be present and fully functional and serviceable at all times. <b>References:</b> ISO20474-			
	COLLISION	MEDIUM 9	LOW 5
<b>Risk Treatments in Place: Recovery Point Label</b> This item of plant is fitted with a hazard warning label adjacent the recovery tow point which states "Danger – Read manufacturer's towing instructions before towing. Failure to do so could result in DEATH or SERIOUS INJURY." This label must be clear and legible at all times whilst this item of plant is in operation. <b>References:</b> ISO31000			
	COLLISION, CRUSHING	CRITICAL 24	MEDIUM 15
<b>Risk Treatments in Place: Park Brake</b> The park brake fitted to this item of plant is fully functional at all times. The park brake must be regularly inspected and tested. These inspections and tests must be documented as part of your plant safety programme. <b>References:</b> AS2958			
	STRIKING, ENTANGLEMENT, COLLISION, CRUSHING	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Neutral Start</b> This item of plant has neutral start control in place. It must be fully functional and serviceable at all times whilst this item of plant is in operation. <b>References:</b> AS4024.1603			
	CRUSHING	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Seat Belt</b> This item of plant is fitted with an operator seat belt. This seat belt must be free from damage, and permanently and sturdily attached at all times whilst this item of plant is in operation. Operators must use this seat belt at all times during operation. <b>References:</b> ISO6683			
	CRUSHING	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Earthmoving ROPS</b> A Roll Over Protective Structure (ROPS) to AS 2294, ISO 3471, ISO 12117.1 or 2 or SAE J1040 is fitted to this item of plant. A permanent label stating this standard must be attached to the structure at all times. It must also carry a warning label re: wearing of seat belts at all times whilst this item of plant is in operation, and accordingly seat belts must be worn at all times during operation. <b>References:</b> AS2294, ISO3471			
	COLLISION, CRUSHING	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Reverse Movement Alarm</b> A reverse movement sensor alarm is fitted to this item of plant. It must be fully functional and serviceable at all times whilst this item of plant is in operation. <b>References:</b> ISO7731, ISO9533			








DESIGN COMPLIANCE










HAZARD(S)		Prelim. Risk Rating	Residual Risk Rating
	<b>STRIKING, BURNS</b>	HIGH 22	MEDIUM 15
<p><b>Risk Treatments in Place: Hydraulic Hoses</b></p> <p>This item of plant has hydraulic hoses. These hoses must be inspected each day or before each use for wear and tear. If there are visible signs of wear immediate action must be taken to control the risk arising from this wear. These inspections must be documented.</p> <p>Hydraulic fluid at high pressure can penetrate the skin, never use any part of your body to check for leaks. If oil penetrates the skin seek medical advice immediately. Always use a piece of cardboard or similar to check for suspected leaks.</p> <p>Hydraulic pressure can be stored and is a hazard. Before disconnection or connection of hydraulic hoses complete the following steps -</p> <ol style="list-style-type: none"> <li>1. Stop engine</li> <li>2. Keep all bystanders clear of the work area</li> <li>3. Refer to operators manual as to methods to release pressure</li> <li>4. Wait 5 minutes</li> </ol> <p><b>References:</b> AS2671, AS4024</p>			
	<b>COLLISION, POOR VISIBILITY</b>	HIGH 22	MEDIUM 15
<p><b>Risk Treatments in Place: Machine Lights</b></p> <p>This item of plant is fitted with self contained lighting. All of these lights must be fully functional and serviceable whilst this item of plant is in operation in areas of reduced light. If any of these lights stop working the operation must cease immediately and the faulty light be repaired before operation can continue in the areas of reduced light.</p> <p><b>References:</b> ISO20474-</p>			
	<b>ENTANGLEMENT</b>	HIGH 22	MEDIUM 15
<p><b>Risk Treatments in Place: Engine Guards</b></p> <p>The engine fan and alternator belts, pulleys and gears are guarded. These guards must be present and fully functional and serviceable at all times whilst this item of plant is in operation.</p> <p><b>References:</b> AS/NZS4024.1601</p>			
	<b>CRUSHING</b>	HIGH 22	MEDIUM 15
<p><b>Risk Treatments in Place: Articulated Joint Locking Device</b></p> <p>This item of plant is fitted with a safety locking device to the articulated joint (either a locking arm or cylinder locking devices) and clear, legible instruction labels on both sides of the articulated joint which state that either of these devices must be engaged during any maintenance to the articulated joint. These must be present, serviceable and employed at all times whilst this item of plant is in operation.</p> <p><b>References:</b> AS1319- , AS/NZS4024.1201</p>			
	<b>FALLING</b>	HIGH 22	MEDIUM 15
<p><b>Risk Treatments in Place: Handrails</b></p> <p>All operator work platforms above 1.8 metres from the ground or nearest platform have an approved handrail. It must be present and fully functional and serviceable at all times.</p> <p>Handrails must meet the following requirements at all times whilst this item of plant is in operation -</p> <ol style="list-style-type: none"> <li>1. All handrails are at least 0.95m</li> <li>2. All handrails have a mid rail</li> <li>3. All sides and ends have a kick plate which is at least 100mm high</li> </ol> <p><b>References:</b> AS1657</p>			

HAZARD(S)		Prelim. Risk Rating	Residual Risk Rating
	<b>COLLISION</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Beacon</b> This item of plant is fitted with a safety beacon. This beacon must meet the following criteria at all times whilst this item of plant fitted is in operation - - Is visible up to 200m in all directions (allowing for intermittent obstruction from the plant structure whilst the plant is in operation) - Is fitted in the most appropriate location on machine to maximise visibility without risking continual damage  NOTE: more than one beacon may be fitted to meet these criteria. <b>References:</b> ISO20474-			
	<b>OPERATIONAL MALFUNCTION</b>	HIGH 22	LOW 2
<b>Risk Treatments in Place: Plant Modification</b> The plant is in original condition. <b>References:</b> ISO31000			
	<b>ENTRAPMENT</b>	HIGH 21	MEDIUM 15
<b>Risk Treatments in Place: Two Operator Exits</b> The operator cabin/work area on this item of plant has a minimum of two (2) possible exits. These must be functional and accessible at all times whenever the item of plant is manned, whether during operation or maintenance activities. <b>References:</b> AS3868			
	<b>POOR VISIBILITY</b>	HIGH 21	MEDIUM 15
<b>Risk Treatments in Place: Windscreen Wipers</b> The windscreen wipers and washers fitted to this item of plant must be fully functional at all times. <b>References:</b> AS/NZS4024.1201			
	<b>INCORRECT OPERATION</b>	HIGH 20	MEDIUM 14
<b>Risk Treatments in Place: Intuitive Controls</b> The controls fitted to this item of plant are orientated so that the movement of the control is consistent with the action of the machine e.g. moving a control lever to the left results in the machine turning to the left. This design feature must be maintained at all times whilst this item of plant is in operation. <b>References:</b> AS/NZS4024.1906			
	<b>STRAINS</b>	HIGH 19	LOW 5
<b>Risk Treatments in Place: Controls Ergonomics</b> All controls including all levers, buttons, pedals, switches etc, are placed near the operator work position and are easy to reach and operate during the execution of the operator's normal duties. This applies for all persons within the 95th percentile of the normal population distribution. <b>References:</b> AS/NZS4024.1901			
	<b>STRIKING, BURNS</b>	HIGH 19	LOW 5
<b>Risk Treatments in Place: Hydraulic Hose Failure Shield</b> This item of plant is fitted with a sturdy, permanent shield(s) between the hydraulic hoses and any body parts of the operator to provide protection during a hose or component failure. This shield(s) must be present and fully functional at all times whilst this item of plant is in operation. <b>References:</b> AS2671, AS4024, ISO4413			
	<b>SLIPPING, INCORRECT OPERATION</b>	HIGH 17	LOW 6
<b>Risk Treatments in Place: Control Levers/Pedals/Buttons</b> All controls including all levers, buttons, pedals, switches etc. must be kept non-slip and free from damage at all times. <b>References:</b> AS/NZS4024.1901			

HAZARD(S)		Prelim. Risk Rating	Residual Risk Rating
	<b>INCORRECT OPERATION, OPERATIONAL MALFUNCTION</b>	MEDIUM 14	MEDIUM 13
	<b>Risk Treatments in Place: Restricted Access Switches</b> This item of plant is fitted with a device to restrict operators. A code/key must only be given to those that have appropriate experience or training. <b>References:</b> AS/NZS4024.1201		
	<b>SLIPPING</b>	MEDIUM 12	LOW 6
	<b>Risk Treatments in Place: Operator Work Area Access/Egress</b> Safe access and egress to the cabin/work area(s) must be maintained at all times whilst this item of plant is in operation. It must be non slip, free from damage, located at a height so as to not cause undue body stresses and strains with three points of contact available to personnel at all times. All personnel must - 1. Always face the item of plant during access and egress. 2. Always maintain three points of contact during access and egress. 3. Never carry an object(s) in his/her hand(s) during access and egress. 4. Never jump off machine. <b>References:</b> AS3868		
	<b>SLIPPING, FALLING</b>	MEDIUM 12	LOW 6
	<b>Risk Treatments in Place: Access/Egress Instruction Label</b> An instruction label is fitted adjacent access/egress areas to advise all personnel of the following - 1. Always face the item of plant during access and egress. 2. Always maintain three points of contact during access and egress. 3. Ensure the steps are clean. 4. Never jump off machine. This label must be clear and legible at all times whilst this item of plant is in operation. <b>References:</b> ISO31000		
	<b>COLLISION, POOR VISIBILITY</b>	MEDIUM 12	MEDIUM 11
	<b>Risk Treatments in Place: Operator Mirrors</b> The operator rear view mirrors fitted to this item of plant must be fully functional and kept clean at all times. There must always be at least one mirror on each side to provide rear vision to the operator to avoid striking bystanders and objects. <b>References:</b> ISO14401.1, AS/NZS4024.1201		
	<b>SLIPPING, FALLING, TRIPPING</b>	MEDIUM 12	LOW 6
	<b>Risk Treatments in Place: Engine Bay Access</b> Safe access and egress to the engine bay/work area(s) must be maintained at all times whilst this item of plant is in operation. It must be non slip, free from damage, located at a height so as to not cause undue body stresses and strains with three points of contact available to personnel at all times. All personnel must - 1. Always face the item of plant during access and egress. 2. Always maintain three points of contact during access and egress. 3. Never carry an object(s) in his/her hand(s) during access and egress. 4. Never jump off machine. <b>References:</b> AS3868		

HAZARD(S)		Prelim. Risk Rating	Residual Risk Rating
 ELECTRIC SHOCK, BURNS	MEDIUM 12	LOW 6	
<b>Risk Treatments in Place: Battery Cover</b> All batteries fitted to this item of plant are constrained to prevent displacement & fitted with a permanent sturdy cover which allows for ventilation. The constraint and cover must be present and fully functional and serviceable at all times whilst this item of plant is in operation. <b>References:</b> AS/NZS4024.1201			
 SLIPPING, INCORRECT OPERATION	MEDIUM 9	LOW 4	
<b>Risk Treatments in Place: Operator Floor</b> All work area floors are non-slip and free from damage & debris.  Floor area must remain non-slip and free from damage & debris, including rubbish, tools and other items, at all times whilst this item of plant is in use. <b>References:</b> AS/NZS4024.1201, ISO20474-			
 STRAINS	MEDIUM 9	LOW 1	
<b>Risk Treatments in Place: Operator Seat</b> The operator seat fitted to this item of plant must remain free from damage and tears, and be permanently and securely fitted at all times. <b>References:</b> AS/NZS4024.1401 , ISO20474-			
 HEAT STROKE, DEHYDRATION	MEDIUM 9	LOW 4	
<b>Risk Treatments in Place: Air Conditioning</b> This item of plant is fitted with an air conditioned cabin. This air conditioned cabin helps control the air quality and temperature for the operator and also provides shade from the sun. The air conditioner must be fully functional and serviceable at all times whilst this item of plant is in operation. <b>References:</b> ISO31000			
 BURNS	MEDIUM 9	LOW 5	
<b>Risk Treatments in Place: Exhaust</b> The engine exhaust on this item of plant is fitted with a guard to prevent injury to any person and control the risk of initiating a fire. It must be present and fully functional and serviceable at all times whilst this item of plant is in operation. <b>References:</b> AS/NZS4024.1201			
 COLLISION, CRUSHING	CRITICAL 25	MEDIUM 15	
<b>Risk Treatments in Place: Brakes</b> The brakes fitted to this item of plant must be fully functional at all times whilst this item of plant is in operation. The brakes must be regularly inspected and tested. These inspections and tests must be documented as part of your plant safety programme. <b>References:</b> AS2958			
 CURRENT OR PREVIOUS STRUCTURAL DAMAGE	CRITICAL 25	MEDIUM 15	
<b>Risk Treatments in Place: Structural Integrity</b> Regular checks for structural damage must be undertaken. Look for cracks in frames/chassis (current or repaired), bends or damage to structural components, etc. <b>References:</b> ISO31000			

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
 <b>INCORRECT OPERATION</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Maintenance Manual</b> The manufacturer's maintenance manual(s) has been supplied for this item of plant.  These manual(s) must be available at all times to all users and maintenance staff of this item of plant. All users and maintenance staff must read and be familiar with these handbook(s) prior to maintaining or repairing this item of plant.  A complete risk assessment/JSEA must be undertaken covering all inspection, maintenance, servicing and transportation requirements of this piece of plant prior to use.  A full assessment of the competence of people using the book(s) must also be undertaken <b>References:</b> Work Health & Safety Act & Regulations-		
 <b>CRUSHING</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: ROPS Damage</b> The Roll Over Protective Structure (ROPS) fitted to this item of plant must remain free from damage at all times whilst this item of plant is in operation. <b>References:</b> AS2294, ISO3471		
 <b>STRIKING, BURNS</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Hydraulic Damage</b> The hydraulic hoses to this item of plant are free from damage and protected against damage arising from contact with the plant structure. Ensure that hoses are free from damage and that protection is in place at all times whilst this item of plant is in operation. Inspection of the hydraulic hoses and protection system should be conducted regularly and documented as part of your plant safety programme. <b>References:</b> AS2671, AS4024, ISO4413		
 <b>OPERATIONAL MALFUNCTION</b>	HIGH 22	LOW 2
<b>Risk Treatments in Place: Major Fluid Leaks</b> This item of plant must remain free from leaks at all times whilst in operation (this includes engine, transmission, cooling system, air, fuel, drive line, wheel hubs, steering and hydraulics). Development of a major leak will require this item of plant to be stood-down until repaired. Minor leaks detected must be repaired within 1-14 days. <b>References:</b> ISO31000		
 <b>COLLISION, INSTABILITY</b>	HIGH 22	MEDIUM 15
<b>Risk Treatments in Place: Tyres</b> The tyres and wheel components must be inspected as part of a "pre start" checklist. These inspections must be documented as part of your plant safety programme. <b>References:</b> ISO31000		
 <b>OPERATIONAL MALFUNCTION</b>	HIGH 21	MEDIUM 15
<b>Risk Treatments in Place: Service Records</b> Service and maintenance records are available for this item of plant.  These records must continue to be maintained and stored in a secure area as part of your plant safety management programme. This programme includes the undertaking of regular inspections concerning the general condition of the item of plant including (but not limited to) tyre condition, oil levels and wear and tear on critical items such as brakes and steering, etc. All OEM prescribed, scheduled and non scheduled maintenance must also be documented as part of these records and attended to within a risk management framework. <b>References:</b> Work Health & Safety Act & Regulations-		

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
 <b>POOR VISIBILITY</b>	MEDIUM 9	LOW 4
<b>Risk Treatments in Place: Windows &amp; Screens</b> Ensure the cabin/work area safety glass windows and screens are kept clean and free from cracks and other damage at all times whilst this item of plant is in use.		
<b>References:</b> ISO20474- , AS/NZS4024.1201		

## SECTION 6 IMAGES AND NOTES

### IMAGES

- No Images Available -

### NOTES

- No Notes Available -