

Is there a past experience or background material that may assist in the assessment:

Existing controls
 Safe Operating Procedures
 Manuals
 Incident or near-miss reports

Standards
 Code of Practice
 Training materials
 Incident investigations

- NSW Work Health and Safety Act 2011
- NSW Work Health and Safety Regulation 2011
- AS 1319 Safety Signs for the Occupational Environment
- AS/NZS 2210 (1980) Type 1 Safety Footwear
- AS/NZS1337:1:2010 – Personal Eye and face protection
- AS/NZS 2161.1 Occupational Protective glove
- AS 2664-1983 Earthmoving machinery - Seat belts and seat
- AS 2294.1-1997 Earth-moving machinery - Protective structures
- How to Manage Work Health & Safety Risks
- Hazardous Manual Tasks
- Managing the Work Environment & Facilities
- Work Health & Safety Consultation, Cooperation & Coordination
- Construction Work
- Managing Risks of Hazardous Chemicals
- Working in the vicinity of overhead and underground electric lines
- Managing the risks of plant in the workplace
- Plant operator’s manual

This document has been prepared to cover the hire or sale of this item of plant between the client and Orange Hire/Jaybro group
 This document is authored and made available to the client to meet duty of care obligations as set out in relevant state and territory health and safety regulations for the supply of plant.
 The hazards associated with all aspects of this item of plant have been identified as far as practical by visual inspection by a qualified person. This item of plant is hired/sold with known and unknown safety hazards. No physical testing has been conducted unless documented otherwise. This document is not intended to provide definitive information on the structure, specification or use of the item of plant. Any information provided on use and specs either written or verbal from Orange Hire Staff should be used as a guide only until otherwise verified by the manufacturer. This item of plant, the site it operates on and the task it undertakes should be risk assessed by the client. This plant must be operated 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, PCBU and operator to exercise a duty of care in the safe operation and care of plant. Before this item of plant is used at any workplace it must be inspected to ensure it is in a fully operational, safe and serviceable and that operators and maintenance personnel are appropriately trained in the use & maintenance of this item of plant.

Hierarchy of risk control

<p>HIGHEST</p> <p>↑</p> <p>Level of health and safety protection</p> <p>↓</p> <p>LOWEST</p>	<p>Level 1</p> <p>Eliminate the hazards</p> <p>↓</p>	<p>MOST</p> <p>↑</p> <p>Reliability of control measures</p> <p>↓</p> <p>LEAST</p>
	<p>Level 2</p> <p>Substitute the hazard with something safer</p> <p>Isolate the hazard from people</p> <p>Reduce the risks through engineering controls</p> <p>↓</p>	
	<p>Level 3</p> <p>Reduce exposure to the hazard using administrative actions</p> <p>Use personal protective equipment (PPE)</p>	

RISK MATRIX

Step 1: Determine Likelihood	
What is the possibility that the event will occur?	
Likelihood	Criteria
Almost certain	Expected in most circumstances.
Likely	Will probably occur in most circumstances
Possible	Might occur at some time
Unlikely	Could occur at some time

Step 2: Determine Consequence			
What will be the expected outcome?			
Level of Effect:	Example of each level:	Level of Effect:	Example of each level:
Minor	First Aid treatment only; no lost time injury	Negligible Discharge	Minor clean up necessary
Moderate	Medical treatment; serious injuries, temporary partial disability; lost time injury < 7 days	Moderate Breach	Spill kit deployed, drains and gutters secured; Jaybro/Orange Hire personnel and site contact notified
Major	Hospital admittance; extensive injuries; lost time injury > 7 days; Permanent Total Disability injury; death	Major Breach of Environmental Statutes	Fire brigade services required for clean-up; Public diverted or evacuated. Principal Contractor notified.
Catastrophic	Multiple Permanent Total Disability injuries; multiple deaths	Shutdown of Project due to Environmental Breach	Site shutdown and emergency services required; evacuation of personnel and public

Step 3: Determine the risk score						
Using the above steps, determine the risk score?						
		Consequences				
		People	Minor	Moderate	Major	Catastrophic
		Environment	Negligible Spill/effect	Moderate Breach of Environmental law	Major Breach of Environmental law	Shutdown of Project due to Environmental Breach
Likelihood	Almost certain	3 High	4 Severe	4 Severe	4 Severe	
	Likely	3 High	3 High	4 Severe	4 Severe	
	Possible	2 Moderate	3 High	4 Severe	4 Severe	
	Unlikely	1 Low	2 Moderate	3 High	4 Severe	

Step 4: Record risk score on worksheet (Note – Risk scores are a subjective value and should only be used for comparison and to engender discussion.)	
Score	Action
4 Severe	DO NOT PROCEED. Requires immediate attention. Introduce further high-level controls to lower the risk level. Re-assess before proceeding.
3 High	Review before commencing work. Introduce new controls and/or maintain high-level controls to lower the risk level. Monitor frequently to ensure control measures are working.
2 Moderate	Maintain control measures. Proceed with work. Monitor and review regularly, and if any equipment/people/materials/work processes or procedures change.
1 Low	Record and monitor. Proceed with work. Review regularly, and if any equipment/people/materials/work processes or procedures change.

Identify the Hazards and Risk Controls

<p>For each of the following HAZARD CATEGORY sections:</p> <ul style="list-style-type: none"> • Check the box for each hazard that you identify for the plant; • Apply a risk rating based on the Risk Matrix • In the comments box, describe what the hazards are and the consequences; • Specify the risk control type from the hierarchy of control at right, for each current or proposed risk control; • Explain what controls will be put in place for the hazard in CONTROL DESCRIPTION • Determine the residual risk score using the Risk Matrix 	<p>Hierarchy of Control (Control Type)</p> <p>EI – Elimination S – Substitution En – Engineering Is – Isolation A – Administrative</p> <p>Other:</p> <p>T – Training H – Health Monitoring P – PPE G – Guarding</p>
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HAZARD CATEGORY	RISK RATING	COMMENTS WHAT ARE THE HAZARDS AND CONSEQUENCES?	CONTROL TYPE	CONTROL DESCRIPTION (CURRENT AND PROPOSED)	RESIDUAL RISK RATING
Can the following items become ENTANGLED with moving parts of the plant, or materials in motion: <input checked="" type="checkbox"/> Hair <input checked="" type="checkbox"/> Jewelry <input checked="" type="checkbox"/> Rags <input checked="" type="checkbox"/> Gloves <input checked="" type="checkbox"/> Clothing <input type="checkbox"/> Other – specify: _____	2M	wearing loose, torn or bulky clothing around engine may catch on working controls, projections or fans, pulleys and other moving parts. Hair, gloves and rags may become entangled in engine parts.	A-T-G	Do not wear loose, torn or bulky workwear while operating machine. Stop the machine before maintenance of any kind. Secure keys, tag out or isolate plant before maintenance. Do not operate plant with guards or covers removed.	1L
Can anyone be CRUSHED due to: <input type="checkbox"/> Falling, uncontrolled or unexpected movement of plant or load <input type="checkbox"/> Trapped under or between plant and materials/structure <input type="checkbox"/> Contact with moving parts during testing, inspection, maintenance, cleaning or repair <input type="checkbox"/> Being thrown off <input checked="" type="checkbox"/> Tipping or rolling over <input type="checkbox"/> Ingathering nip points <input type="checkbox"/> Other – specify: _____	3H	Risk of equipment tipping or rolling over during operation Risk of plant tipping or rolling over during transport on trailer or when towed	En - T-G	Plant is to be placed on solid, stable ground. Avoid trenches, pits, cut-ins, ditches and other drop offs. Skid Steer must be firmly secured to trailer using straps or chains rated for the load Use tie-down points on the trailer and loader Safety chains must be attached each time the loader is attached to a vehicle. No additional items can be attached when towed as this will affect stability	2M

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HAZARD CATEGORY	RISK RATING	COMMENTS WHAT ARE THE HAZARDS AND CONSEQUENCES?	CONTROL TYPE	CONTROL DESCRIPTION (CURRENT AND PROPOSED)	RESIDUAL RISK RATING
				<p>Never tow device for any distance with the attachment raised</p> <p>Do not exceed the maximum weight limit of any securing attachments or devices (straps, chains etc)</p> <p>do not attached other devices or items to the loader at any time (cables, ropes, flags etc.)</p> <p>keep the plant clear of mobile plant and traffic using barriers, barricades, traffic control</p> <p>Never park loader on surface more than 20°, face attachment downhill when stopped on a slope</p> <p>This machine operates in reverse. Operator is to move slowly and look over shoulder often.</p> <p>Never work under raised attachment.</p> <p>Do not operate across slopes more than 30°</p> <p>Ensure attachment is fitted correctly and all locking mechanisms double checked</p> <p>Pre-start check must be conducted including of ROPS/FOPS/OPG</p>	

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<p>Can anyone be CUT, STABBED or PUNCTURED by coming in contact with:</p> <p><input checked="" type="checkbox"/> Moving plant or parts <input type="checkbox"/> Sharp stationary edges <input checked="" type="checkbox"/> Sharp or ejected material <input type="checkbox"/> Other – specify: _____</p>	2M	Hands and arms may be pinched or cut when closing OPG and engine bay doors	A-T	Hand must be kept clear when closing OPG Recommend workers in area wear eye protection	1L
<p>SHEARING – Can anyone’s body parts be cut off between:</p> <p><input checked="" type="checkbox"/> Two parts of the plant <input checked="" type="checkbox"/> A part of the plant and material/structure <input type="checkbox"/> Other – specify: _____</p>	3H	Contacting moving parts	A-T-G	3m clearance from plant at all times Operator must secure OPG and keep extremities in cabin at all times no persons to ride on loader at any time Keep clear of structures	2M
<p>Can anyone be STRUCK by moving objects due to:</p> <p><input type="checkbox"/> Plant or work pieces being ejected or disintegrated <input checked="" type="checkbox"/> Plant Mobility <input checked="" type="checkbox"/> Uncontrolled or unexpected plant movement <input type="checkbox"/> Other – specify: _____</p>	3H	If not properly secured plant may become mobile unexpectedly plant may tip if operated on excessive slopes	A-t-En	Plant is to be placed on solid, stable ground. Avoid trenches, pits, cut-ins, ditches and other drop offs. Never park loader on surface more than 20°, face attachment downhill when stopped on a slope This machine operates in reverse. Operator is to move slowly and look over shoulder often. Disenbark loader only if the attachment is facing downhill and ground is firm. Otherwise the plant may slide backwards and strike the operator once they alight. Never work under raised attachment. Do not operate across slopes more than 30° preoperation check of all areas as directed by checklist or operators manual 3m clearance around plant at all times recommend hi-visibility workwear onsite and around plant.	2M
<p>Can anyone using the plant or in the vicinity of the plant, SLIP, TRIP or FALL due to:</p>	2M	Slips trips and falls may occur from trailer	A-T- PPE	Safety footwear must be worn during operation and transporting the device	1L

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<input type="checkbox"/> The working environment <input type="checkbox"/> Uneven work surface <input type="checkbox"/> Lack of guardrails <input type="checkbox"/> Poor housekeeping <input checked="" type="checkbox"/> Slippery work surfaces <input type="checkbox"/> Cables or Hoses <input type="checkbox"/> Other – specify: _____			Never carry riders on the device Conduct pre-start check of device During transport: When ramps are installed, access trailer via ramp Care must be taken in wet conditions Use three points of contact when alighting and entering plant	
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FRICITION - Can anyone be burnt due to:					
<input type="checkbox"/> Contact with moving parts or surfaces of the plant <input type="checkbox"/> Material handled by the plant <input type="checkbox"/> Other factors – specify: _____					
Can anyone be injured by <u>ELECTRICAL</u> shock or burnt due to:	3H	Risk of striking underground services	A-G-en	Site induction and planning is the responsibility of the principal contractor. Unregulated sites may use 'dial before you dig' information Operator and principal contractor must identify areas with underground services and check local area for evidence of underground services For example: <ul style="list-style-type: none"> •Hydrants, signs of previous excavation (low spots in ground, etc.) •meters/cabinets •utility poles •outbuildings with utilities running to them •tanks •buried utility sign post along fence line •If possible, verify using an electronic locator. Ensure all site personnel receive appropriate instruction on all electrical service locations and associated control measures Minimum approach distances must be adhered to at all times The plant must be isolated prior to maintenance. Safety labels must be maintained	2M
EMERGENCY STOP BUTTONS				Conduct pre-start check of device and	

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<input type="checkbox"/> Lack of prominence of emergency stop <input type="checkbox"/> Emergency stop not being fail to safe <input type="checkbox"/> Emergency stop not red in colour <input type="checkbox"/> Stored energy or air pressure being released slowly <input type="checkbox"/> Lack of clarity of emergency stop markings <input type="checkbox"/> Restarting plant by resetting the emergency stop button <input type="checkbox"/> Other – specify: _____				ensure all brakes, locks and button are in working order	
<p style="background-color: #4F81BD; color: white; padding: 2px;">Can anyone be injured by an <u>EXPLOSION</u> of the following items triggered by operation</p> <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Vapours <input type="checkbox"/> Other – specify: _____ <input type="checkbox"/> Dust <input checked="" type="checkbox"/> Liquids 	3H	Fire, explosion or personal injury - Risk of explosion or fire due to incorrect fuel handling or refueling Battery may explode	T-A	Site induction and planning is the responsibility of the principal contractor. Unregulated sites may use 'dial before you dig' information Operator and principal contractor must identify areas with underground services and check local area for evidence of underground services For example: <ul style="list-style-type: none"> •Hydrants, signs of previous excavation (low spots in ground, etc.) •meters/cabinets •utility poles •outbuildings with utilities running to them •tanks •buried utility sign post along fence line •If possible, verify using an electronic locator. Ensure all site personnel receive appropriate instruction on all electrical service locations and associated control measures Minimum approach distances must be adhered to at all times Safety labels must be maintained	2M

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<p>ENVIRONMENTAL CONDITIONS – Can anyone suffer ill health due to:</p> <p><input type="checkbox"/> Exposure to high temperatures <input type="checkbox"/> Exposure to low temperatures <input type="checkbox"/> Rain <input type="checkbox"/> Sun <input type="checkbox"/> Flora <input type="checkbox"/> Fauna <input type="checkbox"/> Other – specify: _____</p>	3H	<p>Outdoor hazards apply to this plant including UV exposure Rain Hazardous plants or animals</p>	A-T-PPE-	<p>Operators are to apply sun cream as necessary. Long sleeve shirt, pants, hat and tinted safety glasses are to be worn.</p> <p>Weather conditions are to be monitored and work ceased when conditions are inappropriate for plant use – e.g. extreme weather or heavy rain</p> <p>Site induction is to take place and plant, animal hazards discussed</p> <p>All plants and animals are to be avoided by operator. Cabin is to be inspected before use and plant material removed.</p> <p>Environmental wash-down procedures to take place in high risk areas to prevent spread of pests (e.g. fire ants)</p>	2M
<p>HIGH TEMPERATURE or FIRE – Can anyone:</p> <p><input checked="" type="checkbox"/> Be burnt or scolded by hot parts of the plant <input checked="" type="checkbox"/> Be injured by fire <input type="checkbox"/> Other – specify: _____</p>	3H	<p>Hot areas of plant may be contacted during maintenance Sparks from maintenance may cause fire refueling may cause fire</p>	A-PPE- Is-A-T	<p>The plant must be isolated prior to maintenance. Gloves must be worn by maintenance personnel</p> <p>Maintenance must take place in an isolated area clear of dry grass/vegetation, wood and other flammable items.</p> <p>All welding must be conducted with a hot work permit and after consultation with site safety/management</p> <p>Refueling must take place designated area. Funnel must be used and overflow/spills cleared up.</p> <p>Refueling must only occur on cooled machine.</p> <p>PPE must be used as per SDS.</p> <p>No smoking during refueling and static electricity must be discharged</p> <p>Fire extinguisher is available in all cabins and regularly inspected</p> <p>Fuel tank labels to be legible</p> <p>Pre-start inspection to identify missing or damaged guards</p>	2M
<p>Can anyone come into contact with <u>FLUIDS</u> or <u>GASES</u> under HIGH PRESSURE due to:</p>	3H	<p>Hydraulic fluid under pressure may escape if the plant fails/malfunctions</p>	A-T-G-PPE	<p>Exclusion zone for pedestrians must be enforced</p>	1L

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<input checked="" type="checkbox"/> Failure of the plant? <input type="checkbox"/> Misuse of the plant? <input type="checkbox"/> Other – specify: _____			<p>Regular maintenance is to take place and the log book must be checked each day. Pre-start check takes place by operator.</p> <p>Maintenance personnel are to wear gloves and safety glasses.</p> <p>All guards to remain in place at all times.</p> <p>Tag plant out and report if it operates unexpectedly including vibration, noises, loss of power or hydraulic pressure or warning lights are illuminated.</p>	
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<p>ERGONOMIC (incl manual handling) - Can anyone be injured due to:</p> <p><input type="checkbox"/> Seating design <input checked="" type="checkbox"/> Excessive effort <input type="checkbox"/> Poor lighting</p> <p><input type="checkbox"/> Repetitive body movement</p> <p><input type="checkbox"/> Poor workplace or plant design <input type="checkbox"/> Controls layout and design</p> <p><input type="checkbox"/> Other factors – specify: _____</p>	2M	<p>Manual movement of the trailer presents a manual handling risk</p> <p>Jumping or stepping off operator platform may cause slips or falls</p> <p>Loading of silt fence material roll presents manual handling hazard</p>	A-T	<p>Moving the device manual must be avoided.</p> <p>If it cannot be avoided, two or more people must perform this task. Remove or fold up ramps before moving</p> <p>Conduct pre-start check of device operator is not to jump from operators platform. step from platform onto solid stable ground. safety footwear must be worn.</p> <p>Proper safe lifting techniques must be used to lift and load the silt fence material roll. Use two person lift where possible. Do not sustain the load for long periods. use mechanical lifting aides were possible.</p>	1L
<p>RADIATION Can anyone be injured/suffer ill health due to:</p> <p><input type="checkbox"/> Lasers <input type="checkbox"/> Ultraviolet light</p> <p><input type="checkbox"/> Microwaves <input type="checkbox"/> Radio waves</p> <p><input type="checkbox"/> Infrared <input type="checkbox"/> Other – specify: _____</p>					
<p>Can anyone be injured or suffer ill health from exposure to OTHER HAZARDS:</p> <p><input checked="" type="checkbox"/> Chemicals <input checked="" type="checkbox"/> Fumes</p> <p><input checked="" type="checkbox"/> Vibration <input checked="" type="checkbox"/> Noise</p> <p><input type="checkbox"/> Biological <input type="checkbox"/> Dusts</p> <p><input type="checkbox"/> Lighting <input type="checkbox"/> Gases or vapours</p> <p><input checked="" type="checkbox"/> Other – specify: <u>Environmental</u></p>	2M	<p>Persons may be exposed to substances when refueling</p> <p>Plant operation exposes user to sub-85dB noise level.</p> <p>Plant must be operated in fair lighting conditions - lights and operating schedule are the responsibility of the site management.</p> <p>Maintenance personnel may be exposed to battery chemicals</p>	A-Is-PPE-T	<p>Refueling must take place designated area. Funnel must be used and overflow/spills cleared up.</p> <p>Refueling must only occur on cooled machine.</p> <p>PPE must be used as per SDS.</p> <p>No smoking during refueling and static electricity must be discharged</p> <p>Competent persons only to perform maintenance.</p>	1L

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Endorsement					
Name:	Scott Montgomery	Position:	WHS Manager	Date:	04/04/2016
Document prepared by:	Scott Montgomery	Position:	WHS Manager		