



Australian Risk Assessment Configuration Record

Risk Assessment: DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740) Risk Assessment
Risk Assessment Number: 238889
Basis of Risk Assessment: SKJ002-025-001-2

Revision	Date	Operations Manual Reviewed	Impact Statement
238889AA	03 Feb 2021	211287AD	Initial Release.
238889AB	03 Mar 2022	211287AD	Manual review confirms no change to risk assessment.



RISK ASSESSMENT OF PLANT

DATE OF ASSESSMENT: 2/02/2021	MANUFACTURER: SKYJACK	ORGANISATION: SKYJACK AUSTRALIA
	DC ELECTRIC SCISSORS MODEL(S): (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)	
PRELIMINARY ASSESSMENT FOR REVIEW	RISK ASSESSMENT METHOD USED: SAFETY REVIEW	ADDRESS: LOT 272 Honeycomb Drive, Eastern Creek, NSW, 2766

This Hazard Identification and Risk Assessment has been prepared based on information available at the date of publication.

The assessment must be reviewed by all stakeholders and revised:

- (a) Having regard to the options and general arrangement of miscellaneous equipment/facilities that may be provided on the plant according to the end users requirements or specification;
- (b) According to the particular circumstances under which the plant is used and maintained;
- (c) As new hazards are identified or as risks are reassessed;
- (d) As new or revised control measures are implemented;
- (e) As and when work procedures are altered.

Although every attempt has been made to identify reasonably foreseeable circumstances no guarantee as to the completeness of this assessment is implied or provided.

This document is not to be interpreted as a compliance assessment; a separate verification should be undertaken on items of plant to determine if they comply with all relevant Australian Standards.

Please consult the relevant Work Health Safety Regulations for information regarding obligations of parties to conduct their own risk assessment. This risk assessment has been prepared on behalf of the organisation listed above and cannot be used by other parties to discharge any duties they may have under relevant law.

Documentation

Operators manual: 211287ADAA

Cover page

Maintenance Manual: 212508ABA
 Repair manual: 212508ABA
 Spare parts manual: 212506ABA
 Manual Supplements: 0

Description

Self-propelled	Scissor Lift	Type 3	Group A	Battery powered	Non-insulated
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Sound pressure level <76 dBA at work platform
 <76 dBA at ground controls
 Guaranteed sound power level <76 dBA

Safety Devices

Load Control	Position Control	Moment Limiting	Slope indication	Outriggers	Wheels	Speed Control	Motion Alarm	Secondary Guarding	Drive Enable System (Slew)	Platform Levelling
Load Sensing	Position Control	NA	Slope Alarm & interlock	NA	Solid Tyres	Elevated Drive Speed control	Motion Alarm	Active 2ndry Guarding	Indicator/Interlock	Master/Slave /Mechanical

Risk Ranking Matrix

Reference: ISO TR14121.1 Clause 6.5.2

Severity Se		Class Cl (Fr+Pr+Av)				Frequency Fr	Probability Pr	Avoidance Av
		4	5-7	8-10	11-13			
Death, losing an eye or arm	4	MEDIUM	HIGH	HIGH	HIGH	HIGH	≥1 h 5	very high 5
Permanent, losing fingers	3	LOW	MEDIUM	HIGH	HIGH	HIGH	<1 h - ≥ 24h 5	likely 4
Reversible, medical attention	2	LOW	LOW	MEDIUM	HIGH	HIGH	<24 h - ≥ 2w 4	possible 3 impossible 5
Reversible, first aid.	1	LOW	LOW	LOW	MEDIUM	HIGH	<2 w - ≥ 1y 3	rarely 2 possible 3
							<1 y 2	negligible 1 likely 1

Severity: The severity of the harm as an outcome of the hazard.

- 1 Scratches, bruises that are cured by first aid.
- 2 More severe injury, bruises, stabbing, which require medical attention from professionals
- 3 Normally irreversible injury. It will be slightly more difficult to continue work after healing
- 4 Irreversible injury in such a way that it will be very difficult to continue work, if at all.

Frequency: The average interval between frequency of exposure to the hazard.

- 2 The interval between exposure is more than 1 year.
- 3 The interval between exposure is more than 2 weeks but less than or equal to 1 year.
- 4 The interval between exposure is more than 1 day but less than or equal to 2 weeks.
- 5 The interval between exposure is more than 1 hour but less than or equal to 1 day.
- 5 The interval between exposure is less than or equal to 1 hour.

Duration: Where the duration of the exposure is less than 10 minutes the value may be reduced to the next level.
Where the interval is less than or equal to 1 hour, the value shall not be decreased at any time.

Probability: The probability of the occurrence of the hazardous event.

- 1 Negligible - e.g. the component never fails, no possibility of human error.
- 2 Rarely - e.g. it is unlikely that the component fails, human error unlikely.
- 3 Possible - e.g. the component can fail, human error is possible.
- 4 Likely - component will probably fail, human error is likely.
- 5 Very High - component is not made for the application, human error is highly likely.

Avoidance: The possibility of avoiding or limiting harm.

- 1 Likely - e.g. contact with a moving part behind an interlock guard will be avoided in most cases - if the interlock fails.
- 2 Possible - e.g. where there is sufficient space to avoid moving machinery.
- 3 Impossible - e.g. it is impossible to avoid the sudden appearance of a laser beam.

Notes on using the matrix method

The strengths of this method are:

- The analysis provides a ranking of risk.
- The method encourages the risk analyst or team to understand the hazard in order to rank the significance of the risk.

The major problems involved in applying such a method are:

- People guess levels of likelihood and consequence without sufficient analysis of the hazard or existing controls.

- The analysis methodology is applied to a risk where the circumstances of occurrence are rare. For example, suppose a person was exposed to a hazard for a short period of time, once every 10 years. Suppose also that that hazard was almost certain to cause fatality upon each exposure. It would be incorrect to use a simple methodology whereby the likelihood of the consequences was ranked relatively lowly at once in 10 years. In that particular example the likelihood of fatality is certain once exposure occurs. An amended methodology will be required to deal with those circumstances such as the fine risk score calculator.

WARNING

The risk ratings used in this document are intended to stimulate discussion from the parties affected by the use of the subject MEWP; they shall not be adopted as the most appropriate risk rating without sufficient consideration by the designer, manufacturer, management or user of the plant.

NOTES:

- 1 SKYJACK Refers to SKYJACK AUSTRALIA Pty Ltd
- 2 MGMT Refers to the person legally responsible for the use of the unit; it generally means the employer, the company or the legal entity that has responsibility under the Health and Safety legislation in the State or Territory in which the unit is being used.
- 3 OP Is the operator, authorized by management and responsible for the operation and preoperational inspection and use of the unit.
- 4 MGMT/OP Is a combination of both management and operators.
- 5 MEWP The term MEWP refers to the Mobile Elevating Work Platform.

GENERAL NOTES:

- 1 This Risk Assessment has been prepared for SKYJACK AUSTRALIA for the subject plant and is not transferable to other plant or parties.
- 2 Item Numbers refer to hazards, which can exist if the unit is not adequately maintained – e.g. Guards not fitted, gauges fail to correctly display readings etc. The measures listed to control risks arising from this type of hazard can include reference to operating procedures. Operating Procedures cannot
- 3 This Hazard Identification and Risk Assessment document has been prepared based on information available at the date of publication. In order to ensure this Hazard Identification, Risk Assessment, Risk Control document is both accurate and complete; “Management of the Unit” must review it:
 - (a) According to the particular circumstances under which the plant and/or process is used and maintained,
 - (b) As new hazards are identified or as risks are re-assessed,
 - (c) As new or revised control measures are implemented,
 - (d) As and when work procedures are altered.

Although every attempt has been made to identify reasonably foreseeable circumstances, no guarantee as to the completeness of this assessment is

implied or provided.

- 4 “Preliminary” is placed in this document to indicate that the Controls listed in Columns C and E are a practicable way of controlling the risks arising out of the Hazards listed in Column B. “Preliminary” status remains in place until the “Management of the Unit” agrees that the assessment is complete and that the controls proposed are practicable.
- 5 Column H has been provided on the document to allow the “Management of the Unit” to record that their Hazard Identification, Risk Assessment, and Risk Control process has been completed and that all controls are in place and operating. When Column H is completed, the document becomes a record of the completeness of the process and the documentation (subject to any changes which need to be further reviewed in accordance with Item 3 above).
- 6 The use of the word “AND” or “&” in the supplementary risk control measure column is intended to mean that the combination of risk control measures are to be implemented on the whole not in part.
- 7 The determination of risk, column D, is a subjective assessment based on the following factors: exposure – the number of times humans are exposed to the risk, the probability of the hazard arising, and the consequence of the hazard – death or serious injury.

Risk Management

Risk management is a five-step process for controlling exposure to health and safety risks associated with hazards in the workplace.

To properly manage exposure to risks, a person must:

- (a) Identify hazards;*
- (b) Assess risks that may result because of the hazards;*
- (c) Decide on appropriate control measures to prevent or minimise the level of the risks;*
- (d) Implement control measures; and*
- (e) Monitor and review the effectiveness of the measures.*

Hazards and risks are NOT the same thing.

*A **hazard** is something with the potential to cause harm. This can include substances, plant, work processes or other aspects of the work environment.*

***Risk** is the likelihood that death, injury or illness might result because of the hazard.*

As examples:

- The hazard is electricity—the risk is the likelihood that a worker is electrocuted because of exposure to electrical wires that are inadequately insulated.*
- The hazard is a 40 kg bag—the risk is the likelihood that a worker might suffer back strain from manually lifting 40 kg bags.*
- The hazard is carbon monoxide—the risk is the likelihood that a worker might suffer carbon monoxide poisoning because they are using a petrol-operated pump in a well.*

When undertaking risk management:

- (a) Involve workers in the process; (it is legal requirement that all stakeholders are consulted)*
- (b) Don't use it to justify a decision that has already been made;*
- (c) Consider good industry practice; and be aware of the current State of Knowledge in relation to the hazard*
- (d) Record any risk management activities undertaken.*

Under the relevant Workplace Health and Safety Acts, to properly manage exposure to risks, a person should consider the appropriateness of control measures in the following order (sometimes referred to as the 'Hierarchy of Control'):

- (a) Eliminating the hazard or preventing the risk; or*
- (b) If eliminating the hazard or preventing the risk is not possible, minimising the risk by measures that must be considered in the following order:*
 - (i) Substituting the hazard giving rise to the risk with a hazard giving rise to a lesser risk;*
 - (ii) Isolating the hazard giving rise to the risk from anyone who may be at risk;*
 - (iii) Minimising the risk by engineering means;*
 - (iv) Applying administrative measures; and*
 - (v) Using personal protective equipment.*

Examples of subparagraph (iii)—redesigning work, plant, equipment, components or premises.

Examples of subparagraph (iv)—training, reasonable hours of work.

The higher in the hierarchy of control, the better and more reliable the control is. In practice, several control options are often used in combination. Personal protective equipment is usually used in conjunction with other control measures.

Control measures must be implemented before work commences.

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
0 General – Device selection and use													
0.1	Persons could be injured when following a poor system of work in relation to the operation of this device.	Operating manual provided, part number 211287ACAA which includes maintenance instructions, detailing specifications, limitations and residual hazards associated with the operation of the machine. Provision for operators manual storage included on the platform. Maintenance Manual [212508AAA], Service Manual [212508AAA] & Parts Manual [212506AAA] provided which include maintenance instructions, detailing specifications, limitations and residual hazards associated with the operation of the machine. Service manuals provided, part number 212508AAA which includes maintenance instructions, detailing specifications, limitations and residual hazards associated with inspection and maintenance of the machine.	4	5	4	3	12	HIGH	Prepare a documented system of work having regard to the operating specification and limitations as detailed in the owners operating manual. Verify that the procedure is appropriate having regard to alternative methods that may be available. Verify that the procedure covers all modes of operation of the MEWP (including emergency procedures and maintenance) and is a practicable solution. Ensure operator's manual is with the MEWP at all times.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT MGMT/OP		
0.2	Persons could be injured if the device is not suitable for the required task.	Standard machine specifications included in the operators manual [Section 7].	4	5	3	3	11	HIGH	Ensure that the unit is adequately rated in terms of capacity, height and reach, rated inclination and mass; having regard to the required task, the site conditions and the environment. Ensure the unit is suitable to operate in the work environment having regard to the possibility of exhaust emissions, exposure to wind, ground/floor capacity and proximity live electrical apparatus. Source another MEWP if the specifications do not match the requirements for the task.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		
0.3	Persons could be injured or injure others when operating the unit without sufficient information, instruction, training and supervision.	Operating manual provided, part number 211287ACAA which includes maintenance instructions, detailing specifications, limitations and residual hazards associated with the operation of the machine. Instruction in Operators Manual [p. 9] to operate in accordance with the manual. Warning in manual [p. 9] that the MEWP is only to be used by personnel who hold the necessary work permits and/or licenses. Warning in operator's manual [p. 9] that the MEWP is only to be used by authorised personnel who are qualified, trained and certified to operate the machine. Warning in operator's manual [p. 9] that only personnel who have read and understand the operating instructions contained within the operator's manual are permitted to use the MEWP. Warning in operator's manual [p. 9] that the operator must obey all laws, regulations and job site rules. Warning in operator's manual [p. 9] that all personnel shall read, understand and follow the instructions in the manual before operating or performing maintenance on the MEWP. Minimum operator qualifications are listed in the operator's manual [p. 9].	4	4	3	3	10	HIGH	Ensure that all Standard Work Procedures (SWP's) are effectively implemented. Ensure that the operator(s) have read and understand the training and instructions (which must include Manufacturer's and local information). Ensure that the MEWP is only operated by personnel who are appropriately trained and certified.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		
0.4	Injury as a result of site specific hazards.	List of typical site specific hazards to be checked is included in the operator's manual [p. 17]. AS2550.10 – 2006 section 4 includes a list of site checks to be undertaken by the operator.	4	4	3	1	8	HIGH	Ensure that operators are aware of the requirements of AS2550.10. Implement appropriate training to enable operators to identify particular hazards that may be encountered at the site and implement actions to ensure that they are addressed by appropriate means.	Yes Yes	MGMT/OP MGMT/OP		

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A	B	C				D1	D2	D	E	F	G	H
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
		Warning in operator's manual [p. 17] that a survey of the work area should be performed for hazards such as for electric power lines., check for drop offs, concealed holes. and overhead obstructions. Warning in operator's manual [p. 9] that the operator must know all national, state or territorial and local rules which apply to operation of the MEWP and jobsite.						HIGH	Ensure a site hazard assessment is conducted before use on each site.	Yes	MGMT/OP	
								HIGH	Ensure appropriate systems are implemented to eliminate the hazards or adequately control the risks associated with the hazards identified.	Yes	MGMT/OP	
								HIGH	Ensure operators feedback information relating to new hazards they have identified so they may be reviewed and implemented in a training package.	Yes	MGMT/OP	
								HIGH	Ensure that if operators are uncertain how to address a particular site hazard that they seek advice from a competent person.	Yes	OP	
0.5	Hazards arising from lack of, or inadequate emergency procedures.	Emergency retrieval procedures are detailed in the operator's manual [p. 57]. Decal fitted adjacent to the emergency controls explaining the operation [172631]. Operation of emergency systems is simple requiring minimal instructions.	4	1	3	3	7	HIGH	Ensure operators are trained in emergency retrieval and operation.	Yes	MGMT/OP	
								HIGH	Ensure that refresher training is undertaken by operators on a regular basis.	Yes	MGMT/OP	
								HIGH	Ensure that ground personnel are present who are trained in the emergency lowering procedures.	Yes	MGMT/OP	
0.6	Hazards arising from working alone.	Instructions provided in AS2550.10 – 2006 clause 5.14 regarding the assistance that shall be available from ground support personnel prior to operation.	4	3	3	1	7	HIGH	Establish protocols and procedures to ensure a timely and appropriate response in emergencies in accordance with AS2550.10 requirements.	Yes	MGMT	
								HIGH	Ensure that workers do not work solo, If not practicable ensure that all operators working solo are equipped with portable communications equipment.	Yes	MGMT	
								HIGH	Ensure all operators report in when attending site and on a routine basis thereafter.	Yes	MGMT	
0.7	Personnel are injured due to unauthorised use.	Key switch provided in accordance with AS1418.10 – 2011 clause 2.2.14. Instruction in Operators Manual [p. 16] to remove key to prevent unauthorised use. to remove key to prevent unauthorised use. Battery cut-out switch provided.	3	2	3	1	6	MEDIUM	Ensure that workplace procedures are established regarding securing the MEWP at the end of each day.	Yes	MGMT/OP	
								MEDIUM	Ensure that the MEWP is secured against unauthorised use at the end of each shift or when it is left unattended.	Yes	OP	
0.9	Persons injured due to unrecognised hazard.	Preliminary Hazard ID prepared and provided for review.	2	2	3	3	8	MEDIUM	Ensure that Risk Assessment has been conducted for the particular operation to be undertaken.	Yes	MGMT/OP	
								MEDIUM	Update hazard ID as necessary (see notes on page 1).	Yes	MGMT	
								MEDIUM	Implement risk control measures having regard to the hierarchy of control measures available.	Yes	MGMT/OP	
								MEDIUM	Regularly review Hazard ID and update as required.	Yes	MGMT/OP	
1	Mechanical hazards (due to events that may arise during normal operation)											
1.1	Crushing hazard											
1.1.1	Operator is crushed or suffers impact injury whilst operating the extending structure.	Operator's position located away from mechanical hazards in accordance with AS1418.10 – 2011 clause[s] 2.6.2 & 2.6.4. Controls are fitted in the platform and provide the operator with a clear line of sight of the intended path of the platform. Warning in Operators Manual [p. 15] to be aware of blind spots. Warning in Operators Manual [p. 15] to use a spotter/check for overhead obstructions. Warning in Operators Manual [p. 15] to beware of crushing hazards between guardrails and obstructions.	4	1	4	1	6	HIGH	Ensure that operators, observe the surroundings and move at appropriate speeds.	Yes	OP	
								HIGH	If necessary ensure ground personnel are present to warn operator against potential obstructions and take corrective or emergency action if necessary.	Yes	MGMT/OP	
								HIGH	Ensure a safe work method statement is prepared if the MEWP is to be engaged in operations where overhead hazards exist.	Yes	MGMT/OP	
								HIGH	If practicable fit the OPS overhead guard to protect operator from collisions with overhead obstructions.	Yes	MGMT	

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Warning in Operators Manual [p. 15] to beware of overhead hazards. Warning in Operators Manual [p. 43, 46, 47] to never lower without checking for persons/obstacles. Warning in Operators Manual [p. 16] to not permit horseplay.											
1.1.2	Operator is crushed or suffers impact injury during travelling.	Control positions afford the operator visual contact with all resulting movements, platform and chassis. Platform controls are arranged so that the operator must be standing in front of the control panel to actuate travel control functions. Warning in Operators Manual [p. 15] to use a spotter/check for overhead obstructions. Warning in Operators Manual [p. 15] to beware of overhead hazards.	4	1	2	3	6	HIGH	Ensure that operators, observe the surroundings and move at appropriate speeds. Ensure that operators avoid kerbs or depressions that could result in large movements of the platform when travelling. If necessary ensure ground personnel are present to warn operator against potential obstructions and take corrective or emergency action if necessary. Fit OPS if working conditions allow	Yes Yes Yes	MGMT/OP OP MGMT/OP MGMT/OP		
1.1.3	Operators crushed due to inadvertent operation.	Controls comply with AS1418.10 – 2011 clause 2.6. Function enable switch provided which must be pressed and held for controls to be activated (two separate actions required for movement to take place). All controls are of the hold to run type and return to neutral on being released. Upper & Lower controls require two deliberate and simultaneous actions by the operator before they function. The direction of movement resulting from each control is clearly marked beside the control and controls are arranged for logical operation as far as possible. Symbols used for marking comply with ISO20381.	3	2	1	3	6	MEDIUM	Maintain controls and their marking. Ensure operators are familiar with the control layout and function.	Yes Yes	MGMT/OP MGMT/OP		
1.1.4	Hands crushed between the platform and obstructions while operating the extending structure.	The platform controls are positioned within the platform guard rails and at least 50mm below the top guard rail. Platform is fitted with hand holds within the platform. Proportional controls used to enable precise platform movement when controls are activated. Warning in Operators Manual [p. 15] to beware of crushing hazards between guardrails and obstructions. Warning in decal [172267] which advises to take care that hands on the guardrail are not caught in obstacles. Warning decal [173024] fitted which identifies possible hand crush zone.	3	2	1	1	4	LOW	Ensure that personnel are trained with respect to this hazard. Ensure additional ground personnel are present to observe and warn operators against potential obstructions. Ensure that personnel are trained to look in the direction of travel.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		
1.1.5	Operator crushed as a result of MEWP sliding down a ramp or other slippery surface.	Warning in Operators Manual [p. 15] not to drive on or near uneven terrain or unstable surfaces. Warning in Operators Manual [p. 15] not to exceed the gradeability. Warning in Operators Manual [p. 16] not to operate slippery surfaces Warning in Operators Manual [p. 14] describing driving on a slope. Warning in Operators Manual [p. 63] not to drive on ramps exceeding gradeability and use the winch instead.	3	2	1	1	4	LOW	Ensure operators are well trained in regards to the potential hazard. Ensure MEWP is not set up on ramps or other slippery surfaces.	Yes Yes	MGMT/OP OP		
1.1.6	Operator crushed or suffers impact injury as result of incorrect travel direction.	Direction arrows fitted to platform controls and chassis.	3	2	1	1	4	LOW	Train operators to be aware of these hazards.	Yes	MGMT		

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		Decal fitted [172114] to controls which clearly indicate the direction of actuator movement for desired travel direction.						LOW	Ensure operators are familiar with the system and to follow/observe the direction arrows on the MEWP.	Yes	MGMT/OP		
1.1.7	Ground personnel crushed whilst machine is operating during normal use.	Motion alarm (beeper) is fitted which sounds when the MEWP is in motion. Projecting extremities are identified with hazard tape. Control positions provide the operator with visual contact with the resulting platform movements. Warning in Operators Manual [p. 15] to be aware of blind spots. Warning in Operators Manual [p. 43, 46, 47] to never lower without checking for persons/obstacles. Warning in Operators Manual [p. 60] to barricade work area Warning in Operators Manual [p. 59, 78] to limit travel speed Body crush zone warning label fitted [172678]. Decal fitted [139855] not to enter area underneath a raised platform. Warning label fitted [172267] to make sure that no person or obstacle is around the machine.	3	3	1	1	5	MEDIUM	Ensure that the area around the MEWP is controlled and barricaded. Ensure that ground personnel keep clear of the MEWP while it is in operation. Ensure that personnel are trained with respect to this hazard. Ensure that personnel do not enter the area underneath the platform.	Yes Yes Yes Yes	MGMT/OP OP MGMT OP		
1.2	Shearing hazard												
1.2.1	Personnel injured due to shear hazard at elevating mechanism (booms, mast, articulating/scissor arms etc.).	Operator located away from hazard during normal operation. Audible alarm fitted which sounds whenever the platform is lowering. Warning labels fitted at shear hazard locations [137988].	3	2	1	1	4	LOW	Ensure personnel are trained and aware of this hazard. Ensure that personnel keep clear of moving parts whilst the MEWP is in motion.	Yes Yes	MGMT/OP OP		
1.2.3	Exposure to pinch points/shear points while extending the platform.	Handles provided on extension deck for operator to hold while extending and retracting deck. Instruction provided in the operator's manual [p. 54] explaining the process of extending & retracting the deck. Warning labels fitted at shear hazard locations [137988].	1	3	2	3	8	LOW	Ensure that operators are aware of the residual risks. Ensure that the instructions provided in the operator's manual are followed.	Yes Yes	MGMT/OP MGMT/OP		
1.2.4	Shear hazard to personnel closing guards, engine covers or battery doors.	Instruction provided in operator's manual [p. 37] which covers opening the battery box. Warning labels fitted at shear hazard locations [137988].	1	2	1	3	6	LOW	Ensure that operators are aware of the residual risks.	Yes	MGMT/OP		
1.3	Cutting or severing hazard												
1.3.1	Cuts from sharp edges arising from damaged platform components		1	2	1	3	6	LOW	Ensure that any damage to the MEWP is rectified to remove sharp edges.	Yes	MGMT/OP		
1.4	Entanglement hazard												
1.4.1	Hazard number not used.	See 11.1											
1.5	Drawing-in or trapping hazard												
1.5.1	Hazard number not used.	See 11.1											
1.6	Impact hazard												
1.6.1	Impact injury to personnel from MEWP collision with vehicular traffic.	Hazard marking fitted to projecting extremities An audible alarm sounds whenever the MEWP is in motion.	1	2	2	3	7		Implement a traffic management system. Ensure a traffic management system is enforced, should the MEWP be exposed to vehicular traffic.	Yes Yes	MGMT/OP MGMT/OP		

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Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Warning in manual regarding the residual hazard of traffic on-site [p. 17]. Instruction in Operators Manual [p. 9] that operators are to be qualified, trained and certified. Instruction in Operators Manual [p. 9] to obey all laws, regulations and job site rules. Warning in Operators Manual [p. 59, 78] to limit travel speed						LOW					
1.7	Stabbing or puncture hazard												
1.8	Friction or abrasion hazard												
1.9	High pressure fluid injection hazard												
1.9.1	Injury as a result of a high pressure hydraulic leak while operating or maintaining the MEWP.	Warning in service manual regarding the danger of injury from injection of high pressure hydraulic fluid [p. 11]. Warning in service manual [p. 10] that only trained personnel are permitted to service MEWP.	1	2	1	3	6	LOW	Ensure that personnel are properly trained and aware of the hazard. Ensure that the correct pressure setting is maintained as per the operation manual instructions. Ensure that personnel are trained with respect of this hazard and do not place hands or other body parts in front of escaping hydraulic fluid. Ensure that the correct pressure setting is maintained as per the operation manual instructions. Ensure that SWP's for maintenance include first aid requirements for such injuries.	Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP MGMT/OP		
1.10	Ejection of parts												
1.11	Loss of stability (of machinery and machine parts)												
1.11.1	Persons could be injured as a result of instability or overturning. Overturning due to overload: See 19.2 Overturning - generally See 23	MEWP stability is calculated and tested in accordance with AS1418.10 – 2011 clause 3.6.3. Overturning hazards are listed in the operators manual [p. 15]. Warning in manual to use batteries of the same weight [p. 15].	4	2	1	3	6	HIGH	Train operators in respect of proper siting and precautions necessary to ensure stability. Ensure that operators read and understand the instructions and precautions listed in the operator's manual prior to use. Ensure that thorough site checks are performed prior to operation. Audit work practices on a regular basis to ensure safe work procedures are being followed.	Yes Yes Yes	MGMT MGMT/OP MGMT/OP		
1.12	Slip, trip and fall hazards												
1.12.1	Operator falls whilst accessing the platform.	Access ladder providing access to the platform is provided in accordance with AS1418.10 – 2011 clause 2.5.8. Warning in Operators Manual [p. 17] not to exit platform when raised. Warning in Operators Manual [p. 17] to exit using generally 3 points of support.	2	4	2	3	9	MEDIUM	Ensure operators maintain 3 points of contact when accessing the platform. Ensure that the platform is only entered or exited when it is fully lowered. Ensure operators a physically capable of operating the MEWP, including being able to enter and exit the work platform, without endangering themselves or others.	Yes Yes Yes	OP OP MGMT/OP		
1.12.5	Personnel slip on platform floor.	Platform floor has a non-slip surface.	2	3	2	3	8	MEDIUM	Ensure the work platform floor is clear of debris and clean. Ensure that any damage is repaired immediately.	Yes Yes	OP MGMT/OP		
2	Electrical hazards												
2.1	Electrical contact (direct or indirect)												
2.1.1	Persons could be injured due to contact or approach to live overhead electrical apparatus.	Warnings and instructions in AS2550.10 – 2006 clause 5.8. Legislative requirements to maintain clearances. Warning in Operators Manual [p. 13] that the machine is not insulated	4	3	3	3	9	HIGH	Ensure that No-go zones and/or clearances and conditions permitted according to local regulation are observed. Ensure that operators are trained with respect to the hazard posed by overhead electrical conductors and equipment. Ensure spotters are present to warn operator of getting too close to overhead conductors.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)			
A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Warning in Operators Manual [p. 13] to obey regulations regarding required clearances from electrical conductors. Instruction in Operators Manual [p. 13] to check for electric power lines. Safe approach distances are listed in the operator's manual [p. 13]. Warning in operators manual [p. 13] not to operate near power lines and to maintain minimum safe approach distances. Instruction in Operators Manual [p. 13] to check for electric power lines. Clearance distance labels [ES-01 05/2015] are fitted at platform. Warning label fitted [172693] at chassis and platform that MEWP is uninsulated.						HIGH					
2.1.2	Persons could suffer an electric shock due to fault with AC power supply to battery charger.	Main power disconnect switch fitted.	4	2	2	3	7	HIGH	Ensure personnel are trained with respect to this residual risk.	Yes	MGMT/OP		
2.1.4	Persons could be injured if the unit is operated while in a confined space forcing reduced clearances.	Warning in Operators Manual [p. 13] that the machine is not insulated Clearance distance labels [ES-01 05/2015] are fitted at platform.	4	2	1	3	6	HIGH	Establish operating procedures to minimize risk when using machine in confined space. Review operating procedures routinely to ensure they can be maintained and followed. Instruct personnel in respect to the revisions made. Revise procedures if necessary. Instruct personnel in respect of revisions.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		
2.1.5	Operator electrocuted as a result of conductive materials carried in basket/platform.		4	2	1	3	6	HIGH	Ensure operators are trained with respect to the hazard. Ensure minimum safe approach distances are maintained. Ensure ground crew is presence to spot potential electrical hazards. Ensure that conductive materials are not carried in the platform where overhead electrical hazards are located.	Yes Yes Yes Yes	MGMT OP MGMT/OP MGMT/OP		
2.2	Electrostatic phenomena								NS				
2.3	Thermal radiation								NS				
2.4	External influences on electrical equipment												
2.4.1	Uncontrolled motions due to interference with control signal inputs or false input commands in high-frequency electromagnetic fields.	The electrical installation is designed to comply with the requirements of the EMC directive (2004/108/EC). Warning in Operators Manual [p. 17] to select the correct machine if used in the presence of high magnetic fields.	2	2	2	3	7	LOW	Ensure that the MEWP is not used in environments which include strong electro-magnetic fields unless written approval is obtained from the manufacturer. Ensure that radio transmitters and similar equipment are not used when operating the machine.	Yes Yes	MGMT/OP MGMT/OP		
3	Thermal hazards												
3.1	Burns and scalds by contact of persons with flames or explosions and also with radiation from heat sources												
3.1.1	While working in an explosive atmosphere.	Warning in Operators Manual [p. 17] not to operate the machine or charge batteries in hazardous locations. Instruction in Operators Manual [p. 17] to check hazardous atmospheres.	4	2	2	3	7	HIGH	Ensure unit is not used in a hazardous environment unless it has been suitably modified by the manufacturer or a competent organisation. Ensure sufficient ventilation is provided before using MEWP in hazardous locations.	Yes Yes	MGMT/OP OP		
3.1.2	Personnel suffer burns due to contact with hot engine components.		1	2	1	3	6	LOW	Ensure that personnel are trained with respect to the residual hazard.	Yes	MGMT		

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
									Ensure the correct PPE is worn when handling hot components.	Yes	MGMT/OP		
3.1.4	Operators suffer burns because of fire or explosion whilst carrying fuel or other explosive substances in platform.		3	2	2	3	7	MEDIUM	Ensure no explosive materials or fuel is stored on platform during operation.	Yes	OP		
									Ensure that a first aid kit and extinguisher available.	Yes	MGMT/OP		
3.1.5	Personnel injured by fire or explosion while smoking in platform or around flammable liquids at worksite.	Warning in Operators Manual [p. 37] to refuel and charge the battery in a well ventilated area, away from sparks and flames.	3	2	2	3	7	MEDIUM	Ensure that a first aid kit and extinguisher available.	Yes	MGMT		
									Identify potential sources of fuel/hazard during site-specific hazard ID.	Yes	MGMT/OP		
3.1.6	Personnel injured as a result of MEWP fire.	Standard SWPs apply.	1	2	1	3	6	LOW	Ensure that personnel are familiar with the firefighting procedures listed in the operator's manual.	Yes	MGMT/OP		
									Implement a fire safety plan.	Yes	MGMT/OP		
									Train personnel in the use of the fire extinguisher.	Yes	MGMT/OP		
3.1.7	Personnel exposed to hot components while accessing brake release valve.	Brake release valve is positioned away from hot components.	1	1	2	3	6	LOW	Ensure the correct PPE is worn when handling hot components.	Yes	MGMT/OP		
3.2	Health-damaging effects from hot or cold work environment												
3.2.1	Operator injured due to extreme cold or hot temperatures.	Danger note in Operators Manual [p. 13] to use PPE. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE. Environmental limits specified in manual [Section 7].	1	2	2	3	7	LOW	Ensure operators are provided the appropriate PPE for the working environment.	Yes	MGMT		
									Ensure that the period of exposure is kept within acceptable levels.	Yes	MGMT/OP		
4	Hazards generated by noise												
4.1	Hearing loss (deafness), other physiological disorders (e.g. loss of balance, loss of awareness, etc.)												
4.1.1	Noise generated by machine causes hearing loss to operators.	The maximum guaranteed sound power level (<76 dBA) and the sound pressure level at the work platform (<76 dBA) is specified in the operator manual. [p. (SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726), (SJ4732), (SJ4740),] MEWP is battery powered. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE.	1	4	2	3	9	LOW	Ensure that if noise exposure exceeds acceptable levels that either ear protection is worn and/or the operators are removed from the noisy environment.	Yes	MGMT/OP		
4.1.2	Noise generated by machine causes hearing loss to bystanders.	The maximum guaranteed sound power level (<76 dBA) and the sound pressure level at the ground (<76 dBA) is specified in the operator manual. [p. (SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726), (SJ4732), (SJ4740),] MEWP is battery powered.	1	2	1	3	6	LOW	Competent person to assess the noise impact on bystanders taking into consideration the environment and other machines operating nearby.	Yes	MGMT		
4.2	Interference with speech communication, acoustic signals, etc.												
4.2.1	Injuries exacerbated as a result of insufficient communication procedures or equipment on job sites where noise can affect communication.		1	2	1	3	6	LOW	Ensure that all operators are equipped with portable communications equipment where necessary.	Yes	MGMT		
									Establish protocols and procedures to ensure a timely and appropriate response in emergencies.	Yes	MGMT/OP		
									Ensure that effective communication can be maintained in all instances where the unit is used.	Yes	MGMT/OP		
5	Hazards generated by vibration												
5.1	Vibration caused by machinery												
5.1.1	Vibration caused by MEWP.	The vibration measured at the upper limbs does not exceed 2.5 m/s2 (RMS) and the vibration exerted on the operator's body does not exceed 0.5 m/s2 (RMS).	1	2	1	3	6	LOW	Ensure that use of the machine in continuous shifts is limited to prevent operator fatigue which may result from exposure to machine vibration.	Yes	MGMT/OP		
6	Hazards generated by radiation												

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
6.1	Electrical arcs												
6.1.1	Operators suffer radiation burns caused by welding either from the platform or to the MEWP.	Standard welding SWP's apply. Warning in Operators Manual [p. 13] not to use the machine as a welding ground	1	3	2	3	8	LOW	Ensure that SWP's are developed and followed when using the MEWP for welding operations. Ensure that only trained personnel perform welding tasks. Ensure that the correct PPE is worn by personnel performing welding tasks.	Yes Yes Yes	MGMT MGMT/OP OP		
6.2	Lasers												
6.3	Ionizing radiation sources												
6.4	Machines using high-frequency electromagnetic fields												
6.4.1	Hazards caused by emission of EMF	Warning in Operators Manual [p. 17] to select the correct machine if used in the presence of high magnetic fields. Meets requirements of EN ISO 13766-1:2018.	2	2	2	3	7	LOW	Ensure that the MEWP is not used in environments which include strong electro-magnetic fields unless written approval is obtained from the manufacturer.	Yes	MGMT/OP		
7	Hazards generated by materials and substances processed, used or exhausted by machinery												
7.1	Hazards resulting from contact with or inhalation of harmful fluids, gases, mists, dusts and fumes												
7.1.1	Persons could be injured if the unit is operated indoors without adequate ventilation.	MEWP is battery powered.	2	2	2	3	7	LOW	Ensure that the unit is operated only in well-ventilated areas.	Yes	MGMT/OP		
7.1.2	Operator suffers injuries caused by inhalation of hydrogen gas from batteries.	Battery located away from operating positions. Warning in Operators Manual [p. 37] to refuel and charge the battery in a well ventilated area, away from sparks and flames.to refuel and charge the battery in a well ventilated area, away from sparks and flames.	2	2	2	3	7	LOW	Ensure operators are made aware of the potential hazard. Ensure MEWP batteries are charged in well ventilated areas. Ensure that only trained personnel conduct maintenance on or near batteries. Ensure that proper maintenance procedures are implemented when working near batteries. Ensure the correct PPE is worn by all personnel performing maintenance on batteries.	Yes Yes Yes Yes	MGMT MGMT/OP MGMT/OP MGMT/OP		
7.1.3	Personnel suffer skin irritations due to contact with operating fluids or materials used in the MEWP.		1	3	2	3	8	LOW	Ensure operators are made aware of the potential hazard. Ensure appropriate PPE is worn by personnel.	Yes Yes	MGMT OP		
7.1.4	Burns as a result of exposure to hot oil.		1	3	2	3	8	LOW	Ensure that personnel are trained and aware of this hazard. Ensure that the appropriate PPE is worn by personnel.	Yes Yes	MGMT MGMT		
7.2	Fire or explosion hazard												
7.2.1	Explosion hazard resulting from vapours emitted during battery charging.	Batteries are well ventilated in accordance with AS1418.10 – 2011 clause 2.2.21. Battery isolation switch fitted. Warning in Operators Manual [p. 37] to wear ppe when maintaining batteries. to wear PPE when maintaining batteries. Warning decal fitted [119674] which states to disconnect battery before servicing.	4	2	2	3	7	HIGH	Ensure that the appropriate PPE is worn by personnel. Ensure that the battery is disconnected before charging	Yes Yes	MGMT/OP MGMT		
7.3	Biological and microbiological (viral or bacterial) hazards												
8	Hazards generated by a mismatch of machinery with human characteristics and abilities.												
8.1	Unhealthy postures or excessive efforts.												
8.1.1	Excessive effort required to climb into work platform.	Access steps provided in accordance with AS1418.10 clause 2.5.8. Warning in Operators Manual [p. 17] to exit using generally 3 points of support.	1	4	1	5	10	LOW	Ensure that operators always use 3 points of contact when entering and egress of the work platform. Ensure that access steps are maintained in good condition and repaired when necessary.	Yes Yes	MGMT/OP MGMT/OP		
8.2	Inadequate consideration of human hand-arm or foot-leg anatomy.												

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
8.3	Neglected use of personal protection equipment												
8.3.1	Persons could be injured due to exposure to UV.	Standard practices apply. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE.	1	3	2	3	8	LOW	Develop and provide specification for appropriate UV protection and its use. Provide UV protective equipment including hat, sunglasses and sunscreen. Instruct operators on the requirements for its use.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		
8.3.2	Persons could be injured if equipment is operated while not wearing appropriate PPE.	Standard Job site procedures apply. Requirement specified in AS2550.10 – 2006 clause 5.2. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE.	3	3	2	3	8	HIGH	Provide specification for appropriate PPE including gloves, safety glasses, hard hat and safety footwear as appropriate for the workplace. Instruct operators on the requirements for its use. Ensure appropriate PPE is worn.	Yes Yes Yes	MGMT MGMT OP		
8.3.3	Operator sustains damage to hearing due to not wearing ear protection in noisy environment.	Standard SWP's apply. Standard Job site procedures apply. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE.	3	2	2	1	5	MEDIUM	Ensure that if noise exposure exceeds acceptable levels that either ear protection is worn and/or the operators are removed from the noisy environment.	Yes	MGMT/OP		
8.3.4	Operator could be injured if working in proximity to bright lights without sunglasses or equivalent.	Standard Job site procedures apply. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE.	1	2	1	3	6	LOW	Identify bright lights located on job sight and react accordingly with setting up of MEWP or wearing appropriate PPE. Ensure operators are provided with suitable PPE.	Yes Yes	OP MGMT/OP		
8.3.5	Operator or ground personnel injured because they are not wearing high visibility clothing.	Standard SWP's apply. Requirement specified in AS2550.10 – 2006 clause 5.2. Instruction in Operators Manual [p. 9, 17] to comply with employer, job site and governmental rules regarding use of PPE.	2	3	2	3	8	MEDIUM	Ensure operators are provided with appropriate PPE suitable for the given task. Ensure operators are wearing appropriate PPE suitable for the given task.	Yes Yes	MGMT/OP MGMT/OP		
8.4	Inadequate area lighting												
8.4.1	Persons could be injured if the light on the job site is inadequate.	See also 12.1	1	2	1	3	6	LOW	Fit lighting if the MEWP is to be used in areas of low light Monitor lighting levels throughout the operation of the MEWP, as lighting is prone to change relative to time of day.	Yes Yes	MGMT/OP OP		
8.5	Mental overload or under load, stress, etc.												
8.5.1	Persons could be injured if the operator's performance was inhibited by excessive fatigue.	Standard SWP's apply.	2	2	2	3	7	LOW	Implement a system to ensure that operators do not work excessive or continuous shifts and manage peak demands. Ensure that operators do not continue use of the MEWP if they feel tired or are suffering from fatigue.	Yes Yes	MGMT/OP MGMT/OP		
8.5.2	Operator injured because they do not possess sufficient mental capacity to operate the MEWP.		4	2	2	3	7	HIGH	Ensure all personnel are trained with respect to machine operation. Ensure only trained personnel are permitted to operate MEWP.	Yes Yes	MGMT MGMT/OP		
8.5.3	Operator injured due to inattention from boredom.		3	1	2	3	6	MEDIUM	Limit shift hours. Ensure rotation of operators during shift.	Yes Yes	MGMT MGMT/OP		
8.6	Human error												
8.6.1	Operator or ground personnel injured due to "horse play" or inappropriate use.	Warning in Operators Manual [p. 16] to not permit horseplay.	3	1	2	3	6		Ensure operators do not engage in horse play or stunt driving.	Yes	MGMT/OP		

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Warning in operator's manual [p. 9] that the MEWP is only to be used by authorised personnel who are qualified, trained and certified to operate the machine. Instructions in operator's manual [p. 15] regarding the dangers of working solo and recommendations that ground personnel who are trained in the emergency retrieval procedures are present. Warning in operator's manual [p. 9] that only personnel who have read and understand the operating instructions contained within the operator's manual are permitted to use the MEWP. Instruction in Operators Manual [p. 9] to obey all laws, regulations and job site rules.						MEDIUM	Ensure that only properly trained and licensed personnel use MEWP. Ensure that when not in use, the platform is secured against unauthorised use.	Yes Yes	MGMT/OP OP		
8.6.2	Persons could be injured if the unit is operated by persons under the influence of drugs and/or alcohol.	Standard SWP's apply. Warning in the operator's manual [p. 16] that the unit is not to be operated by persons under the influence of drugs and/or alcohol.	3	2	2	3	7	MEDIUM	Ensure that operators do not use the MEWP while under the influence of alcohol or drugs. Instruct the operator that operation while under the influence of alcohol or drugs are prohibited.	Yes Yes	MGMT/OP MGMT		
8.6.3	Persons could be injured if the operator's performance is inhibited by poor health or medication with side effects.	Standard SWP's apply.	3	2	2	3	7	MEDIUM	Instruct the operator that he/she must report to the supervisor if suffering poor health and safe operating performance could be affected.	Yes	MGMT		
9	Hazard combinations												
9.1	Injuries exacerbated as a result of insufficient procedures or equipment.	Instruction in Operators Manual [p. 25] describing use of emergency power system. Decal fitted adjacent to the emergency controls explaining the operation [172631].	4	2	1	3	6	HIGH	Establish and audit routine emergency procedures. Display emergency phone numbers and contact procedures at the site in ready display to the appropriate personnel. Periodically verify emergency equipment and supplies.	Yes Yes Yes	MGMT MGMT MGMT		
9.2	Hazards caused by improper procedures following contact with live conductors.	See AS2550.10 – 2006 clause 5.8.4 for correct procedures following contact.	4	1	1	3	5	HIGH	Ensure that all personnel are trained and aware of the necessary procedures required following the accidental contact with live overhead conductors. Ensure that the unit is withdrawn from service and appropriately assessed by a competent person. Immediately isolate the unit for 24 hours.	Yes Yes Yes	MGMT MGMT/OP MGMT/OP		
10	Hazards caused by failure of energy supply, breakdown of machinery parts & other functional disorders												
10.1	Failure of energy supply (of energy and/or control circuits)												
10.1.1	Operator trapped in an elevated position due to failure of main energy supply.	MEWP is fitted with an emergency system which does not rely on the primary power source to enable rescue if the operator becomes trapped in an elevated position due to failure of main energy supply. Instruction in Operators Manual [p. 25] describing use of emergency power system. Decal fitted adjacent to the emergency controls explaining the operation [172631]. All solenoid valves return to the neutral position if power is lost. Maintenance manuals [part number 212508AAA] prepared which cover all aspects of maintenance of the control and braking systems.	3	2	2	3	7	MEDIUM	Ensure operators are trained in the use of the emergency lowering systems. Ensure that the emergency system is checked on a periodic basis. Ensure that the MEWP undergoes a pre-operational inspection prior to every use in accordance with the manufacturer's instructions. Ensure that the MEWP is not operated if any faults are detected during the pre-operational inspections.	Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP OP		
10.2	Unexpected ejection of machine parts or fluids												
10.3	Failure/malfunction of control system												
10.3.1	Uncontrolled motions due to control system failure.	Emergency stop switches fitted at the control positions. Control systems designed in accordance with AS1418.10 – 2011 clause 2.6.	3	1	1	3	5	LOW	Ensure that all pre-operational inspections are performed in accordance with the manufacturer's instructions prior to use. Ensure that all control system faults are logged and reported to service personnel.	Yes Yes	MGMT/OP OP		

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Solenoid control valves stop movement on power failure. Instruction in Operators Manual [p. 44] to test the emergency stop. Instruction in Operators Manual [p. 22] to test the function enable button.						MED	Ensure that the machine is not operated if any faults exist.	Yes	OP		
10.4	Errors of fitting												
10.4.1	Personnel exposed to hazards due to incorrect fitting of components during manufacture.	Manufacturer has a quality assurance system in place which involves multiple checks of critical components during the manufacturing process. Production tests are conducted in accordance with AS1418.10 – 2011 clause 3.3 upon completion of manufacture.	3	2	1	3	6	MEDIUM	Ensure that only qualified service personnel are charged with the maintenance of the MEWP. Ensure they follow the instructions provided in the repair manual.	Yes Yes	MGMT MGMT		
10.4.2	Personnel exposed to hazards due to incorrect fitting of components during repair.	Maintenance instructions provided which covers all anticipated aspects of maintenance required for MEWP. Detailed instructions are provided in the maintenance section which covers correct hose fitting procedures. Warning provided in the operator's manual that only trained and qualified personnel should perform maintenance [p. 33]. Warning in operator's manual [p. 12] to only use genuine spare parts.	3	2	1	3	6	MEDIUM	Ensure that only qualified service personnel are charged with the maintenance of the MEWP. Ensure they follow the instructions provided in the repair manual.	Yes Yes	MGMT MGMT/OP		
10.4.3	MEWP overturns because incorrect wheels/tyres have been fitted.		3	2	1	3	6	MEDIUM	Ensure that only approved wheels/tyres are fitted. Ensure that only qualified service personnel are charged with the maintenance of the MEWP. Ensure they follow the instructions provided in the repair manual.	Yes Yes Yes	MGMT MGMT MGMT		
10.4.5	Overturning due to reduced mass as a result of incorrect batteries being installed.		3	2	1	3	6	MEDIUM	Ensure that replacement batteries are the same weight as the originals.	Yes	MGMT		
10.5	Overturn, unexpected loss of machine stability												
10.5.1	MEWP overturns due to wear in pivot pins/ wear pads causing increased deflection in scissor stack/mast and increased overturning moments.	Maintenance manual provided [part number 212508AAA] which details maintenance checks of scissor mechanism. Stability is calculated in accordance with AS1418.10 – 2011 clause 2.1.5 which includes the effect of play in the connections of the extending structure. Stability is tested using the loads calculated in accordance with AS1418.10 – 2011 clause 2.1.5 which includes the effect of play in the connections of the extending structure.	4	2	2	3	7	HIGH	Ensure that the MEWP undergoes a pre-operational inspection prior to every use in accordance with the manufacturer's instructions. Ensure that the MEWP is not operated if any faults are detected during the pre-operational inspections.	Yes Yes	MGMT/OP MGMT/OP		
10.5.2	Due to tyre/wheel failure.	Solid wheels fitted. Instruction in Operators Manual [p. 35] to check tyres.	4	2	2	3	7	HIGH	Ensure operators perform checks of wheels/tyres before using MEWP. Ensure that tyres are replaced as necessary with original specification.	Yes Yes	MGMT/OP MGMT/OP		
11	Hazards caused by (temporary) missing and/or incorrectly positioned safety- related measures/means												
11.1	All kinds of guards												
11.1.1	Personnel exposed to hazards within the engine area because guard on engine is missing.		1	2	1	3	6	LOW	Ensure that guards are not removed, or altered without the written approval of the manufacturer. Ensure that covers are always in place prior to operation. Ensure that personnel keep clear of the turret area whilst the MEWP is in operation.	Yes Yes Yes	MGMT/OP OP OP		
11.1.2	Personnel exposed to hazards around slew gear area because guard on slew gears is missing.		1	2	1	3	6	LOW	Ensure that guards are not removed, or altered without the written approval of the manufacturer.	Yes	MGMT/OP		

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A	B	C				D1	D2	D	E	F	G	H
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
								LOW	Ensure that personnel keep clear of the turret area whilst the MEWP is in operation.	Yes	OP	
11.1.3	Unintentional activation of controls due to entanglement of hoses or cables with joystick.	Constant pressure dead-man switch fitted which must be activated in order for elevating structure movements to occur.	3	1	1	3	5	MEDIUM	Ensure operators are aware of the residual risk.	Yes	MGMT/OP	
11.2	All kinds of safety-related (protection) devices											
11.2.1	Hazards arising due to safety switches being overridden.	Warning in Operators Manual [p. 13, 33] not to modify the machine. Preoperational checks specified in Operators manual. [p. 33]. Decal fitted [156613] which states do not alter or disable any safety switch or device.	4	2	1	3	6	HIGH	Ensure that safety devices are not tampered with and are in good condition before use of machine. If any faults are discovered do not use machine until all faults are rectified.	Yes	MGMT	
11.2.2	Personnel exposed to hazards due to unauthorised alteration or interference.	Warning in Operators Manual [p. 16] not to alter components that affect safety or stability Decal fitted [156613] which states do not alter or disable any safety switch or device.	4	2	1	3	6	HIGH	Seek advice from the manufacturer or a competent person for all modifications/repairs considered during life of MEWP. Ensure that no additions or alterations are performed on the platform without written approval from the manufacturer or their authorised agent in Australia.	Yes	MGMT	
11.2.4	Personnel exposed to hazards because Load Sensing System has been disabled or is incorrectly adjusted.	System designed so that it cannot be easily disabled. Instruction in Operators Manual [p. 42] to test the load sensing system. Decal fitted [156613] which states do not alter or disable any safety switch or device.	4	2	1	3	6	HIGH	Ensure load sensing system is checked at the regular intervals as detailed by manufacturer. Ensure that operators are trained in the correct emergency procedures.	Yes	MGMT/OP	
11.2.6	Persons could be injured as a result of instability or overturning due to operation on excessive slope.	AS2550.10 – 2006 includes additional advice regarding operation on slopes. Chassis inclination indicator system provided which warns the operator if the lateral and longitudinal slope limits of the chassis are exceeded. Warning in Operators Manual [p. 59, 78] to limit travel speed The chassis inclination limits are listed on the data plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)]. Checks of the inclination system are included in the service manual. [p. 135].	4	2	1	3	6	HIGH	Ensure that the MEWP is operated within the rated slope limitations specified. Ensure that thorough site checks are performed prior to operation. Select the correct MEWP for the anticipated slopes at the job site. Check the operation of the inclination alarms and interlocks in accordance with the manual.	Yes	MGMT/OP	
11.3	Starting and stopping devices											
11.3.1	Emergency stop switches malfunction or missing components.	Emergency stop switches comply with AS1418.10 – 2011 clause 2.6.6. Emergency stop switches located at both control stations. Instruction in Operators Manual [p. 44] to test the emergency stop.	4	2	1	3	6	HIGH	Ensure that the inspection checks are performed as per instructions in manual. Ensure that any malfunctioning components or systems are repaired prior to use. Ensure that emergency stop switches are present and function correctly before use of MEWP as per pre-start inspection.	Yes	MGMT/OP	
11.4	Safety signs and signals											
11.4.1	Personnel injured due to missing or illegible safety signs.	List of safety pictorials and Decals are illustrated in the Operators Manual [pp. Section 8]. Instruction in Operators Manual [p. 34] to check decals legible and in place.	3	2	1	3	6	MEDIUM	Conduct pre-operational checks as described in manual. Maintain signs and replace as necessary. Ensure all decals are present and legible before using MEWP.	Yes	OP	
11.5	All kinds of information or warning devices											
11.5.1	Personnel are not provided with sufficient instruction because operations manual missing from MEWP.	Storage compartment fitted on the platform for manual. Manuals available from manufacturer's website.	3	2	1	3	6	MEDIUM	Ensure the MEWP is supplied with all of the relevant operating manuals. Ensure that the operators check that the operations manual is present before operating MEWP.	Yes	MGMT	
11.5.2	Incorrect information is provided in the operator's manual	Independent review of manuals conducted as part of risk assessment.	3	2	1	3	6	MEDIUM				
11.6	Energy supply disconnecting devices											

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A	B	C				D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented										
11.6.1	Maintenance personnel injured due to failure of pressure isolating or depressurising devices in hydraulic circuit(s).	No accumulators fitted.	1	2	1	3	6	LOW	Ensure that only properly qualified maintenance personnel perform maintenance on the MEWP. Ensure that all instructions provided by the manufacturer are read and understood prior to commencing any maintenance activities on the MEWP.	Yes Yes	MGMT MGMT	
11.7	Emergency devices											
11.7.1	Emergency pump does not operate.	Instruction in Operators Manual [p. 43] to test the emergency controls. Instruction in Operators Manual [p. 25] to test emergency power. Emergency lowering is achieved with manually activated valves/controls.	1	2	1	3	6	LOW	Ensure that operators are trained in the correct use of the emergency retrieval system. Ensure that the emergency pump is checked on a periodic basis in accordance with the manufacturer's instructions. Ensure that MEWP is stood down from service if the emergency system is not working properly.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
11.7.5	Hazards arising as a result of incorrect emergency retrieval procedures.	Instruction in Operators Manual [p. 25] describing use of emergency power system. Operation of emergency systems is simple requiring minimal instructions. Instruction in Operators Manual [p. 29] describing operation of the secondary guarding system. Decal fitted adjacent to the emergency controls explaining the operation [172631].	1	2	1	3	6	LOW	Ensure operators are trained in emergency retrieval and operation. Ensure that refresher training is undertaken by operators on a regular basis. Ensure that ground personnel are present who are trained in the emergency lowering procedures.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
11.8	Feeding/removal means of work pieces											
11.9	Essential equipment and accessories for safe adjusting and/or maintaining											
11.9.1	Persons injured whilst performing maintenance.	Maintenance procedures provided by manufacturer detailing all critical maintenance requirements. Detailed instructions provided in maintenance manual which covers all anticipated repairs and maintenance items.	1	2	1	3	6	LOW	Ensure personnel are trained in correct repair procedures. Ensure that the MEWP is tested by a competent person prior to being returned to normal service after repairs and/or adjustment of critical components or systems. Ensure that all appropriate equipment is supplied and used when performing maintenance.	Yes Yes Yes	MGMT MGMT MGMT	
11.9.2	Personnel crushed working under the elevated structure	A support member is provided in accordance with AS1418.10 – 2011 clause 2.3.5 which supports the platform and lifting mechanism for maintenance and inspection purposes. Warning in maintenance manual to ensure personnel are clear from under unsupported components/systems that are at risk of movement during maintenance. Warning in Maintenance Manual [p. 10] to use devices to support weight of components to be lifted. Warning in Maintenance Manual [p. 11] to wear appropriate ppe. Label fitted which explains the use of the safety prop [172678]. Warning label fitted [139855] which states that personnel not enter the space beneath the work platform or extending structure during maintenance unless a means of structure support is in place.	1	2	1	3	6	LOW	Ensure that personnel do not enter the area under the platform if it is not adequately supported. Provide equipment to prevent platform falling such as overhead crane.	Yes Yes	MGMT/OP MGMT/OP	
11.9.3	Persons injured whilst handling heavy or unsupported items.	Warning in Maintenance Manual [p. 10] to use devices to support weight of components to be lifted.	1	2	1	3	6	LOW	Provide necessary equipment to handle heavy items. Instruct persons undertaking tyre change to follow established SWP's in accordance with recognised industry practice.	Yes Yes	MGMT MGMT	
11.9.4	Strains/sprains when removing components or performing certain maintenance aspects of the MEWP.		1	2	1	3	6	LOW	Establish appropriate work procedures for all anticipated maintenance issues arising. Periodically review these safe work procedures (SWP's).	Yes Yes	MGMT MGMT	

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
11.9.5	Personnel fall whilst performing maintenance checks.	Standard SWP's apply Pre-operational checks able to be performed at ground level. Maintenance manual [part number 212506AAA] provided which details all checks and the residual hazards.	1	2	1	3	6	LOW	Ensure that appropriate equipment is used during maintenance where access at height is required. Periodically review these safe work procedures (SWP's).	Yes Yes	MGMT MGMT		
11.10	Equipment evacuating gases, etc.												
11.10.1	Exhaust system has been removed or is damaged.		1	2	1	3	6	LOW	Ensure that exhaust system is maintained in accordance with manufacturer's instructions.	Yes	MGMT/OP		
12	Inadequate lighting of moving/working area												
12.1	Collision with structures or objects due to inadequate lighting of work site												
12.1.1	Persons could be injured if the light on the job site is inadequate.	Standard SWP's apply.	3	2	1	3	6	MEDIUM	Ensure lighting in job area is assessed by trained personnel prior to undertaking further machine operation. Monitor lighting levels throughout the operation of the MEWP, as lighting is prone to change relative to time of day. Fit work lights if anticipating work at night or poorly lit areas.	Yes Yes	MGMT/OP MGMT/OP		
13	Hazards due to sudden movement/instability during handling												
13.1	General Manoeuvring												
13.1.1	While personnel are moving MEWP around job site.	Maximum travel speeds are fixed. Ramp speed provided which is slower than travel speed. Travel speeds given in operator's manual [Section 7].	3	2	1	3	6	MEDIUM	Ensure that MEWP is not driven on excessive slopes or rough terrain at speed. Ensure that operators travel at speeds commensurate with the conditions.	Yes Yes	OP OP		
13.1.2	Operator located on the ground crushed while operating the travel controls – type 2 or 3 MEWP.	Travel controls only provided at platform controls (type 3 MEWP).	3	2	1	3	6	MEDIUM					
13.2	Lifting/Loading/Towing												
13.2.1	Operator is dragged along the ground while operating the travel controls.	Lower controls only control the extending mechanism of MEWP (type 3 MEWP). Only possible to use controls at pre-selected position, not possible to use travel controls in platform whilst lower controls are being used to lower platform.	3	2	1	3	6	MEDIUM					
13.2.2	When loading/unloading MEWP from trucks.	Warning in Operators Manual [p. 15] not to exceed the gradeability. Storing and transportation procedures provided in the operators manual [p. 62].	4	2	2	3	7	HIGH	Ensure that operators are aware of the precautions and operational requirements specified in the manual. Ensure persons abide by the instructions. Ensure that only trained personnel are permitted to load the machine onto trucks.	Yes Yes	MGMT OP		
13.2.3	When lifting MEWP for transportation.	Information in Operators Manual [p. 62] describing lifting instructions. Lift points fitted and identified on the MEWP [124767]. The unladen mass of the MEWP is listed on the data plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)] fitted to the MEWP. Standard machine specifications included in the operators manual [Section 7]. Lift points have been designed to support the intended loads over the life of the MEWP. Fork pockets fitted to MEWP.	3	2	2	3	7	MEDIUM	Ensure that only trained personnel are permitted to lift the MEWP. Ensure that the proper lifting points are used. Ensure that suitably rated chains & slings are used.	Yes Yes	MGMT/OP MGMT/OP		

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		The location of the forklift pockets is identified by decals [102896]. The location of the forklift pockets is described in the operator's manual [p. 62].											
13.2.4	Operator ejected from platform whilst loading onto trucks.	Warning in Operators Manual [p. 15] not to exceed the gradeability.	3	2	2	3	7	MEDIUM	Ensure that only suitably trained personnel are permitted to load MEWPs onto trucks.	Yes	MGMT/OP		
									Ensure that personnel wear the correct fall restraint harness whilst loading the MEWP onto trucks.	Yes	OP		
13.2.5	Injury from unsecured vehicle whilst transporting.	Instructions in operator's manual [p. 62] regarding transporting MEWP as required by AS1418.10 – 2011 clause 4.1.3 (a). Tie-down points fitted to MEWP and identified with decals [124767]. Warning in Operators Manual [p. 63] to secure the platform and chassis using tie downs.	3	2	2	3	7	MEDIUM	Ensure that the instructions provided in the operator's manual are followed.	Yes	MGMT/OP		
									Ensure the MEWP is properly secured when transporting on vehicles.	Yes	MGMT/OP		
13.2.6	Injury due to tray or float of inadequate size.	Standard machine specifications included in the operators manual [Section 7]. Warning in Operators Manual [p. 62] to make sure all equipment has suitable capacity.	1	2	1	3	6	LOW	Ensure that the vehicle is of adequate size to carry the MEWP.	Yes	MGMT/OP		
13.2.7	Personnel activate free-wheeling mode which causes MEWP to roll.	Decal fitted [158911] which explains procedure for releasing the brakes and includes warnings. Information in Operators Manual [p. 58] describing free-wheeling/brake release	1	2	1	3	6	LOW	Ensure that operators are trained to perform brake release.	Yes	MGMT/OP		
									Ensure operators follow the instructions provided in the manual.	Yes	MGMT/OP		
14	Inadequate/non-ergonomic design of driving/operating position												
14.1	Hazards due to dangerous environments (contact with moving parts exhaust gases, etc.)												
14.1.1	Operator is exposed to contact with exhaust gases.		1	2	1	3	6	LOW	Ensure that exhaust system is maintained in accordance with manufacturer's instructions.	Yes	MGMT		
14.1.2	Personnel injured due to exposure to rotating drive shafts.		3	2	1	3	6	MEDIUM	Ensure that personnel are trained with respect to the residual hazard.	Yes	MGMT		
14.2	Inadequate visibility from driver's/operator's position												
14.2.1	Personnel injured due to operator having limited visibility from operating position.		3	2	1	3	6	MEDIUM	Ensure operators survey the area within which they are to be working in order to familiarise themselves with possible obstructions.	Yes	OP		
									Ensure a spotter is used if required.	Yes	MGMT/OP		
14.2.2	Due to collision with obstructions because operator in the platform cannot see from operating position.	Controls positioned in accordance with AS1418.10 clause 2.6.1 so that the operator has visual contact with the resulting travel and extending structure movements. Warning in Operators Manual [p. 15] to be aware of blind spots. Warning in Operators Manual [p. 59, 78] to limit travel speed	3	2	1	3	6	MEDIUM	Ensure operators are trained with respect to this hazard.	Yes	MGMT/OP		
									Ensure the MEWP is operated at reduced speeds when clearance between the platform and other objects is reduced.	Yes	MGMT		
									Ensure a spotter is used if required.	Yes	OP		
14.3	Inadequate seat/seating (seat index point)												
NS													
14.4	Inadequate/non-ergonomic design/positioning of controls												
14.4.1	Operator suffers fatigue as a result of the position of the controls.	Controls positioned so that a comfortable stance can be achieved.	1	2	1	3	6	LOW	Implement a system to ensure that operators do not work excessive or continuous shifts and manage peak demands.	Yes	MGMT		
									Ensure that operators do not continue use of the MEWP if they feel tired or are suffering from fatigue.	Yes	MGMT/OP		
14.4.2	The position of the platform controls causes the operator to adopt an unhealthy posture.		1	2	1	3	6	LOW	If the position of the controls causes discomfort to the operator ensure that they are moved to an appropriate position.	Yes	MGMT		
									Limit the length of shifts to a reasonable time.	Yes	MGMT/OP		
14.4.4	Excessive effort required to activate control functions.	Effort required to activate controls is reasonable.	1	2	1	3	6	LOW	Maintain Controls to ensure that undue force is not required to activate control functions.	Yes	MGMT		

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A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Control actuation forces comply with ISO21455 requirements.						LC	Limit the length of shifts to a reasonable time.	Yes	MGMT/OP		
14.5	Starting/moving of self-propelled machinery												
14.5.1	Unexpected movement during start-up		1	2	1	3	6	LOW	Ensure that personnel are clear before travelling or when starting.	Yes	MGMT/OP		
14.6	Road traffic of self-propelled machinery												
14.6.1	MEWP collision with vehicular traffic on job site.	Warning in manual regarding the residual hazard of traffic on-site [p. 17]. Projecting extremities are identified with hazard tape. An audible alarm sounds whenever the MEWP is in motion. Instruction in Operators Manual [p. 9] to obey all laws, regulations and job site rules. Warning in Operators Manual [p. 59, 78] to limit travel speed	4	1	1	3	5	HIGH	Implement a traffic management system. Ensure that the rotating/strobe light is used whenever the machine is in motion. Ensure a traffic management system is enforced, should the MEWP be exposed to vehicular traffic.	Yes Yes Yes	MGMT/OP OP MGMT/OP		
14.7	Movement of pedestrian-controlled machinery												
15	Mechanical hazards (due to failure of systems or devices)												
15.1	Hazards to exposed persons due to uncontrolled movement												
15.1.1	Failure of cylinder or hose resulting in uncontrolled movement of the work platform and extending structure.	Cylinders are fitted with load holding check valves to prevent movement in case of hose failure. Hydraulic filters fitted. Maintenance manual provided which includes service requirements for hydraulic system.	2	2	1	3	6	LOW	Ensure cylinders are inspected in accordance with procedures outlined in manual. If any defects are detected ensure that the MEWP is withdrawn from service until the defects are rectified.	Yes Yes	MGMT/OP OP		
15.1.2	Operator crushed as a result of uncontrolled motion while on a slope due to brake failure.	Theoretical gradeability limits in the operator's manual [Section 7]. Theoretical gradeability limits listed on the serial plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)]. Warning decal fitted [158911] not to release parking brakes when MEWP is on a slope.	4	2	2	3	7	HIGH	Ensure travel speed is reduced when travelling on gradients.	Yes	OP		
15.2	Hazards due to break-up and/or ejection of parts												
15.2.1	MEWP could collapse or break up as a result of poor design or manufacture.	MEWP is load tested as part of pre-delivery checks by manufacturer before delivery to customer. Warning in Operators Manual [p. 51] not to use a damaged/malfunctioning machine. Note in Operators Manual [p. 41] to check for cracks.	1	2	1	3	6	LOW	Ensure that the unit is registered with manufacturer. Periodically check for the existence of routine safety alerts that may be issued by the manufacturer or the representative. Routinely inspect the MEWP by a competent organisation external to operator. Monitor local Hazard Alerts and Incident Safety Notices and examine these to determine if they are or could be relevant to the MEWP. Ensure preoperational inspections are conducted as per the manufacturers instructions.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT/OP		
15.2.2	Due to failure to observe or rectify safety upgrades from manufacturer.	Manufacturer maintains a database of who owns which model MEWP. Instruction in Operators Manual [p. 9] to register the machine with the manufacturer. Warning in Service Manual [p. 15 & 16] to Check for outstanding service bulletins during periodic inspection.	4	2	1	3	6	HIGH	Ensure that the MEWP is registered with the manufacturer. Periodically check the status in respect of safety bulletins or upgrades applying to the MEWP. Ensure that safety upgrades provided by the manufacturer are implemented. Ensure the manufacturer is advised when the MEWP is disposed of or sold.	Yes Yes Yes	MGMT MGMT MGMT		
15.2.3	Structural failure due to thermal expansion of hydraulic oil if MEWP is left fully extended for a long period of time.	Electronic control system limits stroke of lift cylinders to 98% to allow for thermal expansion of oil.	1	1	1	3	5	LOW	Ensure the MEWP is not left fully extended for a long period of time.	Yes	MGMT/OP		

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A	B	C				D1	D2	D	E	F	G	H
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
15.2.4	Structural collapse due to loss of pivot pin(s)	Instruction in Operators Manual [p. 38] to check nuts, bolt and other fasteners.	1	1	1	3	5	LOW	Check the security of all pivot pins.	Yes	MGMT/OP	
15.3	Hazards due to rolling over (roll over protection – ROP)											
15.4	Hazard due to falling objects (falling object protection – FOP)											
15.4.1	Ground crew or passer-by being struck by falling tools or objects.	Kick panel provided on platform in accordance with AS1418.10 – 2011 clause 2.5.4. See AS2550.10 – 2006 clause[s] 5.10 & 5.16.	3	2	1	3	6	MEDIUM	Barricade area from public access.	Yes	OP	
									Ensure that materials are not supported on the guardrails or exceed the confines of the platform.	Yes	OP	
									Remove all loose tools and objects from the platform before driving.	Yes	OP	
15.5	Inadequate means of access											
15.6	Hazards caused due to towing, coupling, connecting, and transmission											
15.6.3	Injury sustained whilst towing.	Danger label [158911] fitted regarding precautions when freeing parking brake. Information in Operators Manual [p. 58] describing free-wheeling/brake release Information in Operators Manual [p. 59] describing towing instructions.	2	2	1	3	6	LOW	Ensure that the instructions provided in the operator's manual are followed.	Yes	MGMT/OP	
									Ensure that only trained personnel are permitted to tow the MEWP.	Yes	MGMT/OP	
									Ensure MEWP is parked on flat level ground before releasing brakes.	Yes	MGMT/OP	
									Ensure that personnel do not release the brakes unless the MEWP is properly chocked in accordance with the instructions provided in the operator's manual.	Yes	MGMT/OP	
15.7	Hazards due to batteries, fire, emissions, etc.											
15.7.1	Hazards from batteries and associated faults.	Instruction in Operators Manual [p. 64] describing battery charging Warning decal [119674] fitted to chassis which states to disconnect battery before servicing.	2	2	2	3	7	LOW	Ensure the battery isolation switch is used whenever battery maintenance is performed.	Yes	MGMT/OP	
									Ensure that the appropriate PPE is worn when working on or near the batteries.	Yes	MGMT/OP	
									Ensure safe work procedures are established in regards to working with batteries.	Yes	MGMT/OP	
									Ensure operators follow established safe work procedures.	Yes	MGMT/OP	
									Ensure that only trained personnel conduct maintenance on or near batteries.	Yes	MGMT/OP	
									Ensure that personnel who are trained in first aid are readily available to render assistance if required.	Yes	MGMT/OP	
16	Hazards due to lifting operation											
16.1	Lack of stability											
16.1.1	Hazard number not used.	See 19.2, 23										
16.2	Derailment of machinery											
16.3	Loss of mechanical strength of machinery and lifting accessories											
16.3.1	Failure of lifting points.	Lift points are designed for loads as anticipated during normal lifting for the life of the MEWP. Information in Operators Manual [p. 62] describing lifting instructions. Warning in Operators Manual [p. 62] to use lifting eyes only Lift points fitted and identified on the MEWP [124767].	3	2	1	3	6	MEDIUM	Ensure that lift points are inspected as per the criteria detailed in the maintenance manuals.	Yes	MGMT/OP	
									Ensure instructions are followed as per the instructions provided in the operator's manual for lifting.	Yes	MGMT/OP	
16.4	Uncontrolled movements											
	Hazard number not used.	See 13.2	3	2	1	3	6	HIGH				
17	Inadequate view of trajectories of the moving parts											
	Hazard number not used.	See 14.2.	4	3	2	3	8	HIGH				
18	Hazards caused by lightning											

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)		
A	B	C				D1	D2	D	E	F	G	H
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
18.1	Persons could be injured if the unit is operated during storms.	Warning in Operators Manual [p. 13] not to operate in lightning or storms.	4	1	1	3	5	HIGH	Ensure MEWP is not used outdoors during storms or if it is likely that storm may arise during performance of the task.	Yes	MGMT/OP	
19 Hazards due to loading/overloading												
19.1 Mechanical Hazards												
19.1.1	Maximum rated capacity is exceeded.	Load sensing system fitted to platform which prevents platform overload from vertical loads. (See 20.2). Warning in Operators Manual [p. 16] to not to exceed the rated load. The maximum Rated Capacity is listed in the operator's manual [p. 85 (SJ3215), 85 (SJ3219), 85 (SJ3220), 85 (SJ3226), 85 (SJ4726), 85 (SJ4732), 85 (SJ4740),]. The maximum rated capacity is displayed on the manufacturers ID plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)]. The maximum rated capacities displayed on the platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)]. Instruction in Operators Manual [p. 42] to test the load sensing system.	3	3	1	3	7	MEDIUM	Ensure preoperational checks are performed in accordance with those outlined in operators manual. Ensure that any faults are reported directly to management and machine is withdrawn from service. Verify that the expected loads do not exceed the rated capacity.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
19.1.2	Maximum manual force is exceeded.	Warning in Operators Manual [p. 15] that the maximum manual force must not be exceeded. Maximum permitted manual force displayed on platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)]. Warning in Operators Manual [p. 17] not to attach loads or tie to adjacent structures. Maximum permitted manual force included on ID plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)]. Decal fitted to platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)] includes maximum manual force.	4	1	1	3	5	HIGH	Ensure that operators do not exert lateral force greater than that specified. Ensure that operators do not push or pull objects with platform.	Yes Yes	OP OP	
19.1.3	Maximum wind speed/wind load is exceeded.	Warning in Operators Manual [p. 14] to not increase the surface area of the platform or load. ID plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)] includes maximum wind speed rating. Decal fitted to platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)] includes maximum wind speed rating. Maximum wind speed rating listed in operator's manual [p. 85].	4	1	1	3	5	HIGH	Train operators of the dangers of carrying or fitting bluff bodies to the platform. Ensure that the EWP is not operated in high winds above the rated speed. Monitor wind forecasts on a regular basis.	Yes Yes Yes	MGMT MGMT/OP OP	
19.1.4	Structural failure due to influences from load combinations not taken fully into account.	Decal fitted to platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)] includes maximum wind speed rating. Maximum permitted manual force displayed on platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)]. Structural analysis accounts for normally encountered load combinations; wind + dynamic + static, wind + manual force + static.	3	1	1	3	5	MEDIUM	Ensure that the machine is only operated within the specification detailed in the operating manual and in accordance with industry standards and AS2550.10. Ensure each person required to operate the machine has been trained and assessed in accordance with the recognised assessment instruments and in accordance with the requirements specific to this MEWP. Verify expected loading and confirm it is less than rated capacity.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)			
A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Standard machine specifications included in the operators manual [Section 7]. detail the load combinations which are acceptable. MEWP is fitted with a load sensing system which limits the magnitude of the vertical load. The maximum rated capacities displayed on the platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)].							Verify operating slopes are less than the maximum permitted chassis inclination of the MEWP. Verify wind conditions experienced in service are less than the maximum wind speed rating of the MEWP. Ensure the machine is isolated to prevent unauthorised use at the end of each work shift.	Yes Yes	MGMT/OP MGMT/OP		
19.1.5	Fittment of non-standard equipment or brackets to platform exceeds rated capacity.	Warning in operator's manual [p. 13] that only manufacturer approved equipment may be fitted to the platform.	1	2	1	3	6	LOW	Ensure that only manufacturer approved equipment is fitted to the work platform. Ensure that any lifting devices fitted are not overloaded and all instructions for use are followed.				
19.1.6	Due to operator in platform lifting loads with ropes.	Warning in Operators Manual [p. 17] not to attach loads or tie to adjacent structures. to attach loads or tie to adjacent structures. Warning in Operators Manual [p. 15] not to use as crane.	4	2	1	3	6	HIGH	Ensure operators do not cause platform overload by lifting additional equipment from elevated platform using ropes.	Yes	MGMT/OP		
19.1.11	Load bearing cylinder collapses due to inelastic stability (buckling) due to overload.	Cylinders are assessed in accordance with AS1418.10 – 2011 clause 2.9.1.2.1. MEWP fitted with load sensing system designed to prevent overloading due to vertical loads. (See).	1	2	1	3	6	LOW	Ensure that any faults are reported directly to management and machine is withdrawn from service. Ensure MEWP is not overloaded during operation.				
19.2	Overturning/loss of stability												
19.2.1	Maximum rated capacity is exceeded.	Load sensing system fitted to platform which prevents platform overload from vertical loads. (See 20.2). See also 19.1.1	1	2	1	3	6	LOW					
19.2.2	Maximum manual force is exceeded.	See 19.1.2	1	2	1	3	6	LOW					
19.2.3	Excessive wind speed or wind load.	Instruction in Operators Manual [p. 54] to lower the MEWP before leaving unattended. See also 19.1.3	1	2	1	3	6	LOW	Ensure that the unit if not parked unattended with the MEWP fully elevated.	Yes	MGMT/OP		
19.2.4	Overturning on excessive slope	Warning in Operators Manual [p. 15] not to drive on or near uneven terrain or unstable surfaces. Warning in Operators Manual [p. 15] not to exceed the gradeability. Instruction in Operators Manual [p. 23] to test operation of tilt alarm and drive cut-out. describing operation of tilt alarm and drive cut-out.	1	2	1	3	6	LOW	Ensure that the MEWP is not operated on slopes which exceed the limits listed in the manual and on the data plate. Ensure that operators observe the tilt recovery instructions. Ensure that the tilt alarm and cutout is tested poer the manual.	Yes Yes	MGMT/OP MGMT/OP		
19.2.5	Overturning due to exceeding the maximum permitted number of operators in the work platform.	Specifications in Operators Manual [Section 7] detailing the maximum platform capacities which include the maximum number of persons permitted in the work platform for both high and low capacity use. Decal [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4726) 172201(SJ4740)] listing the platform capacity limitations for both indoor and outdoor use fitted in work platform.	1	2	1	3	6	LOW	Ensure that operator's are trained to restrict the number of personnel in the work platform in respect of the manufacturers limits for both indoor and outdoor use. Ensure that the maximum number of operator's does not exceed the manufacturers limits for both indoor and outdoor use.	Yes Yes	MGMT/OP MGMT		
20	Hazards due to lifting persons												
20.1	Mechanical strength												
20.1.1	Mechanical strength of extending structure is insufficient to support platform loads.	Mechanical strength has been assessed in accordance with AS1418.10 – 2011. Platform load sensing system fitted in accordance with AS1418.10 – 2011 clause 2.3.1.2. Pre-Operation Checks included in the operator's manual [33].	1	2	1	3	6	LOW	Verify expected loading and confirm it is less than Rated Capacity. Audit the rated capacity of the anticipated load on a regular basis. Conduct preoperation checks in accordance with the manual.	Yes Yes Yes	MGMT/OP MGMT MGMT/OP		

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)			
A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
20.1.2	Structural failure due to dynamic loading.	Dynamic loads are accounted for in the design standard against which the MEWP is assessed. The load cases used for the structural analysis includes the dynamic load case. The acceleration due to travelling motions have been measured and accounted for in the structural analysis. Function Speeds are listed in the Service Manual [p. 34].	1	2	1	3	6	LOW	Ensure that the system function speeds are set and maintained to the specifications listed in the manual. Ensure the MEWP is maintained in a manner to minimise the excessive backlash between components.	Yes Yes	MGMT MGMT		
20.1.4	Injury from using the MEWP in an unsuitable condition due to poor maintenance or inspections.	Logbook provided on MEWP to record usage and faults. Information in Operators Manual [p. 33] detailing pre-operation checks Maintenance instructions provided which includes maintenance instructions for all anticipated maintenance requirements over the life of the MEWP. Instruction in Operators Manual [p. 38] to check nuts, bolt and other fasteners. Note in Operators Manual [p. 41] to check for cracks. Information in Operators Manual [p. Section 4] detailing maintenance procedures	4	3	2	3	8	HIGH	Ensure that pre-start inspections are completed prior to use of MEWP. Ensure that MEWP is not used if any defects are found. Ensure that any damage or accidents that involve the MEWP are reported to the relevant manager/authorities. Modify maintenance program according to use and the operating environment. Ensure that the unit is checked, repaired and maintained by appropriately trained/qualified and experienced personnel in accordance with the checklists contained in the operation manual. Ensure all inspections, servicing, replacement of parts and modifications are entered into logbook. Use equivalent replacement parts and log replacement. Instruct the operator/competent person to report all faults to management.	Yes Yes Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP MGMT/OP OP MGMT MGMT/OP		
20.1.5	Persons could be injured as a result of structural fatigue failure – Road Transport.	Decals fitted identifying tie down points [124767]. Warning in Operators Manual [p. 63] to secure the platform and chassis using tie downs. Note in Operators Manual [p. 41] to check for cracks.	4	2	1	3	6	HIGH	Ensure the operators are instructed to properly stow unit prior to transportation. Ensure the elevating structure & platform is restrained during transportation.	Yes Yes	MGMT/OP MGMT/OP		
20.1.6	Failure due to corrosion resulting from ingress of moisture and debris into the extending structure.	All ferrous metals are primed and painted to prevent corrosion.	4	2	1	3	6	HIGH	Regularly inspect the interior of the MEWP elevating structure. Clean the unit of all debris on a regular basis. Reinstate all damaged covers.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP		
20.1.7	Injury as a result of excess water/debris in platform.	The work platform floor is self-draining as per the requirements of AS1418.10 – 2011 clause 2.5.7.	1	2	1	3	6	LOW	Ensure that the platform is cleaned regularly to prevent a build-up of debris. Ensure the platform is stored in a location which prevents the build-up of debris.	Yes Yes	MGMT/OP MGMT/OP		
20.2	Loading control												
20.2.1	Rated capacity is exceeded.	MEWP is fitted with a load sensing system. Note in Operators Manual [p. 26] describing operation of the platform overload system The maximum Rated Capacity is listed in the operator's manual [p. 85 (SJ3215), 85 (SJ3219), 85 (SJ3220), 85 (SJ3226), 85 (SJ4726), 85 (SJ4732), 85 (SJ4740),]. Warning in Operators Manual [p. 16] to not to exceed the rated load. Instruction in Operators Manual [p. 42] to test the load sensing system. Rated capacity is displayed in the ID plate. [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)]. The maximum rated capacities displayed on the platform [172661(SJ3215), 172657(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172201(SJ4740)].	3	3	3	1	7	MEDIUM	Ensure preoperational checks are performed in accordance with those outlined in operators manual. Ensure that any faults are reported directly to management and machine is withdrawn from service. Ensure calibration checks are performed in accordance with the service manual. Ensure MEWP is not overloaded during operation. Ensure that operators are familiar with the operation of the load sensing system.	Yes Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP MGMT/OP MGMT/OP		

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)			
A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
21	Controls												
21.1	Movement of Work Platform												
21.1.1	Due to accidental impact or engagement – unintentional activation of controls.	Controls comply with AS1418.10 – 2011 clause 2.6. Function enable switch provided which must be pressed and held for controls to be activated (two separate actions required for movement to take place). All controls are of the hold to run type and return to neutral on being released. The direction of movement resulting from each control is clearly marked beside the control and controls are arranged for logical operation as far as possible. Symbols used for marking comply with ISO20381.	4	4	2	3	9	HIGH	Maintain controls and their marking. Ensure operators are familiar with the control layout and function. Ensure control switches automatically return to neutral when released. Ensure that all incidents in relation to the machine are reported and acted on.	Yes Yes Yes	MGMT/OP MGMT/OP OP MGMT/OP		
21.1.2	Hydraulic control failure	Hydraulic filters fitted. Maintenance manual provided which includes service requirements for hydraulic system.	1	2	1	3	6	LOW	Ensure that hydraulic system is maintained as per manufacturer's instructions.	Yes	MGMT/OP		
21.1.3	Control conflict using emergency power system.	Manual bleed down does not rely on power source. Overriding emergency system designed in accordance with AS1418.10 – 2011 clause 2.6.10.	1	2	1	3	6	LOW	Ensure operators are familiar with the emergency lowering procedures prior to operating the MEWP.	Yes	MGMT/OP		
21.2	Safe travel control												
21.2.1	Excessive travel speed leads to machine instability.	MEWP travel speed is automatically reduced when the platform is elevated out of the transport position. Maximum travel speeds are fixed. Travel speeds given in operator's manual [Section 7]. Instruction in Operators Manual [p. 47] to test elevated travel speed.	1	2	1	3	6	LOW	Ensure that maximum travel speeds are maintained in accordance with manufacturer's specifications. Ensure MEWP travel speed is automatically reduced when the platform is elevated out of the transport position.	Yes Yes	MGMT/OP MGMT/OP		
21.2.2	Operator ejected whilst travelling over kerbs or depressions	Dynamic stability tests conducted in accordance with AS1418.10-2011 clause 3.6.3.2. Instruction in Operators Manual [p. 15] to check check for drop offs, concealed holes. Warning in Operators Manual [p. 59, 78] to limit travel speed	1	2	1	3	6	LOW	Ensure operators are aware of this hazard. Ensure operators check for drop offs and kerbs.	Yes Yes	MGMT/OP MGMT/OP		
21.3	Safe speed control												
21.3.1	Injury due to excessive platform movement speeds.	Extending structure speeds comply with AS1418.10 – 2011 clause 2.3.6. Maximum system speeds are fixed and cannot be altered by the operator. Function speeds are listed in the Service Manual [p. 34].	3	2	1	3	6	MEDIUM	Ensure that the maximum speeds do not exceed 100% (the factory default speed). Ensure that machine is maintained in accordance with manufacturer's instructions and all settings are maintained.	Yes Yes	MGMT/OP MGMT/OP		
22	Falling of persons												
22.1	Personal protective equipment												
22.1.1	Operator falls from elevated platform.	Guardrail system designed in accordance with AS1418.10 – 2011 clause 2.5.4. Warning in Operators Manual [p. 15] to stay inside platform Warning in Operators Manual [p. 17] to wear harness Warning in Operators Manual [p. 14, 15] not to climb on guardrails	3	2	2	3	7	MEDIUM	Instruct operators to wear fall restraint/arrest harness' at all times when in the platform and to attach the fall restraint/arrest lanyard to the anchor point provided. Ensure harness and lanyards are in good condition. Audit use of fall restraint/arrest devices. Ensure that platform guard rails are properly fitted and not damaged.	Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP OP		

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)		
A	B	C				D1	D2	D	E	F	G	H
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
		Labels fitted [172646] which identifies harness anchorage points.										
22.1.2	Falling from guardrails, ladders or stools located in the work platform.	Requirements per AS2550.10. Warning in Operators Manual [p. 14] not to use additional ladders or steps Warning in Operators Manual [p. 17] not to exit platform when raised. Warning in Operators Manual [p. 16, 44] to close the gate or lower the midrail before operating. Warning in Operators Manual [p. 15] to stay inside platform	4	2	2	3	7	HIGH	Ensure that operators do not use any means to gain additional height. Ensure that operators do not use any means to gain additional height. Ensure the correct MEWP in terms of rated capacity, height and reach is used for the particular task at hand.	Yes Yes	MGMT/OP MGMT/OP	
22.1.3	Operator falls over folded guard rails on the work platform.	Instructions are provided in the operator's manual [p. 76] regarding the correct procedure to erect the folding guardrails.	4	2	1	3	6	HIGH	Ensure that the guardrails are unfolded and locked before use. Ensure that operator egress at heights is prohibited unless in an emergency and there is a safe means to do so. Ensure that the operator does not egress from the platform at height unless secured via a twin lanyard assembly to a secure anchor point on a fixed structure. Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9[B].	Yes Yes Yes	OP MGMT/OP OP	
22.1.4	Operator falls through the platform access opening.	Platform gate designed in accordance with AS1418.10 – 2011 clause 2.5.6 and is self-closing and latches in the closed position. Gate opens inwards. Warning in Operators Manual [p. 16, 44] to close the gate or lower the midrail before operating. Instruction in Operators Manual [p. 40] to check guardrails	4	2	1	3	6	HIGH	Ensure that personnel do not exit the platform except at ground level. Audit use. Ensure gate is maintained in accordance with manufacturers instructions. Ensure MEWP is not used if gate is faulty.	Yes Yes Yes	MGMT/OP MGMT MGMT/OP	
22.1.5	Stepping out of elevated platform onto structures.	Requirements provided in AS2550.10, see clause 5.9 and figure 5.9(B). Warning in Operators Manual [p. 17] not to exit platform when raised.	4	1	1	3	5	HIGH	Ensure that operator egress at heights is prohibited unless in an emergency and there is a safe means to do so. Ensure that the operator does not egress from the platform at height unless secured via a twin lanyard assembly to a secure anchor point on a fixed structure. Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9[B].	Yes Yes	MGMT/OP MGMT/OP	
22.1.6	Personnel fall through guard rails which have not been properly installed or locked in place.	Warning in Operators Manual [p. 14, 15] not to climb on guardrails Warning in Operators Manual [p. 15] to stay inside platform	4	1	1	3	5	HIGH	Ensure that pre-operational inspection includes a check of the correct installation and locking of the guard rails. Ensure that the operator follows all instructions provided in the operator's manual regarding the procedure for installation of the work platform guard rails. Ensure that the MEWP is not operated unless all guard rails are correctly installed.	Yes Yes	MGMT/OP MGMT/OP	
22.2	Trapdoors							NS				
22.3	Work platform tilt control							NS				
23	Work platform falling/overturning											
23.1	Falling/tipping/overturning											
23.1.1	Overturning due to operation on excessive slope.	AS2550.10 – 2006 includes additional advice regarding operation on slopes. Chassis inclination alarms fitted to each axle to warn if the permissible slopes are exceeded. Warning in manual regarding overturning hazards [p. 14].	4	2	1	3	6	HIGH	Ensure that the MEWP is operated within the rated slope limitations specified. Select the correct MEWP for the anticipated slopes at the job site.	Yes Yes	MGMT/OP MGMT/OP	

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)			
A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description -	Is there any risk?	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented											
		The chassis inclination limits are listed on the data plate [(SJ3215), (SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172286(SJ4740)]. For Type 2 & 3 MEWPs see 11.2.6.											
23.1.2	Overtuning as a result of setting up on uneven surfaces.	Label [172267] fitted stating not to drive on uneven surfaces.	4	2	1	3	6	HIGH	Ensure that operators are trained relating to proper setup, including the necessity to set up on flat surfaces within the limits specified both fore and aft and sideways. Ensure operators follow these requirements.	Yes	MGMT/OP		
23.1.3	MEWP overturns due to slipping/driving off planks or similar inappropriate support surface.	Warning in Operators Manual [p. 15] not to drive on or near uneven terrain or unstable surfaces.	4	2	1	3	6	HIGH	Ensure the MEWP is not operated on planks.	Yes	MGMT/OP		
23.1.4	Overtuning due to collapse of support surface.	Additional notes in AS2550.10. Warning in Operators Manual [p. 15] not to drive on or near uneven terrain or unstable surfaces. Maximum wheel load listed in the operator's manual [p. 86 (SJ3215), 86 (SJ3219), 86 (SJ3220), 86 (SJ3226), 86 (SJ4726), 86 (SJ4732), 86 (SJ4740),]. Maximum wheel loads displayed on MEWP next to wheels [173026(SJ3215), 173027(SJ3219), (SJ3220), (SJ3226), (SJ4726) (SJ4732) 172271(SJ4740)].	4	2	1	3	6	HIGH	Ensure the unit is not set up on rough, soft or otherwise hazardous surfaces. Seek advice regarding ground/surface capacities as necessary from a competent person. Ensure that thorough site checks are performed prior to operation. Document procedures.	Yes	OP		
23.1.5	MEWP overturns while manoeuvring around job site.	The lowered travel position is limited by the control system. The gradeability is listed on the ID plate [part number ...] fitted to the MEWP. Standard machine specifications included in the operators manual [Section 7] which includes the gradeability. Warning in Operators Manual [p. 15] not to exceed the gradeability.	4	2	1	3	6	HIGH	Ensure the work platform is not raised while travelling at speeds above the permitted elevated drive speed. Ensure the MEWP is driven at reasonable speed around the job site. Ensure the gradeability limits are not exceeded whilst travelling.	Yes	OP		
23.1.6	Overtuning due to operation on a truck or similar device.	Warning in Operators Manual [p. 15] not to use on trucks or platforms.	4	2	1	3	6	HIGH	Ensure that the MEWP is not operated whilst on a truck or similar.	Yes	MGMT/OP		
23.1.7	Overtuning due to operator falling out of platform while attached to the harness & lanyard.	 Warning in the operator's manual [p. 40] to make sure battery boxes have been locked in position.	4	2	1	3	6	HIGH	Ensure fall arrest overturning test is conducted in accordance with AS1418.10 - 2011 clause 3.6.2. Ensure harness anchorage points are correctly labelled. Provide instructions in the operators manual as to what type of lanyard and harness is to be worn whilst in the platform. Ensure that operators wear the correct harness and lanyard and that it is in proper condition. Ensure that the number of operators attached to a single point does not exceed the maximum number permitted.	Yes	SKYJACK		
23.2	Acceleration/braking							NS					
24	Markings												
24.10	Personnel injured due to missing or illegible safety signs.	Information in Operators Manual [p. 87-108] detailing decals Information in Operators Manual [p. 87] detailing control symbology. Instruction in Operators Manual [p. 34] to check decals legible and in place.	3	2	1	3	6	MEDIUM	Train operators in relation to the meaning of the markers. Ensure that pre-operational check of safety decals is performed before use.	Yes	MGMT/OP		
24.20	Unclear instructions on safety signs.	All instructions are given in English. Information in Operators Manual [p. 87] detailing control symbology. All numerical values are given in SI units.	1	2	1	3	6	LOW	Ensure that operators are familiar with the meaning of all safety signs and warnings.	Yes	MGMT/OP		

RISK ASSESSMENT: SKYJACK DC ELECTRIC SCISSORS (SJ3215, SJ3219, SJ3220, SJ3226, SJ4726, SJ4732, SJ4740)										PRELIMINARY (Refer to "Notes" section)			
A	B	C				D1	D2	D	E	F	G	H	
Hazard No.	Hazard Description - (the situation or parts of plant which could cause injury or illness)	Is there any risk? Describe the risk control measures ALREADY implemented	Severity	Frequency	Probability	Avoidance	Class	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed	
		Symbols used for marking comply with ISO20381.											